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An Examination of the Factors That Influence the Transfer of Learning Among K-12 Educators Participating In Professional Learning Communities

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AN EXAMINATION OF THE FACTORS THAT INFLUENCE THE TRANSFER

OF LEARNING AMONG K-12 EDUCATORS PARTICIPATING IN

PROFESSIONAL LEARNING COMMUNITIES

by

Charcelor Channing McCullum

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August 2017

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ABSTRACT

AN EXAMINATION OF THE FACTORS THAT INFLUENCE THE TRANSFER

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The purpose of this study was to investigate and identify the factors that either support or inhibit learning transfer among educators within K-12 professional learning communities (PLCs) as well as to obtain a better understanding of how adult education principles relate to teacher learning and job satisfaction within this environment. Although research regarding professional learning for educators within the K-12 setting is available, much of this research is not focused directly on adult education principles and often fails to examine learning transfer. The present study addresses both areas using a two-phase exploratory sequential mixed methods approach to obtain both qualitative and quantitative information about the above topics from teachers and other education professionals.

Qualitative data was collected in the form a case study that included a review of artifacts, observations, and interviews with approximately six educators. An analysis of the qualitative data identified a total of 32 factors associated with the promotion of learning transfer and 11 factors related to the inhibition of learning transfer within professional learning communities. These factors were grouped into categories focusing on the individual/learner, PLC design and

implementation, and school/work environment. Following the completion of the

qualitative phase of the study, each of the factors was incorporated into a survey

instrument that was distributed to a larger population of educators. An analysis

of the obtained survey data suggested that two work/school environment factors

and three individual/learner factors were most closely associated with supporting

learning transfer within PLCs. A lack of time was identified as the factor most

closely association with the inhibition of learning transfer by survey respondents.

The knowledge gained in this study may be used to support the

development of professional learning communities as well as other professional

learning opportunities for educators. It may also be useful with regard to the

development of a future model of K-12 teacher learning and a line of research

that is grounded in adult education principles.

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I would like to thank my committee chair, Dr. Lilian Hill, and the members of my committee, Dr. Richard Mohn, Dr. Thomas V. O'Brien, Dr. Eric Platt, and Dr. Kyna Shelley for providing me with this amazing opportunity. Your wisdom, guidance, and encouragement throughout the dissertation process were invaluable. Without you, this dissertation would not have materialized. Dr. Lilian Hill, I could not have asked for a more thoughtful, kind, patient, or positive committee chair. You have been there for me since I entered the program, and I appreciate you more than you will ever know. I would like to offer a special thanks to my mom, dad, sister, brother, nephew, and a host of family members and friends who encouraged and supported me throughout this process. I am so grateful to have people in my life who believe in me and make me feel as though I can do anything that I put my mind to. You have all played an important role in the development of this dissertation as well as shaping the individual that I am today. Thank You.

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PLC   Professional Learning Community

HRD   Human Resource Development

CHAPTER I - INTRODUCTION

Adult education is often characterized by its focus on addressing the needs of adult learners through specific practices and approaches related to the facilitation of the learning process (Knowles, 1980). These practices and approaches often involve assessing the specific needs of the learner, developing cooperative climates within the classroom, and using assessment measures to inform instructional practices (Knowles, 1984). According to Sharvashidze and Bryant (2011), the field of adult education may be linked to positive changes at the individual, organizational, and societal levels. Adult education and its related concepts are particularly relevant with regard to supporting adult learning within the workplace (Merriam & Brockett, 2007). The field of human resource development (HRD) is often associated with adult education and centers on effective workplace learning practices as well as improving outcomes for adults through the learning process (Werner & DeSimone, 2006). By focusing on factors related to learning, professionals within the fields of adult education and human resource development are better equipped to foster significant and lasting change for both individuals and organizations. The purpose of the present study is to support the development of a more comprehensive understanding of adult learning within the K-12 school environment by investigating the factors that influence learning transfer among teachers within the context of the professional learning community/learning organization model.

The true purpose of adult education is to support learners in the pursuit of positive outcomes (Grattan, 1955). Werner and DeSimone (2006) suggest that

the goal of adult education and human resource development programming within the workplace is to foster learning that will result in relatively permanent and positive changes in the work-related behavior of employees. These authors define human resource development as "a set of systematic and planned activities designed by an organization to provide its members with opportunities to learn the necessary skills to meet current and future job demands" (p. 5). Werner and DeSimone also indicate that a number of internal and external factors may influence learning and performance within the workplace. Developing a more comprehensive understanding of how these factors influence learning processes, the learner, and the work environment is important with regard to supporting the transfer of learning from the training environment to the work environment (Leberman, McDonald, & Doyle, 2006). This study informed theory and practice within the fields of adult education, human resource development, and K-12 teacher professional development by emphasizing teachers as adult learners, the K-12 environment as a setting in which adult education takes place, and the importance of adult learning outcomes, such as learning transfer, within the K-12 setting.

When considering outcome variables related to adult learning within the workplace, transfer of learning, which is often referred to as transfer of training, may be one of the most important because it is an observable indication that a change in practice and/or workplace behavior has occurred. Transfer of learning involves the manner in which previously learned information and/or skills influences newly learned information or skills (Ottoson, 1997). Learning transfer

is often considered to be a multifaceted and complex concept because it integrates a number of elements, such as the learner, the educator, as well as the context (Leberman et al., 2006). This concept is particularly important to adult education in the workplace because employers and employees invest time, energy, and capital in adult education programming with the expectation that individual and organizational outcomes will improve (Werner & DeSimone, 2006).

One of the criticisms with regard to the relationship between workplace learning and adult education has consistently been that learning within the work environment is not truly adult education because participation seen as a condition of employment. A number of theorists contend that one of the primary tenets of adult education is that it is voluntary in nature (Brookfield, 1986; Darkenwald & Merriam, 1982). Brookfield (1986) describes the voluntary nature of adult education as one of his six principles of effective practice. He goes on to suggest that being required to attend workplace learning activities may negatively affect learning outcomes; however, he also notes that it would be impractical to invalidate this form of adult education because it does not fit perfectly into a theoretical definition associated with the field. Darkenwald and Merriam (1982) also address this issue using the more traditional form of K-12 professional development for teachers as an example. These authors note:

> The obligation to learn whatever is required to perform one's job is implicit when one accepts employment. Also implicit is the employer's obligation to provide opportunities for work-related education. In most cases, education or training benefits both the employee and the employer and is

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therefore not inherently exploitive or oppressive It is, however, educationally unsound and in some sense oppressive for employees to have little or no control in planning or carrying out their own learning activities. Paradoxically, the most notorious examples of compulsory miseducation can be found in the in-service education programs of many school systems. Typically, school administrators decide what teachers need to learn, hire an outside expert to give a speech or workshop, and then expect teachers to apply what they learn, if anything to their work in the classroom. (p. 243)

The professional learning community model specifically addresses the potential unsoundness often associated with professional learning for teachers within the K-12 setting by providing educators with more control of what they learn and how the learning occurs.

Self-directed learning is a variable that is often associated with adult education in the workplace (Ellinger, 2004). Ellinger contends that self-directed learning, as a form of human resource development, has emerged as one of the most effective and practical means of fostering learning within organizations. Clardy and Willis (2000) suggest that the changing nature of the workplace, in addition to more stringent requirements and levels of accountability, will increase the presence of self-directed learning in work environments. Ultimately, in order to better serve the adult population and encourage positive outcomes, adult education researchers should continue to investigate and explore the applicability

of adult education principles, such as learning transfer and self-directed learning, within a variety of organizations and institutions.

A key foundational aspect of this study is the contention that teachers should be viewed as adult learners as they engage in training and development activities. When considering the manner in adult educators have traditionally defined the adult learner, it is believe the teachers fit well into this category because they come into the learning environment with a unique set of experiences, their learning is often purposeful and related to their role, and they can be self-directed in their learning (Knowles, 1980, 1984, Merriam et al., 2007). Because teachers are considered adult learners, developers and programmers should address their needs as such and integrate the principles associated with adult education into professional development activities (Drago-Severson, 2011).

Teachers and education professionals are a population of adult learners that may be of interest to individuals investigating learning within the workplace. For K-12 teachers, administrators, and other staff members, adult education typically occurs in the form of a required one-day professional development workshops or training sessions (Wei, Darling-Hammond, & Adamson, 2010). According to Darling-Hammond et al. (2009), teachers are sometimes underserved and unprepared to meet the demands of teaching when their professional development and learning opportunities occur in the form of short-term, one-time workshops or training sessions. The authors note that professional learning activities for educators should provide pertinent information, inform practice, support the learning of students, occur over extended periods,

and emphasize collaboration with other teachers (Darling-Hammond et al., 2009). Despite this knowledge, a recent report regarding teachers' views on professional development from the Bill and Melinda Gates foundation (2014) found that "only 34 percent of teachers feel that professional learning opportunities are improving" and "large majorities of teachers do not believe that professional development is helping them prepare for the changing nature of their jobs" (p. 3).

In addition to concerns regarding the efficacy of their professional learning opportunities, a large number of teachers are reportedly dissatisfied with their profession (Perrachione, Peterson, & Rosser, 2008). According to the annual MetLife Survey of the American Teacher (2013), job satisfaction among K-12 teachers has consistently declined in recent years and is at its lowest point in 25 years. Much of this dissatisfaction is reportedly associated with external factors related to processes and procedures within the K-12 school environment (Collie, Shapka & Perry, 2012). According to Morehead (2003), these factors vary and range from increased workload to less autonomy within their classrooms and the overall teaching process. Morehead also suggests that emphasizing the development of a more collaborative culture among staff members may improve teacher satisfaction. This notion is echoed by Price (2012), who contends that educators are more productive and satisfied when they are more involved in the organization and direction of the school environment.

In recent years, authors who study the field of K-12 education have suggested the adoption of the professional learning community/learning

organization models as a means of fostering learning for teachers and improving organizational outcomes (Thompson, Gregg, & Niska, 2004). Research indicates that schools functioning as learning organizations appear to demonstrate positive outcomes for both teachers and students (Thompson et al., 2004). However, the literature does not specifically examine the factors that influence teacher learning within the context of learning organization and/or professional learning community models. Before exploring the specific factors associated with the PLC construct, it is important to consider the structure and development of the model.

Peter Senge initially popularized the learning organization model. Senge (1990) introduced the model as a means of supporting employee learning within organizations. He indicated that effective learning organizations integrate the dimensions of personal mastery, mental models, shared vision, team learning, and systems thinking into their environments. Watkins and Marsick (1993) took the model a step further and indicated that the organizations must "create continuous learning opportunities; promote inquiry and dialogue; encourage collaboration and team learning; establish systems to capture and share learning; empower people towards a collective vision; and connect the organization to its environment" (pp. 13-14). Both models are designed around the idea that the learning organization is a work-based community in which all members are moving towards achieving organizational goals through the process of learning (Senge, 1990; Watkins & Marsick, 1993). They both also emphasize the importance of focusing on the adult learners within the organization.

In a more recent study, Senge et al. (2012) suggests that the learning organization model is applicable to professional learning within the K-12 setting. Within this setting, the learning organization concept is often analogous to the professional learning community (PLC) (Thompson et al., 2004). Both the learning organization and the professional learning community constructs integrate a number of principles associated with adult education, such as sustained learning opportunities, a focus on the specific needs of the learner, and an emphasis on empowering the learner (Darkenwald & Merriam, 1982; DuFour, DuFour & Eaker, 2012; Hord, 2007; Merriam & Brockett, 2007). According to Hord (1997, 2007), the professional learning community is a school environment in which employees are asked to regularly obtain, disseminate, and use information in a collaborative effort to improve practice and support the school's goals. Kyounghye and You-Kyung (2012) note that PLC models typically emphasize the concepts of shared value/vision, shared leadership, and collaboration. In a more recent study, Gammill (2013) examines the PLC model from an adult education perspective and found that teachers were more likely to be engaged in the learning process when they felt that professional learning activities involved pertinent collaborations with other professionals. Although Gammill's research explores the PLC construct from an adult education perspective, her study differs from the present study with regard to the nature of the outcome variables being investigated. The present study examines teacher beliefs about the specific factors, within the context of the professional learning community, that influence learning transfer.

According to Drago-Severson (2011), "authentic professional learning, in which adults are learning and growing and experiencing as they participate, can make a tremendous difference for adults, children, schools, and school systems" (p. 10). The author also indicates that although professional development opportunities are provided on a regular basis within schools, many of these offerings do not meet the above criteria and are ultimately ineffective. As a result, learning transfer is often lacking, and K-12 education professionals may feel unprepared to meet the demands of their jobs (Wei et al., 2010). Bush (1984) found that only 10 percent of educators who attended the more traditional one-day workshop/training forms of teacher professional development were able to transfer their learning into the classroom. Ultimately, this suggests that there are significant problems within K-12 educational institutions with regard to supporting the learning of teachers.

The Professional Learning Community (PLC) has become a popular model of professional development within K-12 educational institutions with regard to addressing the previously noted concerns because the construct incorporates best practice, and researchers focusing on professional development for teachers have linked it to a number of positive outcomes (Darling-Hammond et al., 2009; Hord, 2007; Webb, Vulliamy, Sarja, Hamalainen, & Poikonen, 2009). A review of K-12 education literature suggests that elements associated with the PLC model have been shown play a role in addressing teacher morale, influencing school culture and climate, and fostering a greater sense of self-directedness among learners (Cohen & Brown, 2013; Linder et al.,

2012; Webb, Vulliamy, Sarja, Hamalainen, & Poikonen, 2009). Despite the model's increased popularity, research on the PLC construct has traditionally placed little emphasis on examining the relationship between teacher participation in professional learning communities and adult learning outcomes, such as learning transfer. Therefore, an examination of learning transfer among educators participating in professional learning communities from an adult education perspective is warranted. In order to inform future practice, the present study explored the gap in current research with regard to the identification of specific factors associated with the promotion and/or inhibition of learning transfer and other adult learning outcomes within the context of PLCs in K-12 educational institutions.

<div align="center">Statement of the Problem</div>

Educators are regularly expected to understand and incorporate new policies and practices into their respective environments in order to facilitate and support student learning (Perrachione, Peterson, and Rosser, 2008). Therefore, professional learning and development activities are considered to be a necessary and important aspect of becoming an effective educator. However, many of these opportunities are ineffective and do not adequately address the learning needs of educators (Drago-Severson, 2011; Wei et al., 2010). The professional learning community and learning organization models have become increasingly popular within the K-12 school setting as a means of addressing some of issues often associated with the more traditional forms of professional development and improving overall outcomes (Darling-Hammond et al., 2009).

Although the models are commonly implemented within educational intuitions, researchers have not investigated the specific factors that influence learning transfer within this context. In order to improve outcomes associated with professional learning and development within any organizations, trainers and facilitators within these environments should understand, acknowledge, and address the processes associated with adult learning. Beavers (2009) states that an increased focus on adult education principles will support the learning of teachers engaging in professional learning activities. A review of literature suggests that the learning organization model is closely associated with a number of adult education principles (Merriam, Caffarella & Baumgartner, 2007). The purpose of this study is to evaluate learning outcomes, such as learning transfer and self-directed learning, and explore the factors that promote and/or inhibit the learning of teachers and other education professionals participating in professional learning communities. The professional learning community model is believed to be the most appropriate context for examining the factors that influence the transfer of learning among teachers because it incorporates best practice with regard to professional learning for teachers and research supports its efficacy with regard to a number of positive outcomes for both students and educators. By focusing on the teachers as learners within this specific context, adult educators may be better able to facilitate professional learning within educational institutions that will create significant and lasting change.

Research Questions

The specific research questions associated with this study are categorized by the phase in which they will be investigated. This study was conducted in two phases: 1) qualitative interviews were conducted with a small sample of teachers and other education professionals from a purposively selected school site identified as implementing successful professional learning communities, and 2) an electronic survey instrument was developed based on the information obtained from the qualitative interviews. The survey instrument was administered to a larger sample of teachers and other education professionals at school sites identified as implementing successful professional learning communities. The research questions were as follows:

Phase 1:

1. What factors/variables do teachers and other education professionals participating in qualitative interviews identify and/or equate with the promotion of learning transfer within the context of a successful professional learning community?

2. What factors/variables do teachers and other education professionals participating in qualitative interviews identify and/or equate with the inhibition of learning transfer within the context of a successful professional learning community?

3. To what extent and in what ways is the promotion of learning transfer related to educators' overall job satisfaction and their intent to remain in the education profession?

4. To what extent and in what ways is the information obtained during the qualitative interviews with educators participating in successful professional learning communities related to a more comprehensive understanding of adult learners and adult learning within the context of K-12 educational institutions?

Phase 2:

5. Which of the factors/variables, identified during the qualitative phase of the study, do teachers and other education professionals, completing a survey, associate most strongly with the promotion of learning transfer within the context of a successful professional learning community?

6. Which of the factors/variables, identified during the qualitative phase of the study, do teachers and other education professionals, completing a survey, associate most strongly with the inhibition of learning transfer within the context of a successful professional learning community?

Justification

Adult education is a broad and complex field that effectively integrates a wide variety of ideas and concepts (Merriam, 2001). Throughout its existence, adult education has been associated with meeting the needs of adult learners (Merriam & Brocket, 2007). One of the prominent early theorists within the field, Eduard Lindeman (1926, 1989) suggests that adult education is a means of improving the individual. Knowles (1980) indicates that adult education typically occurs in response to a particular need. He contends that adult educators should focus on addressing individual, institutional, and societal needs (Knowles, 1980). Fenwick (2008) notes that more research should be conducted in order to gain a

better understanding of how individuals learn within the workplace. She goes on to suggest that economic changes and globalization require that work environments change and adapt to become competitive. Drago-Severson (2009, 2011) suggests that it is necessary for schools to become more knowledgeable of adult learning principles and indicates that issues of learning should be a focus of education policy makers.

The actual utility of research related to outcomes associated with teachers in the K-12 school setting, such as their learning, may be questioned because the primary goal of K-12 education has traditionally been to improve student outcomes. When discussing this issue in terms of value-added research related to teacher effectiveness and improvement, Raudenbush (2015) asks, "Does the answer to a precisely focused research question, by itself have implications for practical action?" Ultimately, the author concludes that while student outcomes often improve when change occurs within schools systems on a macro level, focused research on a number of related variables associated with these complex organizations, such as teacher learning, should be conducted and integrated effectively with theory in order to foster positive change and improve outcomes within the overall organization. This researcher agrees with the author's contention and believes that the present study is a prime example of research that has a strong theoretical basis, in both adult education and teacher education/development, and practical applications in terms of being used to support the learning of individual teachers as well as student learning outcomes when integrated on a global/systems level within schools.

Darling-Hammond et al. (2009) contend that participation in learning organizations will support the long-term development of quality teachers. Sharvashidze and Bryant (2011) found that teachers benefit when training and development activities are associated with the tenets of adult education and that teachers reported a preference for professional learning activities developed and implemented using adult education ideals and concepts. The present study focused on addressing the individual needs of teachers as adult learners within the K-12 setting by exploring variables related to the adult learning principle of learning transfer. A review of current literature suggested that this specific principle has been explored only minimally, from an adult education perspective, within the context of K-12 educational institutions.

Professional learning is extremely important within the K-12 environment. In order for students to meet local, state, and national testing standards, teachers must learn how to adapt their instructional and organizational practices to meet student needs (Darling-Hammond et al., 2009). According to a report from Wei et al. (2010), teacher and student outcomes improve as the amount of time teachers spend engaging in professional learning increases. The Bill and Melinda Gates Foundation (2014) found that school systems spend roughly 18 billion dollars per year on professional learning and development for teachers. The current problem facing many K-12 educational institutions is that teachers are not transferring this learning into the classroom (Bush, 1984; Wei et al., 2010). Bush (1984) found that teachers were only transferring 10 percent of what they learned when participating in traditional one-day training/workshops.

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The information obtained from this study may be used to assist adult educators

and human resource developers in the development of programming for teachers

that is based on adult education principles. This programming will be more likely

to support learning processes as well as transfer (Beavers, 2009). Ultimately,

when the learning needs of teachers are addressed and transfer of learning

occurs in the classroom environment, students benefit (Drago-Severson, 2011;

Vescio, Ross, & Adams, 2007). It is believed that the results of this study will

facilitate an increased focus on adult education ideals that will directly affect the

learning of teachers within the K-12 environment.

Theories and principles associated with adult education, such as

andragogy, self-directed learning, situated cognition, and transformational

learning, have the potential to play a significant role in the sustaining and

developing of organizations (Merriam et al., 2007; Yang, 2004). According to

Merriam and Brockett (2007), adult education takes place more often in the

workplace than in any other environment. Adult education in the workplace is

often synonymous with professional development, training, and human resource

development (Merriam & Brockett, 2007); however, training is generally

considered to be the most widely used HRD strategy (Broad & Newstrom, 1992).

Swanson (1995) defines human resource development as a "process for

developing and unleashing human expertise through organizational

development, personal training, and development for the process of improving

performance" (p. 208). Yang (2004) suggests that the principles and theories

associated with adult education are the sources for HRD theory and practice.

Despite the suggested relationship, many fail to associate workplace learning with adult education (Merriam et al., 2007).

The disconnect between professional learning in the K-12 setting and adult education may be even greater than in other workplace learning environments because the relationship between the professional learning of teachers and theory associated with fields of adult education and/or human resource development appears to have been only minimally explored by theorists and researchers. For example, research indicates that self-directed learning readiness is often found to be at very high levels among high achieving teachers and principals (Dodds-Urban, 2000; Hillard & Guglielmino, 2007). However, Mushayikwa and Lubben (2009) indicate that researchers within the field of K-12 education have often ignored the self-directed learning activities that occur outside of structured and planned learning events. By directly exploring adult education outcomes, such as learning transfer and self-directed learning, within successful K-12 learning organization/professional learning community models, the influence of adult learning principles within this context were emphasized, and the ideals associated with adult education and human resource development will ultimately receive additional attention within K-12 professional development literature.

The learning organization/professional learning community concept has been a focus within K-12 school systems since the early 2000s and is recommended by many as an effective means of addressing professional development issues among teachers (Darling-Hammond et al., 2009; Senge,

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2012). However, few researchers have investigated the influence of the model

on teacher learning. Because teachers are adult learners, adult education

principles and ideals should be used when developing and implementing

professional learning for these educators (Beavers, 2009; Drago-Severson,

2011)**.** The present study provides additional support for changes to current

programming that emphasize the use of the learning organization/professional

learning community (PLC) models and supply program planners within the K-12

setting with valuable information regarding learning within the professional

learning community. The resulting information may also have a positive

influence on self-direction in learning for teachers, transfer of learning, and the K-

12 professional learning program planning process.

Many schools continue to engage in professional learning and

development practices that ignore research and adult learning principles (Weis et

al., 2010). Beavers (2009) states that "by incorporating a few basic principles

established within the field of adult education, teacher professional development

can dramatically increase its effectiveness" (p. 26). With regard to practice, this

study encourages adult educators to focus on the learning outcomes for adults

working within the K-12 setting. Adult learning theory provides adult educators

with a better understanding of the learning processes of adult in the workplace

(Yang et al., 2004). The present study expands the scope of adult education

theory and encourages researchers to look further into the concepts of the

professional learning community, self-directed learning, and learning transfer in

terms of how they relate to professional learning for educators.

Limitations and Delimitations

The researcher indicates that the following factors were considered to be out of his control (limitations) with regard to the proposed study:

- Data from both phases of the study were obtained via self-report from specific teachers within selected school districts. Therefore, obtained responses may be considered subjective and generalized to educators within similar settings;

- A number of variables related to the different experiences of the participating educators (school site, subject area, grade level, school demographics, etc.) may have influenced the overall pattern of responses;

- Situations and changes both within and outside of the selected school sites may have affected internal validity and reliability of the obtained data.

The researcher indicates that the following delimitations may influence the scope of the proposed study:

- The selection of participants from specific school districts identified as Model PLCs;

- The selection and/or development of measures to evaluate learning transfer;

- The interpretation and analysis of the obtained data.

Definition of Terms

Adult education- systematic and planned programming designed to support the learning of adults (Merriam & Brockett, 2007).

Human resource development (HRD) - a "profession that helps organizations to enhance workforce effectiveness and productivity through learning and other performance improvement activities" (Broad & Newstrom, 1992, p. 4). Adult education in the workplace is often referred to as human resource development (Beder, 1989).

Learning - "a process through which experience causes permanent change in knowledge or behavior" (Woolfolk, 2010, p. 557).

Learning organization - a form of training and development within organizations in which employees are in a continual process of learning and working collaboratively in order to address organizational needs and improve outcomes (Werner & DeSimone, 2006).

Learning transfer-a process that occurs when the learning that takes place during training is consistently used and applied within the work environment (Subedi, 2004).Transfer of learning is also referred to as transfer of training for the purposes of this study.

Professional learning community - a model of professional development that is in place when school staff members regularly engage in collaborative learning activities for the purposes of improving their practice and supporting institutional goals (Hord, 1997). Most models of professional learning communities include the concepts of shared value/vision, shared leadership, and collaboration (Kyounghye & You-Kyung, 2012).

Self-directed learning – learning that involves individual learners taking ownership of their learning (Brookfield, 1986).Alan Tough (1971) initially described his concept of self-directed learning as "self-planned learning" (p. 93).

Training - planned practices implemented by organizations to foster learning and improve organizational performance (Broad & Newstrom, 1992).

Training motivation - the extent to which the learner is motivated to use the learning obtained during a training activity (Tannenbaum & Yukl, 1992).

Summary

The information provided in this chapter describes a number of details related to this study's exploration of the factors that influence the transfer of learning among K-12 educators participating in professional learning communities. It combines research, theory, and additional background information related to adult education, human resource development, and K-12 teacher professional development in order to establish the foundation for the present study. Some of the major tenets of adult education and human resource development (HRD) are outlined and the relationship between these adult education concepts and K-12 teacher professional development and learning activities is characterized.

This chapter also describes some of the current concerns regarding the efficacy of traditional professional development practices within the K-12 setting with regard to supporting learning transfer among teachers as well as improving overall outcomes for both teachers and students. The professional learning

community (PLC) model is presented as a construct that both incorporates adult learning principles and may address some of the noted K-12 professional development and teacher learning issues. Overall, the chapter establishes that a gap in current research exists with regard to examining learning transfer among teachers within the context of the PLC model, grounds the study within the realm of adult education, establishes the study's relevance to supporting research in the area teacher professional development and learning, and provides a justification for the value and need for research in this area.

CHAPTER II – REVIEW OF RELEVANT LITERATURE

The researcher reviewed literature in order to gain a better understanding of theory and research related to the factors that influence the transfer of learning among educators within the context of Professional Learning Communities (PLCs). The literature included in this review explores the influence of adult education and human resource development (HRD) theory and research on learning within the work environment, and specifically focuses on the role of teachers as adult learners within the K-12 setting. It also examines a number of theories and models related to the factors that either promote or inhibit learning transfer within the workplace and describes the relationship between the professional learning community model (PLC) and various principles associated with adult education and human resource development.

Adult Education in the Workplace

Adult education may be defined as systematic and planned programming designed to support the learning of adults (Merriam & Brockett, 2007). The processes related to this learning should lead to lasting change for the individual learner (Yang, Watkins & Marsick, 2004). According to Fenwick (2008), learning can be associated with a variety of changes within the learner. These changes may range from obtaining a new set of skills to effectively collaborating with peers. Adult educators suggest that learning can occur in almost any environment. Therefore, the field of adult education is often considered large in

scope and applicable within a variety of settings (Merriam, Caffarella &

Baumgartner, 2007).

Adult education is influenced by a number of theoretical perspectives.

Theorists associated with adult education contend that adults learn differently

than those who are considered to be traditional students, and that the processes

used to educate adults should differ from those used with children and/or

adolescents in order to increase the chances for learning to occur (Brookfield,

1986; Knowles, 1980; Merriam & Brockett, 2007). The concept of andragogy

was developed and defined by Malcolm Knowles (1980) as "the art and science

of helping adults learn" (p. 43). The following assumptions regarding adult

learners were examined and expounded upon as Knowles described his

conceptualization of andragogy:

- Adult learners become more self-directed as they mature

- The adult learner's increased experience influences the learning
  process

- The adult learner's readiness to learn is influenced by the
  developmental tasks associated with his or her social roles

- Adult learners tend to be more focused on addressing immediate
  concerns and/or problems. (Knowles, 1980)

Merriam et al. (2007) note that two additional assumptions were added to the

model of andragogy after its initial development. These assumptions suggest

that the adult learner is typically more internally motivated to learn than externally

motivated and that adult learners should be made aware of the importance

and/or significance of a learning activity in their daily lives. Brookfield (1986) also

examines the manner in which adult education takes place and suggests the

following six principles of effectively facilitating adult education:

- Participation in learning is voluntary

- Effective practice is characterized by a respect among participants for
  each other's self-worth

- Facilitation is collaborative

- Praxis is at the heart of effective facilitation

- Facilitation aims to foster in adults a spirit of critical reflection

- The aim of facilitation is the nurturing of self-directed, empowered
  adults. (Brookfield, 1986)

These principles should be integrated into environments in which adult teaching

and learning occur (Brookfield, 1986). It should also be noted that the principles

of collaboration, reflection, and empowerment are particularly integral to the

concept of the learning organization (Senge, 1990).

Grattan (1955) posits that adult education focuses on individuals "in the

business of life" (p. 7). This contention is central to the expansion of the field of

adult education into a wide variety of settings because it argues that adults have

the power, means, and ability to create and maintain significant change within

their own lives and the lives of others through the process of learning. Knowles

(1980) suggests that the goals of adult education should be related to meeting

individual, institutional, and societal needs. Darkenwald and Merriam (1982)

contend that the goals of adult education involve cultivation of the intellect,

individual self-actualization, personal and social improvement, social

transformation, and organizational effectiveness. Each of these goals is

important in terms addressing the various needs of the adult learner. However,

for the purposes of this study, the goal of organizational effectiveness is

particularly relevant because it emphasizes adult education in the workplace.

Historically, the field of adult education has focused on improving

outcomes for the individual learner; however, research regarding adult education

in the workplace has become increasingly prolific within the field (Merriam et al.,

2007). According to the National Center for Education Statistics (2007), 27 **%** of

all adult education activities are work related. Adult education in the workplace is

considered by many to be analogous to human resource development (Beder,

1989; Yang, 2004). Broad and Newstrom (1992) define human resource

development (HRD) as a "profession that helps organizations to enhance

workforce effectiveness and productivity through learning and other performance

improvement activities" (p. 4). HRD may address the needs of individuals,

groups, or the entire organization (Swanson & Holton, 2009). Swanson and

Holton indicate that HRD practices are designed to be implemented within

organizations; however, they note that the structure of these organizations may

vary greatly. Like adult education, Human Resource Development is influenced

by a number of theoretical perspectives (Swanson & Holton, 2009). However,

these authors suggest that the following four ideas are consistently found to be associated with HRD theory:

- A belief in human potential

- The goal of improvement

- A problem-solving orientation

- Systems thinking. (Swanson and Holton, 2009)

Brookfield (1986) notes that many HRD and training professionals are influenced by adult learning theory and implement practices related to adult education. However, he also suggests that adult educators practicing outside of the workplace may benefit from integrating HRD practices from the business world into their work. Human resource development has the potential to positively influence the lives of individuals both inside and outside of the work environment (Broad & Newstrom, 1992).

The field of human resource development (HRD) is closely associated with the field of adult education; however, there is some debate as to the nature of the relationship between the two fields (Merriam & Brockett, 2007). Adult education and HRD differ because adult education often emphasizes the needs of the individual learner while HRD generally focuses on learning within an organizational context (Rocco & Smith, 2013). Brookfield (1986) notes that the voluntary nature of adult education is often considered to be one of the field's key components as well as one of the sources of contention between the more traditional view of adult education, as a means of supporting the individual

learner, and adult education workplace, which often requires the learner to participate in educational activities to support organizational goals. Brookfield (1986) contends that although the involuntary nature of workplace learning may affect learning outcomes, it does not necessarily take it out of the realm of adult education. He also posits that the field of adult education may ultimately suffer if it fails to recognize that adult learning takes place within this environment. In order to recognize the presence of adult learning within the workplace, one must first have an understanding of processes associated with learning.

Within the context of human resource development and adult education, individuals may fail to recognize the differences between training and learning because they are closely related and due to a general lack of understanding of the two concepts. Training is related to planned practices implemented by organizations to foster learning and improve organizational performance (Broad & Newstrom, 1992). Learning may be broadly defined as "a process through which experience causes permanent change in knowledge or behavior" (Woolfolk, 2010, p. 557). According to Yang et al. (2004), adult learning should be accentuated over training practices when addressing professional learning needs within organizations. Therefore, an increased focus on human resource development's affiliation with adult education will support HRD's ability to reinforce the specific processes related to learning within organizations (Dirkx, 1996). Dirkx also suggests that HRD and adult education should be connected as a means of improving overall HRD practice. The field of human resource

development uses a systematic and practical approach to address the various needs experienced by individuals and organizations (Kessels & Poell, 2004). With this in mind, Yang et al. (2004) argues that adult education has the capacity to support the growth and development of human resource development as a field of study. With the passage of time, the relationship between adult education and human resource development is getting stronger (Reio, 2013).

Adult education plays a significant role in workplace learning (Merriam, Caffarella & Baumgartner, 2007). As previously noted, the majority of adult education takes place within the work environment (Merriam & Brockett, 2007). Despite this knowledge, research on adult learning within the workplace is often mitigated by the field of human resource development (Dirkx, 1996). Adult education should be emphasized within the workplace in order to support the performance of both the individual employee and organization as a whole (Swanson & Holton, 2009). The proposed study directly examines variables associated with adult education and human resource development within the work environment.

<p style="text-align:center">Self-Directed Learning in the Workplace</p>

One theoretical concept that is prominent within the field of adult education and applicable within the workplace is self-directed learning (SDL). Alan Tough (1971) initially describes his notion of self-directed learning as "self-planned learning" (p. 93). He also developed a comprehensive model of this learning construct. Tough suggests that self-directed learning is linear and

occurs as somewhat of a systematic process. Malcolm Knowles (1980) also

recognized the importance of self-directed learning to adult education and

included the construct as one of the primary aspects in his model of andragogy.

Noted earlier as one of his six principles of effective practice with regard to adult

learning, Brookfield (1986) posits that self-directed learning involves individual

learners taking ownership of their learning. Self-directed learning is one of the

most practical and useful concepts associated with adult education and human

resource development (Ellinger, 2004). Learners are self-directed when they are

in charge of how, when, and what they are learning (Min-Huei, 2004). The goals

associated with self-directed learning are to "enhance the ability of adult learners

to be self-directed in their learning; foster transformational learning as central to

self-directed learning; promote emancipatory learning and social action as an

integral part of self-directed learning" (Merriam & Brockett, 2007, p. 107).

Self-directed learning allows adult educators to develop a better

understanding of the individual differences among learners and the manner in

which adults take on the process of learning. An individual's level of readiness to

engage in self-directed learning is one of the key factors associated with the

concept. With regard to self-directed learning in the workplace, research

suggests that there is a relationship between self-directed learning readiness and

job performance (Guglielmino & Roberts, 1992). Although much of the

professional development that occurs within the workplace is involuntary, self-

directed learning is believed to play a significant role in terms of supporting

organizational outcomes (DaeYeon, 2002; Ellinger, 2004; Min-Huei, 2004). Min-Huei found significant relationships between self-directed learning readiness and a number of factors related to organizations, including organizational effectiveness, organizational culture, and the organizational environment. Within the K-12 school environment, self-directed learning readiness was found to be at very high levels among of teachers attempting to create positive change within their schools and advocate for the profession (Dodds-Urban, 2000). Another study found similarly high levels of self-directed learning readiness among high performing principals (Hillard & Guglielmino, 2007).

Self-directed learning has grown in prominence in recent years and is considered by many within the field of HRD to be a tool to support both individual development as well as performance within organizations (DaeYeon, 2002). Clardy and Willis (2000) suggest that the number of employees engaging in self-directed learning will continue to rise due to the increased number of externally imposed requirements and changes affecting individual employees, organizations, and society. Min-Huei (2004) contends that organizations should make an effort to foster self-directed learning skills among employees. Human resource developers can foster learning by creating programming that encourages and supports self-directed learning within organizations (Park, 2008). Ellinger (2004) echoes these sentiments and suggests that employees should have an increasingly greater stake in their own learning in order to meet the demands of their organizations.

Theorists examining the use of self-directed learning during K-12 professional learning activities suggest that self-directed learning should be encouraged as a form of professional development for educators (Beavers, 2009; Ellinger, 2004; Terehoff, 2002). Mushayikwa and Lubben (2009) found that when teachers are unsure about their ability to meet the needs of their students, they often engage in self-directed professional learning activities. Terehoff (2002) notes that factors such as providing increased freedom and choice with regard to the nature of professional learning opportunities improve educators' views of themselves in relation to their learning. This author also posits that administrators within schools should account for self-directed learning when planning training and development activities for teachers and staff as well as when evaluating the organization's overall learning goals. These considerations are important within any setting, including the school environment, because "adult learners tend to resist learning that is in conflict with the direction they believe their learning should go" (Beavers, 2009, p. 27). Beavers continues by suggesting that professional developers within schools should encourage and seek teacher input because learning that is self-directed appears to support learning transfer. In a review of self-directed learning literature, DaeYeon (2002) found that self-directed learning is more likely to occur as individuals engage with others within their environment. She suggests that this finding links self-directed learning with the HRD-related learning organization construct. At the conclusion of her study, DaeYeon indicates that future studies should directly investigate the

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relationship between self-directed learning and the learning organization. Self-directed learning is one of the primary adult education concepts examined within the context of this study because of its potential relationship to learning within the learning organization and professional learning community models.

<center>Transfer of Learning in the Workplace</center>

Learning transfer is one of the most integral elements in all facets of adult learning (Foley & Kaiser, 2013). Without a clear understanding of transfer, it is difficult to determine the efficacy of adult education programs with regard to supporting either individual or organizational outcomes and to justify that such programming is either valuable or necessary within an organization (Caffarella, 2002; Merriam & Leahy, 2005). Ultimately, transfer is at the heart of most adult education efforts in the workplace because it often suggests that learning has occurred and that the programming has achieved its goal; however, transfer does not automatically occur when an individual engages in an adult education or human resource development activity (Subedi, 2004). Hung (2013) found that transfer has been a focus of researchers studying learning since the early 1900s. He defines the concept of learning transfer as "applying previously learned knowledge with various degrees of adaptation or modification of that knowledge in completing a task or solving problems" (p. 27). According to Leberman et al. (2006), transfer of learning is the influence of prior learning experiences on current and/or future learning experiences. Perkins and Salomon (1989) developed one of the most commonly referenced theories of learning transfer.

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Their theory indicates that transfer falls into the categories of either low road transfer or high road transfer. Low road transfer involves learning that is more automatic and comfortable for the learner. This form of transfer often takes place within familiar contexts. High road transfer demands that the learner engage in more in-depth and complex cognitive processes. Therefore, the information and/or content may be more difficult to transfer from one setting to another (Perkins & Salomon, 1989). These authors also describe transfer in terms of positive and negative. Perkins and Salomon (1992) indicate that positive transfer takes place when "prior learning from one environment supports performance outcomes within another environment" and that negative transfer occurs when "prior learning inhibits performance" (Transfer Defined section, para. 3).

Learning transfer and training transfer are often considered synonymous. However, it is important to note that training transfer is typically referred to within the context of the workplace. According to Subedi (2004), transfer of training occurs when the learning that takes placed during training is consistently used and applied within the work environment. Subedi found that training transfer is influenced by the "individual learner's motivation, the work environment, and the perceived relevance of the training" (p. 592). Research supports the effects of these three factors on transfer of learning (Merriam & Leahy, 2005). Some theorists in the area of learning transfer suggest that contextual and environmental factors within the workplace, such as social support, also influence learning transfer (Leberman et al., 2006).

In an effort to gain a better understanding of the factors that may affect workplace behavior/learning from a Human Resource Development perspective, Werner and DeSimone (2006) proposed the model of employee behavior. These authors suggested that both external factors, which may come from either inside or outside of the work environment, and internal factors, which are innate to the employee, "interact to influence employee behavior" (Werner &DeSimone, 2006, p.39). The model suggests that external factors play a role in motivating individuals to learn because these factors can serve as a catalyst for participation in various learning activities that are often aimed at improving outcomes associated with the external environment. Internal factors may influence one's motivation to learn because they often address the employee's internal need to learn as well as his or her willingness to continually engage in the learning process (Werner & DeSimone, 2006).

Within the context of Human Resource Development, motivation is considered to be one of the most influential factors on workplace learning (Naquin & Holton, 2003). However, the relationship between learning and motivation has not been easy to define, and a number of theories have been developed in order to examine the link between the two concepts (Woolfolk, 2010). One example of a motivational learning theory is Maslow's hierarchy of needs. The theory proposes that individuals are motivated by five types of needs. Once needs are met at a lower and more basic level, the individual will be motivated to fulfill higher order needs (Maslow 1943). Applied to the work

environment, this theory would encourage organizational leaders to recognize and support the needs of employees in order to maintain high levels of motivation and ultimately improve performance. This is often accomplished through training and professional development (Jerome, 2013).

Motivation is also considered to be an important factor associated with transfer of training. Training motivation refers to the extent to which the learner is motivated to use the learning obtained during a training activity (Tannenbaum & Yukl, 1992). Merriam and Leahy (2005) argue that transfer motivation is a key indicator of transfer. Grohmann, Beller, and Kauffeld (2014) also found that transfer motivation played a significant role in transfer with regard to the design of training. Developers must have a clear understanding of how these elements can play both a positive a negative role in the overall transfer of learning (Grossman & Salas, 2011). This understanding can be gained by evaluating the needs of workers as well as assessing the work environment as a whole (Werner & DeSimone, 2006). As a result of this exploration, adult educators and human resource development professionals will be better able to incorporate specifically targeted learning strategies that will promote rather than inhibit the transfer of learning.

Broad and Newstrom (1992) relate training transfer to the regular and consistent use of the information and/or abilities obtained during a training experience to the job. These authors suggest that the following trainee/work characteristics are associated with transfer:

- Trainee characteristics

- Ability and aptitudes

- Personality

- Motivation

- Work Environment Characteristics

- Supportive organizational climate

- Precourse discussion with boss

- Opportunity to use knowledge and skills

- Post training goal setting and feedback.

Broad and Newstrom (1992) identified the following major barriers to training transfer:

- Absence of reinforcement on the job

- Interference from the immediate environment

- Nonsupportive organizational climate

- Impractical training (as seen by trainees)

- Irrelevant training (as seen by trainees)

- Trainee discomfort with change

- Separation from the trainer

- Poor training design and/or delivery

- Negative Peer Pressure

Baldwin and Ford (1988) suggest that transfer is specifically related to

"generalization" and "maintenance" or the extent to which the information

obtained during training is able to be applied to the work setting over time. They

also indicate that factors that influence training are "training design, trainee

characteristics, and work-environment characteristics" (p. 64). During the

process of developing the Learning Transfer System's Inventory (LTSI), an

instrument used to assess learning transfer within organizations, Holton (2003)

developed a conceptual model indicating that the factors associated with learning

transfer were related to the learner's abilities, motivation, the work environment,

and the secondary influences of learner readiness and performance self-efficacy.

Burke and Hutchins (2007) identified "learner characteristics, intervention design,

and delivery and work environment as the major influences on learning/training

transfer" (p. 288). In a more recent study, Homklin, Takahashi, and Techakanont

(2014) determined that a positive relationship with one's coworkers could be a

factor that supports transfer.

Chiou, Lee, and Purnomo (2010) found that transfer of training was

related to job satisfaction as well as to determining the success of employee

learning and performance with respect to supporting organizational outcomes.

These authors also indicated that the greater the amount of transfer that occurs

as a result of a training, the greater the benefit to the individual learner and the

organization. Despite the literature supporting the benefits of transfer of training,

researchers indicate that transfer is significantly lacking with regard to traditional

professional development opportunities (Burke & Hutchins, 2007). According to

Foley and Kaiser (2013), organizational efforts to foster learning are often

unsuccessful because developers fail to consider the significance of transfer.

They note, "One of the most basic barriers to transfer is overlooking it in both the

design and facilitation phases" (p. 9). This suggests that adult education and

HRD researchers should focus more attention on improving transfer within

organizations. Conversely, theorists contend that the integration of HRD ideals

within organizations will subsequently result in increases in transfer (Grossman &

Salas, 2011). Ultimately, the concept of transfer is becoming increasingly

important to organizations and stakeholders as they determine whether

employee participation in a training and development program will be beneficial

(Caffarella, 2002). Merriam and Leahy (2005) indicate that transfer is rarely

explored within the field of adult education; however, these authors argue that

the concept should play a much larger role in the future of the field.

<center>Teachers as Adult Learners</center>

Adults who participate in learning activities that may support the

development of a "sustained change in thinking, values, or behavior" are

considered to be adult learners (Cranton, 1992, p. 3). In his description of the

concept of andragogy, Malcolm Knowles (1980) indicates that the adult learner is

self-directed, has had a variety of experiences, exhibits a certain "readiness" to

learn, and engages in learning for a specific reason. Within the context of

educational institutions, teachers and other education professionals serve in the

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role of the adult learner (Drago-Severson, 2011). This designation is related to the idea that in order to meet the needs of students and the requirements of their respective institutions, teachers must continually learn and expand their depth of knowledge (Darling-Hammond et al., 2009). As previously indicated, the majority of adult education activity reportedly takes place within the workplace (National Center for Education Statistics, 2007). Most organizations spend time training and developing their employees to be successful within their designated positions (Werner & DeSimone, 2006). School systems are no different. As with any field, the key to maintaining successful and productive employees is to provide them with strong, innovative, and effective learning opportunities (Drago-Severson, 2009). According to Kaplan and Owings (2002), effective professional development programming can facilitate growth and development among both experienced and inexperienced educators. However, in order to be effective, professional learning opportunities within schools should focus on the needs of teachers as learners and emphasize adult learning principles (Drago-Severson, 2009, 2011).

Almost all teachers report regularly participating in professional development opportunities; however, the large majority of these educators indicate that the activities are not beneficial to them (Darling-Hammond et al., 2009). Gulamhussein (2013) posits that traditional delivery methods of professional development within the K-12 setting are ineffective because they "operate under a faulty theory of teacher learning" (p. 36). She contends that the

professional learning opportunities typically provided to teachers are not aligned

with best-practice because they tend to focus on providing the participants with

new content knowledge rather than developing the teacher's skills and abilities to

implement the desired changes within the classroom. Developing these skills

and abilities requires effort and time. French (1997) determined that it might take

up to 50 hours for educators to learn how to effectively implement changes to

their practices within the classroom setting. Truesdale (2003) found that the

transfer and/or continued use of an instructional strategy increased significantly

when teachers received continued coaching in addition to their participation in a

professional development opportunity.

Within school systems, those who facilitate workplace learning should

have an understanding of how and why teachers and other education

professionals learn in order to develop programming that is more effective with

regard to supporting the needs of these adult learners and improving in their

performance (Sharvashidze & Bryant, 2011). Research indicates that there are a

number of variables that may influence professional development for teachers

(Darling-Hammond et al., 2009; French 1997). Darling-Hammond et al. (2009)

reviewed literature regarding professional learning among educators and found

that the following were consistently indicators of effective professional

development:

- Professional development should be intensive, ongoing, and

  connected to practice

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- Professional development should focus on student learning and address the teaching of specific curriculum content

- Professional development should align with school improvement priorities and goals

- Professional development should build strong working relationships among teachers

Teachers enter the learning process with backgrounds and experiences that differ from any other profession. Adult education theorists regularly tout the importance of recognizing the unique perspective and experience of the learner as well as developing programming that integrates it (Brookfield, 1986; Knowles, 1984). Adult education principles are applicable in any environment in which adults learn, and human resource development principles are important to the development of effective training programming within the work environment (Merriam et al., 2007). Therefore, because educators must learn in order to be effective within their schools, adult education and human resource development should play a role within educational institutions (Sharvashidze & Bryant, 2011).

A review of literature indicates that research related to adult education theory and practice within the K-12 setting is limited. However, Drago-Severson (2011) concludes that an increased emphasis on adult learning within the K-12 setting will allow these institutions to become more effective at achieving a number of outcomes for both teachers and students. Similarly, a study conducted by Sharvashidze and Bryant (2011) found:

Teachers appear to profit more when the training is based on adult

education principles and it is the role of the training provider to supply

educators with the knowledge about those principles in order to give the

teachers necessary tools for successful development and modernization

of their professional skills (p.116).

An adult learning emphasis in the areas of training and development within the K-

12 environment will be one of the key factors associated with the success of the

educational institutions of the future (Drago-Severson, 2009). Despite these

findings, researchers within the fields of adult education and human resource

development appear to have traditionally placed little emphasis on the

professional development and learning outcomes of teachers. This lack of

emphasis on supporting the development of adult learning and continued

professional development within the K-12 setting may also be related to high

levels of dissatisfaction within the field of education (Annual MetLife Survey of

the American Teacher, 2013).

Recent research within the field of education suggests that teachers are

not only dissatisfied with current professional development opportunities; they

are also generally dissatisfied with their jobs (Perrachione, Peterson, & Rosser,

2008). According to the Annual MetLife Survey of the American Teacher (2013),

"teacher satisfaction has declined 23 percentage points since 2008 to the lowest

level in 25 years" (p. 5). Many of these educators reportedly enjoy the process of

teaching; however, they often leave the field because of ineffective organizational practices (Collie, Shapka, & Perry, 2012).

With regard to the reasons for dissatisfaction among educators, Perrachione, Peterson, and Rosser (2008) suggest that teacher dissatisfaction and attrition rates are primarily influenced by external factors. Mercer and Evans (1991) contend that dissatisfaction may be related to teachers' perceptions of a lack of autonomy, control, and input within the school setting. Collie et al. (2012) indicate that dissatisfaction among teachers may also be associated with feeling overworked and undervalued. Researchers have found that teachers who were more actively involved in the decision-making processes within their schools often reported feeling more satisfied with their jobs and invested in their organizations (Woods & Weasmer, 2002).

Quality educators are extremely important to the development and continued success of any society. Webb, Vulliamy, Sarja, Hamalainen, and Poikonen (2009) note that "sustaining teachers' motivation, commitment and enjoyment of their work is a crucial goal in itself as well as a means to improving pupil learning" (p. 419). However, a number of factors appear to be leading to high levels of dissatisfaction and turnover among education professionals. Educational institutions must address both the external and internal factors affecting their employees in order to improve outcomes. The research-based practices associated with the learning organization and professional learning community models may serve as an effective means of integrating adult

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education principles into the K-12 setting as well as addressing the previously

noted concerns with regard to high levels of dissatisfaction and turnover among

teachers (Darling-Hammond et al., 2009; Hord, 1997, 2007). The proposed

study examines the factors that influence learning outcomes for teachers within

the context of professional learning communities, which are often implemented

as a means of facilitating the learning and development of new knowledge, skills,

and abilities among educators (Dufour et al., 2012; Hord, 2007).

The Professional Learning Community and Learning Organization Construct

Literature within the field of teacher education has indicated that one

method of addressing the lack of transfer occurring during professional learning

and development activities within the K-12 setting is through the integration of the

professional learning community/learning organization model into these

organizations (Hord, 1997; Senge, 2012; Vescio et al., 2007). The learning

organization concept involves a form of training and development within

organizations in which employees are in a continual process of learning and

working collaboratively in order to address organizational needs and improve

outcomes (Werner & DeSimone, 2006). This construct has become increasingly

popular in recent years as a means of meeting the demands of a constantly

change work environment (DaeYeon, 2002). The learning organization model is

closely associated with the field of adult education (Merriam & Brockett, 2007).

In fact, Guglielmino and Guglielmino (2001) suggest that the primary aspect of

the learning organization is the adult education concept of self-directed learning.

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The concept of the learning organization was popularized in the 1990s as a means addressing performance needs within organizations by focusing on the learning needs of both individuals and the organization (Fenwick, 2008). Senge (1990) developed the model of the learning organization in an effort to improve organizational outcomes through a systematic approach of creating work environments that were consistently focused on learning and growing the organization. The Senge (1990) model of the learning organization included five core "disciplines" or aptitudes: personal mastery, mental models, shared vision, team learning, and systems thinking.

Watkins and Marsick (1993, 1996) built upon the Senge model and suggested that in order to function as a learning organization, organizations must create continuous learning opportunities; promote inquiry and dialogue; encourage collaboration and team learning; establish systems to capture and share learning; empower people towards a collective vision; connect the organization to its environment, and exhibit strategic leadership. Yang et al. (2004) found that the learning organization is "multidimensional construct" and that the Watkins and Marsick model (1993, 1996) "fits the data reasonably well" (p. 51). In order for schools to function as learning organizations, all of the necessary elements should be in place to support employee learning (Silins, Mulford & Zarins, 2002).

The creation of continuous learning opportunities indicates that the organization is conducive to the development of individual learners who are

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consistently able to make effective decisions and engage in behaviors that will

support outcomes within the workplace (Watkins & Marsick, 1993). Adult

education literature also touts a focus on an individual's choice to pursue

learning. For example, Beder (1989) states that adult education should support

the learner's ability to grow as a result of making decisions related to his or her

learning within the organization. Adult education literature indicates that giving

learners more choice and control of their learning positively affects transfer

(Merriam & Leahy, 2005).

Inquiry involves a form of communication and discussion in which learners

examine their current environment and methods of addressing organizational

needs as well as the manner in which they may support both the development of

knowledge and skills for themselves and within their respective institutions

(Watkins & Marsick, 1993). Similar to inquiry, adult education encourages

individuals to engage in dialogue and problem solving through the use of

reflection (Merriam, 2008). Merriam (2008) notes that the process of reflection is

not an easy process, and that it should be supported using adult education

principles and processes. Team learning is the third action imperative

associated with the Watkins and Marsick (1993) model. Beder (1989) indicates

that adult education should support and encourage the use of team learning as a

means of addressing issues and problems relevant to organizations. The goal of

team learning is to foster skills among individual employees that will support

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organizational goals (Davis & Davis, 2009). Terehoff (2002) indicates that team learning within organizations supports individual and organizational change.

Watkins and Marsick (1993) contend that in order to support the growth, development, and efficacy of the learning organization construct, organizations should be systematic and structured with regard to the manner in which learning is processed, stored, and disseminated (Watkins & Marsick, 1993, Yang et al., 2004). This particular action imperative is closely associated with the overall goal of organizational effectiveness within adult education and basic tenets of human resource development. As a field, human resource development involves systematic and planned learning experiences developed to provide employees with the opportunity to improve their ability to meet current and future job demands within an organization (Werner & DeSimone, 2006). This systematic approach is necessary for the learning organization's success and effectively identifies the model with adult education and HRD.

The emphasis on empowering the learner and the organization's collective vision is the fifth imperative identified in the Watkins and Marsick (1993) model. Communication within the organization facilitates the development of shared vision among employees within the work environment (Senge, 1990). Collective vision empowers employees and encourages a greater commitment to the organization's vision and organizational outcomes.

One of the hallmarks of adult education is the consideration of the contextual and environmental factors that are associated with learning (Merriam

& Brocket, 2007). With regard to addressing the contextual factors often associated with planning and designing educational programming for adults, Caffarella (2002) contends that "interacting with people, the organizational component, and the wider environmental conditions" should be the primary areas of focus (p. 79). Watkins and Marsick (1993) note that learning organizations must have an understanding of the manner in which forces both within and outside of the organization will influence organizational processes and its capability in order to effectively respond the these influences. This is the sixth imperative associated with their learning organization model; however, it is also one of the most important with regard to the model's success (Watkins & Marsick, 1993). The final imperative associated with this model is strategic leadership that values learning (Watkins & Marsick, 1996). Educational leaders who focus on creating a culture that fosters learning within their organizations will be more likely to develop productive and satisfied staff members who are willing to continue with the organization (Morehead, 2003).

Learning organizations revolve around developing work environments that allow individuals to become more engaged and responsible for the day-to-day operations of the workplace. Woods and Weasmer (2002) found that educators who were more actively involved in running their schools were much more satisfied with their jobs and invested in their organizations. Senge et al. (2012) notes that learning organizations promote this involvement; however, he suggests that a number of factors should be in place in order for a school to

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serve as a learning organization. In recent years, schools have begun to implement Professional Learning Communities (PLCs) as a means of providing this type of structure (Hord, 1997).

As previously noted, learning organizations consist of several variables that are necessary for the model's success (Senge, 1990; Watkins & Marsick, 1993, 1996). Senge et al. (2012) builds upon his learning organization model and indicates that teacher participation in learning organizations within schools may lead to positive outcomes in several areas. DuFour, DuFour, and Eaker (2012) propose similar characteristics to the five dimensions of the learning organization in their model of the professional learning community (PLC). This model includes the components of shared mission/vision, collaborative culture, collective inquiry, action orientation, commitment to continuous improvement, and a results orientation. Based on a review of literature related to the PLC construct, Hord (1997) defines the professional learning community as a school environment in which all faculty and staff members work collaboratively to learn, problem-solve, and develop solutions to address institutional needs. She goes on to suggest that the following five organizational attributes are indicative of successful PLCs:

- Supportive and Shared Leadership

- Collective Creativity

- Shared Values and Vision

- Supportive Conditions

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- Shared Personal Practice (Hord, 1997)

The Watkins and Marsick (1993) learning organization model emphasizes leadership as one of its core action imperatives. These authors note that this particular idea of leadership is often associated with providing teachers with increased opportunities for choice and autonomy with regard to their learning (Watkins & Marsick, 1993). Teacher perceptions of limited choice and autonomy are often related to dissatisfaction with their jobs (Mercer & Evans, 1991). Research conducted by Mushayikwa and Lubben (2009) found that the teachers who were more self-directed and given choices with regard to their professional learning were more likely to use innovative practices in the classroom.

Shared leadership practices may also lead to a sense of empowerment among educators. Davis and Wilson (2000) note that empowerment is related to allowing power to be shared among teachers and staff with regard to achieving organizational goals. These authors also indicate that empowerment may be related to increased job satisfaction and motivation; however, this research suggests that increased power may also result in higher levels of stress for teachers (David & Wilson, 2000). Mushayikwa and Lubben (2009) contend that professional learning within schools should focus on empowering teachers to have more autonomy and control of their learning experiences. In his discussion of his principles of effective adult education practice, Brookfield (1986) posits that when adults feel empowered and self-directed, "they see themselves as proactive, initiating individuals engaged in a continuous re-creation of their

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personal relationships, work worlds, and social circumstances rather than reactive individuals, buffeted by uncontrollable forces of circumstance" (p. 11).

The concept of collective creativity appears to be related to the ideas of team learning and collaboration within organizations (Hord, 1997). Collaboration is described by Brookfield (1986) as one of the most widely known and cited principles associated with effective practice for the facilitation of adult learning. As previously noted, team learning is the third action imperative associated with the Watkins and Marsick (1993) learning organization model. Research conducted by Lujan and Day (2010) suggests that the implementation of the PLC model improves collaboration among teachers. Research also suggests that collaboration is related to increased job satisfaction among educators (Woods & Weasmer, 2002). Gammill (2013) noted that teachers were more likely to be engaged in professional learning activities when these activities involved pertinent collaborations with other professionals. Although collaborative learning has been found to have a number of positive effects, a study conducted by Collie et al. (2012) suggested that collaboration among teachers might also be associated with high levels of stress. However, these authors also found that perceptions of high levels of collaboration were related to an increased sense of teacher efficacy.

Shared values and vision are an essential component of the Senge (1990) learning organization model. Senge contends that in order for a common and consistent vision to spread throughout an organization, that vision should be

communicated strategically and with purpose. When values and vision are effectively communicated, behaviors within the organization also change (Hord, 1997). Thornton, Shepperson, and Canavero (2007) argue that "vision" within educational environments may be strengthened on a regular basis using formative feedback practices that support both learning and performance.

The principle focusing on supportive conditions appears to be related to the specific practices associated with the implementation of the PLC model and addresses the external and internal variables that may affect teacher and student outcomes (Hord, 1997). Senge et al. (2012) suggests that school leaders and administrators should think systematically when implementing professional learning activities because information must be disseminated and obtained at multiple levels, ranging from individual classroom teachers to district level personnel. One method of developing supportive conditions within organizations is to make appropriate changes to internal environments, such as improving school climate (Morehead, 2003). By developing the appropriate structure for adult learning to take place, both the organization and the individual learner experience growth and development (Senge, 1990).

Shared personal practice is generally characterized by Hord (1997) as the sense of relationship and community that is developed through working and learning together within an organization. Teachers who regularly discuss issues and problems-solve help to foster continuous learning, build a positive environment, and lead to improvements within organizations (Beavers, 2009).

Price (2012) notes that according to a number of research studies, "trusting, cooperative, and open characteristics in schools generate higher levels of satisfaction, cohesion around school goals, and commitment among faculty" (p.40). This suggests that educational institutions would benefit from an increased focus on the planning and structural practices associated with adult education and human resource development.

PLCS in Schools

In order to maintain employment and achieve success within the workplace, learners must obtain the necessary knowledge, skills and abilities that will make them valuable within their respective organizations (Werner & DeSimone, 2006). This value is often attributed to the employee's ability to meet organizational expectations and/or improve outcomes within the organization. Within the K-12 school setting, teachers and staff members are required to consistently learn new information and adapt to organizational changes in order to meet standards and improve student outcomes (Darling-Hammond et al., 2009). This learning often occurs in the form of professional development. However, the most commonly used methods of professional development within schools (i.e., one-day professional development workshops and training sessions) have been shown to be ineffective (Wei, Darling-Hammond, & Adamson, 2010).

According to Thompson et al. (2004), professional learning communities have become an increasingly popular initiative within schools as a means of

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fostering teacher learning. Because of the increased focus on accountability, the professional learning community emerged and continues to develop as a method of fostering student learning by placing a greater emphasis on learning and collaboration among adults (i.e., teachers) within the school setting (Hord, 1997). In fact, the National Staff Development Council (2001) included the concept of the professional learning community as one of their twelve standards for staff development within the field of education.

A review of K-12 education literature suggests that elements associated with the PLC model have been shown to have positive effects within the school setting on teacher outcomes. Lujan and Day (2010) found that collaboration among educators improves with the implementation of the professional learning community model. Webb, Vulliamy, Sarja, Hamalainen and Poikonen (2009) conducted a qualitative study that suggests that PLCs play a role in addressing teacher morale. PLCs may also influence school culture and climate (Cohen & Brown, 2013). School climate has been found to be related to "reduced stress levels among teachers, greater job satisfaction, and higher levels of teacher efficacy" (Collie, Shapka, & Perry, 2012, p. 1200). Vescio, Ross, and Adams (2007) indicate that teachers tend to respond positively to the integration of the PLC model within their organizations. These authors also note that the professional learning community model differs from other models of professional development in the K-12 setting because PLCs encourage teachers and staff members to be self-directed and to have a greater voice in the manner in which

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learning is presented and structured within their respective organizations. Theorists also indicate that the PLC model fosters a greater sense of self-directedness among learners as a result of having more authority and control over their learning (Linder et al., 2012).

Although qualitative and quantitative researchers have found some evidence that the PLC model may result in positive outcomes for educators in terms of teacher morale, school culture, and self-directedness, the construct has not received a great deal of attention in adult education literature (Cohen & Brown, 2013; Drago-Severson, 2011; Linder et al., 2012; Webb, Vulliamy, Sarja, Hamalainen, & Poikonen, 2009). Adult education involves planned and deliberate activities with the intent to foster learning for adults (Merriam et al., 2007). An area that has been often ignored by researchers examining the PLC model within the K-12 setting is teacher learning. With the current concerns associated with the professional learning practices of teachers, literature within the field of K-12 education proposes that educational institutions use the professional learning community model to support the learning of teachers (National Staff Development Council, 2001). As previously noted, this construct is closely associated with the learning organization concept and has strong roots within the fields of adult education of human resource development. Therefore, examining the factors that influence learning transfer among educators within this context is warranted and will support theory and practice within the fields of teacher education, adult education and human resource development.

Theoretical Framework

In the present study, outcomes associated with adult learning are explored within the context of the K-12 school setting. Specifically, this study proposes to examine the factors that influence learning transfer among teachers and other education professionals participating in successful learning organizations/professional learning communities (PLCs). From a theoretical perspective, a review of literature suggests that the models and concepts included in this study have strong ties to the field of adult education.

Although there are a number of models, theories, and philosophies housed under the umbrella of adult education, learning is the ultimate goal of any adult education activity. Theory plays a significant role in shaping educational environments and outcomes for the learner. It also provides a basic framework from which researchers may examine the adult learner, the learning environment, and programming associated with the facilitation of learning (Merriam & Brockett, 2007). A learning theory that appears to be closely related to the concepts addressed in the present study is Constructivism. Constructivism is one of the most prominent and widely used theories associated with learning (Woolfolk, 2010). Constructivists believe that learning is an active process that occurs through interactions with both the learning environment and other learners (Merriam & Caffarella, 1999). Similarly, Lever-Duffy and McDonald (2011) note that constructivists tend to argue that individuals either learn through "constructing their own knowledge through cognitive processes or via

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collaboration with a group of learners in an effort to construct a common core of knowledge" (p. 30). According to Merriam et al. (2007), "much of adult learning theory is constructivist in nature" (p. 293). Because both adult education and constructivist theory contend that learning may be related of a variety of factors both innate or external to the individual learner, it is believed that constructivist theory would support the present study's contention that various factors associated with the learner, the environment, and programming may play an active role in learning transfer among teachers within professional learning communities (Ertmer & Newby, 2013; Lever-Duffy & McDonald; Merriam et al. 2007).

One of the most prolific theoretical concepts within the field of adult education is andragogy. In addition to the previously noted assumptions regarding adult learners, Malcolm Knowles (1984) contends that in order to meet the needs of adult learners, adult educators should

- Create a climate of cooperation within the learning environment

- Identify the individualized needs and interests of the adult learner

- Formulate learning objectives from the identified needs and interests

- Create programming that assists the learner in meeting the objectives

- Work collaboratively with the learner to design practices and identify resources that meet their needs

- Evaluate the learning and adapt the programming accordingly.

Self-directed learning is incorporated into the model of andragogy; however, it is also one of the most widely recognized concepts in adult education (Brookfield, 1986). According to Merriam et al. (2007), self-directed learning has roots in the humanistic perspective and emphasizes the personal development of the learner. It has also been associated with learning transfer among adult learners (Hiemstra, 1994). Ellinger (2004) notes that research related to self-directed learning in the workplace may be beneficial to the integration of adult education and human resource development into various work-related environments. Andragogy and self-directed learning are two adult education constructs that appear to be related to both learning transfer and learning organization/professional learning community models. Therefore, the exploration of these constructs within the context of the present study will help to ground the research in adult education and HRD theory as well as expand the theoretical understanding of teachers as adult learners within the workplace.

Merriam and Leahy (2005) suggest that focusing on the transfer of learning is pertinent for adult educators because the concept will play a large role in the future of adult education and human resource development. According to Leberman et al. (2006), "transfer of learning occurs when prior-learned knowledge and skills affect the way in which new skills and knowledge are learned" (p. 2). These authors also emphasized the influential nature of environmental and contextual factors on learning transfer. There are a number of general theories associated with learning transfer; however, the Salomon and

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Perkins (1988) theory has received a great deal of attention in the literature. This theoretical perspective contends that transfer is either low road, which indicates that transfer is more automatic and typically occurs within the same environment; or high road, which indicates that the transfer is more thoughtful and typically occurs outside of the context of the learning environment.

An increased focus on learning transfer within the work environment would benefit organizations as well as support theory development (Egan, Yang, & Bartlett, 2004). With regard to the variables that influence transfer, Merriam and Leahy (2005) note that both contextual and environmental factors play a role in transfer of learning within the workplace. Transfer motivation, the actual work environment, and the perceived relevance of the learning activity have all been found to be particularly influential variables (Merriam & Leahy, 2005; Subedi, 2004). Burke and Hutchins (2007) propose that factors associated with "learner characteristics, intervention design and delivery, and work environment" may also be related to the promotion and/or inhibition of learning transfer (p. 288). For the purposes of this study, these areas will be explored in order to identify specific factors associated with teacher learning transfer within the workplace.

Research related to teachers as learners within the K-12 setting increasingly indicates that professional learning activities for these adults should emphasize collaboration, occur for an extended period of time, and focus on addressing their specific needs (Darling-Hammond et al., 2009). The authors also note that each of these supports is present within the learning organization

model. However, when comparing professional learning activities for teachers in the United States and those other countries with the most successful education systems, a report from Wei et al. (2010) found that teachers within the U.S. are engaging in fewer research-based activities to foster and transfer learning. The report also indicates the following:

> Research shows that teacher quality is the single most powerful influence on student achievement, and yet teachers in the United States receive far less professional development, mentoring, and planning time than teachers in the world's high achieving nations. In order for our students to succeed, their teachers must also be supported to succeed. Studies have shown that teacher success can be fostered through high quality professional development; professional development that is sustained, connected to practice and school initiatives, focused on academic, and supportive of strong working relationships among teachers (p.5).

Literature within the field of K-12 education supports the use of learning organization/professional learning community models as a means of addressing ineffective professional learning practices within schools and improving outcomes for students (Darling-Hammond et al., 2009; Hord, 1997; National Staff Development Council, 2001). However, little research has been conducted regarding the effects of these models on learning outcomes for teachers.

The theoretical framework for this study revolves around understanding and identifying the factors that influence learning transfer among teachers

participating in professional learning communities. According to Hord (1997

2007), professional learning communities are in place when school staff

members regularly engage in collaborative learning activities for the purposes of

improving their practice and supporting institutional goals. Most models of

professional learning communities include the concepts of shared value/vision,

shared leadership, and collaboration (Kyounghye & You-Kyung, 2012).

Currently, the majority of research related to PLCs comes from teacher education

and educational administration literature and focuses on either the

implementation of the model or the PLC construct's influence on student

achievement. A review of current literature suggests that little research has been

conducted on the effects of PLC participation on learning outcomes for teachers

and staff members within schools. Adult learning is at the core of learning

organization/professional learning community models (Merriam et al., 2007).

Therefore, when examining the learning that occurs within the context of the PLC

construct, it is important to consider its relationship to the fields of adult education

and human resource development.

Thompson, Greg, and Niska (2004) indicate that professional learning

communities are analogous to the learning organization. As previously noted,

the learning organization model is a training and development construct that may

be closely associated with the field of adult education (Merriam & Brockett,

2007). Werner and DeSimone (2006) suggests that the learning organization

concept is defined from a human resource development perspective as the

organization of the workplace into an environment in which employees are constantly learning and working together to meet organizational goals. The learning organization model was originally developed by Peter Senge (1990), and includes the five dimensions of personal mastery, shared vision, mental models, team learning, and systems thinking. Thornton et al. (2007) suggest that teachers in schools that implement learning organization models are better able to learn and grow from their mistakes.

Watkins and Marsick (1993, 1996) built upon Senge's model and developed the seven imperatives for the learning organization. They noted that the learning organization should create continuous learning opportunities; promote inquiry and dialogue; encourage collaboration and team learning; establish systems to capture and share learning; empower people towards a collective vision; connect the organization to its environment; and emphasize strategic leadership. Hord (1997) developed a model of the professional learning community based on years of research on the construct. She concluded that successful PLCs include the components of supportive and shared leadership, collective creativity, shared values and vision, supportive conditions, and shared personal practice (Hord, 1997, 2007). Based on a review of literature, the Watkins and Marsick (1993, 1996) model and the Hord (1997, 2007) model appear to be two of the most recognized representations of this professional learning construct. Therefore, they will serve as the primary conceptualizations of the professional learning community in the present study.

The previously referenced theories, constructs, and models will be used to support the researcher's ability to develop a better understanding of the factors that influence teachers as adult learners within the K-12 education setting. The conceptual framework of the present study is grounded primarily in adult education and human resource development theory. This theoretical perspective appears to be uncommon and often underused within the literature associated with teacher education and professional development. Therefore, it is believed that this study will provide additional perspective and inform theory with regard to the evaluation and support of teacher learning; inform adult education and human resource development practice; and expand the influence of adult education principles within the K-12 setting.

Summary

This literature review integrates theories and research related to adult education, human resource development, and professional development among K-12 teachers; models of the learning organization and professional learning community construct; and learning transfer. It also presents information related to variables that have been theorized and/or found to either promote or inhibit learning transfer within the work environment. Although the review shed some light on this topic, specific information regarding learning transfer among teachers was limited. Therefore, an exploration of the factors that influence learning transfer among teachers and other educators within the context of professional learning communities is warranted. An increased understanding of

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the intersection between adult education, human resource development, teacher

education/development, and the professional learning community construct will

improve theory/praxis related to adult education as applied to teacher

development by providing a foundation for researchers to explore the applicability

of adult education principles within this context and for program planners to use

the findings to inform and support effective practice.

CHAPTER III – METHODOLOGY

Teachers and other education professionals often use research as a means of improving outcomes and performance within educational institutions (Creswell, 2012). A review of literature suggests that adult education and human resource development researchers have not been extensively explored the learning of teachers within the K-12 school environment (Drago-Severson, 2009; Mayen, 2011). In the present study, the researcher sought to gain a better understanding of the factors that promote and/or inhibit the transfer of learning among teachers and other education professionals within the context of successful professional learning communities. The study followed the pragmatist philosophy and used a mixed methods approach to inquiry, which denotes the collection of data in two methodologically distinct phases in an effort to effectively address the proposed research questions (Johnson & Christensen, 2009). Because learning transfer has not been extensively explored with regard to K-12 educators, the collection and analysis of qualitative data was the initial and primary focus of this research study. Therefore, the researcher adhered to the exploratory mixed method design model. Exploratory sequential mixed methods designs initially obtain qualitative data to examine a phenomenon and use quantitative data to further substantiate and expound upon the ideas and concepts identified during the qualitative phase (Johnson & Christensen, 2009).

According to Creswell (2014), mixed methods research designs "involve the combination of statistical trends (quantitative data) with stories and personal

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experiences (qualitative data), and this collective strength provides a better understanding of the research problem than either form of data alone" (p. 2). Researchers may take two distinct approaches to exploratory mixed methods research. These approaches involve either an emphasis on instrument development or theory development (Creswell & Plano Clark, 2011). Due to the lack of information regarding learning transfer among adult learners (teachers) within professional learning communities, and in order to address the proposed research questions, the design of this study subscribed to the theory-development and/or taxonomy-development variant of exploratory mixed-methods research. This methodological approach allowed the researcher to build a conceptual framework through in-depth qualitative research methods, followed by the fine-tuning and/ or expansion of this theory using quantitative methods (Creswell & Plano Clark, 2011). In essence, qualitative methodology was used to explore the social experiences of the participants in order to facilitate the development of a theoretical framework for understanding learning transfer among teachers within this particular context, and quantitative methods subsequently incorporated statistical analyses in order to support the theory's generalizability and applicability within the fields of adult education, human resource development, and teacher education (Denzin & Lincoln, 2011).

Research Questions

The specific research questions associated with this study were as follows:

1. What factors/variables do teachers and other education professionals participating in qualitative interviews identify and/or equate with the promotion of learning transfer within the context of a successful professional learning community?

2. What factors/variables do teachers and other education professionals participating in qualitative interviews identify and/or equate with the inhibition of learning transfer within the context of a successful professional learning community?

3. To what extent and in what ways is the promotion of learning transfer related to educators' overall job satisfaction and their intent to remain in the education profession?

4. To what extent and in what ways is the information obtained during the qualitative interviews with educators participating in successful professional learning communities related to a more comprehensive understanding of adult learners and adult learning within the context of educational institutions?

5. Which of the factors/variables, identified during the qualitative phase of the study, do teachers and other education professionals, completing a survey, associate most strongly with the promotion of learning transfer within the context of a successful professional learning community?

6. Which of the factors/variables, identified during the qualitative phase of the study, do teachers and other education professionals, completing a survey, associate most strongly with the inhibition of learning transfer within the context of a successful professional learning community?

Qualitative Data Collection

The theory-development variant of exploratory mixed methods research indicates that the qualitative data obtained during the initial phase of a study will be used to identify themes and ideas that support the development of an emergent theory (Creswell & Plano Clark, 2011). In order to obtain a more in-depth understanding of teachers as learners within educational institutions, the researcher used the case study method of qualitative inquiry. Case studies are considered an effective means of conducting research related to the field of education (Merriam, 2009). One of the most prominent methods of qualitative inquiry, researchers using this approach engage in an in-depth analysis of a case or "bounded systems" (Johnson & Christensen, 2009). These cases often exemplify a phenomenon that the researcher is interested in exploring. Merriam (2009) notes that case studies often provide researchers with a comprehensive view of phenomenon that are often multi-faceted and complex. However, she also indicates that potential weaknesses associated with case study research include issues related to "bias, reliability, validity, and generalizability" (p. 52). In this study, the researcher attempted to address some of these issues pragmatically by using of a mixed methods approach. The use of the mixed

methods exploratory design adds to the overall rigor of the study (Creswell, 2014).

During the initial qualitative phase, the previously noted case study consisted of observations, artifact analysis, and interviews with a sample of educators currently working within a purposively selected school site in the southeastern United States. The selected school site was identified based on its designation by Solution Tree, an internationally recognized organization that focuses on supporting professional development within the field of education, as a *Model PLC*. According to Solution Tree (2014), in order to be recognized as a *Model PLC*, school sites must provide evidence that they have successfully implemented the PLC model with fidelity. The criteria for selection as a Model PLC are:

- Demonstrate a commitment to PLC concepts (i.e., learning of all students, collaborative cultures, and a focus on results)

- Implement those concepts for at least three years

- Present clear evidence of improved student learning

- Explain the practices, structures, and culture of the school or district, and submit it for consideration by the PLC Review Committee

- Provide updated school or district information each year to show that data continues to meet the criteria of a model PLC (Solution Tree, 2014)

Merriam (2009) notes that the sample and size of a case study is dependent on the study, may vary between or within cases, and should be defined by a specific set of criteria. The researcher believed that interviewing multiple individuals from one site would allowed him to obtain a richer understanding of the thoughts, ideas, and feelings of educators working in a Model Professional Learning Community with regard to various factors/variables associated with professional learning communities, learning transfer, and adult learning within the K-12 setting. Purposive sampling procedures were used to recruit participants for the current study. Four teachers and two school administrators were recruited to participate in in-depth qualitative interviews. Criteria for selection in this phase of the study required that the participant have been employed within the selected school site for a minimum of one year prior to the interview and participated in a school-related professional learning community (PLC) on a regular basis during the current and/or previous school year. These criteria were in place in order to allow the researcher to recruit participants who had experience within this school's professional learning communities. During the recruitment process, every effort was made to recruit a diverse sample of participants in terms of educational background and work experience. In order to obtain a more complete understanding of the various perspectives of the educators within this environment, the researcher recruited a participant from each of the school's grade level/content area PLCs as well as the two school administrators to participate in the interview process.

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Qualitative data was obtained from each participant using semi-structured interviews. Semi-structured interviews involve a process in which the interviewer has some idea of the goals and structure of the interview; however, the process may be modified as needed (Merriam, 2009). A protocol was developed to guide the researcher through the interview, and selected questions were based on the factors related to learning transfer indicated through a review of literature and the framework proposed by Burke and Hutchins (2007). These authors identified a number of variables related to "learner characteristics, intervention design and delivery and work environment as the major influences on learning/training transfer" (Burke & Hutchins, 2007, p. 288). Additional questions were related to the participant's work experiences as well as other outcomes associated with learning transfer and adult education.

In an effort to support the participants' understanding and level of comfort during the interview process, they received a copy of the interview questions as well as list of specific terms/definitions related to the study prior to the interview. Interviews were conducted between February 8, 2016 and October 10, 2016. The interviews began once IRB permission to conduct this research was obtained. The interview process typically lasted between 40 to 70 minutes. Participants were encouraged to expound on particular topics as the interview progressed.

Once qualitative the data was gathered, the researcher conducted an analysis the data to address research questions, explore general themes related

to adult learning principles and identify specific factors associated with learning transfer within the context of the professional learning community. After all interviews were complete, interview transcripts were developed and analyzed by the researcher through the preparation, organization, and coding of the data in order to develop themes. According to Creswell (2012), "describing and developing themes from the data consists of answering the major research questions and forming an in-depth understanding of the central phenomenon through description and thematic development" (p. 247). Following the development of themes, the next step was to represent the data by organizing the themes into categories.

Interview data from all of the participants was compared in order to identify commonalities and differences among themes. The analysis and comparison of the themes obtained from the interviews supported the researcher's ability to address the research questions posed by this study. The analysis and the generation of such themes can lead to the development of a theoretical understanding that fosters future research and improves practice in the areas of training and development (Kozlowski &Salas, 1997). As is typical with exploratory mixed-methods research, the themes and data obtained during the initial qualitative phase of the study were used to inform the development and design of the second phase, which focused on the quantitative method of inquiry (Creswell, 2014).

Quantitative Data Collection

During the second phase of the study, a correlational research design relying on survey data was used to quantitatively explore the themes and emergent theory identified during the initial qualitative phase and to obtain information from a larger sample population of educators regarding the factors that they perceived to be most strongly associated with both the promotion and inhibition of learning transfer within the context of professional learning communities. It is important to note that a causal relationship between the variables was not be established. According to Johnson and Christensen (2009), quantitative research is a method of inquiry that uses mathematically measurable data to provide researchers with a better understanding of an occurrence or event. Creswell (2012) provides the following explanation of the role of quantitative research in an exploratory mixed methods design:

> The intent of the researcher is for the quantitative data results to refine
> and extend the qualitative findings by testing out an instrument or survey
> developed using the qualitative findings or by testing a typology of
> classification that developed from the qualitative findings. In both cases,
> the initial qualitative exploration leads to detailed, generalizable results
> through the second quantitative phase. (p. 544)

By obtaining quantitative data related to teachers' perceptions of the level of influence of the qualitatively identified factors on learning transfer within this context, the researcher was able to develop a more comprehensive theoretical

understanding of learning transfer among this particular population of adult learners.

The objective of phase two of this study was to build upon the themes and emergent theory identified during the qualitative phase using quantitative data collection methods (Creswell & Plano Clark, 2011). The researcher used the survey method to obtain statistical data from a sample of K-12 teachers and other education professionals regarding their perceptions of the influence of the qualitatively identified factors/variables on learning transfer within professional learning communities. The survey method was appropriate and preferable to accomplish this objective because it allowed the researcher to collect data from a larger sample of educators in order to make generalizations about the thoughts, beliefs, and feelings of a population (Johnson & Christenson, 2009).

In order to address the research questions posed by this study, the researcher developed a survey instrument using the themes and categories identified as most representative of the factors that influenced learning transfer among teachers during the qualitative phase of the study. In addition to integrating the findings from the analysis of the qualitative interviews, the content validity of the survey was supported using literature related to learning transfer and professional learning communities as well as by a panel of experts from the fields of educational research and adult education.

The researcher created the survey instrument using the online survey data collection and design program, Qualtrics. With the exception of a few

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demographic questions, all survey items were presented in the form of a

horizontal numeric scale in order to measure participant responses regarding the

extent to which they believed the identified factor was associated with learning

transfer within PLCs. The scale's response options ranged from 1-5, with a 1

indicating that the factor had a "great deal of influence" on learning transfer within

PLCs and 5 suggesting that the factor had "no influence" on learning transfer

within PLCs. The survey items were organized into categories and each item

represented one of the factors identified during the qualitative phase of the study.

Once the survey was complete, the researcher contacted school administrators

from six school districts in the central and southern portions of a state within the

southeastern section of the United States in order to recruit participants for this

phase of the study. Principals from three of the six districts responded this

request, indicating that they would distribute the survey information to their

teachers in order for them to participate. Upon receiving this approval, the

researcher emailed a link to the survey to the school administrator. The

administrator then forwarded the email to teachers/staff within their school. This

survey instrument included a section describing the study and requesting that

each participant provide consent prior to beginning the survey. The final aspect

of the study involved the researcher completing an analysis of the obtained

survey data using the SPSS 24 program.

Data Analysis

The nature of an exploratory mixed methods design indicates that data will be analyzed at the end of both the qualitative and quantitative phases (Creswell, 2012). For the present study, data collected from semi-structured interviews with a small sample of educators during the initial qualitative phase was analyzed to identify consistently reported terms, phrases, and themes. The identified terms, phrases, or themes were then organized into the three broad categories related to the promotion of learning transfer within PLCs and a separate category associated with the inhibition of learning transfer within this context. Coding procedures were used to provide additional structure within each category. This structure led to the selected terms, phrases, and themes being organized into two sub-categories of factors within each of the three broad categories. The least relevant codes were eliminated. From the remaining codes, the researcher developed and organized a structure for the identified factors. The researcher then used each of the 43 identified factors to develop a survey instrument for the quantitative phase of the study.

As part of the process of developing the survey instrument, the researcher consulted with experts within the fields of educational research and adult education to address potential concerns with regard to the reliability and validity of the instrument. These experts examined the overall structure/organization of the instrument as well as each of the survey items. They provided feedback to the researcher regarding how the overall structure of the survey and specific

items could be improved upon to address potential issues with regard to reliability and validity. Once the survey instrument was determined to be appropriate, it was distributed to a larger sample of educators to obtain quantifiable data regarding their beliefs about the influence of the qualitatively identified factors on learning transfer within PLCs (Creswell, 2014). Once the quantitative data was obtained, it was analyzed using the SPSS program. Relevant descriptive and inferential statistics were reported. An analysis of descriptive statistics, including the means, standard deviation, frequency, and percent distribution for the horizontal numeric scale response items were performed and reported. The results of this analysis are organized and presented in the next chapter.

Summary

This chapter includes information about the methodological approaches and procedures used by the researcher to conduct an exploratory mixed methods research study examining the factors associated with promoting and inhibiting learning transfer within professional learning communities. It also provides information about the specific research questions associated with study. The chapter includes detailed descriptions of the components of a case study associated with the collection of qualitative data during the initial phase of the study as well as the survey instrument developed and distributed during the quantitative phase of the study. The final section in this chapter details the manner in which the obtained data was structured, organized, and analyzed during both the qualitative and quantitative phases.

CHAPTER IV – PRESENTATION AND ANALYSIS OF DATA

The purpose of this study was to obtain a more comprehensive

understanding of adult learning within the K-12 setting by exploring the

perceptions of educators regarding the factors that influence learning transfer

within the context of Professional Learning Communities (PLCs). This chapter

provides a description of both the qualitative and quantitative data collected

during the two-phase sequential exploratory mixed methods study. The chapter

is organized into two sections. The first section describes the first phase of the

study and provides an explanation of the qualitative findings. The second section

of this chapter describes phase two of the study and provides an explanation of

the quantitative findings.

Phase 1: Qualitative Data Analysis

In order to obtain a more in-depth understanding of teachers' perceptions

regarding the factors that influence learning transfer within professional learning

communities, the researcher used the case study method of qualitative inquiry.

This method was selected due to the limited amount of understanding and

current research connected to the topics/ideas addressed by the study as well as

the complex nature of examining the concept of learning transfer. Merriam

(2009) contends that qualitative case studies tend to focus on generating ideas

and interpreting phenomena instead of testing a hypothesis. In an effort to

generate ideas regarding learning transfer within K-12 professional learning

communities, the researcher conducted observations, reviewed artifacts, and

completed interviews with a group of purposively selected educators currently

working within a purposively selected school site in order to answer the following

research questions:

 1. What factors/variables do teachers and other education professionals

participating in qualitative interviews identify and/or equate with the

promotion of learning transfer within the context of a successful

professional learning community?

2. What factors/variables do teachers and other education professionals

participating in qualitative interviews identify and/or equate with the

inhibition of learning transfer within the context of a successful

professional learning community?

3. To what extent and in what ways is the promotion of learning transfer

related to educators' overall job satisfaction and their intent to remain in

the education profession?

4. To what extent and in what ways is the information obtained during the

qualitative interviews with educators participating in successful

professional learning communities related to a more comprehensive

understanding of adult learners and adult learning within the context of

educational institutions?

<div align="center">Observational Data</div>

A valuable means of data collection that occurred during the qualitative

phase of this study was the accumulation and review of artifacts related to the

school's implementation of the professional learning communities. The school site's administrator allowed the researcher to view several documents and forms connected to PLC development and implementation at the school. The majority of these artifacts were located in the school's web-based Google Drive folders. The use of this type of technology is consistent with adult education literature suggesting that technology has become a valuable tool for adult learning (Merriam & Bierema, 2013). The teachers' lesson plans, from current and previous school years, as well as documentation of various PLC activities (i.e., meeting notes) were organized into specific folders within the cloud-based storage system. PLC leaders and team members were observed as they logged into Google Drive folders to access a variety of data sources in order to hold discussions and make decisions regarding how to address the needs of students. The school administrators were also observed to have access to this information and monitored PLC progress using this technology.

The school administrator indicated that the PLCs at this site were developed using the DuFour, DuFour, and Eaker (2012) model, which incorporates the components of shared mission/vision, collaborative culture, collective inquiry, action orientation, commitment to continuous improvement, and a results orientation. The school is composed of two-grade-levels. General education teachers focus on specific content areas in their classrooms. The content area teachers taught either Language Arts/Social Studies or Math/Science. The school organizes its four primary professional learning

communities around these grade levels and content areas. It should be noted

that special area teachers (e.g., gifted or special education) have their own

PLCs. However, depending on the schedule, a grade-level/content area PLC

may also include a special area teacher. The PLCs at this site meet three days a

week for approximately 70 minutes each day. Common PLC activities included

reviewing student assessment data; studying and breaking down state

standards; reviewing articles and videos related to student growth; discussing

and reviewing current teaching practices; collaborative planning; reflecting on

previous instructional practices; identifying and/or developing resources to

differentiate instruction; creating common assessments; and researching best

practices.

    During this phase, the researcher also observed five of the school site's

professional learning communities. The observations typically lasted between 45

minutes to 1 hour; however, the one of the observations last approximately 20

minutes due to the teachers being dismissed for the day. The researcher noted

that each PLC had a team leader and all PLCs had an individual taking

notes/recording information. All members appeared to be actively working on

something (i.e., no member of a PLC was just sitting and observing the others).

Technology was used during each of the PLCs (e.g., computers, Google Drive,

projectors, online instructional resources). With regard to decision-making

processes, observations suggested that data was discussed and used to make

decisions, each PLC integrated open discussion regarding how to

address/resolve issues, and input was obtained from multiple members prior to making a decision about an issue. These processes appeared to be consistent with the idea that professional learning within schools should empower educators by providing them with more autonomy and control of their experiences (Mushayikwa & Lubben, 2009).

Observations also suggested that some practices varied across PLC groups. Each PLC leader's style varied between the groups (some leaders were more passive and others played a more central role in facilitating the PLC). The amount of discussion among members and the format of the discussion also varied between groups (e.g., ELA/Social Studies teachers appeared to voice their opinions more often during discussions and their discussion tended to last longer when compared to the Math/Science PLCs). Finally, the type of data used during PLCs varied across groups. Sources of data included state assessment data, performance on teacher-based assignments, and previous lesson plan content and qualitative data from teachers regarding student performance.

Interview Information

In addition to the review of artifacts and PLC observations, the researcher obtained qualitative data using semi-structured interviews with educators from the selected school site. Due to the limited number of available participants within the school, a convenience sampling procedure was used to gather data from a subset of educators with diverse backgrounds in terms of their PLC participation and teaching experience.

The researcher developed an interview protocol prior to the initiation of formal interviews. The interview protocol included fifteen items associated the qualitative research questions; however, participants were encouraged by the researcher to expound upon particular topics as the interview progressed. A number of questions were based on the factors related to learning transfer indicated through a review of literature and the framework proposed by Burke and Hutchins (2007). These authors identified "learner characteristics, intervention design and delivery and work environment as the major influences on learning/training transfer" (Burke & Hutchins, 2007, p. 288). Participants received a copy of the interview questions as well as a list of specific terms/definitions related to the study prior to the interview. The interview protocol can be found in Appendix A.

At the beginning of each interview, the researcher obtained basic demographic information from the participant. This information included the current subjects/content areas taught and years of experience within the field of education. Table 1 describes demographic information about each of the interview participants. It should be noted that some demographic information has been excluded and pseudonyms used to protect the identities of the participants.

Table 1

Demographic characteristics of interview participants

Name (pseudonym)	Subject Area(s)	Years of Experience
Participant 1	Language Arts/Social Studies	16
Participant 2	Math/Science	4
Participant 3	Language Arts/Social Studies	3
Participant 4	Math/Science	5
Participant 5	Assistant Principal	17
Participant 6	Principal	17

As previously noted, a total six education professionals were interviewed from the selected school site. All of the educators were female. Two of the educators taught Language Arts/Social Studies, two taught Math/Science, and two were school administrators. The educators' years of experience varied. Three of them had five or fewer years of experience while the other three had sixteen or more years of experience. After providing a brief introduction, explaining the study, and obtaining basic demographic information from the participants, the researcher began the interview process. The researcher prompted participants to answer questions and share their thoughts using the previously noted semi-structured interview protocol. The majority of questions revolved around prompting participants to express their views regarding the variables/factors associated with individual/learner characteristics, intervention PLC design and delivery factors, and the school/work environment that

influenced learning transfer within their school's PLCs. In addition, the

researcher asked the educators about their understanding of learning transfer,

the specific structure of their professional learning community, their level of

self-direction in relation to PLC participation, their level of motivation in relation

to PLC participation, and the influence of PLC participation and learning on

their job satisfaction/intent to remain within the field of K-12 education.

Research Questions

The researcher collected and analyzed individual interview information as

well as observational data in order to address each of the four research

questions that guided the qualitative phase of this study. In an effort to organize

the obtained qualitative data in a meaningful manner, this section includes a

detailed presentation and discussion of the each research question, from the

perspective of the six educators, through a synopsis of qualitative data as well as

the use of direct quotes.

Research Question 1: What factors/variables do teachers and other education

professionals participating in qualitative interviews identify and/or equate with

the promotion of learning transfer within the context of a successful

professional learning community?

In order to address the above research question, the researcher began

analyzing qualitative data after all observations and interviews were complete.

The initial structure of this analysis was based on the work of Burke and Hutchins

(2007). These researchers evaluated a number of previously developed models

related to transfer and identified the categories of learner characteristics,

intervention design/delivery, and the work environment as having the most

prominent effect on training transfer. For the purposes of this study, the

general/broad catergories of factors were identified as Indvidual/learner factors,

PLC design and implementation factors, and work/school environment factors.

The researcher initially organized relevant participant responses into one of the

above categories. The next step involved the analysis the interview data, using

coding procedures, to develop appropriate subcategories and identify specific

factors, within each subcategory, related to promoting learning transfer within

PLCs. The results are provided in Table 2.

Table 2

Factors related to learning transfer within PLCs

General Category	Subcategory	Factors
Individual/Learner	Personal Characteristics	Ability to get along with others; open/honest communication skills; openness to the learning experience; emotional
	Work-Related Behaviors	A focus on professional growth; organizational commitment; content knowledge and skill; and perceptions of usefulness.
Design/Implementation	Learner/Team related Factors	A focus on reflection; participant input into PLC structure/content; administrative involvement and participation; implementation/ performance and feedback

Table 2 (Continued)

		from peers; investment/ownership in positive outcomes for all students; shared accountability/PLC member expectations; and group/team
	Structure/Content related factors	The content is related to day-to-day work/tasks; the availability of resources and materials; defined structure and procedures; data-driven decisions; learning goals; and technology.
Work/School Environment	Organizational Culture Factors	District/school expectations with regard to learning; a focus on student outcomes; a culture of high expectations; an investment in PLC structure; and administrative
	Structural Factors	Strong relationships/family atmosphere; incorporation of PLC input/decisions; opportunities for performance; and peer
Inhibitory Factors		A lack of time; a lack of defined structure/procedures; top-down leadership/too much administrative input; personality conflicts; a lack of buy-in from staff; a lack of buy-in from administrators; limited collaboration/collective inquiry among PLC members; pride/unwillingness of PLC members to provide or accept feedback; being territorial/not focusing on the needs of the whole school/district; a lack of teacher/staff leadership within the PLC

Individual/Learner Factors

The interview question related to the individual/learner factor category was as follows: *Reflecting on you as an education professional as well as an adult learner, what do you perceive to be some specific personal/individual factors that may have promoted/supported your ability to transfer the information that you learned in the PLC to your classroom environment?* In response to this question, participant responses were generally related to either the learner's personal characteristics/personality traits or the learner's work-related behavioral characteristics (i.e., professional behaviors).

Each of the participants indicated that an individual educator's behavioral characteristics and personality traits played an important role with regard to the promotion of learning transfer within their school's professional learning communities. In their study, Broad and Newstrom (1992) noted the importance of similar individual/learner factors such as personality, ability/aptitude, and motivation in terms of supporting transfer. The individual/learner personal characteristics identified by participants as related learning transfer within professional learning communities were the educator's ability to get along with others; open/honest communication skills; openness to the learning experience; emotional stability; self-direction and motivation.

Almost all of the educators interviewed during this phase of the study insinuated that one of the most important individual characteristics related to the promotion of learning transfer within a PLC was the educator's ability to get along

with his or her coworkers/peers. The participants indicated that an invaluable

component of their PLCs' success was the relationships that developed between

the members of that PLC. Responses suggested that if a teacher or staff

member has a personality that makes it difficult for them to get along with others

in the group, he or she may struggle to establish strong relationships and could

ultimately not make progress as a member of the PLC. Similarly, Homklin,

Takahashi, and Techakanont (2014) found that the development of positive

relationships with coworkers might play a role in supporting transfer. In

describing the importance of teachers possessing the ability and willingness to

get along with others in a PLC, Participant 6 stated, "A teacher that is going to

excel in that environment, first and foremost, has to be willing to play on a team."

Several of the participants from this school also shared that an educator's

willingness and ability to communicate in an open and honest manner with others

in their PLC was another personal factor related to successful learning transfer.

Four of the participants expressed that participating in the school's PLC required

that teachers learn to be more vulnerable and accept constructive feedback from

their peers. Participant 1 described her views regarding teacher's attitude

towards communication within a PLC. The experienced language arts/social

studies teacher indicated that the following personality traits were important:

Their (teachers') attitude and being willing to admit when they're wrong

and their strengths and weakness. Being willing to accept criticism in a

positive way and not in the negative or downgrading way but to be willing

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to say, "No, I really didn't execute that lesson effectively. What could I have done better?" Then, when they (other teachers in PLC) give you that feedback, to embrace it and not be defensive about it.

As Participant 4 described the importance of PLC participants' ability to communicate openly and honestly, the young math/science teacher shared,

We socialize and we are not afraid to ask for help, we're not afraid to share ideas, we're not really afraid to step on any toes. If we have something to say or share, we feel welcome to share it. I think that's a big thing here where at some schools . . . . I don't feel like it's as welcome and that can really hinder growth.

Two of the participants posited that teachers should be emotionally ready to engage in the learning process when participating in PLCs. Their responses suggested when an educator is dealing with some type of stressor or emotional issue, he or she just may not be ready to learn. One participant described the value of having a structured "venting" session for approximately 10 minutes prior to starting the official business of the PLC as a means of preparing each member to focus on learning within the group by getting personal issues out of the way. The researcher found another teacher's description her emotional status, during the previous school year, as she participated in the school's professional learning community to be particularly profound and relevant with regard to understanding this factor. Participant 3 described the manner in which her emotional needs

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affected her functioning with the educational environment and her job satisfaction. This young teacher noted,

> Your personal life can have a huge impact on the professional life and your feelings of success. I had not realized that I was so homesick . . . . my first semester, I thought, "I don't have to work . . . I'm not doing this ever again", but for the second semester, I had a better idea of what I was doing, I had seen more success, I felt more comfortable, and I finally knew how to answer the phone. It sounds crazy, but I could not figure out how to answer the phone and you don't know what that will do to you . . . so my job satisfaction went from like zero to a 100 once my personal satisfaction improved . . . I mean my job felt like more of a struggle when it actually wasn't the job at all.

Another individual learner factor proposed by multiple participants was that an educator should be open to the experience of learning within a PLC. One of the potential areas of concern with regard to ascribing this particular adult learning concept to the professional learning community model may be that participation in PLCs is often required of educators. Brookfield (1986) describes the voluntary nature of adult education as one of field's core principles and posits that being required to engage in professional learning activities may have a negative effect on learning outcomes. The researcher noted that some of the participants suggested that it might take time for an individual learner to fully embrace the PLC concept and ultimately learn from it. As she described her

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experience with having to become more open as a new member of a PLC group, Participant 1 contended,

> It takes some time, especially when you're new to the group, to build that
> trust and that relationship to where you are comfortable sharing your
> strengths and weakness with each other, and comfortable receiving
> feedback from somebody and being vulnerable enough to share things
> that worked well and did not work well for you and taking what they say
> and transferring it to your classroom. I think it goes back to that
> relationship component.

Participant 5 also suggested that there is a connection between the relationships that teachers build with each other and becoming open to experiencing learning within a professional learning community. The administrator expressed, "It's that relationship many have built in their PLC that allows them the openness that they can share."

Within the context of this study, self-direction is described as a personal characteristic and/or an individual factor. Self-directed learning is learning that involves an individual learner taking ownership of his or her learning experience (Brookfield, 1986). When asked about this concept, participants suggested that self-direction was an important individual factor with regard to transfer within PLCs. Participant 3 described exactly how important self-direction was for teachers at her school. She stated, "If you're not a self-directed learner, you wouldn't last long at

this school". Participant 4 described the potential effect of one individual's lack of self-direction on others within the PLC. She contended,

In our PLC, you have a task to be done and if you are not self-directed, you're not going to get it done and then it's going to make the whole group fall and you don't want to do that.

From an administrative perspective, participant 6 communicated the value of self-directed members within a PLC and the role that the environment plays with regard to supporting self-directed learners. She noted,

Teachers are going to have to have enough initiative to be willing to take a risk but then also feel safe enough in that environment to say, "If this doesn't work out, I'm not afraid that there's going to be negative consequences as well." If there's not some self-direction, then other team members see that person as not pulling their weight, not doing their part, not bringing anything to the table and that is difficult in that relationship part of it because "I need to be able to trust your work."

Several of the educators also felt that motivation was an important variable related to teacher learning within professional learning communities. Theorists also suggest that motivation is a key factor often associated closely with transfer (Merriam & Leahy, 2005). When describing her views with regard to a teacher's level of motivation within a PLC, Participant 3 stated, "Motivation, yes, you have to be engaged to be there, to want to participate, to want to

contribute, to want to get something out of it as well." On a similar note, Participant 2 conveyed,

> I think that you have to be self-motivated. I think that, like I said, before you walk in, you have to know what you're doing, know that you've done your part, know that you've done your data or whatever it is that you were supposed to do to contribute with the group.

The researcher separated an individual learner's work-related behavioral characteristics from his or her personality traits/characteristics for the purposes of this study because the variables/factors that ultimately fell into the former category tended to be more related to the manner in which the individual learner perceived and/or approached his or her work environment. These factors appear to be aligned with professional practices and not necessarily innate to the individual. The variables/factors identified as work-related behavioral characteristics were a focus on professional growth; organizational commitment; content knowledge and skill; and perceptions of usefulness.

The concept of "growth" was discussed during several of the interviews. At times, student growth was referenced and at other times, interviewees were describing their own growth as an educator. The learner's focus on professional growth was deemed by several interviewees as one of the most important individual work-related characteristics of PLC participants. As she recalled the growth that she experienced by working with other educators in her school's PLCs, Participant 2 shared,

I've seen, over the past four years, that I personally have been able to

grow so much more based on our conversations. Not just as far as our

content but as a teacher in general . . . . Knowing what's right, what's

wrong, and how to handle situations and get their input on things. I think

that just the constant growing has really been a benefit for me.

As part of the discussion of the factors that may promote learning transfer

within PLCs, several of the interviewee responses insinuated that there needs to

be "buy in" from teachers and that educators should be committed to the mission

and vision of the school/district with regard to PLC participation. For the

purposes of this study, this individual learner factor is described as organizational

commitment. Participant 5 noted the high level of commitment that teachers

within her school feel towards professional learning communities. The

administrator contended,

Basically, it is a vital part of our organization. I know it might not be the

same everywhere. I think for our teachers, they would revolt if we took it

away from them . . . . The opportunity to learn together and put it into

practice in their classrooms, they thrive off of that and they depend on

that.

During the interview process, two of the educators suggested that the

capacity of a teacher to comprehend the material as well as his or her knowledge

of their assigned content area(s) were beneficial in terms of developing a

successful PLC and ultimately supporting learning transfer. Participant 2 shared,

"I enjoy working with my colleagues, I enjoy our participation together and they feel the same way . . . . I think working with people that are intelligent and that do their job well, I think that helps too." On a similar note, this language arts teacher later described the benefits of working with competent, knowledgeable, and experienced teachers within her PLC. The young educator happily reported, "Being with other people and other educators that have done it for several years and know how to teach things the best way possible… that really helped me."

The learner's perception of the usefulness of a learning activity was described as one of the factors associated learning transfer within PLCs. The responses of all of the educators interviewed during this phase of the study suggested that they perceived their professional learning community to be an integral and meaningful component of their work life. Subedi (2004) found that one of the factors often associated with learning transfer was how relevant the learner/employee perceived the learning activity was to their actual the work. Participant 5 provided insight into the value that teachers within this school placed on PLC participation and learning. The administrator noted, "They see the importance of the work that they do through their PLCs and how it affects the students in their classroom. It is a vital part of the day in our school district."

PLC Design/Implementation Factors

The design, delivery, and implementation of profession learning communities may vary from district to district and even from school to school. However, when attempting to understand the variables and factors that promote

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learning transfer, it is important to examine the elements of the PLC model, itself, that are perceived to be most beneficial by educators. The interview question related to the design/implementation category was as follows: *Reflecting on the how the professional learning community (PLC), in which you were involved, was designed, structured, delivered, and implemented, what do you believe to be some of the specific factors that have promoted/supported your ability to transfer the information that you learned from the PLC into your classroom environment?* For the purposes of this study, participant responses regarding their perceptions of the design and implementation factors associated with promoting learning transfer within PLCs were organized into two categories. The researcher found that responses tended to be related either the interaction between the team/individual and the PLC (learner/team related factors) or the structure and content of the PLC, itself.

The variables/factors identified by participants as related to the interaction between the team/individual and the PLC were a focus on reflection; participant input into PLC structure/content; administrative involvement/participation; implementation/performance and feedback from peers; investment/ownership in positive outcomes for all students; shared accountability/PLC member expectations; and group/team learning and collaboration.

Some of the participants suggested that the opportunities that PLCs provide for educators to reflect on their own practice was an important variable related to transfer. Adult education theorists have found that reflection often

serves as a key element of educational programming for adult learners (Brookfield, 1986; Merriam, 2008). When discussing the reflection component of her school's PLCs, Participant 5 indicated, "Our teachers . . . they truly work together and they research together. They share their data together and they reflect and they make changes in their instruction together so that you can see the continuity for the grade level." She goes on to describe what critical reflection looks like within the PLC, stating, "That reflection piece is where they feel comfortable going into their classroom and trying something and coming back to their PLC and saying, 'This worked really great… let me tell you all about it'."

Educators interviewed for the present study also noted that a key design/implementation factor related to their participation in professional learning communities was that their input was valued and the decisions made within their PLCs were implemented and/or put into practice within the school. Ultimately, it appears that PLC participation fosters the perception, among educators, that they are playing an important role in the school's decision-making processes. Davis and Wilson (2000) tout the importance of teacher empowerment and suggest that it may be related to increased job satisfaction and motivation among teachers. While conversing with the researcher about the PLC participant's role in making decisions within their respective PLCs, Participant 1 stated,

> Yes, we have the protocol; yes, we have the things that we're required to do, but we have ownership in how we do them and we have ownership in how we go about it with each other. I think that's a huge, huge thing.

In describing the relationship between the autonomy associated with PLC participation and other important components related to PLC development, Participant 5 noted, "I think they would be much more hesitant to build that relationship and collaborate together if not for the autonomy . . . if they don't have autonomy there."

In conjunction with the design/implementation elements of shared leadership and greater input from PLC participants in the school's decision-making processes is the idea of administrative involvement and participation in PLCs. Woods and Weasmer (2002) suggest that teachers are more satisfied and invested in their schools when their administrators allow them to be actively involved in making decisions on their campuses. All of the teachers expressed that their school administrators and leaders followed this model and had a very specific and important role to play with regard to the ultimate success of their PLCs. According to participants, the role of the school administrator was not to lead or to be overly involved in the day-to-day operations of any PLC. The expectation appeared to be for the administrators to provide support and structure to PLC implementation and learning, to ensure that resources were allocated for each PLC, to resolve any major issues, and to monitor whether PLC goals were being met. To this effect, Participant 4 stated,

> An important key as well is having administrators that are behind you,
> pushing you, and wanting you to do what's best and making sure that
> you're doing what's best in our classrooms. Our administrators are in our

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classrooms all the time and some people might like that and some people

might not. I love it because I know they're making sure that I'm doing my

job and I know that my parents are glad of it too because they're making

sure that the teacher of their student is doing their job.

Participant 6 described her unique role with regard to supporting PLCs from an

administrative perspective. She shared, "My assistant principal and I visit PLCs

every week . . . they (teachers) know that that's important because I'm spending

my time investing in what they're talking about." The other school administrator,

Participant 5, echoed this sentiment and added, "I go in and observe, comment

and participate with them . . . but mostly . . . I'm going to say 90% of the time at

least, I'm not a facilitator in their PLC. I'm just an observer and a participant with

them.

When examining the data obtained from the educators interviewed, the

researcher found a number of responses suggesting that teachers valued

opportunities to implement what they learned in their PLCs and felt that they

learned from receiving feedback when discussing their practices with peers.

With regard to the importance of teachers implementing what they learn in their

PLCs, Participant 1 expressed,

I think it is a big component where you have to take what is shared in

those PLCs and then apply it and have the drive and have the motivation .

. . . to want to use it and apply it in your own classroom.

A common theme among the educators interviewed was that their professional learning communities' focused on growth and positive outcomes for all of the students within the school. Several of the educators discussed the manner in which this aspect of PLC participation facilitated a change in their perspective from an individual orientation to more of a collective (group) orientation. To this point, Participant 3 stated, "Everybody is really interested in improving their practice. They're interested in sharing growth for their students." As she discussed her beliefs regarding what should be a top priority for a PLC group, Participant 2 stated,

> I feel if the PLC group is completely invested in making sure that that person's students are thriving as well as anybody else's students . . . as long as you make sure that you know that the students are important, you have to see that as first.

Participant five described how her teachers see student learning as the primary focus of the PLC, "They understand the importance of working together, learning from one another and then that our common goal was to make sure that students are growing."

One of the unique factors identified during this phase of the study, in terms of PLC implementation components, was the concept of each PLC member being accountable to one another and having performance expectations among the members of each PLC. This concept is described as "shared accountability: for the purposes of this study. It appears that within the selected school site's

PLCs, the belief is that having a designated "job" and playing a specific role increases engagement and ultimately supports learning among PLC participants. As she discussed this "shared accountability", Participant 4 stated,

We each have a job in there. You have certain people that do the data; certain people who make the journal for the week . . . different people are working on different things. We're working on different things together. Then, when we get our certain things accomplished, we share it with the group and if anything needs to be tweaked, then we tweak it right then. So, we're getting a lot of stuff done at the same time.

With regard to group expectations, Participant 2 shared, "We expect each other to have our work done and know what we're doing and take specific care of what we're doing . . . especially on data in things like that."

Group/team inquiry, collaboration and learning are similar concepts that were regularly identified, by participants, as core components of their PLC model. Much of the discussion regarding the successful implementation of PLCs within the selected school focused on the manner in which the teachers learned, worked, and grew together. The key here, according to the participants, was that the work and the learning processes that were taking place were associated with the "group" and/or the "team." Team learning is one of the core components of the learning organization model (Senge, 1990; Watkins & Marsick, 1993). In the present study, obtained data indicated that several of the educators attributed the success of the PLC construct with the level of collaboration among its members.

Gammill (2013) noted a similar result from her research and found that collaborating with other educators supported teacher engagement during professional learning activities. Participant 3 recounted her experiences with the group/team inquiry, collaboration, and learning aspects of the PLC model with the researcher. She shared,

> I think it helps build us as a community because teaching is very difficult and sometimes it can be isolating. I was completely isolated in my last school and even though I loved the school with my students or with my faculty, I was isolated. I didn't plan with anyone else. I didn't have anyone else to really share things with. Here, I have a place to share things and I'm doing well with the places that I need help.

Participant 4 expressed what she valued about the collaborative learning component of her PLC. She recounted,

> We're all focused on one strand of learning at a time. We're all doing the same unit just about the same time. Our minds are able to wrap around one skill at a time, really dig deep into it, and help build that skill. I think that means a lot.

When asked which design/implementation factors influenced learning within PLCs, several of the participants' responses appeared to be related to the overall structure and content of the PLC. These educators implied that certain elements might need to be present, on a day-to-day basis, in order for the professional learning community to run properly and ultimately facilitate the

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transfer of learning. The variables/factors identified as falling under this sub-

category were that the content is related to day-to-day work/tasks; the availability

of resources and materials; defined structure and procedures; data-driven

decisions; learning goals; and technology.

During the interview process, the plurality of the participants implied that

the content of a PLC should be meaningful and pertinent to their day-to-day

practice in order for transfer to occur. This finding is consistent with the adult

education tenet regarding learning activities being useful for adult the learner

(Knowles, 1980). The educators' responses suggested that many of them valued

understanding how the content of the PLC was applicable to addressing the

needs of students within their classroom and throughout the school. Participant

4 relayed her feelings about how her PLC's continuous focus on learning is

directly related to her teaching practice as she stated,

> When you think of PLC . . . It's really going in deep into what you're
>
> teaching, into what the students are learning, and into what they're going
>
> to learn. After they've learned it and you get your post-test results and say
>
> . . . what could we have done better or what should we have done to that
>
> test that we did not do to that test.

Although the structure of PLCs within this school site varied somewhat

based on content areas and the overall needs of the individual participants, one

consistent element observed by the researcher was that all PLC members

appeared to have access to the materials and resources needed to accomplish

the their goals. Participant 6 articulated her role with regard to providing resources, materials, and administrative support for the PLCs within her school. The administrator disclosed,

I also have the responsibility to provide them with the resources that they need so that if through their learning, they find that they need additional supplies, that they want to study something else and they need a book for that or whatever their need is, more or less, to provide that resource.

According to a few of interviewees, these systems and conditions involve a PLC having a somewhat well defined structure and clear expectations among PLCs members. Watkins and Marsick (1993) noted that organizations should be strategic and systematic with regard to the processes associated with employee learning. As she described her perceptions of some of the important structural elements related to how teachers learn within her school's PLCs, participant 6 stated,

They establish some routines inside their PLC about how things are going to work. They have some protocols about how they give feedback to one another . . . . These are the same things that we teach children . . . . "I'm going to give you some warm feedback and I'm going to give you some cool feedback" . . . . Using that same structure of providing feedback, even among teachers, has been useful . . . . They take minutes, they're setting agendas every week, and so there is a pretty established routine

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about how things work and every person on that team has a role. They all

have a responsibility in terms of making that teamwork.

All of the teachers shared that a great deal of PLC time is spent looking

through student data. Understanding how to analyze and look at this information

appeared to be a necessary skill for the teachers at this site because the

participants indicated that they regularly make decisions, as a team, based on

data. To this point, Participant 1 communicated the "non-negotiables" associated

with PLC participation at this school and revealed,

> Data is a non-negotiable. We are going to look at the data and we're
>
> going to look at, "What are some things, as a grade, that we can improve
>
> upon? What are some things, as a grade, that we're really strong with?"
>
> Looking at our common assessments together and deciding about those,
>
> that's a non-negotiable . . . we're going to do that.

As she conveyed what she believed to be some of the most valuable learning

tools for teachers within their PLCs, Participant 5 stated, "I'm thinking specifically

their data, they bring their data and they reflect on what they've done and

changes they need to make."

Two of the interviewees appeared to believe that the incorporation of

goals related to learning was an important aspect of the PLC process. As she

described some of the expectations associated with PLC participation,

Participant 2 stated,

It is a consistent thing that it is expected of us that we are supposed to be

growing and taking all of that information back to our classrooms I

think that in and of itself just sets an overall goal for all of us as teachers.

Participant 6 reiterated the idea that the primary goal of PLCs within this setting

was linked to both teacher and student growth. She shared the following about

teachers at her school, "They understand the importance of working together,

learning from one another, and then that our common goal was to make sure that

students are growing."

The final design/implementation variable discussed under this

subcategory is the availability and use of technology within PLCs. The

researcher observed the significant role that technology played in the facilitation

of each of the selected school site's PLCs. Technology allowed teachers to

quickly access and share information with each other as well as school

administrators. For example, PLC participants were observed to be able to

easily pull up classroom/school data (and project it for the group), find/revise old

lesson plans, and search for instructional resources via the internet. Participant

4 recounted one of the ways that technology has supported learning in her PLC,

Each time we go to PLC, we bring our Chromebooks. So we're able to all

get on our Chromebooks at the same time and be all together . . . which

makes it really nice that we have enough technology to be able to do that.

This teacher also referenced the manner in which PLC participants used

technology to access and share information. She stated,

We love Google docs, we're able to all share it, we're all able to work on

our plans at the same time and we can all be typing on the same

document at the same time. That's how we share everything.

<div align="center">Work/School Environment Factors</div>

The context within which an intervention and/or learning activity takes

place may have an impact on outcomes such as learning transfer (Burke and

Hutchins, 2007; Subedi, 2004). Therefore, the work/school environment was

determined to be one of the primary categories addressed during this study. The

researcher posed the following interview question to participants in to obtain

information regarding the work/school environment factors that

promoted/supported learning transfer within their PLCs: *Reflecting on your work*

environment (i.e., school or school district), what do you perceive to be some of

the specific factors that have promoted/supported your ability to transfer the

information that you acquired from the professional learning community (PLC)

into your classroom environment? Based on the obtained responses, this

category was ultimately divided into the following subcategories during the

analysis of data: organizational culture and structural factors within the work

environment.

Organizational culture involves a "set of values, beliefs, norms, and

patterns of behavior that are shared by organization members that guide their

behavior" (Werner & DeSimone, 2006, p. 46). With regard to learning, Egan,

Yang, and Bartlett (2004) found the organizational learning culture served as a

predictor for job satisfaction, motivation to transfer learning, and turnover intention. For the purposes of this study, district/school expectations with regard to learning; a focus on student outcomes; a culture of high expectations; an investment in PLC structure; and administrative support were factors associated with organizational culture.

One of the factors related to organizational culture described by many of the educators was the school and district's expectations regarding their learning. This idea may also be associated with the organization's vision and/or values. Hord (1997) suggests that behaviors often change within educational environments when that organization's vision and values are communicated with efficacy. Participant 2 described her perception of current school/district expectations of teacher learning as she expressed,

> One of the highest expectations that we have here is that our teachers are constantly learning and we are constantly growing in our PLC time . . . it is expected of us that we are supposed to be growing and taking all of that information back to our classrooms.

Expanding somewhat on this idea, Participant 4 noted that expectations for teacher learning were purposeful and expanded across the district. This educator conveyed the following to the researcher,

> It's all of the schools . . . . Collaborating together so that we can share our knowledge . . . so that we know what they're doing at the next school, and we know what they're doing at the middle school so that we can make

sure that we're doing what we need to be doing here to prepare our

students to be successful in the future when they go on.

Teachers also felt that the school and district emphasis on student growth

and learning outcomes was another important variable associated with

supporting teacher learning within PLCs. Participant 6 expressed that effective

leadership with regard to PLCs implementation often involved reminding teachers

to ask the following specific questions related to student growth,

What you want student to know? How are we going to know if they know

it? What are we going to do if they show that they know it? What are we

going to do if they don't know it?

Participant 4 reiterated the theme of focusing on student growth as she

articulated the differences in organizational culture between her previous school

and her current school. She shared,

They treated it more like a meeting . . . . PLC isn't a meeting; it is work . . .

. It's a group where you plan and where you engage and you increase the

learning in the classroom . . . . We put our heads together to figure out what

can we do to help these students.

Another organizational culture factor revealed by some of the educators

during the interview process to promote learning transfer was the generally high

expectations for performance and positive outcomes communicated to teachers

and staff by school and district level leadership. Several of the participants noted

that district and school leaders encouraged teachers and staff to attempt to go

above and beyond state-level expectations. The interviewees suggested that

these expectations were generally beneficial because they reinforced a belief in

the teachers' knowledge, skills, and abilities. When discussing work environment

factors that supported PLC learning, Participant 2 stated, "I think that because

our administrators have such high expectation of us, I feel that that trickles

through to us and I feel that because they have those expectations, they (the

expectations) are constantly in our PLCs as well." On a similar note, Participant

1 communicated the following,

> I think it just starts from the top-down. If you have a supportive
>
> administrator and even central office administration that believe in the
>
> effectiveness and believe in the purpose of PLCs, then that trickles down,
>
> and it's implemented effectively with high expectations.

The district and school investing time, energy, and resources into the

professional learning community model was also cited by participants as an

organizational culture factor that could be related to positive transfer of learning.

The perception of the school/district's investment in the professional learning

community appeared to increase buy-in from several of the PLC participants

interviewed for this study. When describing the strategic investment and

commitment that is provided in terms of teacher learning within PLCs at her

school site, Participant 6 stated,

> I have placed the importance on professional learning communities and
>
> the work that's done in professional learning communities. I have

demonstrated my belief in that work by providing them time during the school day to make it happen. Absolutely, it could happen after school, but I think that teachers are tired after school, I think that they are ready to go home after school. We're devoting time during the school day to do that.

Similarly, the educators cited administrative support as a valuable work/school environment variable with regard to PLC success. Senge et al. (2012) notes that effective professional learning communities typically have administrators and leaders who are thoughtful and systematic with regard to their communication about as well as their participation in PLCs. Participant 1 conveyed the importance of the organizational culture fostered by school administrators when she shared the following, "I think it starts with the administration and you have to have their support in what you're doing." Participant 2 expressed, "Our administrators back us up 100%. If we have a problem or a question, we're not afraid to call like right then. Most of the time, if they're not in a meeting or something, we have an answer." Echoing this idea, Participant 3 stated of her current principal,

> I would take a lower pay and all kinds of things to work for a principal, to work for a leader . . . that I respect, and here, I feel respects me and takes care of me. That's honestly true, I feel like she takes care of her people as well.

The researcher identified the general structure of the work environment as the other sub-category associated with work/school environment factors. This subcategory focuses on variables related to the manner in which the school operates on a day-to-day basis. When describing the dimensions that support a learning organization, Werner and DeSimone (2006) cite "structure" as a key component. More specifically, these authors suggest "the reduction or removal of hierarchical barriers that divide managers and employees" (Werner and DeSimone, 2006, p. 592). Structural factors associated with the workplace/environment identified by participants as promoting transfer during this phase of the study included strong relationships/family atmosphere; incorporation of PLC input/decisions; opportunities for performance; and peer support.

Several educators communicated to the researcher that their work environment was structured in a manner similar to that of a family. According to the interviewees, the current structure of their school environment has allowed them to bond on a much deeper level, and ultimately, these familial-like bonds support learning. In describing the importance of relationships within a PLC, Participant 2 noted, "You have to have strong relationships with your colleagues in order to make each other better." She later associated to these relationships with more of a family structured as she shared, "I think that that lends itself for us . . . to really have that family atmosphere that we depend on one another and we learn from each other consistently. Participant 6 reinforced this idea as she stated, "I often say we walk through the fire together, we live life together, and

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you may walk into a PLC and they may be crying about something because

someone is having a really difficult time right now."

The incorporation of PLC decisions into the overall school environment

was also deemed to be an important work/school environment factor by interview

participants. Responses obtained from multiple educators suggested that the

structure of their school and the decision-making processes were often

influenced by PLCs. Obtained data suggests that when school leaders give more

power to PLCs, teachers appear to have a mechanism for greater freedom and

autonomy within the school environment. During a portion of the interview in

which she shared how she attempts to promote and incorporate input of the

PLCs, Participant 6 stated,

> Those six people or those eight people, if they come with a question . . .
>
> then I always deflect them back to their PLC . . . . What does your PLC
>
> say about that? How did your PLC respond to that? . . . . That's your first
>
> line of defense if you have a question or if you have a need . . . that's the
>
> people that you go to.

Participant 2 articulated the importance of having "real life" opportunities to

use the knowledge, skills, and abilities gained during a PLC as she posited, "A

real life situation is your best opportunity to learn something." As she described

the expectations associated with PLC participation, Participant 1 noted,

It's really expected that what you talk about in your PLC and what is discussed, you do apply it . . . . The purpose of it is that you take what you've learned and then apply it to your own practice.

Although systems to promote peer relationships appear to be incorporated into the PLC design and delivery, many of the educator's responses suggested that in order for learning transfer to occur, the overall structure of work environment should also focus on promoting peer supports. Participant 2 described some of the structural elements within the work environment that lend itself to encouraging peer support and promoting PLC learning as she shared,

You have four teachers in classrooms like right next to each other, so any time you need something, there's always somebody there. In the PLC group, we have six math teachers or seven math teachers and so you have six other people to go to if you have any questions or if you need any help with anything, there's always someone there. That's what makes it nice.

The benefits to creating this structure appears to be related to how it made the educators feel. For example, Participant 4 expressed the following with regard to how she feels as a member of a PLC at this school site, "I feel welcomed . . . . I feel like I need to be here because I am part of the team. I'm not just a teacher. . . . I'm part of the math team and it means a lot.

Research Question 2: *What factors/variables do teachers and other education professionals participating in qualitative interviews identify and/or equate with the*

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inhibition of learning transfer within the context of a successful professional

learning community?

A number of factors have been shown to influence learning transfer within organizations, and the nature of this influence may be positive or negative with regard to learning outcomes for individuals (Broad & Newstrom, 1992; Grossman & Salas, 2011). It is important to obtain a better understanding of which factors affect learning transfer as well as whether these factors ultimately promote or inhibit transfer. Therefore, in addition to identifying variables related to the promotion of learning transfer within professional learning communities, the researcher also asked participants to describe some of the factors that they believed inhibited transfer within this context. The following inhibitory factors were identified: a lack of time; a lack of defined structure/procedures; top-down leadership/too much administrative input; personality conflicts; a lack of buy-in from staff; a lack of buy-in from administrators; limited collaboration/collective inquiry among PLC members; pride/unwillingness of PLC members to provide or accept feedback; being territorial/not focusing on the needs of the whole school/district; a lack of teacher/staff leadership within the PLC.

A few of the participants suggested that too much input from leadership and/or top-down initiatives could potentially negatively influence teacher learning within professional learning communities. As previously noted, one of the factors linked to the promotion of learning transfer within PLCs was that PLC members had increased ownership and autonomy. Mushayikwa and Lubben (2009) found

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that educators were more likely to incorporate new practices into their classrooms when they were provided with greater autonomy and more opportunities to be self-directed in their learning. Participants divulged that teachers often set the agenda of reach PLC and made decisions based on data, student needs, and the needs of the group within their professional learning communities. Some of the educators felt that when that level ownership and/or autonomy is diminished in some way, teachers and staff members either felt less free to share their thoughts, ideas and opinions or that the activities that occurred during their PLCs were not as meaningful or relevant. Participant 3 illustrated this line of thinking upon sharing the following story,

> Last year, we tried an intervention strategy, and it came from the top-down and we were told what time to do it, how to do it . . . . It really did not work really well. It could've been due to lack of buy-in . . . it could have been due to structure, it could've just been due to the fact that . . . it wasn't generated among the teachers.

Describing her feelings about a period in which administrators were participating in PLCs on almost a daily basis to train teachers on a new concept, Participant 1 stated,

> It was overwhelming to have them in there. It was almost every PLC meeting for a little while. Like I said, I know we had a lot of growth that we needed to do and they were in there to guide us and help us . . . but it's almost like you get close to a group and you almost feel ownership of your

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little PLC and you don't know quite how to embrace somebody always

with your group.

Interviewees also suggested that a lack of leadership within a PLC could

inhibit growth and learning transfer among PLC participants. A number of

educators highlighted the importance of teacher leaders within their PLC in terms

of supporting the design and implementation elements of the PLC itself. As

previously noted, PLC leaders help to set to agenda and keep the PLC members

focused on accomplishing their goals. Without that leadership, some of the

educators implied that a PLC might not be as effective for teachers. Participant 6

communicated the importance of teacher leadership as well as an individual

educator's openness the experience as she expressed the following,

If the group doesn't have a strong leader, then that group is going to not

grow as fast. But really, it may come down to the individual. Is that

individual willing to listen to what's being said and put forth the effort to get

better based on what they're hearing?

The second sentence of the above quotation is directly associated with the

next inhibitory factor, pride and/or an unwillingness to accept feedback. Several

of the participants noted that this individual learner characteristic could negatively

affect learning transfer within the context of a PLC. The educators repeatedly

articulated that the relationships among PLC members and their ability to

share/communicate effectively was a key factor in the promotion of learning

transfer. Therefore, it appears that if an educator has an unwillingness to

engage with others and accept feedback, he or she may struggle within the PLC.

After describing the value of her PLC members' high level of open and honest

communication, Participant 4 contended, "I think that's a big thing here . . . where

at some schools, I don't feel like it's as welcome and that can really hinder

growth."

Obtained data suggests that professional learning communities are all

about learning together and learning from each other. The educators interviewed

for this study indicated that if PLC members are not working together to achieve

common goals, it is more difficult for learning to occur. Several of the

participants noted that a lack of collaboration or engagement on the part of

members could ultimately be an inhibitory factor to learning transfer. When

asked about inhibitory factors related to the individual learner, Participant 2

explained,

> I could see where if someone was not prepared or someone was not
>
> paying attention or in the conversations as much or had a personal conflict
>
> with some of the members, I could see where that could definitely defeat a
>
> group and put a negative impact on their time together.

A number of participants also cited the lack of administrative support as an

inhibitory factor related to PLC design/implementation. In order for teachers/staff

to embrace the PLC model, participants suggested that administrators should

demonstrate their belief/support for the concept. If school leaders do not support

the construct, it appears that buy-in from teachers might also suffer. As she

described her discussions with teachers in other districts about PLCs, Participant 2 noted the following regard to administrative support,

It was a common trend that other people from other school districts around our state, their administrators were not supportive of them. They would have monthly PLCs, whereas we have three day a week PLCs. I feel that the common thing for them was that their administrators were not supportive and that the teachers didn't see the importance in it. I think that could hinder them

Educators being territorial and not thinking about the entire system were also a factor that came up during some of the discussions. When she was asked about inhibitory factors related to the individual leaner, Participant 1 stated, "Teachers sometimes may be a little bit territorial and say . . . These are my kids and these are my lessons."

Several of the educators indicated that an emphasis on the growth and development for all students within the school was one of the driving forces behind their PLC model. Therefore, many also concluded that a teacher whose focus is limited to his or her own students or to a small group of students within the school may have difficulty buying into the PLC concept and ultimately not benefit from participating in it. Participant 6 weighed in on this idea when discussing her perceptions of the thought processes of teachers successfully participating in PLCs. She stated, "My responsibility is not to make sure that I

look good or that my students look better than somebody else's students, but that

we are working as a team, the common good is what we're after."

Although some participants expressed that PLCs needed a certain amount of

flexibility in order to be successful and meet the needs of a diverse group of

educators, others indicated that a lack of structure and/or organization within a

PLC could negatively influence transfer. Broad and Newstrom (1992) suggested

that a lack of structure and organization could have a negative effect on transfer

following professional learning activities. Participant 3 described her experience

with a PLC in a previous district and noted,

> It was very difficult to come together with things that would apply to all of us
>
> . . . So my first experience with PLC was that it was difficult to organize and
>
> we weren't really sure what the goal was.

A lack of openness and buy-in from teachers was cited as an inhibitory

factor with regard to learning in PLCs. As previously noted, a number of factors

go into the facilitation of professional learning communities. Data obtained

during this phase of the study suggested PLC participants should to believe in

the work they are doing within the PLC in order for the intervention to be

successful. However, if the participants do not see the value of the learning

opportunity and are not open to learning within their PLC, learning transfer will

likely not occur. Similarly, Broad and Newstrom (1992) found that two of the

most common barriers to learning transfer are related to the trainee's perception

that the professional learning activity is either irrelevant or impractical.

Participant 2 illustrated this idea through the following statement,

> I think that as teachers, we are stressed and we are overwhelmed and
> sometimes an extra meeting is not what we want to do. But being positive
> and saying 'this could really help me, this could help my teaching, sharing
> my ideas is going to help someone else's students just as much it helps
> mine. . . I think that if we focus on our students, then teachers would see
> that the benefits definitely outweigh any negatives

Personality conflicts between PLC members were another potential
inhibitory factor to learning transfer identified by the educators. They suggested
that PLC participants needed to be able to get along with each other and trust
each other in order for the intervention to be effective. If there are clashes
between members or if someone is not fully engaged in the process, it may
ultimately affect the whole team. The interview information suggests that PLC
success often depends on all of the members playing their roles and working
towards common goals. Therefore, having someone not on the same page,
could have a significant impact on outcomes, such as learning transfer. With
regard to personality conflicts, Participant 1 noted, "If you have personality
conflicts or personal issues, those things have to be left outside the PLC."
Participant 6 shared with the researcher how she deals with conflicts and issues
among educators within PLCs,

I think that if a PLC is working really well, then life is great around here.

But, there are things that do come up that cause friction in a PLC . . . that

cause hard conversations in a PLC and so, of course, those days are

difficult, but not any more difficult than any other personnel issue that

happens at a school.

Almost all interviewees suggested that a lack of time could negatively

affect growth, development, and learning within PLCs. The participated indicated

that there is often not enough time during the day to meet all of the requirements

placed on them as educators. Although the school has invested time, energy,

and resources in setting time aside during the day for PLCs, some individuals

reported that a lack of time remained one of the biggest hurdles to PLC

implementation and learning. Participant 5 discussed how time limitations might

affect PLCs. She shared,

I think there are times . . . there are days that the teachers would love two

or three more hours but they just get tied up and busy in the work that

they're doing in PLC and they would love to sit there and continue on

forever. However, they've got to go back because the students are

coming to learn. Many times, there's never enough time.

Research Question 3: *To what extent and in what ways is the promotion of*

learning transfer related to educators' overall job satisfaction and their intent to

remain in the education profession?

The educators interviewed during this phase of the study suggested that their participation in the school's professional learning community has positively affected their job satisfaction and intent to remain within the teaching profession. This finding is consistent with assertion by Webb et. al (2009) that PLC participation influences teacher morale. It appears that a great deal of this influence was related to the manner in which the professional learning community model fostered relationships with other teachers and created a community/family atmosphere within the school environment. Price (2012) also theorized that teacher satisfaction might be associated with the development of a more collaborative culture among educators Qualitative data obtained through the interview process appears to also support the idea that this type of collaborative atmosphere may have a positive influence on job satisfaction among teachers. To this effect, Participant 6 stated,

> I think that . . . teachers need a connection, they need to be connected to people, they need to have conversations with people, they need to be able to hone their craft, they need to sharpen their skills and that requires somebody to do that with. I think that just people in general need connections to be happy and so PLCs are a very natural place for that connection to happen . . . for relationships to develop.

Some of the participants suggested that working more traditional educational environments may result in teachers feeling alone and unsure of themselves. These feelings may be associated with various organizational

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processes and procedures within schools (Collie, Shapka & Perry, 2012). Three

of the participants expressed that teachers are often under a great deal of

pressure and stress to meet the needs of their students and achieve at a high

level. PLC participation was believed by some to negate some of this pressure.

To this point, Participant 2 stated,

> I feel that being in the PLC alleviates so much more stress than if I was
>
> left out high and dry to do things on my own. I feel if I was left in my little
>
> classroom every day to do my own thing . . . that would make me nervous
>
> that I was not fulfilling all of the requirements and that my students were
>
> not learning all of the things that they needed to learn.

These individuals indicated that PLC participation alleviated some of the

stress and pressure that they were under because the model encouraged them

to be more vulnerable and open with others in the school environment. When

discussing the importance of collaboration and support between PLC participants

in terms of job satisfaction and intent to remain in the field, Participant 1 stated,

> I think we all have those times where we're stressed out and we're
>
> overwhelmed and we just want to throw in the towel and quit . . . you can
>
> have your PLC for an encouragement, for a support, for your backbone to
>
> say, "I feel the same way you do, we're going to get through this together,
>
> we're going to make it."

A few of the participants conveyed to the researcher that because of the

increased level of vulnerability fostered by their PLC, they were able to see that

others were feeling the same way. Ultimately, this appeared to create both stronger bonds among team members as well as an increased focus on resolving problems and learning together.

One of the common themes shared by the educators during the interview process was that participating in the PLC changed their view of teaching and the educational environment. Although many noted that a successful PLC takes time and hard work, these teachers were very clear about the importance of PLC participation to their job satisfaction as well as the success of their school. In describing her experience with her professional learning community, Participant 3 contended,

> My PLC may be the number one thing I gained here that I have not had
> before. It really does increase your job satisfaction. You have a
> community that you would not have. Would I would like three extra hours
> a week to plan my lesson . . . sure. But without that community, I feel
> we'd be working on silos. I feel that's a big part of our success as a
> school and as a district.

Overall, it appears that these educators truly believed in the PLC construct, felt that it made them stronger educators, and implied that it improved their job satisfaction. In summarizing the significance of the PLC construct, Participant 5 noted,

> It is a vital part of our organization, I know it might not be the same
> everywhere . . . but I think if our teachers, they would revolt if we took it

away from them . . . Like the opportunity to learn together and put it into

practice in their classrooms, they thrive off of that and they depend on

that.

Research Question 4: *To what extent and in what ways is the information*

obtained during the qualitative interviews with educators participating in

successful professional learning communities related to a more comprehensive

understanding of adult learners and adult learning within the context of K-12

educational institutions?

The information obtained though qualitative interviews during this phase of

the study suggested that teacher learning transfer within the K-12 setting

appears to be supported through the application of the more learner-centered

adult education principles associated with professional learning community

implementation. The more traditional forms of professional development for

educators typically involve onetime in-service presentations during which

someone speaks to a group of educators about a subject or idea (Wei, Darling-

Hammond, & Adamson, 2010). This approach is instructor/teacher-centered and

goes against many of the theoretical underpinnings of adult education, which

emphasize focusing more on the individual needs and experiences of the learner

(Knowles, 1984).

The concept of learning transfer is one of the adult learning principles at

the core of this study. One of the first questions asked of participants was about

their understanding of the concept. The majority of respondents expressed a

relatively clear understanding of the topic. For example, Participant 3 defined

learning transfer as,

> Learning transfer to me is either when I learn something and I apply it to
>
> my classroom, I apply it to my PLC, I apply it to when I go professional
>
> developments in a classroom setting of other teachers in the district . . .
>
> just to be able to apply my knowledge of whatever I've learned in any
>
> situation with my students. Whatever I've learned in the PLC or whatever,
>
> I can just push over into them and they're able to apply those skills across
>
> the board.

Participant 6 provided a similar description with regard to her conceptualization of

learning transfer. She stated,

> Learning transfer to me would mean that teachers or myself are learning
>
> things . . . in a theoretical point of view . . . . We're studying, we're looking
>
> for best practice. They were taking that research that we have done and
>
> put that into practice in our classrooms. Hopefully the things that we learn
>
> as a small group transfer to our students and have some effect on student
>
> achievement.

Despite the majority of educators providing the researcher with comprehensive

descriptions of learning transfer, the researcher provided some clarification

regarding the term for a few participants. This suggests that learning transfer

may not be a commonly discussed or considered construct within K-12

educational environments.

Exploring the dichotomy between individuals who teach, on a daily basis, from a teacher-centered perspective and engaging in professional learning from more of a learner-centered approach provided the researcher with a better perspective with regard to understanding teachers as adult learners. The data obtained during this phase of the study indicated that some of the core principles associated with adult education theory, such as experiential learning, transformational learning, problem-based learning, and self-directed learning were applicable to teacher learning within the context of the professional learning communities.

Based on the information obtained through this exploration, experiential learning may be one of the prominent perspectives within the field of adult education that comes to mind when considering learning within professional learning communities because it emphasizes the individual learner becoming directly involved with what he or she is learning about (Merriam and Bierema, 2013). PLCs encourage educators to become actively involved in the learning process (DuFour et al., 2012). Participant 6 described the experiential nature of a PLC as she compared these practices to more traditional forms of teacher learning. She stated,

> I think that the learning that they're doing together is much more valuable
> than anything that we can do outside of the school. I can go to a training
> or I can send people to training. I can bring somebody in and they're
> going to spend a few hours with us and they're going to give us an

overview of something that they feel like is valuable and that works and it may be great. But, the value of that information is not in the information, its can we make it work in our classrooms. The value of that PLC is that we're all going to commit to go and try what we learned. We're all going to go try the strategy. We're all going to go try this practice, but then we're going to come back to PLC and we're going to say, "This didn't work for me. Did work for you? Why did it work for you and it didn't work for me? Let me go back and try it again now that I've seen what worked for you, or hey, it didn't work for any of us, let see if we can tweak this." The value is if we go and listen to somebody, we're hearing what works for somebody else. A PLC is where we're taking what somebody else is using and what somebody else says is working and we're trying it and we're testing it and we're tweaking it with our kids in our house.

Merriam et al. (2007) describe transformational learning as a mechanism for "significant change that involves the life experiences of the learner, his or her process of 'critically reflecting' on those experience, and the specific process during which change occurs for the learner" (p. 149). The educators interviewed during this phase of the study suggested that their participation in PLCs altered their perceptions of how educators worked and learned together within the K-12 environment. This change process also involved an aspect of critical reflection. To this effect, Participant 1 stated,

But now having experienced PLCs for quite some time . . . I just can't imagine not having a PLC and not having that group to go to with concerns or to go to with, "I don't know how to help the student or like I did this lesson today and it was a flop. What could I have done to make it better?" To just have those people instantly able to give you feedback and to help you is so beneficial.

Another principle of adult education described by participants as related to the school's PLC implementation is the concept of problem-based learning. Problem-based learning involves a process during which learning activities are specifically focused on solving a problem and/or issue that the learner will face in practice (Hung, 2013). The educators repeatedly suggested that being able to directly address the needs of their students and quickly solve problems, as a group, was one of the most beneficial aspects of their participation in professional learning communities. To this point, Participant 3 stated,

We are making commitments to what we're learning and implementing it. I think as a group . . . . We have people who are practical minded, who are saying, "Okay, what is this going to look like? How many are fitting that?" Then, you have some more theoretical thinkers and I think, all together, that says that something is principled, research based, and practical that you can do.

As previously noted, self-directed learning one of the core principle of adult education that was directly addressed with participants in the study.

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Merriam et al. (2007) defines self-directed learning as a process "in which people take primary initiative for planning, trying out, and evaluating their own learning" (p. 110). Responses suggested that the self-directed learning that take place within PLCs are perceived as a means of giving control and autonomy back to the individual teacher. When asked about self-directed learning, Participant 2 stated, "Before you walk in, you have to know what you're doing, know that you've done your part, know that you've done your data or whatever you were supposed to do to contribute with the group."

Phase 2: Quantitative Data Analysis

The section describes the results of the second phase of the mixed-method study exploring the perceptions of educators regarding the factors that influence learning transfer with Professional Learning Communities. This phase involved the development and distribution of an electronic survey instrument in an effort to address the final two research questions:

5. Which of the factors/variables, identified during the qualitative phase of the study, do teachers and other education professionals, completing a survey, associate most strongly with the promotion of learning transfer within the context of a successful professional learning community?

6. Which of the factors/variables, identified during the qualitative phase of the study, do teachers and other education professionals, completing a survey, associate most strongly with the inhibition of learning transfer within the context of a successful professional learning community?

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The researcher developed the survey instrument using the web-based survey tool, Qualtrics. The survey incorporated each of the variables/factors identified during the qualitative phase of the study. It asked participants to rate the extent to which they felt a specific factor either supported or inhibited learning transfer within the context of a professional learning community. The researcher used a horizontal numeric scale to measure participant responses. The scale's response options ranged from 1-5, with a 1 indicating that the factor had a "great deal" of influence and 5 suggesting that the factor had "no influence."

Upon finalizing the survey instrument, the researcher contacted school administrators, via email, from districts whose superintendents had already approved data collection for this phase the study. The researcher requested that these administrators distribute information about the survey, including the link, to their teachers/staff members. Several administrators, within three school districts, responded to the email request and indicated that they would distribute the survey information and link to their respective teachers/staff.

Description of Sample

The participating school districts varied with regard to the number of students, teachers, and school sites (see Table 3). Seven out of the nineteen school principals in district A responded affirmatively to the researcher's request to share the survey link with their staff. One out of five principals in district B indicated that they would share the link, and one out six school administrators in district C indicated that they would participate. Because of

the response rate among principals, it believed that roughly 30-50% of the

approximately 950 educators within these three districts received the link to the

survey. The survey link was available to participants between the dates of

December 04, 2016 to January 10, 2017 (approximately five weeks). It should

be noted that educators were out for the Christmas holiday break for two weeks

during this period. Ultimately, 135 educators completed the survey during this

period.

Table 3

Demographic characteristics of the participating school districts (phase 2)

	Students Enrolled	Teachers	Number of Schools
School District A	7132	521	19
School District B	4137	281	5
School District C	2182	138	6

Figure 1 represents the current role/positions of the educators

participating in this study. The highest percentage of respondents was

general education teachers (58.5%). Special education teachers (16.3%),

support staff members (school counselors, school psychologists, librarians,

etc.), followed the group (15.6%) and school administrators (9.6%) followed

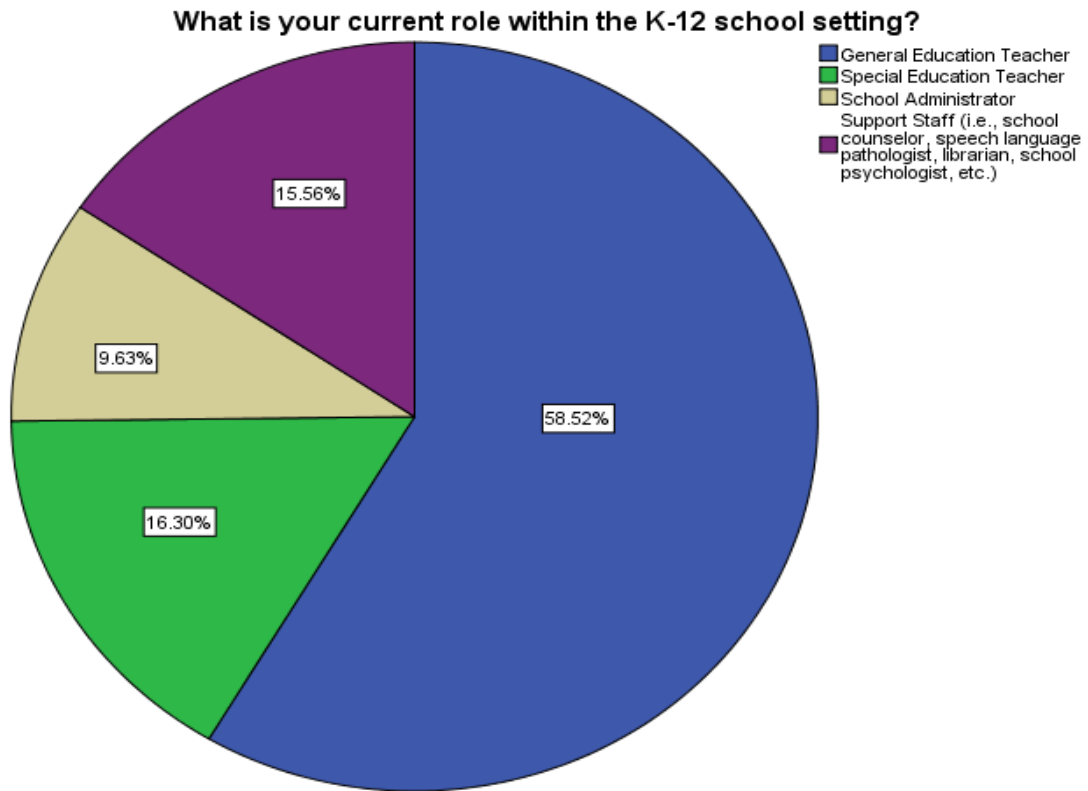with regard to their level of participation.

What is your current role within the K-12 school setting?

Legend:
- General Education Teacher
- Special Education Teacher
- School Administrator
- Support Staff (i.e., school counselor, speech language pathologist, librarian, school psychologist, etc.)

- 58.52%
- 16.30%
- 9.63%
- 15.56%

Figure 1. Educator's role within the K-12 school setting.

Figure 2 represents the specific grade level population taught/served by the survey participants. The grade level with the highest percentage of participants was high school *(typically grades 9-12)* (43%), followed by lower elementary school *(grades Pre-K-3)* (28.9), upper elementary (grades 4-6) (14.1%) and junior high (grades 7-8) (14.1%).

What grade level population do you currently teacher/support?

- Lower Elementary
- Upper Elementary
- Middle School
- High School

28.89%
42.96%
14.07%
14.07%
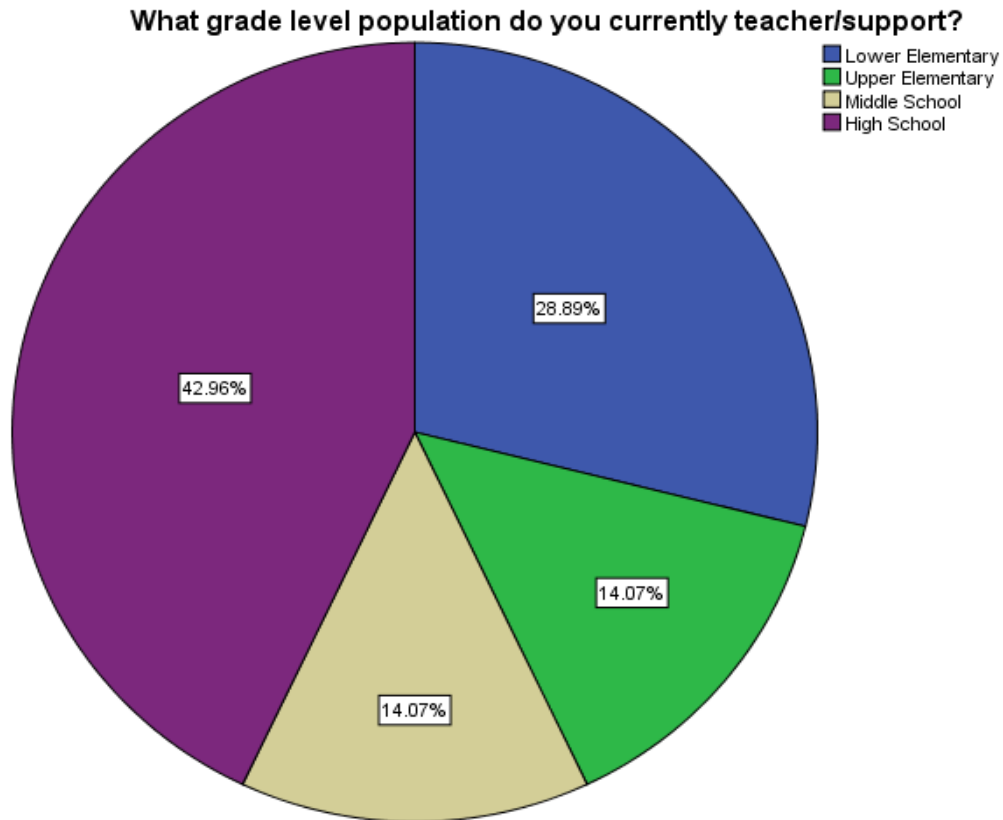
Figure 2. Educators' grade level population taught/served.

Figure 3 shows the years of experience of the educators participating in this phase of the study. It should be noted that data was recorded in SPSS to combine three separate survey options with regard to years of experience, between 1 and 6 years, to reflect a single mean score. On this question, approximately 20% of the respondents had 1-6 years of experience, 15.6% had 7-10 year of experience, 20% had 10-15 years, 23.7% had 15-20 years in education, and approximately 20.7% had 20+ years of experience.

How many years have you been employed within a K-12 school setting?
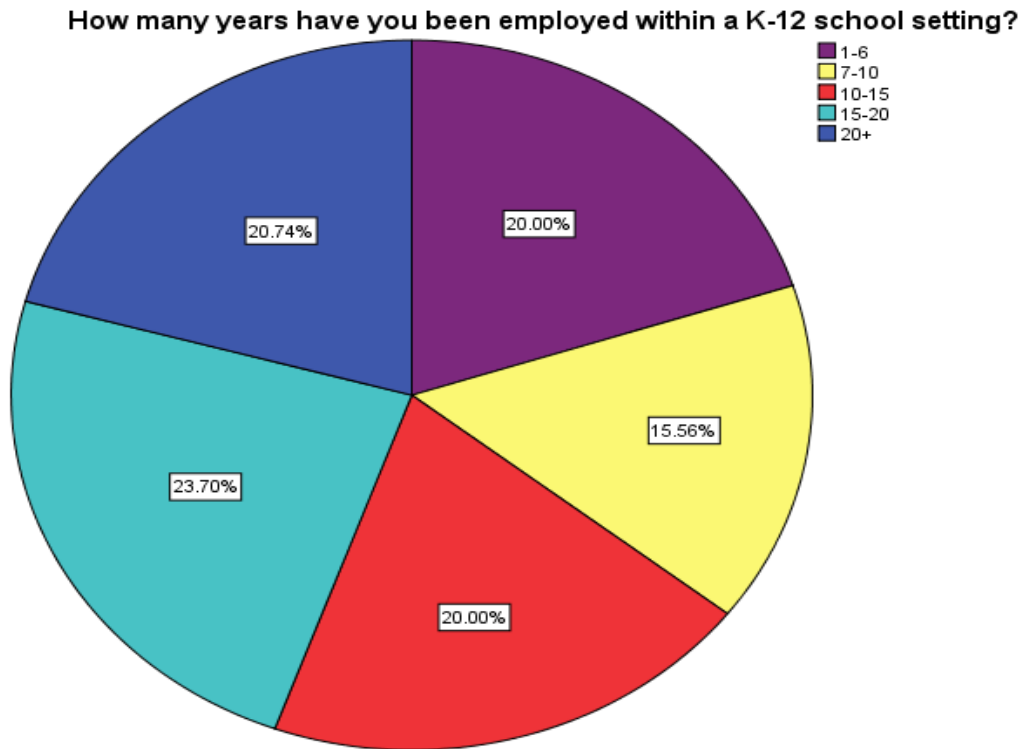
Figure 3. Years of experience within the K-12 setting

The final demographic variable, included on the survey, asked respondents to indicate how often they participated in professional learning communities (see Figure 4). Of the educators participating in this study, the majority (30.5%) indicated that they participated in PLCs two or more times per week. Approximately, 23.7% reported that they participated in a PLC one time per week, 17% noted that their PLC participation was approximately two times per month, 15.6% indicated that they participated in PLCs once per month, and 13.3% reported that they participate in PLCs less than one time per month.

How often do you participate in PLCs?

- 2 or more times per week
- 1 time per week
- 2 times per month
- 1 time per month
- Less than 1 time per month

30.37%
23.70%
17.04%
15.56%
13.33%
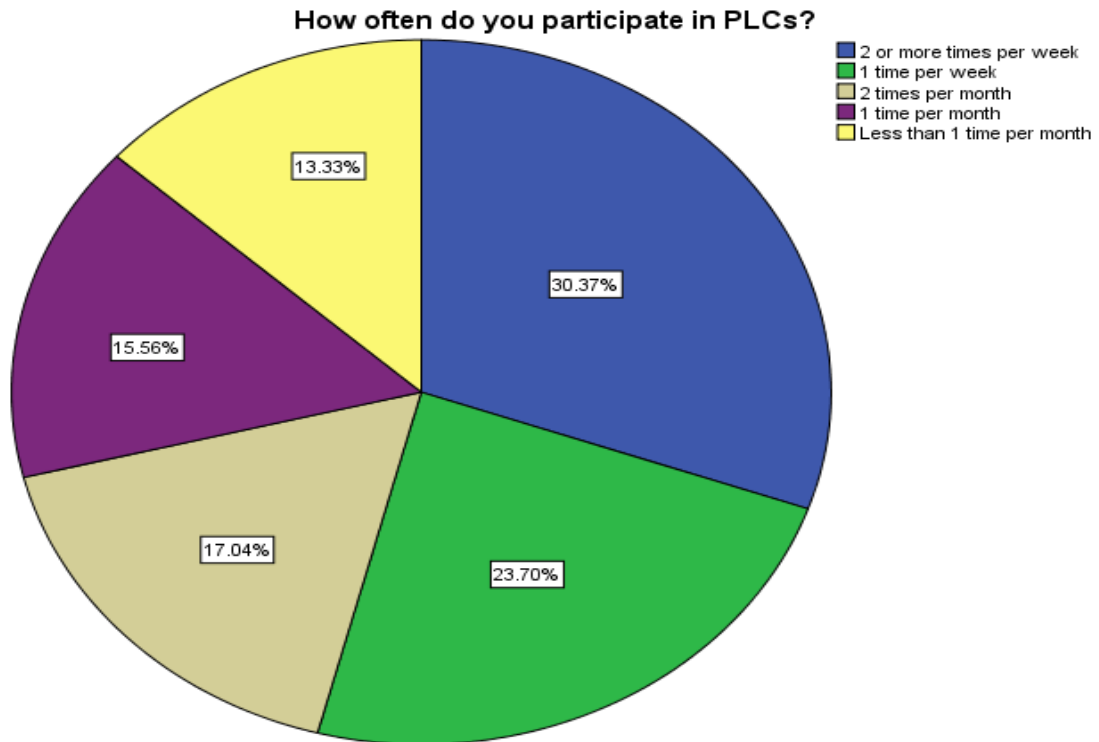
Figure 4. Frequency of PLC participation.

The survey instrument was developed using the factors identified during phase one of the study. The instrument was designed to provide the researcher with a better understanding of which of the previously noted factors a larger population of educators identified most closely with the promotion and/or inhibition of learning transfer. Based on a review of literature as well as the qualitative findings, the researcher developed survey items for each of the identified factors and subsequently organized the survey items into four categories. The items were grouped according to individual learner factors, intervention design/implementation factors, work/school environment factors, and inhibitory factors.

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Once all responses were collected, the researcher needed to verify that the questions on the survey were reliable. An analysis was conducted using SPSS and the resulting Cronbach's alpha values for the overall instrument and each category were assessed. Cronbach's alpha values range from zero to one, with higher values indicating a higher reliability. A Cronbach's alpha value of 0.7 is considered acceptable. As Table 4 indicates, the overall alpha value and the values for each of the four categories of factors fell above the cut-off of .70. Therefore, it appears that the items for both the overall instrument and each category are consistently measuring the same constructs.

Table 4

Cronbach's alpha for survey factor categories

Factor categories	Cronbach's alpha
N	135
Individual Characteristics	α =.95 (.945)
PLC Characteristics	α =.95 (.951)
Work Environment Characteristics	α = .94 (.939)
Inhibitory Factors	α =.96 (.958)
Overall	α =.95 (.945)

The research questions for phase two of the study revolved around obtaining quantitative data to identify which of the factors identified during the first phase were most associated with the promotion as well as the inhibition of learning transfer within professional learning communities. Mean and standard deviation scores for each of the 43 previously identified factors/variables are

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provided below. Based on the design of the survey instrument, mean scores

closest to 1 suggest a higher level of agreement regarding the extent to which

that factor is associated with supporting learning transfer. The same would be

true with regard to identifying the extent to which the inhibitory factors are

associated with the inhibition of learning transfer.

Overall, mean scores suggested that this sample of educators found two

work/school environment factors and three individual/learner factors to be most

associated with supporting learning transfer within professional learning

communities (see Table 5). Tables 6-8 describe the mean scores and standard

deviations for each of the four categories of factors (i.e., individual/learner

factors, intervention design/implementation factors, work/school environment

factors and inhibitory factors. It should be noted that a "lack of time" was the

factor most associated with inhibition of learning transfer in PLCs (see Table 9).

It should be noted that the items with a mean score closest to 1.0 were

considered to be the factors most closely associated with learning transfer within

the context of the professional learning community.

Table 5

Means and Standard Deviations – Top five factors (supportive)

	Mean	Standard Deviation
The district/school has an overall culture of high expectations *(work/school environment factor)*	1.52	.753

Table 5 (Continued)

The district/school focuses on improving outcomes for all students *(work/school environment factor)*	1.54	.793
Perception of the Usefulness/Value of the Activity *(individual learner factor)*	1.64	.876
Openness to the Learning Experience (individual learner factor)	1.68	.869
Level of Interest in Professional Growth (individual learner factor)	1.68	.895

The mean scores for the ten items related to individual/learner factors ranged from 1.64 to 2.09 (see Table 6). The lowest mean was for Item I10 (Perception of the Usefulness/Value of the Activity), while the highest mean coincided with Item I4 (Emotional Stability). The highest mean for this category indicates that the respondents did not perceive an educator's Emotional Stability to be as closely associated supporting learning transfer as the other factors within this category. The lowest mean with regard to the perception of usefulness/value of the activity suggests that respondents generally perceived this factor to be closely associated with learning transfer.

Table 6

Means and Standard Deviations – Individual/Learner Factors

	Mean	Standard Deviation
I1. Level of Motivation	1.90	.945
I2. Level of Self-Direction	1.93	.959
I3. Openness to the Learning Experience	1.68	.869

Table 6 (Continued)

I4. Emotional Stability	2.09	1.07
I5. Ability to Get Along with Others	1.93	1.01
I6. Ability to Communicate in an Open and Honest Manner	1.79	.931
I7. Content Knowledge and Skills	1.72	.807
I8. Commitment to the Organization	1.73	.848
I9. Level of Interest in Professional Growth	1.68	.895
I10. Perception of the Usefulness/Value of the Activity	1.64	.876

The mean scores for the eleven items related to PLC design and implementation factors ranged from 1.77 to 2.05 (see Table 7). The lowest mean was for Item P2 (Inclusion of content that is related to the day-to-day work activities/tasks of the educator) while the highest mean coincided with Item P6 (Availability of Technology). The highest mean indicates that the educators participating in this study did not perceive that technology was particularly relevant with regard to supporting transfer within PLCs. The lowest mean score for the design and implementation factors was associated with the inclusion of relevant content in a PLC. The score suggests that respondents generally perceived that this was the design and implementation factor most closely associated with learning transfer.

Table 7

Means and Standard Deviations – PLC design and implementation factors

	Mean	Standard Deviation
P1. Incorporation of specific learning goals	1.86	.917
P2. Inclusion of content that is related to the day-to-day work activities/tasks of the educator	1.77	.879
P3. Inclusion of opportunities for the educator to make decisions based on data	1.91	.984
Table 7 (continued).		
P4. A well-defined structure and procedures	1.89	.990
P5. Availability of materials and resources	1.81	.966
P6. Availability of technology	2.05	.940
P7.Incorporation of opportunities for the educator to implement/perform what is learned during the PLC and receive feedback from peers	1.98	.945
P8. Shared expectations and accountability among the members of the PLC	1.98	1.022
P9. Opportunities for the educator to reflect on his/her learning and practice	2.03	.965
P10. Emphasis on the ownership and investment in positive outcomes for all students within the school environment	1.89	.913
P11. Opportunities for the educator to collaborate and learn with others as a team/group	1.78	.935

The mean scores for the items related to work/school environment factors ranged from 1.52 to 2.34 (see Table 8). The lowest mean was for Item W5 (The district/school has an overall culture of high expectations) while the highest mean was for Item P6 (School administrators are involved in the PLC and participate as

a team member). The highest mean score indicates that survey respondents did

not feel that school administrator involvement/participation as a team member

was one of the most relevant work/school environment factors with regard to

supporting learning transfer within their PLCs. The lowest mean score was

associated with the district/school's overall culture of high expectations. The

score suggests that respondents generally perceived that this was the

work/school environment factor most closely connected to learning transfer within

PLCs.

Table 8

Means and Standard Deviations – Work/School Environment Factors

	Mean	Standard Deviation
W1. School administrators give the educator the opportunity to provide input into the content and structure of his/her PLC	2.03	1.079
W2. School administrators are involved in the PLC and participate as a team member	2.34	1.097
W3. The school district has clear expectations regarding teacher/educator learning	1.95	1.067
W4. The PLC has administrative support	1.79	1.017
W5. The district/school has an overall culture of high expectations	1.52	.753
W6. The district/school focuses on improving outcomes for all students	1.54	.793
W7. The district/school places an emphasis on effectively structuring and developing PLCs	1.82	.959
W8. The district/school fosters a work environment that encourages educators to perform what was learned during the PLC	1.74	.916

Table 8 (Continued)

W9. The district/school fosters a work environment that encourages collaboration and peer support	1.72	.988
W10. The district/school fosters a work environment that creates strong relationships and a family atmosphere	1.86	1.070
W11. The district/school fosters a work environment that allows PLCs to make decisions and subsequently incorporates the decisions made by the PLC.	1.84	1.031

The mean scores for the items associated with inhibitory factors (see Table 9) ranged from 1.85 to 2.92. The lowest mean score coincided with item N1 (Lack of Time), while the highest mean coincided with item N4 (Personality Conflicts). Overall, mean scores suggest that participants viewed a lack of time was the factor most closely associated with the inhibition of learning transfer within PLCs.

Table 9

Means and Standard Deviations – Inhibitory factors

	Mean	Standard Deviation
N1. Lack of time	1.85	1.119
N2. Lack of defined structure/procedures	2.44	1.369
N3. Top-down leadership/too much administrative input	2.68	1.381
N4. Personality conflicts	2.92	1.384
N5. Lack of buy-in from staff	2.34	1.349

Table 9 (Continued)

N6. Lack of buy-in from administrators	2.68	1.561
N7. Limited collaboration/collective inquiry among PLC members	2.73	1.413
N8. Pride/unwillingness of PLC members to provide or accept feedback	2.70	1.466
N9. Being territorial/not focusing on the needs of the whole school/district	2.57	1.452
N10. Lack of teacher/staff leadership within the PLC	2.85	1.490

In order to test the hypothesis that all group means were equal with regard to the educator's role within the school setting, a number of tests were completed in SPSS.

The researcher used Levene's statistic (see Table 10) in order to determine if the variances between the four categories of factors were significantly different based on the participants' specific roles within the K-12 school setting. None of the categories were found to be statistically significant (i.e., less than .05). Therefore, the variances are the same and the assumption was not violated.

Table 10

Test of homogeneity of variances- Educator's role within the School

	Levene's Statistic	Significance
INDC Mean	1.320	.271
PLCC Mean	1.385	.250
ENVC Mean	1.025	.384
INTF Mean	2.063	.108

A one-way between subjects ANOVA was conducted to compare the effect of an educator's role within the K-12 setting on individual/learner factors, PLC design/implantation factors, school/work environment factors, and inhibitory factors. As indicated on Table 11, all p-values were greater than .05. Therefore, there were no statistically significant differences between group means. Thus, no post-hoc tests were needed.

Table 11

One-Way Analysis of Variance- Educator's role within the school environment

Source		F	Sig.
INDC Mean	Between Groups	.451	.717
PLCC Mean	Between Groups	1.236	.299
ENVC Mean	Between Groups	.348	.791
INTF Mean	Between Groups	2.043	.111

In order to test the hypothesis that all group means were equal with regard to the educator's years of experience within the K-12 setting, the same tests were completed in SPSS Version 24.

The researcher used Levene's statistic (see Table 12) to determine if the variances between the four categories of factors were significantly different based on the participants' years of experience within the school setting. None of the categories were found to be statistically significant (i.e., less than .05). Therefore, the variances are the same and the assumption was not violated.

Table 12

Test of Homogeneity of Variances- Educator's Years of Experience

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Table 12 (continued).

	Levene's Statistic	Significance
INDC Mean	1.686	.157
PLCC Mean	1.546	.193
ENVC Mean	1.183	.321
INTF Mean	.560	.692

A one-way between subjects ANOVA was conducted to compare if an educator's years of experience on individual/learner factors, PLC design/implantation factors, school/work environment factors, and inhibitory factors. As indicated on Table 13, all p-values were greater than .05. Therefore, there were no statistically significant differences between group means. Thus, no post-hoc tests were needed.

Table 13

One-Way Analysis of Variance- Educator's Years of Experience

Source		F	Sig.
INDC Mean	Between Groups	.913	.458
PLCC Mean	Between Groups	.709	.587
ENVC Mean	Between Groups	1.689	.156
INTF Mean	Between Groups	1.011	.404

Summary

This chapter described the results of an exploratory mixed methods research study examining the factors that influence learning transfer within professional learning communities. The information obtained through a qualitative phase case study of professional learning communities at one school

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site was described in detail. A review of artifacts, observations, and interview

information resulted in the identification of approximately 43 factors/variables

associated with either the promotion or inhibition of learning transfer. Each of the

factors identified during the qualitative phase of the study were described.

Specific statements associated with the factors were incorporated into this

chapter. The factors were ultimately used to develop a survey instrument that

was distributed to a larger population of educators during the second phase of

the study.

An analysis of the survey data was completed to determine which factors

educators identified most closely with both the promotion and inhibition of

learning transfer within PLCs. The results of this quantitative analysis were also

presented in this chapter. Descriptive statistics information regarding the means

and standard deviations for the survey items as well as data regarding the survey

items most closely associated with the promotion and inhibition of learning

transfer within PLCs were also discussed. Ultimately, the combination of

qualitative and quantitative data collection and analysis led to development of a

more comprehensive understanding of the factors related to learning transfer

within professional learning communities and the applicability of adult education

principles for teacher learning within the K-12 setting. In Chapter Five,

conclusions will be reported.

CHAPTER V – CONCLUSIONS

The purpose of this study was to explore educators' perceptions of the factors that promote and inhibit learning transfer within the context of K-12 professional learning communities (PLCs). The study also aimed to examine how these educators felt about PLC learning with regard to their job satisfaction and intent to remain in the field of education. Ultimately, the researcher hoped to gain a better understanding of teachers as adult learners.

During the initial qualitative phase of the study, a case study was conducted in order to answer the proposed research questions and to obtain a better understanding of the factors that promote and inhibit learning transfer within professional learning communities. Once qualitative data was obtained and analyzed, the factors identified during the first phase of the study were incorporated into a survey instrument that assessed the extent to which the factors either supported or inhibited learning transfer. This survey was distributed to a larger population of educators from multiple school sites during the study's second phase. After quantitative data was collected, the researcher analyzed the obtained data using SPSS.

Background

The field of adult education revolves around the idea of supporting the needs of adults through the process of learning (Knowles, 1980; 1984). Adult education and learning theories/concepts, such as self-directed learning, may be applied to a variety of settings in which adults learn (Merriam et al., 2007). An

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environment in which adult education often occurs is the workplace, and one of the primary goals of adult learning within the workplace is learning transfer (Merriam & Leahy, 2005; Werner & DeSimone, 2006). Learning transfer occurs when an individual is able to learn something in one environment (i.e., professional development session) and applies it within another setting (i.e., their actual work environment) (Leberman et al., 2006). These authors also indicate that environmental, contextual, and social factors influence learning transfer. Therefore, the researcher believed that examining the factors that promote and inhibit transfer within specific work environments would be beneficial to supporting transfer within those particular settings.

According to Senge (1990), the concept of the learning organization is a paradigm that attempts to address employee and organizational needs by focusing on the methods and manner in which employees learn. Much of the literature and research with regard to the learning organization has typically focused on the business setting; however, emerging research suggests that this concept may also be an effective means of addressing a wide variety of employee needs within the K-12 educational environment (Senge, 1990, 2012).

According to Bowen, Ware, Rose and Powers (2007), schools operating as learning organizations may affect employees' "willingness to embrace innovation, personal well-being, sense of efficacy in working with students, work satisfaction, and evaluation of the school as a high-performing organization" (p. 200). Adopting such a model may become necessary for many schools because

research within the field of K-12 education suggests that teachers are becoming more dissatisfied with their professional development opportunities as well as well as their jobs (Perrachione, Peterson, & Rosser, 2008). Many of these educators reportedly enjoy the process of teaching; however, they are leaving the field because of ineffective organizational practices (Collie, Shapka, & Perry, 2012). Webb, Vulliamy, Sarja, Hamalainen, & Poikonen (2009) note that "sustaining teachers' motivation, commitment and enjoyment of their work is a crucial goal in itself as well as a means to improving pupil learning" (p. 419). One way to address the needs of teachers is to focus on improving their professional learning opportunities as well as learning transfer (Wei et al., 2010).

Within the field of education, the learning organization model is often associated with the professional learning community. According to Thompson, Gregg, and Niska (2004), the professional learning community is a model of professional learning that requires educators to place a greater emphasis on solving problems and working in a collaborative manner with other educators in order to implement practices that positively affect student learning. A number of theorists have proposed models of professional learning communities within schools (Dufour et al., 2012; Hord, 1997; Senge et. al 2012). Bowen et al. (2007) indicate that the PLC model consists of "common purpose, respect, cohesion, trust, mutual support, and optimism" (p. 201). Senge et. al (2012) place a greater emphasis on the educational system and suggests that the development of a professional learning model within schools should be analogous to his learning

organization model, which includes the constructs of systems thinking, personal mastery, mental models, shared vision, and team learning.

The professional learning community integrates several aspects of adult education and human resource development into a model of professional learning that has been implemented within a variety of educational environments. Price (2012) notes that according to a number of research studies, "trusting, cooperative, and open characteristics in schools generate higher levels of satisfaction, cohesion around school goals, and commitment among faculty" (p. 40). Research suggests that these characteristics are lacking within a number of educational environments as dissatisfaction and attrition rates rise among educators (Woods & Weasmer, 2002).

The professional learning community fosters the development of similar positive environmental characteristics by focusing on various adult learning principles and encouraging educators to engage in continuous learning to support learning transfer. Therefore, the researcher felt that examining the factors that influence transfer within the PLC context would provide valuable information regarding how to the integrate these factors as well as other adult learning principles into the professional development of K-12 teachers. The researcher also believed that this study would supply other researchers and education leaders with pertinent information regarding the relationship between quality professional learning opportunities and teacher job satisfaction/intent to remain in the field.

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Discussion

     The results of the present study are presented in Chapter IV. The following is a discussion of those results. This research study followed an exploratory sequential mixed methods design. According to Creswell and Plano Clark (2011), this research design involves the collection of qualitative data to explore a particular idea or concept, followed by the collection of quantitative data to further explain the information obtained during the qualitative phase. During the first phase of the study, the researcher used the case study methodological approach with a combination observations, artifact reviews, and interview data to examine the factors/variables that affect learning transfer within one purposively selected school's professional learning communities.

     The researcher observed five of the selected school's PLCs and reviewed artifacts associated with PLC implementation at this site. Six educators from the school were selected to be interviewed during the qualitative phase of the study. The researcher conducted semi-structured interviews with each of the participants using an interview protocol. After observational and interview data were collected, the researcher analyzed the results and organized the identified factors into categories. The analysis was based on three areas, identified through research, as influential to learning transfer within the workplace. Those broad categories were individual factors, intervention implementation and design factors, and workplace environment factors (Broad & Newstrom, 1992, Burke & Hutchins, 2007).

With regard to individual learner factors, the researcher obtained a great deal of information from the participants. Some adult learning theories, such as andragogy, actually suggest that internal factors may have more influence on learning outcomes for adults than external factors (Knowles, 1984; Merriam & Bierema, 2013). The participants shared their experiences, both good and bad, with regard to how educators operated within PLCs and the internal factors that they believed to ultimately influence learning transfer. The researcher found that the educators' responses related to the individual/learner factors associated with learning transfer within their PLCs were somewhat similar in nature. Each of the participants contended that the learning within professional learning communities often occurred though relationships and experiences with the other education professionals in the group. This is consistent with the Darling-Hammond et al. (2009) assertion that it is important for teachers to build healthy relationship through their participation in professional development opportunities. An analysis of data revealed that many of the individual/learner factors appeared to be connected to the learner's ability to effectively work with others. Another consistent theme appeared to be related to how the individual approached their work.

Ten individual/learner factors were identified from the researcher's analysis of the interview information. The factors were divided into the two sub-categories of personal characteristics and work-related behavioral characteristics. The personal characteristic factors described by the participants

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included the learners' ability to get along with others, open/honest communication skills, openness to the learning experience, emotional stability, self-direction, and motivation. The work-related behavioral characteristics identified by the educators in this study included the learner's focus on professional growth, organizational commitment, content knowledge and skill, and perceptions of usefulness.

In their model, Watkins and Marsick (1993) indicated that learning organizations should establish systems to capture and share learning while Horde (1997) indicated a belief that successful PLCs include supportive conditions for learners. The next broad category explored were variables related to the PLC intervention's implementation and design. One of the benefits of exploring this particular system was that the researcher could observe and gather interview data from a professional learning community that had been shown, through its designation as a model PLC, to be implemented with integrity. Observational and interview data confirmed this assertion. All of the interviewees described how the PLCs at the school were designed and implemented. Each participant appeared to be generally supportive the design and implementation elements. Through the observation and interview process, eleven factors were determined to be associated with learning transfer in PLCs. These factors were organized into the categories related to either PLC supports for individuals/teams or the structure/content of the PLC itself.

The variables/factors identified by participants as related to PLC supports for individuals/teams were a focus on reflection, participant input into PLC structure/content, administrative involvement/participation, implementation/performance and feedback from peers, investment/ownership in positive outcomes for all students, shared accountability/PLC member expectations, and group/team learning and collaboration. The discussion around the factors included in this sub-category typically involved the participants describing how PLC practices fostered stronger relationships with colleagues and/or changed their view of teaching through critical reflection, the sharing of ideas, and increased leadership/accountability among individual/PLC teams.

With regard to the PLC structure and content factors, obtained data suggests that the incorporation of learning goals, relevant work-related content, data-based decision making, a well-defined structure/procedures, appropriate resources and materials, and technology may support learning transfer within professional learning communities. Each of the participants indicated that they enjoyed having a well-defined and consistent PLC in place within their school. They articulated that they had all of the tools and resources to make effective decisions for their students and the school. These findings are in agreement with the Darling-Hammond et al. (2009) contention that professional development within schools should be "intensive, ongoing, and connected to practice" (p. 9).

According to DuFour, DuFour and Eaker (2012), educational leaders working with PLCs should "be clear about their primary responsibility, disperse

leadership throughout the school, and bring coherence to the complexities of schooling by aligning the structure and culture of the school with its core purpose" (p. 308). The final broad category explored during the qualitative phase of the study was that of the work/school environment. These were the factors associated with the school/district structure and/or culture that allowed the PLC to facilitate learning transfer. Through an analysis of observation and interview data, the researcher determined that eleven school/work environmental factors were related to either the school's organizational culture or the school environment's structure.

Organizational cultural factors tended to revolve around the expectations, beliefs, and vision created and communicated by school and district leadership. These factors appeared to be connected to the emphasis that the school/district placed on teacher development and student learning. The identified factors included the district/school's expectations regarding learning, administrative support, a culture of high expectations, a focus on student outcomes, and an investment in PLC structure. The consensus among the interviewees was that their district was fully committed to the concept of the PLC, and therefore, teachers and staff were committed as well. The professional learning community appears to have become such a large part of the culture that many of the educators indicated that they could not imagine working in a school setting without it.

The work/school environment structural factors are associated with the day-to-day operation/structure of the school environment that appear to support learning transfer among educators within PLCs. Interviewees suggested that their school environment incorporates opportunities to perform the things learned within their PLCs, encourages peer supports, fosters strong relationships and a family atmosphere, and incorporates PLC input and decisions into the day-to-day operations of the school. Based on the researcher's observations as well as interviews, it appears that school leaders must be willing to make significant changes to the school environment in order for a PLC to be successful. Interview information from the school administrators provided a great deal of valuable insight regarding the structural elements and planning that is involved in facilitating a PLC in the school setting.

A total of eleven inhibitory factors were identified by the educators interviewed during this phase of the study. Because the majority of participants were supportive of the PLC construct, it was difficult for some of them to identify this type of variable. However, when prompted by the researcher, many of the participants shared that their learning transfer could be negatively influence if their PLC was not a cohesive unit and/or the members did not get along. Some of the educators also suggested that too much involvement from school and district administrators could hinder PLC development and learning. One of the key variables conveyed to the researcher when discussing inhibitory factors was a lack of buy-in from either the educators or district/school leaders. The

participants suggested that everyone within the system should be on the same page with regard to student growth across the board. Consequently, they felt if some individuals were not committed to those ideals, it would be more difficult for learning to occur. Finally, almost every educator interviewed felt that they needed more time to commit to learning and planning within their professional learning community.

Research suggests that dissatisfaction among teachers may be associated with a number of external variables that are often present within K-12 school environments. (Collie, Shapka & Perry, 2012). Researchers have also found both job satisfaction and improved employee performance to be related to learning transfer (Chiou, Lee, & Purnomo, 2010). Therefore, the present study aimed to explore the relationship between learning transfer within Professional Learning Communities (PLCs) and an educator's job satisfaction/intent to remain within the field. Overall, qualitative data suggested that PLC participation, particularly collaborative learning, might have a positive influence on job satisfaction. PLCs have been found to foster this higher level of collaboration among teachers (Lujan and Day, 2010). Responses appeared to be consistent with Beavers (2009) contention that when teachers regularly meet to discuss issues and solve problems together, research suggested the overall environment improves and learning is more likely to occur.

One of the research questions associated with the present study revolved around obtaining a better understanding of how adult education principles relate

to teacher learning within a PLC. During the qualitative portion of the study, a number of questions addressed adult learning principles. Questions focused on the participant's views and understanding of learning transfer, self-directed learning and motivation. Self-directed learning is a concept that is prominent within adult education literature (Knowles, 1984; Brookfield, 1986; Ellinger, 2004). Motivation is also a factor associated with the individual learner that has been cited by a number of adult learning theorists as related to transfer (Subedi, 2004; Merriam & Leahy, 2005). Subedi (2004) directly identifies the learner's motivation as one of the primary factors related to training transfer. Overall, responses appeared to signify that teacher learning within the K-12 setting is a form of adult education and that self-direction and motivation were important factors associated with learning transfer. Knowles (1980) suggested that adult learners engage in the learning process for a specific reason. Swanson and Holton (2009) indicated that individuals engage in professional development and human resource development as a means of improvement. The learning organization model developed by Senge (1990, 2012) also cites personal mastery as a core component. Taken together, this would suggest that adult learners often engage in learning activities within the work environment in order to improve professional practice. The educators interviewed for this study shared the importance of having meaning behind their learning, the value of learning through their PLC experiences and the manner in which their PLC transformed their perspective with regard to how schools operate.

The purpose of the quantitative phase of the study was to further explore the factors identified during the qualitative phase. Upon its completion, a survey instrument was distributed electronically to teachers and certified staff members at nine school sites. A total of 135 individuals completed the survey over a five-week period. Demographic information regarding the participants was discussed. In order to determine the reliability of the measure and of the factors in each category, Cronbach's alpha was calculated. The results indicated that the survey instrument was appropriate in this regard.

Overall, an review of mean scores suggested that this sample of educators found two work/school environment factors (i.e., the district/school has an overall culture of high expectations and the district/school focuses on improving outcomes for all students), and three individual/learner factors (i.e., the perception of the usefulness/value of the activity, openness to the learning experience, and level of interest in professional growth) to be most closely associated with supporting learning transfer within professional learning communities. The survey results were not particularly surprising when considering the emphasis that the participants placed on expectations during the qualitative phase of the study. A consistent theme among the educators interviewed for the case study was that their school and district had established clear expectations regarding educators' participation in professional learning communities as well as the application of what they learned during their PLCs within their classrooms and/or learning environments. Each of the participants

also shared similar sentiments regarding the expectations of their school and district in terms of student learning. All of the educators described how school and district expectations about educators taking responsibility for the learning of all students improved their ability to collaborate and ultimately learn during PLCs. Obtained data suggested that these expectations also appeared to affect the learner's perceptions regarding the benefits and utility of participating in PLCs. This shift in thinking appeared to encourage the learners to be more open to the PLC experience. Overall, data obtained during both phases of this study were consistent in terms of suggesting that having clear expectations within educational environments regarding learning for both educators and students had an effect on the individual leaners' perceptions as well as learning transfer within PLCs.

This data is consistent with previous research contending that in order for school districts to develop successful professional learning communities, expectations should be clearly communicated from district and building level leadership (DuFour et al., 2012). It also aligns with adult education theory suggesting that in order for adult learning to occur, the learner should to be ready and willing to engage in the learning process (Brookfield, 1986). With regard to inhibitory factors, a "lack of time" was identified as the factor most closely associated with inhibition of learning transfer in PLCs.

Future Directions

 The results of this study were not meant to imply causation in with regard to the identified factors and learning transfer. The study was specifically designed to explore concepts related to adult education principles such as learning transfer within the K-12 setting, of which the researcher believed that there was little theoretical understanding. Professional learning and development is an important topic within the K-12 setting; however, limited research has specifically focused on these educators as adult learners and the factors that support and/or inhibit learning transfer into the classrooms and other school environments. This study attempted to explore this gap in research.

 Future directions for research related to transfer within the K-12 setting should involve looking at a larger and more diverse sample of PLC participants. In line with the exploratory nature of this study, the qualitative findings revealed several important individual/learner, design/implementation, and school/work environment factors to be associated with professional learning communities. However, a potential limitation related to this study is that the school site and the participants were selected purposively. The researcher believes the identified factors to be valuable and applicable to developing professional learning communities; however, examining additional and diverse school environments will allow future researchers to obtain a better understanding of the identified factors. The researcher attempted to add some additional weight to the study by incorporating the qualitative component that included a larger sample population

during the second phase. However, similar limitations, with regard to obtaining a

representatively diverse sample, were also noted with the quantitative research

sites. Future research should focus on examining educators' perceptions of the

identified factors within demographically and regional diverse school settings.

Further exploration of the identified factors within multiple settings could lead to

the development of a model that would be useful to a wide variety of

stakeholders within the K-12 school setting.

In general, the results of the present study suggest that more attention

should be provided to understanding educators as adult learners. As this study

found, several of the identified individual, design/delivery and environmental

factors have already been described in adult education and human resource

development literature as supportive of learning transfer. Despite this research,

many school-based professional development activities do not operate with

learning transfer in mind. Schools must figure out ways to invest in models that

foster transfer.

One way to improve learning outcomes related to transfer is for

researchers and leaders within the field of K-12 education to focus more attention

on evaluating learning transfer among educators within educational institutions.

One of the reasons that transfer has not been a commonly researched construct

is that the construct can be difficult to measure. This difficulty was evident to the

researcher during the analysis phase of the study. Upon reflection, the

researcher feels that questions on both the qualitative instrument and the survey

may have needed to be more clear with regard to prompting participants towards focusing on learning transfer. At times, the focus on some of the educators may have been on their general preferences. This researcher believes that with the financial investments that are made towards professional learning for teachers and the relationship between student growth and teacher learning; evaluating if teachers are able to transfer learning into their classrooms is becoming increasingly important. Future research should specifically address evaluating the how, when, where, and to what extent transfer occurs when supportive PLC variables/factors are in place.

The researcher believes that learning transfer also has implications for teacher job satisfaction and retention. During the qualitative phase of the study, the researcher asked the educators to discuss their feelings on this topic, and the responses from several of the participants supported the idea that transfer improved their level of satisfaction with the teaching professional. However, the primary focus of the study was to obtain a better understanding of learning transfer within professional learning communities. Future research regarding the relationship between teacher learning and job satisfaction/intent to remain in the field of K-12 education is defiantly warranted.

Additional research regarding the personal characteristics associated with teachers as effective learners in needed within the fields of adult education, human resource development, and K-12 education. As previously stated, the purpose is this study was to explore teacher perceptions of the factors that

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influence learning transfer within PLCs; however, during the course of the study, the researcher began to feel that individual differences among teachers with regard to their experience and content areas could play a role in their learning. Quantitative data was examined with regard to these demographic variables and no significant differences were found; however, a larger and more diverse sample may be needed to explore the manner in which the demographics associated with an educator may influence learning transfer.

Future research in this area should integrate additional questions directly connected to adult education and HRD principles. Additional questions may be related to the influence of reflection on their learning. Upon analysis of the obtained data, the researcher also determined that transformational learning might be distinctly applicable to adult learning within the K-12 school setting. It appears that educators' learning transfer may be supported by the school/district increasing its emphasis on high expectations and growth for all students. These ideals should also be effectively communicated to educators and modeled by school leaders. Teachers specifically noted the importance of their district having high expectations of them and their ability to supports the needs of all students over time. This appears to suggest that teachers may need to ascribe a greater meaning to their professional learning experiences in order for transfer to occur. Future research should examine the meaning that teachers associate with the professional developing and transformative nature of teacher learning experiences.

The researcher believes that the content of future qualitative and quantitative studies regarding professional development within the K-12 setting should also focus on experiential learning and the manner in which this type of learning affects transfer for educators. The results of the study suggested that many of the educators felt that learning as a team and having support from their colleagues was important to the learning process. Future research should delve more deeply into the relationships that teachers form as part of the PLC process and how learning with others "in the trenches" as one of the participants called it, could improve transfer into the classrooms.

Overall, the results of this study provided a unique perspective with regard the variables that support learning transfer among educators. Teaching is unlike almost any other profession and understanding how this group of adults learns is important to ensuring that they are appropriately trained and prepared to support the needs of students.

<center>Summary</center>

The conclusions associated with the exploratory mixed methods research study examining the factors that promote and inhibit learning transfer within professional learning communities are highlighted within this chapter. It also provides background information related to various adult education principles, such as learning transfer, as well as the learning organization/professional learning community construct. This chapter includes a discussion of why and how the identification and organization of factors related to learning transfer

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within professional learning communities during the first phase of the study and the subsequent analysis of survey data regarding each of the factors during the second phase of the study allowed the researcher to address each research question and create a more comprehensive understanding of teachers as adult learners and adult education within the K-12 school environment. Potential limitations associated with the study as well as future directions of research related to the findings are also discussed.

APPENDIX A – Interview Protocol

Time of Interview: _____

Date: _____

Setting: _____

Proposed Interview Questions

1. What thoughts come to mind when you hear the term learning transfer?

2. What is your understanding of the concept of learning transfer and how it is viewed within your organization?

3. Describe your experience as a participant in your school/school district's professional learning community (PLC).

4. Reflecting on your work environment (i.e., school or school district), what do you perceive to be some of the specific factors that have promoted/supported your ability to transfer the information that you acquired from the professional learning community (PLC) into your classroom environment?

5. What do you perceive to be some of the specific factors/elements, related to your school environment, that may have inhibited/prevented you from applying what you learned in the PLC to your work environment/classroom?

6. What do you perceive to be some specific personal/individual factors that may have promoted/supported your ability to transfer the information that you learned in the PLC to your classroom environment?

7. What do you perceive to be some specific personal and/or individual

factors that may have inhibited/prevented you from applying what you learned in the professional learning community to your work environment/classroom?

8. Reflecting on the how the professional learning community (PLC), in which you were involved, was designed, structured, delivered, and implemented, what do you believe to be some of the specific factors that have promoted/supported your ability to transfer the information that you learned from the PLC into your classroom environment?

9. What do you perceive to be some factors, related to the design, structure, delivery and/or implementation of the professional learning community, that may have inhibited you from applying what was learned in the professional learning community to your classroom environment?

10. Describe your opinions/feelings with regard to the amount of the information discussed in your school's professional learning community that you were able to learn/retain.

11. Do you use what you learned from your participation in the school/school district's professional learning community in the classroom?

12. Describe your level of self-direction with regard to learning and how it has been influenced because of your participation in the professional learning community.

13. Describe your level of motivation and how it has been influenced by your participation in the professional learning community.

14. Describe your level of satisfaction with your job and how it has been

    influenced by your participation in the professional learning community.

15. Describe how long you plan to remain within the K-12 setting or if your

    personal job goals/plans have fluctuated as a result of your participation in

    the professional learning community.

APPENDIX B- ADMINISTRATOR PARTICIPATION REQUEST

Dear Administrator,

I am writing to request permission to conduct a research study within your school district. I am currently enrolled in the Adult Education Doctoral program at the University of Southern Mississippi, and I am in the process of attempting to conduct the qualitative portion of a mixed methods study examining K-12 educators' perceptions of the factors that promote and/or inhibit learning transfer within the context of a Model Professional Learning Community (PLC). This study will partially fulfill the requirements for the degree of Doctor of Education.

If approval is granted, I am requesting that the administration allow me to recruit teachers and other education professionals who have attended at least one of the school district's professional learning communities to participate in a semi-structured interview lasting approximately 40 to 70 minutes. The interviews will occur outside of scheduled school hours and should not interfere with the participant's work obligations. The interviews will be digitally recorded, transcribed, and all raw data will be deleted following the completion of this study. The researcher will make every effort to maintain the participants' anonymity and confidentiality. No personal information about the participants or their respective schools will be revealed, by name, personal description, location, or school district. Pseudonyms will be used on all recorded notes and in any publications that may result from this research.
Your approval to conduct this study would be greatly appreciated. I would be happy to answer any questions or concerns that you may have at that time. Should you have any question or need any additional information, please contact me by phone (601-500-1449) or via email (charcelor.c.mccullum@eagles.usm.edu).
If you agree, please sign below and submit a signed letter of permission on your institution's letterhead acknowledging your consent and permission for me to conduct this study within your district.

Sincerely,

Charcelor McCullum, Ed.S.
The University of Southern Mississippi

Enclosures

APPENDIX C

THE UNIVERSITY OF SOUTHERN MISSISSIPPI

AUTHORIZATION TO PARTICIPATE IN RESEARCH PROJECT

Consent is hereby given to participate in the study titled: An Examination of the Factors that Influence the Transfer of Learning among K-12 Educators Participating in Professional Learning Communities.

1. **Purpose:** The purpose of this mixed methods research study is to examine the thought processes and perceptions of educators participating in professional learning communities regarding the factors that promote and inhibit learning transfer within their respective educational institutions.

2. **Description of the Study**: In this study, you will be asked to participate in a semi-structured interview. An interview protocol will be used as a memory aid and as a guide during interviews. All interviews will take place outside of regular school hours and be conducted at a location of your choosing (e.g., classroom, office, home, public space, etc.) or via telephone/teleconference. You will receive a copy of the interview questions prior to the interview. The interviews will occur within a private and quiet environment with no distractions and/or interruptions. All interviews will be digitally recorded with permission and later transcribed. Because data will be collected from educators within a school district, a letter of approval will be obtained from the district superintendent prior to the collection of data. It is important to note that no information regarding students and/or parents will be shared or recorded during the interview process.

3. **Benefits:** While there may be no immediate direct benefits for the educators that participate in this study, it is hoped that this research will provide adult educators, human resource development professionals and training/development professionals within the K-12 setting with valuable information about the factors that influence the learning of educators. Participants may also become more aware of their needs and preferences regarding workplace learning during the interview process. This awareness may inform current and future practices within their school setting. In addition, it is hoped that learning transfer within school systems will be positively affected through the dissemination of the research findings.

4. **Risks**: Due to the nature of this study, only minimal risks are anticipated. Educators and/or other education professionals will be asked to participate in an interview, during their personal time, lasting approximately 40 to 70 minutes. In order to minimize the level of potential inconvenience or disruption, the researcher will either travel to participant's preferred location to

conduct the interview or conduct the interview via phone. The interviews will be digitally recorded and transcribed. The researcher will make every effort to maintain the participants' anonymity and confidentiality. No personal information about the participants will be revealed (e.g., name, personal description, specific location). Pseudonyms will be used on all written notes and in any publications that result from this research.

5. **Confidentiality:** All information shared with the researcher will be kept private and confidential. Data confidentiality will be maintained by keeping the digital recording device and transcribed interviews in a locked drawer in the researcher's home with only the researcher having access to them. Any data files saved to a computer will be protected with a password. All recordings will be destroyed after an 18-month period. All interview transcriptions may be kept for up to 24 months in order to facilitate the analysis of data.

6. **Alternative Procedures:** Research participants will be informed that they have the right to withdraw from the study at any time, and any information collected about them will be returned.

7. **Participant's Assurance:** Whereas no assurance can be made concerning results that may be obtained (since results from investigational studies cannot be predicted) the researcher will take every precaution consistent with the best scientific practice. Participation in this project is voluntary, and participants may withdraw from this study at any time without penalty, prejudice, or loss of benefits. Questions concerning the research should be directed to Charcelor McCullum at (601) 500-1449. This project and this consent form have been reviewed by the Institutional Review Board, which ensures that research projects involving human subjects follow federal regulations. Any questions or concerns about rights as a research participant should be directed to the Chair of the Institutional Review Board, The University of Southern Mississippi, 118 College Drive #5147, Hattiesburg, MS 39406-0001, (601) 266-6820. A copy of this form will be given to the participant.

_____
Signature of the Research Participant   Date

_____
Signature of the Person Explaining the Study   Date

Participant's Initials _____

APPENDIX D - ONLINE/ANONYMOUS SURVEY CONSENT

Dear Educator,
I am writing to request your participation in an online survey regarding your perceptions of the factors that promote and/or inhibit learning transfer within your school's Professional Learning Community (PLC). This survey should take 5 to 10 minutes to complete. This research study will also partially fulfill the requirements for the degree of Doctor of Education at the University of Southern Mississippi. If you have any questions about the research, please contact Mr. Charcelor McCullum at charcelor.c.mccullum@eagles.usm.edu.

Participation is voluntary. You have the option not to respond to any of the questions. You may stop taking the survey at any time by closing your web browser. You may withdraw from this study at any time without penalty, prejudice, or loss of benefits. Questions concerning the research should be directed to Charcelor McCullum at (601) 500-1449. This project and this consent form have been reviewed by the Institutional Review Board, which ensures that research projects involving human subjects follow federal regulations. Any questions or concerns about rights as a research participant should be directed to the Chair of the Institutional Review Board, The University of Southern Mississippi, 118 College Drive #5147, Hattiesburg, MS 39406-0001, (601) 266-6820.

Submitting the completed survey will indicate your informed consent to participate and indicate your assurance that you are at least 18 years of age and an educator who has participated in a Model PLC during the past school year. Please print a copy of this page for your future reference.

Date of USM IRB approval:

APPENDIX E - ONLINE SURVEY INSTRUMENT

Factors that Influence Learning Transfer within Professional Learning

Communities (PLCs)

Q1 Thank you for your participation. Please answer the following questions prior

to beginning the survey.

Q2 What is your current role within the K-12 school setting?

○ General Education Teacher (1)
○ Special Education Teacher (2)
○ School Administrator (3)
○ Support Staff (i.e., school counselor, speech language pathologist, librarian, school
   psychologist, etc.) (4)

Q3 What grade level population do you currently teacher/support?

○ Lower Elementary (1)
○ Upper Elementary (2)
○ Middle School (3)
○ High School (4)

Q4 How many years have you been employed within a K-12 school setting?

○ 1-2 (1)
○ 2-5 (2)
○ 5-7 (3)
○ 7-10 (4)
○ 10-15 (5)
○ 15-20 (6)
○ 20+ (7)

Q5 How often do you participate in PLCs?

- ❍ 2 or more times per week (1)
- ❍ 1 time per week (2)
- ❍ 2 times per month (3)
- ❍ 1 time per month (4)
- ❍ Less than 1 time per month (5)

Q6 To what extent would the following individual characteristics support the

transfer of learning from an educator's PLC to his/her classroom/instructional

environment?

	A great deal (1)	A lot (2)	A moderate amount (3)	A little (4)	None at all (5)
Level of Motivation (1)	❍	❍	❍	❍	❍
Level of Self-Direction (2)	❍	❍	❍	❍	❍
Openness to the Learning Experience (3)	❍	❍	❍	❍	❍
Emotional Stability (4)	❍	❍	❍	❍	❍
Ability to Get Along with Others (5)	❍	❍	❍	❍	❍
Ability to Communicate in an Open and Honest Manner (6)	❍	❍	❍	❍	❍
Content Knowledge and Skills (7)	❍	❍	❍	❍	❍
Commitment to the Organization (8)	❍	❍	❍	❍	❍
Level of Interest in Professional Growth (9)	❍	❍	❍	❍	❍
Perception of the Usefulness/Value of the Activity (10)	❍	❍	❍	❍	❍

Q7 To what extent would the following PLC characteristics support the transfer of learning from an educator's PLC to his/her classroom/instructional environment?

	A great deal (1)	A lot (2)	A moderate amount (3)	A little (4)	None at all (5)
Incorporation of specific learning goals (1)	❍	❍	❍	❍	❍
Inclusion of content that is related to the day-to-day work activities/tasks of the educator (2)	❍	❍	❍	❍	❍
Inclusion of opportunities for the educator to make decisions based on data (3)	❍	❍	❍	❍	❍
A well-defined structure and procedures (4)	❍	❍	❍	❍	❍
Availability of materials and resources (5)	❍	❍	❍	❍	❍
Availability of technology (6)	❍	❍	❍	❍	❍
Incorporation of opportunities for the educator to implement/perform what is learned during the PLC and receive feedback from peers (7)	❍	❍	❍	❍	❍
Shared expectations and accountability among the members of the PLC (8)	❍	❍	❍	❍	❍
Opportunities for the educator to reflect on his/her learning and practice (9)	❍	❍	❍	❍	❍
Emphasis on the ownership and investment in positive outcomes for all students within the school environment (10)	❍	❍	❍	❍	❍
Opportunities for the educator to collaborate and learn with others as a team/group (11)	❍	❍	❍	❍	❍

Q8 To what extent would the following characteristics of the work environment support the transfer of learning from an educator's PLC to his/her classroom/instructional environment?

	A great deal (1)	A lot (2)	A moderate amount (3)	A little (4)	None at all (5)
School administrators give the educator the opportunity to provide input into the content and structure of his/her PLC (1)	❍	❍	❍	❍	❍
School administrators are involved in the PLC and participate as a team member (2)	❍	❍	❍	❍	❍
The school district has clear expectations regarding teacher/educator learning (3)	❍	❍	❍	❍	❍
The PLC has administrative support (4)	❍	❍	❍	❍	❍
The district/school has an overall culture of high expectations (5)	❍	❍	❍	❍	❍
The district/school focuses on improving student outcomes for all students (6)	❍	❍	❍	❍	❍
The district/school places an emphasis on effectively structuring and developing PLCs (7)	❍	❍	❍	❍	❍
The district/school fosters a work environment that encourages educators to perform what was learned during the PLC (8)	❍	❍	❍	❍	❍
The district/school fosters a work environment that encourages collaboration and peer support (9)	❍	❍	❍	❍	❍
The district/school fosters a work environment that creates strong relationships and a family atmosphere (10)	❍	❍	❍	❍	❍
The district/school fosters a work environment that allows PLCs to make decisions and subsequently incorporates the decisions made by the PLC. (11)	❍	❍	❍	❍	❍

Q9 To what extent would the following factors interfere with the transfer of

learning from an educator's PLC to his/her classroom/instructional environment?

	A great deal (1)	A lot (2)	A moderate amount (3)	A little (4)	Not at all (5)
Lack of Time (1)	❍	❍	❍	❍	❍
Lack of Defined Structure/Procedures (2)	❍	❍	❍	❍	❍
Top-Down Leadership/Too Much Administrative Input (3)	❍	❍	❍	❍	❍
Personality Conflicts (4)	❍	❍	❍	❍	❍
Lack of Buy-In from Staff (5)	❍	❍	❍	❍	❍
Lack of Buy-In from Administrators (6)	❍	❍	❍	❍	❍
Limited Collaboration/Collective Inquiry among PLC Members (7)	❍	❍	❍	❍	❍
Pride/Unwillingness of PLC Members to Provide or Accept Feedback (8)	❍	❍	❍	❍	❍
Being Territorial/Not Focusing on the Needs of the Whole School/District (9)	❍	❍	❍	❍	❍
Lack of Teacher/Staff Leadership Within the PLC (10)	❍	❍	❍	❍	❍

APPENDIX F – IRB APPROVAL LETTER

THE UNIVERSITY OF SOUTHERN MISSISSIPPI

INSTITUTIONAL REVIEW BOARD
118 College Drive #5147 | Hattiesburg, MS 39406-0001
Phone: 601.266.5997 | Fax: 601.266.4377 | www.usm.edu/research/institutional.review.board

NOTICE OF COMMITTEE ACTION

The project has been reviewed by The University of Southern Mississippi Institutional Review Board in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services (45 CFR Part 46), and university guidelines to ensure adherence to the following criteria:

- The risks to subjects are minimized.
- The risks to subjects are reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered regarding risks to subjects must be reported immediately, but not later than 10 days following the event. This should be reported to the IRB Office via the "Adverse Effect Report Form".
- If approved, the maximum period of approval is limited to twelve months.
  Projects that exceed this period must submit an application for renewal or continuation.

PROTOCOL NUMBER: 16011301
PROJECT TITLE: An Examination of the Factors that Influence the Transfer of Learning Among K-12 Educators Participating In Professional Learning Communities
PROJECT TYPE: New Project
RESEARCHER(S): Charcelor Channing McCullum
COLLEGE/DIVISION: College of Education and Psychology
DEPARTMENT: Educational Studies and Research
FUNDING AGENCY/SPONSOR: N/A
IRB COMMITTEE ACTION: Exempt Review Approval
PERIOD OF APPROVAL: 04/05/2016 to 04/04/2017
Lawrence A. Hosman, Ph.D.
Institutional Review Board

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