6-2019

Professional Learning Communities in Michigan's Center-Based Schools: A Mixed Methods Study

Benjamin L. Oakley
Western Michigan University, beenibe@gmail.com

PROFESSIONAL LEARNING COMMUNITIES IN MICHIGAN'S CENTER-BASED SCHOOLS: A MIXED METHODS STUDY

by

Benjamin L. Oakley

A dissertation submitted to the Graduate College
In partial fulfillment of the requirements
for the degree of Doctor of Education
Special Education and Literacy Studies
Western Michigan University
June 2019

Dissertation Committee:

Elizabeth Whitten, Ph.D., Chair
Daniel P. Morgan, Ph.D.
Derek Cooley, Ed.D.

ACKNOWLEDGMENTS

First, I would like to thank Dr. Whitten for working with me throughout all of the trials and tribulations of writing a dissertation. I would not have made it to the finish line without our conversations and the feedback you provided. I also appreciate how you steered me toward research I was able to immediately apply as a professional. Thanks for being my advisor throughout the program and the chair of my dissertation committee.

Second, I would like to thank Dr. Cooley and Dr. Morgan. I cannot tell you how much I appreciate the feedback you provided during the writing process and the critical questions you asked during the defense.

Last, I would like to thank my family, including my wife Leslie, and sons Sylas and Theo. You have all been extraordinarily patient during the long hours I have spent typing away on my computer. Leslie, thank you for taking care of our little dudes while I was working on my dissertation. You have all been so supportive over the past 4 years. I could not have done it without you.

Benjamin L. Oakley

PROFESSIONAL LEARNING COMMUNITIES IN MICHIGAN'S CENTER-BASED SCHOOLS: A MIXED METHODS STUDY

Benjamin L. Oakley, Ed.D.

Western Michigan University, 2019

In 2018 the The Office of Special Education and Rehabilitative Services (OSERS), a program of the U.S. Department of Education (DoED), issued a letter of determination to the State of Michigan concerning compliance with the Individuals with Disabilities Education Act 2004 (IDEA) Parts B and C. States are evaluated for compliance with IDEA 2004 based upon a set of 20 State Performance Plan Indicators (SPPIs). Michigan was the only state in the union to receive the lowest rating possible, "needs intervention," for the 2016-2017 school year.

Over 10% of students with disabilities in the State of Michigan spend less than 40% of the school day in general education classroom. Some these students are placed in self-contained classrooms located within "center-based" schools in which students receive instruction in core subjects from a certified special education teacher. Transforming center-based schools in the State of Michigan into Professional Learning Communities (PLCs) offers a way to improve the quality of education provided for students with disabilities.

In 2011, The Michigan Department of Education (MDE) issued a policy statement calling upon schools to move away from traditional Professional Development (PD) and toward professional learning. The policy statement included supporting guidelines as

well as quality indicators for professional learning outcomes. Research exploring implementation of professional learning systems - or what is commonly referred to as a PLC - in Michigan's center-based schools is non-existent. This study attempts to fill this gap.

This study uses concurrent triangulation, a mixed methods research framework, to explore implementation of PLCs within center-based schools located in the State of Michigan. Results indicate over 90% of center-based schools in the State of Michigan have at least started to implement PLCs, although not necessarily based upon MDE policy. Fewer than 20% of of these schools have seamlessly integrated PLC activities into routine practices. Most leaders of center-based schools do not view professional learning as a replacement for PD. The results of this research indicate PLCs within center-based schools collaboratively analyze a different set of assessment data than traditional public schools. Teams are not necessarily divided by grade level (as is usually the case in traditional elementary schools) or subject (as is the the case in many secondary schools). Leaders of center-based schools see some of the predicted changes in teacher behavior associated with implementation of PLCs as specified in MDE professional learning policy.

Leaders of center-based schools within the State of Michigan have the opportunity to improve the quality of education provided for students with disabilities through professional learning. It requires substantial preservice training, meticulous planning around a complex set of constraints, and transformation of school culture. Implementation of professional learning based upon MDE policy will require a feedback

loop between policy implementers and policy makers to close the gap between policy guidelines and actual conditions within center-based schools.

TABLE OF CONTENTS

Table of Contents—Continued

Table of Contents—Continued

CHAPTER

Table of Contents—Continued

LIST OF TABLES

CHAPTER I

INTRODUCTION

During the 1990s, the concept of Professional Learning Communities (PLCs) emerged as a way to meet the challenges of providing a high quality public education for all students. PLCs are small groups of educators (especially elementary and secondary teachers) who meet regularly to share expertise, analyze data, and work collaboratively to generate ideas for improving student learning outcomes. Abundant research exists describing the structure of PLCs, explaining the implementation process and providing a framework for measuring outcomes within typical K-12 public school settings (Dufour, 1998; Hord & Hirsh, 2009; Woodland, 2016). However, center-based schools present a uncommon set of challenges that most of the available literature concerning professional learning does not address. There is no research explaining how to transform center-based schools into PLCs or describing what realization of such change might look like.

Center-based schools are usually relatively small, located in the middle of a group of school districts, and made up of students in need of the most intensive special education programs and services. Classrooms within center-based schools are self-contained, meaning a special education teacher provides all instruction for core subjects. Although creating a PLC involves many universalities that apply across all types of schools, center-based schools may present their own unique set of challenges that must be addressed during the planning, implementation and evaluation processes. For example, structural conditions in center-based schools tend be atomized, meaning the classrooms are small distinct units. Teachers and students in one classroom tend to

have little interaction with teachers and students in other classrooms. Since center-based schools usually have a smaller student population than regular public schools and the classrooms are self-contained units that serve the needs of a particular category of students, what some researchers refer to as “deprivatization of practice” may be a more salient hurdle for leaders within center-based schools to overcome than for leaders within traditional school settings (Roberts & Pruitt, 2008).

The purpose of this study is to find out to what degree center-based schools in the State of Michigan are implementing PLCs, what challenges leaders face during the implementation process, how they overcome these challenges, and what PLCs look like within the unique setting of center-based schools. Finally, this research explores the outcome of PLCs from the perspective of leaders of center-based schools. Research participants are members of Supervisors of Low Incidence Programs (SLIP), a community of practice within Michigan Association of Administrators of Special Education (MAASE). The study uses concurrent triangulation mixed method research design to answer these questions. Surveys (quantitative data) and interviews (qualitative data), as well as PLC meeting documentation (qualitative data), were collected simultaneously. The results were analyzed separately and then merged. The research compares the quantitative and qualitative data sets to identify points of convergence and divergence. Conclusions consists of generalizations and detailed descriptions about the implementation of PLCs in center-based schools in Michigan through the lense of special education leaders.

Background of the Issue

The notion of mandatory Professional Development (PD) for public school teachers emerged from the education reform movement in the 1960s (Horn et al., 2002; Murphy-Latta, 2008; Peca, 2000). Almost 60 years later, there is little research demonstrating a significant impact of PD on teacher effectiveness or student learning outcomes (Jacob & McGovern, 2015). In spite of this lack of evidence, school districts spend an average of $12K - $20K per teacher, per year in federal and state funding on PD (Jacob & McGovern, 2015). The amount of funding dedicated to teacher PD far exceeds that spent on professionals in similar fields (Jacob & McGovern, 2015). While the amount of funding dedicated to PD for teachers may reflect the high value we place on education, little research exists showing a significant Return on Investment (ROI) (Jacob & McGovern, 2015). Within the context of enormous amounts of spending on PD initiatives and a consistent lack of research demonstrating significant impact, the concept of (PLCs) emerged in the 1990s as a system for improving instructional practices and student learning outcomes (McLaughlin & Talbert, 1993). By the 2010s, PLCs became not only a concept, but also a policy promoted by some school districts, state agencies, and professional organizations such as Learning Forward (formerly, the National Staff Development Council).

In 2011, the Michigan Department of Education (MDE) issued a policy statement and corresponding guidance calling on Michigan educators to shift away from traditional PD practices for teachers and other school personnel and shift toward professional learning. *MDE (2011) Professional Learning Policy; Supporting Guidance* states:

> Professional learning is a planned, purposeful and sustained system designed by workplace teams and individuals. Educators engage in Professional Learning in order to develop and/or refine knowledge, skills, and abilities specific to the effective delivery of job-related duties and responsibilities that support the learning outcomes of all students.

MDE (2011) offers a set of learning indicators and outcomes for effective promotion of professional learning which describe intended behavioral outcomes for 15 different categories of educational personnel and institutions, from teachers to external service providers.

The State of Michigan has a total student enrollment of 1,584,009 in elementary and secondary schools and 207,341 (13.1%) were eligible for special education services during the 2017-2018 school year (MISchoolData, November, 2018). Over 11% of students with disabilities in the state of Michigan spend less than 40% of the school day in the general education classroom. Nationally, 95% of students with disabilities are served at a regular school, while 3% of all students with disabilities are served in a separate school (U.S. Department of Education, NCES, 2017). The other 2% are served in separate residential facilities (.3% total), parentally placed in regular private schools (1.3%), housebound/hospital placed (.4%), and correctional facility placed (.2%) (U.S. Department of Education, NCES, 2017). States are required to report the numbers of students with disabilities who are in a school's general education classroom for (a) ≥80% of the school day, (b) 40% to 79% of the school day, (c) less than 40% of the school day, or (d) in a separate public school settings serving only students with disabilities (Morningstar et al., 2016). MI School Data, an online data

portal provided by MDE, provides number of students with disabilities who are in the general education classroom for less than 40% of the school day (again 11%), but does not specify what percent of student with disabilities are placed in a separate public school setting serving only students with disabilities. Placement of students with disabilities is a data-driven decision made by an IEP committee. Under IDEA, these students must be placed in the Least Restrictive Environment (LRE) in which their learning needs can be met.

Survey research demonstrates that elementary and secondary school leaders throughout the U.S. intentionally work toward becoming learning communities in order to improve instructional practices used by teachers and positively impact student learning outcomes (Basileo, 2016). Michigan Department of Education (MDE) policy calls upon educational leaders to implement PLCs not only to sharpen teacher skill sets, but also to increase the capacity for all of the services providers who work with students in our public school system to better carry out their job embedded duties. The State of Michigan serves a sizable population of students with disabilities, many of whom are placed in self-contained classrooms (MISchooldata.com). Traditional public school systems often lack the capacity to serve students with low incidence disabilities, so such students receive their education at center-based schools which in many cases are managed by Intermediate Schools Districts (ISDs) or Regional Education Service Agencies (RESAs), and accept students with special needs from a conglomeration of surrounding school districts. Center-based schools have the opportunity to increase the quality of education that their students receive through the implementation of PLCs as they are called upon to do by MDE policy.

Statement of the Problem

School systems spend a significant amount of time and money on PD for teachers with little evidence of a substantial return on investment (ROI) (Jacob & McGovern, 2015). PD though is not the only mechanism available for increasing the capacity of schools to provide high quality education for students with a diverse range of learning needs. Many researchers suggest that creating a culture in which teachers can function as a PLC offers a promising way for schools to ensure high quality education for all students (Dufour & Dufour, 2012). In line with this suggestion, the Michigan Department of Education (2011) issued a policy statement calling upon school systems to shift away from traditional PD toward professional learning in order to achieve school improvement, maximize learning outcomes for students, and increase the effectiveness of school personnel.

Services and programs within the state of Michigan for students with disabilities have room for improvement. In 2018, the U.S. Department of Education's Office of Special Education and Rehabilitative Services (OSERS), issued a report examining implementation of the Individuals with Disabilities Education Act (IDEA) across states. According to the report, based upon data from the 2016-2017 school year, Michigan "needs intervention" for IDEA part B programs that include evaluation and special education services for students ages 3-22. Michigan was the only state in the union failing to meet federal special education requirements (U.S. Department Education Office of Special Education and Rehabilitative Services).

Over 10% of Michigan's 207,341 students with disabilities spend less than 40% of the school day in the general education classroom (MiSchoolData, November 2018).

Many of the students within this category are placed in self-contained classrooms where they receive instruction in all core subjects from certified special education teachers. Although these students receive services based upon a variety of different disability categories as defined by IDEA 2004 Part B, they are generally the students who need the most intense support based upon the severity of their disability and/or impairment. Schools providing services for students with disabilities in self-contained classrooms are often centrally located among a group of school districts and are run by Regional Education Service Agencies (RESAs) or Intermediate School Districts (ISDs). The RESAs or ISDs act as intermediaries between MDE and clusters of Local Education Agencies (LEAs), although larger school districts in urban areas sometimes have the capacity to manage these schools independently. Educators in the state of Michigan refer to these schools as “center-based schools” or “center schools.”

The problem is school systems in the State of Michigan are not meeting federal special education guidelines for students with disabilities. Improving the quality of public education available for students with disabilities in the State of Michigan is an area of opportunity for educational leaders. Transforming center-based schools into PLCs offers a way for educators, especially special education classroom teachers, to identify student needs, choose the best instructional interventions when students are not learning, and through this process ensure consistent student academic growth. Leaders of center-based schools within the state of Michigan need to know how to implement PLCs within the unique setting of small schools serving students with disabilities who receive the majority of instruction in self-contained classrooms.

Researchers agree upon the essential characteristics and purpose of a PLC

(Dufour & Dufour, 2012; Hord & Tobia, 2015; Owen, 2015; Vanblaere & Devos, 2016). Dufour and Marzano (2011) for example describe three big ideas that drive the PLC process.

- ***Big Idea 1*** Focus on learning by asking:
    - What is it we want students to know?
    - How will we know students are learning?
    - How will we respond when students do not learn?
    - How will we enrich and extend the learning for students who are proficient?
- ***Big Idea 2*** Build a collaborative culture by ensuring:
    - Teachers do not work in isolation.
    - Teachers are given the time and resources necessary to create common assessments and learning goals.
- ***Big Idea 3*** Focus on results by:
    - Measuring the results produced by PLCs.
    - Evaluating the effectiveness of practices and policies based upon their impact on student learning outcomes.

Research on the topic of PLCs also offers a general framework for implementation of PLCs, involving steps such as:

a) Building a shared purpose;

b) Organizing groups and setting aside time for them to meet with one another;

c) Fostering a sense of collaboration to transform groups into teams;

d) Setting priorities and making decisions based upon data;

e) Focusing on results of the interventions and practices deemed necessary during PLC meetings;

f) Adjusting priorities and the structure of the PLC system depending on the results (Dufour & Dufour, 2012; Marzano et al., 2016).

One recent study found that 90% of schools surveyed claimed to have PLCs in place, although there was considerable variance in what respondents meant by “PLC” (Basileo, 2016). Some research even examines how to implement PLCs in distinct settings such as small schools (Hansen, 2015). Researchers such as Hirsh & Hord (2009) have examined the role of principals in PLCs and laid out a framework through which leaders can provide support for teachers.

There is a deficiency in research documenting the degree to which center-based schools in the State of Michigan are implementing PLCs, what challenges they face during the implementation process, and how exceptional leaders of center-based schools have overcome these challenges to successfully implement PLCs. There is no research examining what results PLCs produce from the perspective of leaders of center-based schools. There is no evidence center-based schools are implementing PLCs based upon *MDE (2011) Supporting Guidance* or that leaders of center-based schools in the Michigan are even aware of the policy in the first place. MDE (2011) policy concerning professional learning calls upon schools to “move away from” traditional PD and “move toward” professional learning as an alternative. Little research exists examining how leaders throughout the field of elementary and secondary education view the relationship between the concepts of PD versus professional learning. And finally, little research is available for educational leaders examining the

unique challenges of converting center-based schools into PLCs, providing possible solutions to these challenges, and offering a description of the expected changes in instructional practices.

The purpose of this study is to contribute to the field of educational leadership by providing insight on the topic of planning, implementing, and evaluating PLCs within center-based schools. The function of PLCs is to ensure that all students are learning, teachers and other stakeholders are collaborating, and educators are choosing the best interventions when students need extra support to grow academically. Leaders of center-based schools can use the information from this research to overcome the challenges of fully implementing PLCs with the intention of institutionalizing the concept within their organizations so learning from each other is a deeply embedded part of school culture. This research acknowledges the challenges faced during the implementation process and provides examples of how some leaders have overcome these challenges. This research also clarifies how leaders of center-based programs view the relationship between PD and professional learning. Finally, this research examines what the transformation of center-based schools into PLCs looks like from the perspective of special education leaders. Ultimately, this research is a synthesis of perspectives provided by leaders of center-based schools on the topic of PLCs which can be used to provide practical guidance for impactful action to this group of professionals.

Research Questions

1) How do leaders of center-based schools in the State of Michigan view the relationship between PD and PLCs?

2) To what degree have center-based schools in the State of Michigan implemented PLCs?

3) Are center-based schools in the State of Michigan implementing PLCs based upon the 2011 MDE policy statement?

4) What are a) the primary challenges of implementing PLCs, b) what resources have been most valuable in overcoming these challenges, and c) which resources have been most difficult to attain?

5) What types of structures are in place to allow PLC participation and what type of content do PLCs address?

6) Do the leaders of centered-based schools in the State of Michigan see the expected behaviors among teachers that correspond to the seven indicators of professional learning policy implementation as defined in the MDE Professional Learning Policy, Supporting Guidance, 2011?

Significance of the Problem

Research questions concerning implementation of PLCs in center-based schools exist within the context of geographical, historical, and social circumstances. Access to education has improved worldwide over the past 200 years. From 1850 to 2015 the percent of people worldwide with some formal education has increased from less than 20% to greater than 80% (OECD & IIASA, 2015). Over this same time period, the percent of the population that has attained at least basic education has increased throughout each region of the world (OECD, 2014). Since the 1950s global literacy rates increased to almost 85%, with all countries outside of sub-saharan Africa at over 50% (OECD & UNESCO, 2016). Even in countries with a literacy rate below 50%, rates have

increased dramatically across generations, as in Algeria where the literacy rate is only 28% among those over 65 years old, but 97% among 15-24 year olds (World Bank, 2015). When the United States was first founded circa 240 years ago, approximately 50% of men were literate and 25% of women, while the literacy rate in the U.S. is now over 99% (Lattier, 2016). By 1918 primary education was compulsory throughout the United States (Graham, 1974).

Groups of minorities in the U.S. still did not have equal access to public education throughout most of the 20th century, although the civil rights movement lead to some progress including eventual passage of the Education for All Handicapped Children Education Act (EAHCA) in 1975, which eventually became known as the Individuals with Disabilities Education Act (IDEA) when the legislation was amended in 1990 (Darling-Hammond, 1998). IDEA guarantees a Free and Appropriate Public Education (FAPE) based upon an Individualized Education Plan (IEP) for all students identified as having a disability.

IDEA (2004) is divided into 4 parts, referred as Parts A,B, C and D. Part A refers to general provisions, Part B to assistance for education for all students with disabilities, Part C to services for infants and toddlers with disabilities, and Part D to national activities to improve education for students with disabilities. The research topic for this study pertains to IDEA Part B, which requires states to provide special education services for school aged children with disabilities so that they receive a Free and Appropriate Public Education (FAPE).

States are held accountable for IDEA (2004) Part B based upon 20 State Performance Plan Indicators (SPPIs). The State of Michigan failed to meet federal

requirements based upon several indicators including Indicator 1 which pertains to graduation rate among students with disabilities and Indicator 2 which refers to high school dropout rate among students with disabilities. In the “letter of determination” issued to the State of Michigan by The U.S. Department of Education Office (DoED) of Special Education and Rehabilitative Services (OSERS) based upon results from the 2016-2017 school years, the State of Michigan was given a rating of “Needs Intervention” after 4 consecutive years of receiving a rating of “Needs Assistance.” For the 2016 - 2017 school year within the State of Michigan, 29% of children with disabilities dropped out of school and 69% graduated from high school with a regular high school diploma. Michigan was also far below average for scores on the National Assessment of Educational Progress (NAEP) among students with disabilities in test categories such as 4th grade and 8th grade reading and math scores for this same school year.

Although many of these indicators are only loosely associated with center-based schools, which serve a unique subgroup of students with disabilities, most of whom are not scheduled to graduate with a high school diploma for example, the report issued by OSERS clearly identifies areas of concern relevant to special education leaders. MDE’s Vision, Mission, Principles and Goals says the agency intends to put “Michigan on the map as a premier education state,” by making Michigan a top 10 state for education within the next 10 years. Implementing the requirements and purposes of IDEA 2004 to meet SPPIs will have to be an area of focus to accomplish this goal. Transforming center-based schools into PLCs offers a means through which educational leaders can increase the quality of public education provided for all children in the State of Michigan.

CHAPTER II

REVIEW OF LITERATURE

The literature review includes an examination of the meaning and historical essence of Professional Development (PD) and Professional Learning Community (PLC). A summary of research examining cost and value of PD is included. The review summarizes literature explaining the structure of PLCs, the role of principals in the implementation process, and how PLCs can be implemented in unique school settings. Literature pertaining to professional learning as policy - as opposed to concept or practice - was also reviewed. Literature examining the "policy implementation problem" is summarized. Finally, the literature review includes a summary of MDE policy pertaining to implementation of PLCs.

Historicity of Professional Development

The word "profession" describes a group of people united by a common cause, a shared body of knowledge, a standard set of methods for action and decision-making, and a standard set of expectations from stakeholders (Romme, 2016). The word "development" commonly refers to an evolutionary process or slow, steady, directional growth. PD for elementary and secondary teachers refers to a dynamic learning process usually intended to refine teacher practices in the classroom and ultimately to impact student learning outcomes. The term PD emerged from the education reform movement in the 1960s when the Federal Government started to play a greater role in determining the direction of education reform and the purpose of public education (Horn, 2002 et al.; Murphy-Latta, 2008; Peca, 2000). In the mid twentieth century the reform movement reflected popular assumptions of the time, including the idea that social problems could

be solved exclusively through application of science - an ideology referred to as positivism - backed by massive government spending (Horn, 2002 et al.; Murphy-Latta, 2008; Peca, 2000) . Members of the decision-making class also held that experts in academia and in fields other than education such as sociology, psychology, engineering and business should exert control over public education policy and practices for the good of students and teachers (Chomsky & Macedo, 2002; Horn, 2002). The knowledge of education acquired by teachers through experience, trial-and-error, intuition and reflection was supposed to be replaced by knowledge gained through rational application of scientific method - a notion closely resembling what we now refer to as "evidence-based" practices.

Some argue that PD and teacher training is less about acquiring technical skills and more about filtering out those with the wrong disposition or ideological orientation (Schmidt, 2001). Schmidt (2001) in his book, *Disciplined Minds: A Critical Look at Salaried Professionals and the Soul Battering System that Shapes Their Lives,* argues that acquisition of professional credentials rest primarily on an individual's willingness to become an ideological disciple, not his or her proficiency as a technician able to apply scientific based practices. The field of education according Schmidt (2001) is no exception. He writes:

> Those who employ teachers see them as more than workers who present the official curriculum to the students. A computer or television system could make such a presentation. An important role of the schools is socialization: the promulgation of an outlook, attitudes and values. ... The professional is one who

> can be trusted to extrapolate to new situations the ideology inherent in the official school curriculum that she teaches. (p. 32)

While the mid twentieth century education reform movement was driven primarily by positivism, steering the profession of teaching toward becoming a technical vocation as opposed to a professional occupation, propagating the ideological assumptions of the modern western world was also an important role implicitly assigned to teachers in the post WWII industrial era. PD meant learning to socialize children according to a set of ideological boundaries (Schmidt, 2001).

As a continuation of the education reform movement as it existed in the mid twentieth century, use of the term PD in contemporary elementary and secondary education discourse is shaped in part by federal legislation such as the Every Student Succeeds Act (ESSA), signed by President Obama in December, 2015. ESSA defines PD as activities which are:

a) An integral part of school and local education agency strategies for providing educators (including teachers, principals, other school leaders, specialized instructional support personnel, paraprofessionals, and, as applicable, early childhood educators) with the knowledge and skills necessary to enable students to succeed in the core academic subjects and to meet challenging State academic standards; and
b) Are sustained (not stand-alone, 1 day, and short-term workshops), intensive, collaborative, job-embedded, data driven, classroom-focussed…."

State law also determines what counts as PD for educators. Michigan Compiled Law (CPL) Sections 380.1526-1527 require district staff to design PD activities that:

1) Serve the purpose of increasing student learning
2) Align with your school improvement plan
3) Are planned, ongoing, and intensive
4) Are supported some way by the school or school district, such as through released time or cost.

The same law requires school districts to provide at least five days of teacher PD per school year. A mentor must be provided for teachers during their first 3 years of teaching, meaning that “mentoring” falls under the legislative definition of PD within the state of Michigan (see act 451-1976). These teachers must also receive “intensive professional development induction” through observation of experienced teachers, participation in regional workshops and seminars conducted by mentors and master teachers. CPL Section 380.1525 requires PD activities pertain to instructional improvement and student learning of core curriculum objectives that can be assessed through Michigan Student Test of Education Progress (M-Step), Michigan Merit Examination, and other criteria referenced assessments. Local Education Agencies (LEAs) must meet these requirements to qualify for state and federal funding such as Title II of ESSA.

Researchers and practitioners use the the term PD to encompass a wide range of activities designed to provide opportunities for teachers to improve their knowledge and skills in ways that will impact student learning outcomes. Conferences, seminars, and graduate level coursework exist as pervasive artifacts of professional culture for

teachers, paraprofessionals, administrators and ancillary staff in elementary and secondary education. PD may also include opportunities for peer observations as a way for teachers to provide feedback to one another and exchange ideas for instructional strategies and classroom management techniques (Reinhorn et al., 2017). Instructional coaching, another PD activity, is often used as a way to assist teacher in implementing evidence based practices in the classroom (Desimone & Pak, 2017). A growing body of research emphasizes the importance of goal setting as a PD activity (Camp, 2017). Frequent, immediate feedback from administrators based upon walkthroughs during formative stages of evaluation is a traditionally acknowledged aspect of PD (Darling-Hammond et al., 2017). Feedback given during summative evaluations is also an inherent part of PD for teachers.

Teacher participation in PD activities is in some cases compulsory and in others voluntary. Teachers must acquire the necessary PD hours to maintain licensure, while at the same time, teachers often pursue PD as an initiative for increasing their professional skills and meeting challenges in the classroom. PD grew out of the education reform movement starting in the 1950s. Federal and state legislation continues to shape what constitutes PD. Teachers have participated in PD activities such as continuing education, seminars and conferences for decades. Researchers and practitioners use the term PD to describe a broad range of activities including peer observations, peer feedback, instructional coaching and consultation, goal-setting, and feedback from administrators. PD continues to function as a pervasive phenomenon in the contemporary culture of elementary and secondary education in the United States.

Historicity of Professional Learning Community

Although first used in the 1960s, the term Professional Learning Community (PLC) was not popularized in the field of education until the mid 1990s (www.allthingsplc.info). Senge (1990) in his book, *The Fifth Discipline: The Art and Practice of the Learning Organization*, describes how to turn corporations into learning organizations through "systems thinking" (Cambron-McCabe, 2012). Five years later at the National Staff Development Conference, McLaughlin (1995) stated, "We're closer to the truth about school improvement than ever before. The most promising strategy for sustained, substantive school improvement is developing the capacity of school personnel to function as a *professional learning community* [emphasis added]." Warren, McLaughlin, and Talbert (1993) published research identifying the most effective schools and departments within schools - professional communities, in other words - as those with attributes such as:

- Collegial relations
- Collaborative culture
- Reflective practice
- Ongoing inquiry regarding effective practice
- Professional growth
- Mutual Support

Astuto et al. (1993) identify three communities of learners, including: 1) professional community of educators, 2) learning communities of teachers and students, and 3) the stakeholder community. The term "Professional community of educators" refers to teachers, administrators and other personnel who constantly seek learning opportunities

to share what they learn with one another. Values such as innovation and improvement are built into the culture of an authentic PLC (Fullman & Stiegelbauer, 1991).

When it was initially popularized, PLC was used to refer to a small group of educators within an elementary school or secondary school department united by a common culture (Austuto, 1993). Hoy and Miskel (2001) define school culture as a set of tacit assumptions, values and behavioral norms. Assumptions surrounding PLCs included the idea that teachers can learn from one another. They did not necessarily need to be taught by those from outside the field of education or "experts" who were non-teachers. Behavioral norms included learning from colleagues, seeking opportunities to grow as a professional, and reflecting upon the effectiveness of practice. Rosenholtz (1989) describe "learning enriched schools" - or what eventually became known as PLCs - where teachers collectively worked toward improving student learning outcomes through collaborative analysis, experimentation and evaluation. PLCs functioned as a means through which teachers could increase their skills and knowledge and ultimately impact student learning outcomes.

Presently, PLC often refers to a fuzzier concept. Dufour (2004) points out that among practitioners, PLC is often used to describe any type of alliance between a group of individuals within the field of education from members of the state department of education to national professional organizations. Fullan (2006) writes that the *term* PLC travels much faster than the concept, and he warns that what many call "PLCs" are actually a superficial set of activities that have little effect on student growth (Fuller, 2006). Further the term PLC, when treated as an innovation, gets construed as a fad

rather than an inherent part of professionalism and a permanent structure for collaboratively improving schools and student learning outcomes (Fullan, 2006).

Although broadly applying the term threatens to make it meaningless, a fairly uniform definition of PLC exists in scholarly research. Some of the specific elements included in most descriptions of a PLC include collaboration, continuous learning among small groups, a shared mission and vision, an emphasis on learning rather than teaching, team responsibility, reflective action, group participation in completion of tasks, with each of these elements embedded within the culture of a school or a department (Dufour, 2004, Hord, 1997; Owen, 2014; Stoll et al., 2006). *The MDE Professional Learning Policy: Supporting Guidance* states that “Professional Learning is a planned, purposeful and sustained system designed by workplace teams and individuals.” PLC refers to a metaphorical community in which such learning takes place.

Cost of PD

Schools do not have a clear answer as to how much they spend on PD, nor how much bang they get for their buck. The ambiguity comes from questions over what counts as PD and a lack of accounting for costs such as teacher pay during in-service teacher training programs (Sawchuck, 2010). It is also hard to calculate externalized PD costs such as the amount of money teachers spend on graduate school tuition. However, research offers estimates of how much schools spend on teacher PD, which by any measure is much greater than the amount spent on PD in any equivalent field (Jacob & McGovern, 2015). As of 2015, the top 50 largest school districts in the U.S. spent an average of $8 billion per year on teacher PD or about $18k per teacher per

year (Jacob & McGovern, 2015). Title II of the Elementary and Secondary Education Act includes a budget of over $2.5 billion, most of which is set aside for PD. According to the Government Accountability Office (GAO), another almost $500k a year is spent on PD for teachers and principals through the i3 grant programs which are set up to promote innovation in education (GAO, February 7, 2014). Almost all the grant recipients used part of the funds for PD and almost half used it exclusively for PD activities (GAO, February 7, 2014).

PD also costs time. Teachers spend around 10% of their working hours per year participating in PD activities, meaning that after ten years of experience, the average teacher will have spent the equivalent of one school year participating in PD activities (Jacob & McGovern, 2015).

Value of PD

In spite of the fact that schools spend an eyebrow-raising amount of time and money on PD, little research exists demonstrating a clear Return on Investment (ROI). In a study involving more than 10,000 teachers and 500 school leaders, Jacob and McGovern (2015) found that over the course of 2-3 years, evaluation ratings of 7 out of 10 teachers in their sample remained constant or declined. The amount of improvement between 1st year teachers and 5th year teachers was over 9 times greater than improvement between the average 5th year teacher and teachers with 20 years or more of experience (Jacob & McGovern, 2015), meaning that most teachers show minimal growth after 5 years of experience. Half of the teachers in the study with at least 10 years of experience were rated below effective in key instructional areas such "developing students' critical thinking skills," so there were visible opportunities for

improvement. Even when teachers showed growth, the researchers were unable to link it with any particular PD activity (Jacob & McGovern, 2015). The study concludes:

> No type, combination of, or amount of development activities appear more likely than any other to help teachers improve substantially, including the "job-embedded" or "differentiated" variety that we and others believed to be the most promising. (p.6)

The findings of previously conducted studies on the impact of PD activities were similar (Arens et al., 2012; Bos et al., 2012; Garet et al., 2008; Garet et al., 2011). Research does not demonstrate a clear link between investment in PD and improvement in teacher effectiveness or student learning outcomes.

Although the term "return on investment" is derived from business rhetoric, this lense easily applies to schools trying to maximize student learning outcomes with a limited amount of resources. Strategically making financial decisions based upon the objective of getting the most value per dollar spent is a fundamental practice of school budgeting (Boser et al., 2014; Frank & Hovey, 2014; Levenson et al., 2014; Levenson et al., 2012). Frank and Hovey (2014) provide a systems strategy approach schools can use to increase return on investment. The system strategies approach to maximizing return on investment means having a planning conversation around 5 key steps:

1) **Identify the core need** - What fundamental student performance need are we trying to address? What is our theory of change for addressing it?
2) **Consider a broad range of investment options** - What are the investments we currently make to address this need and what else could we do?

3) **Define ROI metrics and gather data** - What are the relative returns (cost weighted against benefit) to the current/potential set of options?
4) **Weight investment options** - What other factors do we need to consider in order to select from among the options?
5) **Make investment decisions** - Make investment decisions.

There is no research connecting System Strategy ROI and derivation of solutions to the problem of impactful teacher effectiveness PD initiatives. Based upon a lack of evidence demonstrating a ROI for PD or any changes in teacher practices and student learning outcomes, ideology, policy and practices are moving toward an emphasis on the creation of PLCs.

PLCs in Operation

Dufour et al. (2012) in *Learning by Doing; An Operational Handbook for Professional Learning Communities at Work,* provide a framework for how PLCs actually function within a school setting. The model focuses on the four fundamental questions asked within a PLC:

1) What do we expect students to learn? (Essential standards)
2) How will we know they are learning? (Team developed standard assessment)
3) How will we respond when they do not learn? (Systematic interventions)
4) How will we respond if they already know it? (Extended learning)

The first question, “What do we expect students to learn,” requires PLCs to set clear learning goals for students based upon data such as common core state standards, IEP goals, and other sources of curriculum (Dufour, 1998). Content may include core academic subjects, technical skills, life skills, or social and emotional skills.

Learning goals may also be chosen to prevent and lessen the intensity of behavior problems so that students can stay safe and maximize academic growth. Cunningham (2015) emphasizes that learning goals must be set “standard-by-standard, student-by-student.” A professional learning community provides the structure for teams to collaboratively analyze disaggregated data to discover the learning needs of individual students. Use of screening assessments and diagnostic assessments to identify which students need extra help with what content is an embedded part of Response to Intervention (RTI) - or what has become known as Multi-tiered System of Support (MTSS). Figuring out “what we want students to learn” requires teams of professionals to collaboratively analyze assessment data and use this information to design curriculum based upon student needs (Mattos, 2016).

The second question, “How will we know they are learning,” requires teams to create the best types of assessment to check if students are growing academically and accomplishing the established learning goals. Since functioning as a PLC means asking “how will we know they are learning,” and MTSS involves monitoring how students respond to intervention - or what is often called “progress monitoring” - the two concept once again overlap. Teachers use various types of formative assessments in the classroom from day to day to monitor student progress. However, Mattos (2016) emphasizes the importance of teams of teachers creating a common assessment so that they can compare results across classrooms. For example, four 7th grade math teachers at large middle school may work together to create a common benchmark assessment that all of their students take first three months of schools. They then disaggregate the test data to find out what the students are learning and what areas

they need to reteach. Disaggregating assessment data also gives the teachers within PLCs the information necessary to identify students who may be in need of some type of intervention (Mattos, 2016).

The third question, “What will we do if students are not learning,” refers to choosing the best intervention if assessment data (such as that derived from benchmarks) indicates that a student is not accomplishing his/her learning goals. Addressing this question marks an another important intersection between Response to Intervention (RTI) and PLCs. RTI refers to a system of monitoring student response to an intervention within a Multi-tiered System of Support (MTSS). If students are not learning the relevant content, they receive an increasingly intense series of interventions within a tiered system. PLCs create the MTSS, choose the interventions, decide upon criteria for various levels of support, and collaboratively decide when students should be moved up or down the tiers based upon response to interventions (Mattos, 2016).

The fourth question, “How will we respond if they already know it” means teams plan for enrichment if have already mastered relevant content. Some of the flexible learning options identified by MDE for gifted and talented students include:

- Advanced Placement
- Alternative Education
- CTE
- Dual Enrollment
- Early Middle College
- International Baccalaureate

- Seat Time Waivers

.Other options for advanced instruction can be generated by the PLCs depending on the needs of interests of individual students.

Operating as a PLC revolves around systematically asking and answering these 4 fundamental questions. It also requires continuously steering back to the 3 big ideas, including 1) The purpose of school is ensuring that all students learn at high levels, 2) Helping students learn requires a collective effort, and 3) Educators must focus on measurable results to inform and improve practice (Dufour et al., 2010).

PLCs at Small Schools

There is some research providing guidance on how to adapt PLC framework so that it can be implemented in small school setting (Hansen, 2015; Young, 2010). The same research also provides ideas for how to include “singletons,” or teachers that are the only ones that teach their particular subject such as music, art, PE, or special education. Functioning as a PLC involves teachers having conversations that revolve around analysis of common assessment data. For example, at a large high school, there might be four Algebra I teachers that disaggregate data from a benchmark that all of them have administered to find out if students are learning the material and if not, what interventions will be in place to help compensate. However, in many small schools, there is only one teacher per subject or per grade level, so the typical framework does not apply. In addition, even in large schools, there are sometimes teachers who are the only ones that teach their particular area - again called “singletons.”

Hansen (2015) offers five possibilities for including singletons in professional learning communities: 1) Interdisciplinary teams, 2) Vertical Teams, 3) Singletons who

support, 4) Digital teams, and 5) Structural change. Interdisciplinary teams are a group of singletons such as a group of teachers who all teach a different area of career and technology like automotive repair, cosmetology and nursing. Such teams may focus on helping students learn a common set of skills such as customer service that apply across career fields. Vertical teams are made up of teachers across grade levels that teach the same subject. Singletons that support may refer to those such as adaptive physical education teacher that integrates math into their curriculum. Digital teams are PLCs that meet online. Finally singletons may be integrated into a PLC by changing the structure of a school. For example, a school may focus on providing instruction through project-based-assignments as opposed particular core subjects such as math or science. Young (2010) also suggest having PLCs that are structured around identified common skills across subjects such as reading comprehension or graphing. Although some of these ideas may apply to special education teachers at center-based schools, none of the literature reviewed explicitly makes this suggestion.

Principal's Role in Implementation of PLCs

Some of the earliest research pertaining to PLCs demonstrated that principals are one of the major factors determining whether or not PLCs are successfully implemented within a school (Scribner et al., 1999). Successfully implementing PLCs requires principals to focus on capacity building and constant re-examination of the underlying assumptions built into a school's culture (Dufour, 2002; Kirtman & Fullan, 2015). Principals that successfully implement PLCs go into the process with a plan built upon evidence-based practices (Hord & Hirsh, 2009; Pirtle & Tabia, 2014). Professional learning is a concept, a practice and a policy. Principals must work toward

institutionalization of state and local policy pertaining to professional learning. Principals must understand the essence of professional learning, implement it based upon evidence-based set of concrete actions, and work toward institutionalization of professional learning as a policy.

Scribner et al. (1999) in a 2 year case study of three rural middle schools found that more than another other factor, the actions of the principal either impede or facilitate the establishment of PLCs. At one school examined in the study the principal focussed on building trust through continuous support for teachers and students, and by acting upon the values he espoused. In another case, at a school where PLCs were not successfully implemented, the principal took a hands off approach which did not demonstrate to the teachers that he was committed to professional learning and collaboration. The study also found that “double-loop learning” - the idea that organizations must constantly question and reform the tacit assumptions underlying their actions - is an essential characteristic of a learning organization (Argyris, 1991; Scribner et al., 1999). Successful implementation of PLCs requires leaders to create a culture that promotes constantly questioning underlying beliefs, an inherent part of what is often referred to as reflection (Argyris, 1991).

Within a PLC, principals focus on capacity building as opposed to instructional leadership (Dufour, 2002; Kirtman & Fullan, 2015;). In the article, *The learning Centered Principal,* Dufour (2002) depicts the banality of the idea that the primary role of the principal is to “serve as an instructional leader” by citing monotonous usage of the phrase over the past 50 years in educational research, the marketing materials of professional organizations, and state and federal legislation. Serving as an instructional

leader means asking, 1) What are teachers teaching, and 2) How can I help them teach it better (Dufour, 2002). Building capacity by creating a PLC requires asking on a different set of questions. Dufour (2002) describes how it took him many years of acting as a principal before he realized that the questions he needed to ask were 1) To what extent are students learning the intended outcomes of the course, and 2) What steps can I take to give students and teachers the additional time and support they need to improve learning. Within a PLC, principals must initiate, facilitate and sustain the process of shifting a school's focus from teaching to learning (Dufour, 2004).

Hord and Hirsh 2009 identify seven approaches for principals to take when creating a professional learning community, including the following:

- Emphasize that you know teachers can succeed by working together
- Expect teachers to keep their knowledge fresh
- Guide communities towards self-governance
- Make data accessible
- Teach discussion and decision-making skills
- Show teachers the research
- Take time to build trust

Creating a PLC requires principals to constantly reiterate their belief in the teachers ability to successfully produce student academic growth through collaboration. Principals must also help teachers keep their knowledge fresh by sharing information with them such as relevant journal articles, while making sure they give them time to actually study the material and find ways to apply it. Guiding communities toward self-governance means the principal should give departments some autonomy to make their

own decisions and monitor their own progress. Making data accessible means instead of simply showing teachers their students' scores on state assessments during a powerpoint presentation, a principal gives them direct access to the source of the information. For example, in the State of Michigan, teachers can be given access to MIlearn, a database created by MDE, through which they can produce detailed score reports that show performance levels and academic growth estimates for individual students. Teaching discussion and decision-making skills requires choosing a framework, sharing it with the group of people that will use it, implementing the framework, evaluating it, and making necessary adjustments based upon results. As a an example, through Statewide Autism Resources Training (START) Project, MDE teaches a systematic framework that Student Assistance Teams (SATs) use for collaborative decision-making called Meeting Mechanics. Implementing PLCs also means exposing teachers to current educational research through mediums such as journal articles, websites, or TEDTalks.Taking time to build trust requires giving teachers a schedule that will allow them to collaborate with each other.

Public school principals are civil servants engaged in public policy. Professional learning may be required and/or recommended by state law, local board policies, or directives from and educational administrator within a school district. One of the primary roles of a principal is to make, implement, and follow policy (Fowler, 2000). For example, principals make policy pertaining to students bringing electronic devices to school. They collaboratively write the new policy into the student code of conduct based upon federal and state law. They then implement the new policy pertaining to students bringing electronic devices to school by communicating the content to relevant

stakeholders such as teachers, students, parents. Implementation of policy pertaining to PLCs, requires principals to follow a similar process. Principals are responsible for institutionalizing policy that comes from the federal, state and local level (Fowler, 2000).

Institutionalization of policy refers to “the period during which an innovation is incorporated into the organization” (Gross et al., 1971). Fowler (2000, p.292) writes, “A policy has been fully institutionalized when it has been seamlessly integrated into the routine practices of the school or district.” This means professional learning policy must be inextricable built into the culture and everyday practices of a school in order to meet the definition of “institutionalization”. Fowler (2000) provides a checklist that can used to assess the degree to which a policy has been institutionalized, which includes the following:

1) The policy is included in the appropriate portions of the school board policy manual.
2) Necessary changes have been negotiated in the master contract.
3) Teacher and administrator evaluation procedures are consistent with the policy.
4) Student evaluation procedures are consistent with the policy.
5) Necessary training and practice associated with the policy is included in the orientation and induction programs for new teachers and administrators.
6) All cost items associated with the policy are included in the line items of the district’s/school’s regular operating budget (p. 293).

The change from using soft money to fund professional learning as a policy initiative into making it a permanent line item in the school (or district) budget is a quintessential characteristics of policy institutionalization (Fowler, 2000).

In summary, principals must intentionally lead schools toward becoming a PLC based upon a long-term plan that involves comprehensive collaboration and transformation of the deepest characteristics of school culture. When implementing PLCs, principals have to operate within a set of constraints and opportunities contained within state and local policy pertaining to professional learning. Successful creation of PLCs and implementation of policy pertaining to professional learning is highly dependent upon a principal's leadership skills.

PLC Policy

Over the past decade professional learning has evolved into both a practice and a policy (Killion, 2013). "Practice" refers to a method of applying a theoretical framework, while "policy" refers to officiation of a procedure through legislation, regulation, guidance, contract, or a memorandum (Killion, 2013). The "practice" of professional learning refers to a method of applying what we know, based upon scientific evidence, about improving teacher effectiveness and student learning outcomes. No States explicitly require all schools to have professional learning in place, although some states such as Vermont do require implementation of PLCs as an intervention for underperforming schools (Jaquith et al., 2010). No research was found documenting exactly how many state education agencies have some sort of PLC policy in place. As explained in Chapter I, MDE issued a policy statement pertaining to

professional learning in 2011. However, no literature exists documenting what percent of schools have implemented this policy or even attempted to do so.

In the early 1970s when researchers started to examine the impact of President Lyndon Johnson's Great Society, a set of programs designed to eliminate poverty and racial inequality, the "implementation problem" came to light (McLaughlin, 1998). McLaughlin (1998) writes, "As Federal, State and Local officials developed responses to these new education policies, implementation issues were revealed in all their complexity, intractability, and inevitability" (p. 1).

Research on policy implementation is traditionally divided into two generations (Fowler, 2000). The first generation research on the implementation problem demonstrated that policies such as Title I of the Elementary and Secondary Education Act of 1965 were almost impossible to implement because of politics and government bureaucracy (Fowler, 2000). School districts could not provide compensatory programs required by the legislation because of too much red tape. Federal policy also failed to take school culture into account according to first generation implementation research (Fowler, 2000). Reformers were often out of touch with actual conditions in local schools. For example, Kline (1973), in what became a best selling book, titled, *Why Johnny Can't Add; The Failure of the New Math,* showed how a math program called "New Math," created by mathematicians in academia, did not apply well in real world classrooms.

Second generation implementation research also demonstrated that very few federal education policies were successfully implemented (Fowler, 2000). Second generation research revealed that successful implementation of federal education policy

only occurred when it was adaptable to local school circumstances (Berman & McLaughlin, 1978; Fowler, 2000). Rigid educational policy made at the federal level or state level was rarely realistic for implementation within local public schools. First generation and second generation implementation research demonstrates that even though policy implementation in schools is difficult, it is sometimes successful when there is a feedback loop between policy makers at the the state and/or federal level and policy implementers at the local level. Researchers refer to this process as “mutual adaptation” (Berman & McLaughlin, 1978; Fowler, 2000).

Mobilization for implementation, which entails policy adoption, planning and the gathering of resources, is the most crucial step in the implementation process according to some research (Fowler, 2000). Mobilization for implementation is followed by implementation proper, and finally, institutionalization (Fowler, 2000). No research indicates at what stage of implementation schools in the State of Michigan are at in the implementation of MDE policy pertaining to professional learning. Current research does not provide any evidence of whether center-based schools in Michigan are successfully using professional learning as reflected in MDE policy.

MDE Policy: Professional Learning

Professional learning policy in the State of Michigan promotes a shift away from traditional PD and toward implementation of professional learning as defined by Learning Forward (formerly National Staff Development Council). MDE defines professional learning as, “A comprehensive, sustained, and intensive approach to improving teachers’ and principals’ effectiveness in raising student achievement” (MDE Professional Learning Policy, Supporting Guidance, 2011). Ideally, the policy will make

all students within the state of Michigan career and college ready. The policy assumes that by creating a professional learning system throughout the entire educational system we can continuously improve the quality of education that students receive (MDE Professional Learning Policy, Supporting Guidance, 2011).

MDE provides the following table to illustrate the shift away from professional development toward professional learning communities using the following table:

Table 1

MDE Policy: An Essential Shift in Professional Learning

Moving Away from Professional Development	**Moving Toward Professional Learning**
Providing professional development based on current interests, unconnected to a career path or growth plan over time.	Building from learning goals and objectives established during educator preparation and developed throughout the educator's career.
Providing professional development that is not aligned with standards or connected to local improvement plans.	Aligning with all state and national standards and local school improvement plans to improve job performance and student growth and proficiency.
Engaging personnel in professional development unrelated to both real data and the continuous improvement process.	Engaging personnel in a process of continuous improvement, in which evidence and data are used to assess needs, define learning goals, design learning opportunities, and evaluate the effectiveness of professional learning in achieving identified learning goals.
Providing professional development for individuals that takes place outside of school, away from students, and is centered on issues of theoretical practice.	Facilitating sustained, collaborative, job embedded professional learning that includes opportunities to participate in communities of practice.
Providing one-time or short-term professional development with little or no support for transfer to the workplace.	Providing continuous learning to support and sustain the transfer of new knowledge and skills to the work place.
Individual stakeholders leading and providing professional development.	Providing increased opportunities among stakeholder organizations for collaboration and shared leadership for learning.

Table 1—Continued

Moving Away from Professional Development	Moving Toward Professional Learning
Limiting professional development based on scarce resources and discrete funding sources.	Utilizing and leveraging the necessary resources for continuous professional learning and ensuring that local and state and federal funds are aligned and within compliance with professional learning policy.

Source: MDE Professional Learning Policy, Supporting Guidance (2011)

MDE 7 Key Indicators

The 7 Key Indicators specified in Michigan's Professional Learning Policy are elements closely associated with student learning outcomes (MDE Professional Learning Policy, Supporting Guidance, 2011). The indicators are observable behaviors that apply to individuals in various positions including administrators, teachers, paraprofessionals and other ancillary support providers (See Appendix 1).

Summary of Review of Literature

The historical actuality of teacher PD rest upon the assumptions and political realities of mid twentieth century America that was shaped by positivism and the growing power of the federal government over public education policy. There is little research to support the effectiveness of PD, although it continues to be a pervasive part of the lived experience of teachers as well as a major budget item for school districts across the country. Derived from the concept of "learning organizations," a term coined by Senge (1991), referring to certain cultural characteristics of a business that could quickly adapt to new circumstances within a competitive market, PLC became a popular concept in the field of elementary and secondary education by the mid 1990s. PD and PLC emerged seperately, at different points in history, based upon two different

catalysts, but as a response to almost the same problem - improving the quality of education for public school students.

PLC is a concept, a practice and in some cases a policy. Much of the literature, as well as some policy initiatives in multiple states, reflects a growing call for more emphasis on PLCs and less emphasis on traditional PD. MDE has issued a policy aligned with this trend. Literature clearly recognizes that implementation of PLCs requires not only a change in mechanical processes such as how and when teachers meet with one another, but also a change in the tacit assumptions built into the culture of a school. For example, PLC means focusing more on student learning outcomes than teacher instructional practices, a subtle, yet necessary, change in mindset that goes along with this transformation process. Implementation revolves around Dufour's 4 fundamental questions in which the answers that are based upon assessment data examined by teams who make decisions about supports and interventions provided to students within a multi-tiered system of support. Whether by accident or intent, RTI and PLC are complementary, compatible, overlapping models for addressing the unique learning needs of individual students and improving academic outcome. Principal competency also plays a major role in successfully implementing PLCs, according to multiple sources. A limited amount of research addresses how PLCs can be implemented in non-typical schools.

There is no research exploring implementation of PLCs in center-based schools in the state of Michigan or whether these schools are implementing PLCs based upon state policy and seeing the predicted outcomes defined in the policy. Other than a few advocates on blog sites urging fellow educators to include special education teachers in

PLC meetings, there is little scholarly research examining how special education programs and services fit into the PLC model.

CHAPTER III

METHODOLOGY

Concurrent triangulation mixed methods were used to explore implementation of PLCs in center-based schools. This research was based upon a pragmatic worldview which assumes validity follows from utility. Pragmatism as an epistemological framework means that research methods arise out of the nature of a problem as opposed to "the nature of reality" (Cresswell, 2008). As a worldview, pragmatism allows the researcher to copiously draw from quantitative and qualitative methods depending upon actions, situations, and consequences (Cresswell, 2008). Quantitative data includes descriptive statistics gathered through an online survey. This data was used to make generalizations about the population - leaders associated with center-based schools in the State of Michigan. Qualitative data includes interviews with leaders of center-based schools in southwestern Michigan and a collection of documents from PLC meetings. The quantitative and qualitative data sets were collected and analyzed concurrently. Points of convergence and divergence were identified.

A Pragmatic Worldview

Appropriated from philosophy of science, the term "paradigm shift" has become a ubiquitous phrase in contemporary business discourse since the publication of *The Seven Habits of Highly Effective People,* written by self-help guru Stephen Covey in 1989. Covey (1989) describes a "paradigm" as a mental map, and explains that a "paradigm shift" occurs when one encounters significant new information that leads to a change in perspective. However, prior to 1989, the term "paradigm" as used in scientific discourse referred to a shared set of assumptions about the logic, methods, and

foundations of a scientific discipline (Kuhun, 1962). Later, the term “paradigm wars” was used to describe the tension between positivists, who advocated using quantitative methods to test specific variables that form a hypothesis versus those influenced by interpretivism (and other qualitative movements) who advocated using qualitative methods to understand the nuances of individual subjects (Gage, 1989). The paradigm wars came to a head by the late 1980s. Eventually, the warring parties reconciled by conceding that the two methods both offer valuable answers to questions in social science (Cameron & Miller, 2007; Gage, 1989).

Mixed methods research rests upon the ontological assumption that “the truth” or “truths” are what is useful and the epistemological assumption that the best methods are those that produce solutions to problems, notions first articulated by figures such as William James and John Dewey during the late 19th and early 20th century. Reconciliation of the “paradigm wars” can be described as a return to pragmatism, or the idea that validity of research should be judged based upon its practicality.

Kuhn (1962) introduced the term “paradigm shift” in his seminal work, *The Structure of Scientific Revolutions,* to describe a phase within the cycle of scientific revolutions. Scientific progress in part comes from slow, steady, accumulation of new knowledge based upon traditional methods, but Kuhn (1962) argues that in many cases, the most significant changes occur abruptly in a cyclical manner, referred to as the Kuhn Cycle. The five phases include a) normal science, b) model drift, c) model crisis, d) model revolution, and finally e) paradigm shift. The terms “paradigm” and “paradigm shift” were originally used to describe the nature of scientific progress, not in the more general sense as it is commonly used in popular self-help rhetoric. According to this

model, scientific progress occurs rapidly in response to a catalyst outside of the discipline (such as changes in social circumstances), followed by periods of stasis (Kuhn, 1962). Educational research shifting away from a primary focus on quantitative methods to more of an emphasis on qualitative methods from approximately 1960s to the 1990s, is an example of a paradigm shift in social sciences.

Cameron and Miller (2007) describe mixed methods research as “coming out of the ashes of the paradigm wars.” The “paradigms wars” refers to an intense conflict between proponents of quantitative research versus qualitative research in social sciences, especially during the 1980s. Quantitative methods versus qualitative methods in social sciences are based upon distinct paradigms. A backlash against the tenets of the education reform movement from the 1960s and 1970s began in the 1980s with a growing group of critics who rejected quantitative methods as a reliable way of producing consistent learning outcomes in the classroom. These critics scoffed at “positivism” in social sciences. Referring to quantitative research in education, Tom (1980) wrote, “The intellectual underpinnings of the applied science metaphor are crumbling,” which implied that even to assume quantitative methods in educational research were figuratively ‘scientific’ lacked a sound epistemological basis. Proponents of qualitative methods were pounding on the ontological and epistemological foundation - or, “a priori assumptions” - of quantitative methods in educational research.

Gage (1989) lays out the critique of quantitative methods as espoused by a) anti-naturalists, b) interpretivists, and c) critical theorists, during the 1980s. Anti- naturalists held that human affairs involve too many confounding variables to be studied scientifically. Interpretivists held that research concerned exclusively with observable

behavior was meaningless because it did not take “actions from the actors point of view” into account. Critical theorists argued that quantitative research focused exclusively upon efficiency, ignoring the influence of power relations on research questions. Researchers on both sides of the war eventually came to the realization that the “oppositional component of the paradigms” was an erroneous assumption (Cameron & Miller, 2007; Gage, 1989:). The validity of research rested upon its usefulness.

Pragmatism will function as the ontological and epistemological foundation of this research project. The validity of the methodology, methods, instruments, and analytics used in this study should be judged based upon the utility of the questions asked and answers provided. In his article, “*What does pragmatism mean by ‘practical,’*” Williams James (1909) wrote:

> No particular results so far, but only an attitude of orientation, is what the pragmatic method means. The attitude of looking away from first things, principles, categories, supposed necessities; and looking toward last things, fruits, consequences, facts. (p. 88)

This study provides practical answers to questions about implementation of PLCs in center-based schools based upon a combination of qualitative and quantitative research. The quantitative instrument - a survey in this case - is used to add breadth to the research and to make generalizations about implementation of PLCs across the State of Michigan. The qualitative instruments - interview questions and document analysis - are used to add depth to the research and explore the perspective of individual leaders in special education within southwestern Michigan.

Purpose

The purpose of this study was to find out if the leaders of center-based schools within the State of Michigan are successfully implementing PLCs and whether they are implementing PLCS based upon policy as issued by the Michigan Department of Education (2011) calling upon schools to transition away from traditional PD and toward PLCs. The survey questions, interview questions and documentation were used as parts of the research to find out a) if center-based schools have PLCs in place, b) if these PLCs are based upon MDE policy, and c) whether these PLCs are used as an alternative to traditional PD. Further, the study was designed to identify what obstacles administrators encounter during the PLC implementation process and discover what resources are most useful in overcoming these challenges. The study was used to discover the structure of PLCs and provide a basic description of the content that these communities explore during their time together. Finally, the study explores the degree to which special education administrators see changes in teacher behavior as the result of professional learning. Explaining how some center-based schools have successfully implemented PLCs and discovering areas of opportunity for others provides practitioners with practical options for impacting learning outcomes for students with low incidence disabilities in the State Michigan.

Research Questions and Design

Using quantitative data in the form of surveys, and qualitative data in the form of interviews and document review, provides the information needed to make generalizations about implementation of PLCs in center-based schools in Michigan and conduct an analysis of what it looks like in these schools. Quantitative data and

qualitative data were collected concurrently. The data was then analyzed. Finally the the research results were compared, integrated and interpreted based upon points of convergence and divergence (See Appendix C).

Research questions included the following:

1) How do leaders of center-based schools in the State of Michigan view the relationship between PD and PLCs?
2) To what degree have center-based schools in the State of Michigan implemented PLCs?
3) Are center-based schools in the State of Michigan implementing PLCs based upon the 2011 MDE policy statement?
4) What are a) the primary challenges of implementing PLCs, b) what resources have been most valuable in overcoming these challenges, and c) which resources have been most difficult to attain?
5) What types of structures are in place to allow PLC participation and what type of content do PLCs address?
6) Do the leaders of centered-based schools in the State of Michigan see the expected behaviors among teachers that correspond to the seven indicators of professional learning policy implementation as defined in the MDE Professional Learning Policy, Supporting Guidance, 2011?

Participants

The participants in this study were Supervisors of Low Incidence Programs (SLIP), a Community of Practice within Michigan Association of Administrators of Special Education Programs (MAASE). SLIP is made up of administrators who lead

center-based schools/programs throughout the State of Michigan. All interviewees and survey participants were members of SLIP. The survey participants play various leadership roles associated with center-based programs in Michigan including director of special education, special education supervisor and assistant principal. However, all of the interviewees were principals of center-based schools.

Data Collection

The topic of this research project is Professional Learning Communities (PLC) in center-based schools within the State of Michigan. The research is based upon mixed methods. It includes an online survey, face-to-face interviews and a review of documentation from PLC meetings. First, members of Supervisors of Low Incidence Programs (SLIP) were given the opportunity to take an online survey. Second, interviews with individual special education leaders took place. While the survey data was taken from all SLIP members associated with center-based programs throughout the state of Michigan, interviews focused on SLIP members who are principals of center-based programs in southwestern Michigan. The interviewees include leaders of center-based schools in rural, suburban and urban school settings. A total of 6 such leaders were interviewed. PLC meeting documents were collected from 3 of the 6 interviewees.

The researcher analyzed both quantitative data in the form of survey results and qualitative data in the from of interview transcripts and PLC documents. The results were then compared. Points of convergence and divergence were identified. This is a mixed method research design, referred to as concurrent triangulation, which is based upon pragmatism - the idea that the validity of the chosen method should be judged

foremost upon its potential for solving problems as opposed to its ability to uncover things that are “antecedently real” (Creswell, 2015; Powell, 2001).

Location of the Data Collection

Survey data was collected online using an online survey. The survey took participants approximately 15-20 minutes to complete. Some of those who completed the online survey also participated in a face-to-face interview either in person or using an online program such as facetime. In-person interviews took place in a settings agreed upon by both the interviewer and the interviewee where the two of them converse in private to protect the confidentiality of the information shared. If the interview took place using an video chat program such as facetime, no other person was in the room with the interviewer or the interviewee as they participated in an online conversation.

After the interviews were completed, the researcher transcribed the interviews. After transcripts of the recorded interviews were typed, the recordings were deleted from the recording device. The transcripts were downloaded onto a zip drive. The zip drive will be stored in a locked file cabinet, within a locked room, within the Department of Special Education and Literacy Studies Department of Western Michigan University. The data will be kept for three years and then destroyed.

Instrumentation

The survey was administered using a google.doc survey form that was emailed to potential participants. Throughout development and testing of the survey used for this study, feedback from other researchers and leaders in the field of special education was gathered and applied to maximize usability. Initial feedback indicates that the survey

can be easily administered, interpreted by the participants, and scored/interpreted by the researcher. The survey took participants 15 to 20 minutes to complete. Screening participants confirmed that the directions were easy to follow.

External Validity

This study attempted to maximize external validity by comparing quantitative and qualitative data. The survey results (quantitative data) were used to make generalization about the population (leaders associated with center based programs in the state of Michigan), while the qualitative data was used to explore the perspective of these leaders.

Instrument Content Validity

Survey scores are intended to allow the researcher to make inferences about the opinions of special education leaders within the state of Michigan regarding implementation of PLCs in center-based schools. A review of the literature, a review of policy implementation guidelines, and feedback from special education leaders were synthesized during development of the instrument. These data sources indicate that the survey contains a representative sample of the content such as MDE policy guidelines and characteristics of policy institutionalization.

Data Analysis

Quantitative and qualitative data were collected and analyzed separately. The results were then be compared. Points of convergence and divergence were identified. The points of convergence were treated as indications of validity for both data sets. Points of divergence were considered threats to the validity of both quantitative and

qualitative data sets. The researcher provided potential explanations for any points of divergence.

CHAPTER IV

RESULTS

This chapter describes results of a mixed methods study examining implementation of PLCs in Michigan's center-based schools. Research questions include the following:

RQ 1) How do leaders of center-based schools in the state of Michigan view the relationship between PD and PLCs?

RQ 2) To what degree have center-based schools in the state of Michigan implemented PLCs?

RQ 3) Are center-based schools in the state of Michigan implementing PLCs based upon the 2011 MDE policy statement?

RQ 4) What are a) the primary challenges of implementing PLCs, b) what resources have been most valuable in overcoming these challenges, and c) which resources have been most difficult to attain?

RQ 5) What types of structures are in place to allow PLC participation and what type of content do PLCs address?

RQ 6) Do the leaders of center-based schools in the state of Michigan see the expected behaviors among teachers that correspond to the seven indicators of professional learning policy implementation as defined in the MDE Professional Learning Policy, Supporting Guidance, 2011?

Demographics of Survey Participants

Characteristics of survey participants were gathered. All of the participants were members of SLIP. Tables 2, 3, and 4 list the variables of gender, age, highest level of

educational attainment, years of experience as a special education administrator, job title, district type, and district category.

Table 2

Demographic Characteristics of Survey Participants (N = 35)

Variable	Frequency	Percent
Gender		
Male	2	5.7
Female	33	94.3
Age		
21-30	0	0
31-40	8	22.9
41-50	15	42.9
51-60	10	28.6
61 or greater	2	5.7

Over 90.0% of survey participants were females and all of the participants were at least 31 years of of age (See Table 2). Each of the 35 survey participants had either a master's degree (80.0%), a specialist's degree (14.3%), or a doctorate (5.7%) as illustrated in Table 3. Just less than 55.0% participants had less than 10 years of experience as special education administrators, while approximately 45% had more than 10 years of experience.

Table 3

Professional Demographics of Survey Participants (N = 35)

Variable	Frequency	Percent
Highest Level of Educational Attainment		
Bachelor	0	0
Master	28	80.0
Specialist	5	14.3
Doctorate	2	5.7
Years of Experience as a Special Education Administrator		
0-5	10	28.6
6-10	9	25.7
11-15	6	17.1
16-20	5	14.3
> 20	5	14.3

Almost 50.0% of survey participants were principals at center based schools. While 80% of participants were from an Intermediate School District (ISD) or Educational Service Agency (ESA), only 20% were from a Local Education Agency (LEA) (See Table 4). Participants were from a combination of rural districts (68..6%), suburban districts (27.7%), and urban districts (5.7%).

Table 4

District Demographic Characteristics of Survey Participants (N = 35)

Variable	Frequency	Percent
Job Title		
Assistant Superintendent	1	2.9
Director Special Education	7	20.0
Special Education Supervisor	7	20.0
Principal (Center based school)	17	48.6
Assistant Principal (Center based school)	2	5.7
Other	1	2.9
District Type		
Local Public District	7	20.0
ISD/ESA	28	80.0
Charter	0	0
District Category		
Rural	24	68.6
Suburban	9	27.7
Urban	2	5.7

Interviewees

Six principals from center based schools in southwestern Michigan were interviewed for the purpose of this study. Three of the interviewees provided documentation from PLC meetings. Interview transcripts were analyzed to identify commonalities and differences among interviewee responses to interview questions. PLC meeting documents were analyzed to substantiate the interviewee responses and to examine meeting content to answer research questions.

Research Question 1

How do leaders of center-based schools in the State of Michigan view the relationship between PD and PLCs?

RQ1) Quantitative Data Analysis

When asked to choose the statement they agreed with most pertaining to the relationship between PLCs and PD, the majority of respondents indicated they view PD as a way to give teachers the skills and knowledge needed to participate in PLCs. However, the responses of the majority of those who completed the survey indicate leaders of center-based schools do not see professional learning, which takes place in PLCs, as a replacement for traditional PD. Only 23% of respondents chose the statement, “PLCs are an alternative to traditional professional development.” Results also indicate less than 10% believe there is little relationship between PD and PLCs and less than 10% believe they are “essentially the same thing” (see Table 5).

Table 5

Views on the Relationship Between PD and PLCs

Please choose the statement you agree with most.	
There is little relationship between PLCs and PD.	8.6%
PLCs are an alternative to traditional professional development.	22.9%
PD is a way to give teachers the skills and knowledge needed to participate in PLCs.	60.0%
PD and PLCs are essentially the same thing.	8.6%

N = 35

When asked to choose which they thought was the most effective option for positively impacting teacher performance and student learning outcomes, 83% of respondents chose PLCs and 17% chose PD (see Table 6).

Table 6

Views on the Most Effective Option for Positively Impacting Teacher Perfomance and Student Learning Outcomes

In your opinion, what is the most effective option for positively impacting teacher performance and student learning outcomes?	
Professional Development	17.1%
Professional Learning Communities	82.9%

N = 35

Only hypothetically are these two options mutually exclusive, but responses imply that leaders of center-based schools place much higher value on participation in PLCs than completion of PD requirements when making a judgement about these options based upon potential impact on student learning outcomes.

The results from these two survey questions imply that the majority of leaders of center-based schools believe PD gives teachers the knowledge and skills needed to participate in PLCs and ultimately, PLCs have a greater impact on instructional practices and student learning outcomes.

RQ1) Qualitative Data Analysis

The combined responses of interviewees reflected four general ideas: 1) PD and PLCs are linked, 2) Participation in PLCs sometimes helps to identify critical PD needs, 3) Participation in PLCs is a form of PD, and 4) PLCs are a better option than exclusive reliance upon traditional PD as a means of increasing teacher effectiveness and student academic growth.

All interviewees agreed that the two concepts are linked and serve a complementary purpose. Some of the interviewees described how functioning within a PLC may require PD. One interviewee said:

> *Professional development is an ongoing process. This year we have made a commitment to some philosophical PD and we continue to infuse it into much of what we do in PLCs, staff meetings, presentations.*

Another interviewee tells about how through participation in PLCs, a group of teachers discovered they wanted to learn more about core vocabulary. As a PD activity, she sent them to visit another center-based school where teachers were already applying the concept. She stated:

> *They can overlap. If a professional learning community is working on something, and they are wanting to see other programs, for example, I gave them that one, when they wanted to learn about core vocabulary, they wanted to take a day to go out to another program, and see what they were implementing and how they were using it. And that was professional development for them, based upon what their team came back with.*

Another interviewee describes how teachers sometimes realize what PD would be most relevant to them through participation in PLCs. She states:

> *So through our discussions and the needs and the things we're working on, I'm finding like, wow, we need job coach training, or you know, I need to send this teacher and go see this in this other county that I know about, so she can see what a leveled adult program looks like. Or, so I'm kind of finding through this process that what they need ...Oh, this training would be great for this person, or*

you know, so I try to look for things, and as I find things, I will have people in mind.

Some of the interviewees acknowledged participation in PLCs as a form of PD. One interviewee said, *Really professional development is what you should work on when you're in those PLCs.* Another interviewee expresses a similar thought:

In our school, and I'm going to say as a district, we still rely heavily on professional development models versus professional learning communities just because they're new. But as we see the benefits of PLC, I think we'll move more towards that as part of professional development even in the county with a lot of teachers.

The responses of interviewees reflected a somewhat negative association with PD, yet they did not see PLCs as an adequate substitute. PD is viewed as a hoop that teachers jump through to maintain licensure as opposed to a fulfilling path toward increasing their professional skill set. While reflecting on the relationship between the two concepts, one interviewee said,

I think it would be great if they could be more connected. Unfortunately, when I hear professional development and probably when my staff hear it, they think of the PD hours you have to get, right? That redtape kind of thing. And when they hear... they hear PLC, it sounds like more optional….but not optional...You know PD is something you have to do, but a PLC is something that is going to enrich more as opposed to PD is... you know, something they are told to do.

The interviewee believes teachers feel a tinge of resentment toward fulfilling PD requirements because it often seems like an obligatory waste of time. On the other hand, according to the interviewee, PLC participation feels more meaningful to teachers because they believe it can "enrich" their professional experience.

RQ1) Divergence and Convergence

Both quantitative and qualitative data gathered pertaining to question 1 indicate the majority of leaders of center-based schools in the State of Michigan believe PLCs potentially have a greater impact on student academic growth than traditional PD. Both data sets also indicate leaders view the two concepts as inextricably linked in practice. Although 22% of survey respondents indicated they believe PLCs are an alternative to traditional PD, interview responses imply there may be a catch from these leaders' point of view. PLCs can function as an alternative to exclusive reliance upon traditional PD as a means of increasing the quality of education that children receive, but not a total replacement.

Research Question 2

To what degree have center-based schools in the state of Michigan implemented PLCs?

RQ2) Quantitative Analysis

Over 90% of a survey respondents indicated they had at least started to implement PLCs at the schools they lead. Additionally, 22.9% of respondents indicated that within the center-based schools they lead, PLCs have been "seamlessly integrated into routine practices." A combined 70% of survey respondents indicated they are either starting to implement PLCs or have implemented PLCs and at this point are

gathering feedback, providing assistance to teams, and making adjustments based upon feedback. Survey results indicate the majority of center-based schools in the state of Michigan are either implementing or have fully implemented PLCs (see Table 7).

Table 7

Participant Implementation of PLCs

Please choose the statement that most accurately describes implementation of PLCs at the school/s you lead.	
We have not started to implement PLCs.	8.6%
We have started to implement PLCs by gathering resources, providing training, and setting aside time to begin the change process.	34.3%
We have implemented PLCs and are now gathering feedback, providing assistance for PLC teams, and coping with challenges as they arise.	34.3%
PLCs have been seamlessly integrated into routine practices.	22.9%

N = 35

Fowler (2000) provides a list of indicators of policy institutionalization. These indicators were modified for the purpose of this study so they referred specifically to institutionalization of PLCs within center-based schools. Survey respondents were presented with the list of statements written to indicate level of institutionalization of PLCs and asked to check all that apply. The first statement read, “Professional learning is addressed in our school board policy manual.” As illustrated in Table 8, just over 40% of respondents checked this statement, indicating that within a significant number of the districts center-based schools are part of, PLCs are addressed as a component of district policy. The second statement read, “Professional learning is addressed in teacher contracts,” and the third read, “Teacher and administrator evaluation procedures are based in part upon professional learning.” Over 65% of respondents checked statements 3 and 4. The fourth statement assumes a complementary

relationship between PD and PLCs. It reads, “Necessary training for participation in PLCs is part of the new teacher initiation process.” Surprisingly only 25% of survey respondents checked this statement. Based upon responses from the sample, it seems that new teachers in most center-based programs within the state of Michigan do not routinely learn the norms of participating in a PLCs. Just over 40% of survey respondents checked the last statement which read, “Cost items associated with the PLCs are included in the line item of the district/school operating budget.” This indicates that a significant number of center-based schools integrate PLCs into their annual budget. The combined results of this survey question indicate that in many center-based schools within the state of Michigan, PLCs have become institutionalized, but not in the majority of cases.

Table 8

Indicators of institutionalization of Professional Learning: Center-Based Schools in Michigan

Please check at that apply:	Percent who Checked
Professional learning is addressed in our school board policy manual.	40.6%
Professional learning is addressed in teacher contracts.	65.6%
Teacher and administrator evaluation procedures are based in part upon professional learning.	65.6%
Necessary training for participation in PLCs is part of the new teacher initiation process.	25.0%
Cost items associated with PLCs are included in line items of the districts/schools regular operating budget.	40.6%

N = 32

RQ2) Qualitative Analysis

Interviewees emphasized the importance of connecting the activities and goals of PLCs to the vision and mission of their school and/or district so participants have a shared purpose. Establishing shared methods of data-based decision making and learning systematic ways of collaborating were also cited as important steps in the implementation process. Successfully implementing PLCs is also dependent upon the pace of change, according to interviewees. The degree to which center-based schools are able to implement PLCs was dependent upon a) establishing a shared purpose and presenting PLC initiatives in an influential manner, b) providing the necessary training, and c) making the necessary changes at a reasonable pace.

Some interviewees indicated that connecting the purpose of PLCs to the vision, mission and goals of their school was an essential part of the implementation process. One interviewee said,

> *The fundamental purpose of our school is defined in our vision and mission statements...And our teachers know that this is the ultimate goal. And the expectation is that the time we dedicate to PL sees is used to focus on those goals.*

When asked, how she creates "buy-in," one interviewee responded, *We've really chosen to stay away from 'buy-in' and are seeking to influence staff.* The idiom "buy-in" refers to "belief in an idea or concept," but has some negative connotations, so the interviewee seems to use the word "influence" to describe a softer approach for persuading teachers and staff to think and act in new ways. Another interviewee conceded that creating so called "buy-in" was not easy:

Now, buy-in is kind of still happening. We're walking back a little bit. We - and when I say we, I mean my assistant principal and our instructional consultant - have really bought into this idea and thought it was great. Well one thing we noticed is that they're kind of going through the motions and so what that told us was that some saw the value and some have not seen the value in getting together.

Getting everyone on board is not an easy task. Interviewee responses imply that a gentle approach carefully aligned with a shared set of values helps to successfully transform schools into learning communities.

One of the interviewees emphasized the importance of PD in the implementation process when she explained:

One approach is the use of Adaptive Schools strategies along with shared readings that help teach staff to know how to become effective and efficient collaborators. We have training and practice paraphrasing to seek better understanding of one another along with the ability to find the higher purpose with working with each other. We also have provided direction into some specific data to review each meeting to encourage a data driven collaboration time.

The response of this interviewee is particularly interesting because she specifies what type of training her school is using for this purpose. Garmston & Wellman (1999) in their book, *The Adaptive School; A Sourcebook for Developing Collaborative Groups*, provide a framework for:

- Distinguishing between dialogue and discussion

- Establishing 7 norms for collaboration
- Automating language patterns for inquiry and problem-solving
- Facilitating groups and data teams
- Engaging in productive conflict
- Building community

Each of these skills are requisites for optimal performance within a professional learning community (Garmston & Wellman, 1999).

Rolfe and Rolfe (2013) argue that policy can be successfully implemented when social and cognitive mechanisms of resistance, interference and backlash are not activated. The responses of interviewees reflect an intuitive understanding of this contention when they emphasize the importance of slowly and methodically implementing PLCs. One interviewee states:

> *Well this has been a multi-year process, we started with me leading the groups to start getting them to understand the process of a PLC as I was learning it. So I've changed it along the way. So initially, it was me starting to meet with those groups, and to get them to work as a collaborative team.*

Another interviewee describes how leaders at her school have become more flexible regarding how PLCs use their time:

> *So we've backed off of some of our own rigidity. Really had them come up with some goals of getting together with your grade band so that can have some more ownership of this time and add value to the time itself. Because we've carved that out.*

The degree to which PLCs are successfully implemented is dependent in part upon the ability of leaders to set a reasonable pace for change and then monitor conditions and respond accordingly. Mutual adaptation, defined as “changes in attitudes, skills and behaviors among participants” takes time and therefore requires leaders to exhibit patience (Berman & McLaughlin, 1978).

Getting everyone on board by establishing a shared purpose, providing adequate PD so that everyone has prerequisite skills, and setting a reasonable pace for change are all components of successfully implementing PLCs according to leaders of center-based programs in southwestern Michigan. Interview responses imply that the degree to which PLCs are implemented is dependent upon these and other factors.

RQ2) Convergence and Divergence

Over 90% of special education administrators who responded to the survey indicated the center-based schools they lead had at least started to implement PLCs and 22.9% indicated PLCs were seamlessly integrated into everyday practice. Survey respondents also confirmed that some indications of PLC institutionalization were present within school settings. In convergence with the quantitative data collected, all interviewees described initiatives they had taken to implement PLCs. Creating buy-in, providing relevant professional development and setting a reasonable pace for change were all implementation practices described by interviewees. Combined quantitative and qualitative data sets indicate the majority of center-based schools in Michigan are actively implementing PLCs, but most have not yet reached the stage of full institutionalization.

Research Question 3

Are center-based schools in the State of Michigan implementing PLCs based upon the 2011 MDE policy statement?

RQ3) Quantitative Data Analysis

When ask if their school has implemented (or is implementing) PLCs based upon policy issued by MDE, 80% of survey respondents chose either No or Unsure (see Table 9). Only 20% of respondents confirmed that they were implementing PLCs based upon MDE policy.

Table 9

Implementation of PLCs Based on Policy Issued by MDE

Our school has implemented (or is implementing) PLCs based upon policy issued by the Michigan Department of Education.	
Yes	20.0%
No	34..3%
Unsure	45.7%

The fact that the overwhelming majority of leaders of center-based schools are not implementing PLCs based upon MDE policy may be attributable to one of three possibilities. First, leaders of center-based schools may be unaware of pertinent MDE policy. A second possibility is that leaders of center-based schools are not able to implement PLCs based upon MDE policy because it is somehow incongruent with actual conditions such as availability of resources. Last, leaders of center-based schools may simply reject MDE policy pertaining to PLCs for practical or ideological reasons.

RQ3) Qualitative Data Analysis

The responses of all interviewees reflected lack of familiarity with MDE policy pertaining to professional learning. The following is a sample of responses when interviewees were asked, “Are PLCs at your school based upon any type of state or federal policy?”

Example 1) *The PLCs at our school are based upon what is best for our students. I am not aware of the state policy in regards to PLCs.*

Example 2) *Yes, we adhere to all state and federal guidelines, policies and laws.*

Example 3) *The PLCs at our school are based upon what I thought would be best for students. I’m not sure about any state policies in regards to PLC and if there are some out there, I’m just unaware.*

Example 4) *No. Not that I know of.*

Example 5) *No, I don’t think so. Well what do you mean?*

Example 6) *Not sure what you mean.*

RQ3) Convergence and Divergence

The combined results of quantitative and qualitative data indicate the large majority of leaders of center-based program in the state of Michigan are unaware of the MDE 2011 Policy Statement pertaining to PLCs and they are therefore not implementing PLCs based upon this policy. No blatant points of divergence between quantitative and quality data stood out for research question 3.

Research Question 4

What are a) the primary challenges of implementing PLCs, b) what resources have been most valuable in overcoming these challenges, and c) which resources have been most difficult to attain?

RQ4) Quantitative Analysis

Survey data indicates the primary challenges of implementing PLCs according to leaders of center-based schools are a) teacher time, b) competition with other priorities, and c) effective ongoing communication. These survey responses indicate leaders of center-based schools struggle to provide adequate time for teachers to take part in PLCs activities because of competing interests. Not having time to meet as a team makes effective ongoing communication harder to provide.

The top three responses chosen when leaders were asked what resources were most valuable in the implementation process were a) adequate time dedicated to implementation of PLCs, b) follow-up sessions and regular meetings with other leaders implementing PLCs, and c) pre-start-up training. Time again is identified as an important resource for implementing PLCs. Meeting with other leaders who are in the process of implementing PLCs may facilitate the exchange of ideas for overcoming some of the most challenging aspects of implementation. Pre-start up training, or professional development in other words, is again identified as an important part of the PLC implementation.

When asked which resources were most difficult to provide during the PLC implementation process, adequate time was again the most frequently chosen response. The second most frequently chosen response was visits to other schools,

which again requires adequate time. Providing an adequate number of paraprofessionals and teaching aides was one of the most frequently chosen third most difficult resources to provide. Paraprofessionals and teaching aids may be valuable for reducing a teacher's workload so they have more time to collect and analyze data. Further, having more personnel in the classroom could provide more opportunity for teachers to meet with their peers.

Table 10

Primary Challenges Implementing PLCs

Which of the following best describes the primary challenge you've faced as a leader at a center-based school when implementing PLCs. Please choose the top three in rank order.

Challenges	**1**	**2**	**3**	**Total**
Teacher time and energy	15	4	4	23
Arranging staff development	2	4	2	8
Effective on-going communication	2	3	8	13
Limited facilities	0	1	1	2
Teacher morale and resistance	2	3	2	7
Lack of skill among staff	2	5	2	9
Slow progress	0	1	1	2
Disagreement over goals	0	0	3	3
Maintaining interest	2	2	2	6
Over ambitious implementation goals	0	1	0	1
Unexpected crisis	1	3	0	4
Competition of with other priorities	7	6	8	21

Based upon Louis and Miles (1990)
N = 35

Table 11

Most Valuable Resources Implementing PLCs

Which three of the following resources have been most valuable in implementing PLCs? Please choose the top three.

Resources	**1**	**2**	**3**	**Total**
Pre-start up training	6	3	2	11
Follow-up sessions	5	0	1	6
External consultants	3	1	2	6
Internal consultants	0	4	2	6
Visits to other schools	3	2	1	6
Conferences	1	0	4	5
Regular meetings with other leaders implementing PLCs	5	5	4	14
Printed material	0	3	0	3
Adequate time dedicated to implementing PLCs	15	4	7	26
Paraprofessionals and other teaching aides	1	1	5	7
Demonstrations	0	2	2	4
Formative evaluations	0	1	1	2
Sympathetic ear	0	2	2	4

Based on Figure 10.4 Fowler (2000, p. 291)
N = 35

Table 12

Difficulties Implementing PLCs

Which three of the following resources have been most difficult to provide during implementation of PLCs

Resources	**1**	**2**	**3**	**Total**
Pre-start up training	4	3	2	9
Follow-up sessions	3	3	3	9
External consultants	2	4	1	7

Table 12—Continued

Resources	1	2	3	Total
Internal consultants	0	1	2	3
Visits to other schools	4	7	3	14
Conferences	0	2	0	2
Regular meetings with other leaders implementing PLCs	5	4	5	14
Printed material	0	0	0	0
Adequate time dedicated to implementing PLCs	10	2	4	16
Paraprofessionals and other teaching aides	0	3	5	12
Demonstrations	1	4	3	8
Formative evaluations	4	1	4	9
Sympathetic ear	0	1	0	1

Based on Figure 10.4 Fowler (2000, p. 291)
N = 35

RQ4) Qualitative Analysis

When asked to describe the most challenging aspects of implementing PLCs, leaders of center-based schools consistently talked about a) time constraints, b) ensuring teachers have the prerequisite skills that come from professional development opportunities, and c) making the necessary arrangements to facilitate team meetings among teachers. One interviewee explained:

> *Organization has been the most challenging. Organizing the time, expectations, and procedures. That along with bringing the teachers up to speed on the PLCs process. This is a very new concept to them. It has taken some time, and still is taking time to get everyone on the same page.*

Another interviewee articulates just how complicated it can be for leaders of center-based programs to make the necessary arrangements because so many different variables have to be taken into account during the planning process such as number of instructional hours that students must receive and how schedule changes will affect transportation arrangements:

> *Well, organization has been the most challenging, probably just organizing the time, we had to create a new schedule, I had to do that with the transportation department and make sure it matched up with the local school in our town because they provide our transportation. So that was kind of a bit sketchy. I had to kind of move around some of our ...some our times to get the correct amount of instructional hours and still allow students to leave early on Friday. So that was a little tedious and tricky.*

Once time has been set aside for PLC meeting to take place, leaders have to make sure the teams are using their time efficiently. One interviewee said, *Time. So they have to have that time, I think, what can be difficult is ensuring that they're maximizing that time and they're really meeting the way they should be meeting.* Another interviewee gave a similar response: *Active and balanced participation for all members, ensure PLC time is productive.*

Interviewees were also asked about the most valuable resources and the ones that were hardest to obtain. Many of the interviewees listed books and journal articles as valuable resources for implementing PLCs. Examples included work by Richard Dufour and the book *Adaptive Schools; A Source Book for Developing Collaborative Groups*, written by Garmston and Wellman (2016). A "clear concise plan for the year"

was also named by one of the interviewees as the most valuable resource. One interview said, *Sometime there's just not enough data or time and money for training.* When asked to describe the hardest resource to obtain and to describe how he had compensated, one interviewee said:

> *I think another one is that because they are meeting during the day at these certain times is clearing me and my assistant principal' calendar during certain times. Part of our plan was that one of us would attend at least 2 of the meetings per month so that they could have support and guidance. But that's been part of the challenge also.*

The majority interviewees cited time as the most valuable resource in the PLC implementation process. They described how it was difficult to compensate for time constraints because of all of the components involved in organizational management. Interviewee responses indicate careful planning that takes time constraints into account is the most important aspect of successfully implementing PLCs.

RQ4) Convergence and Divergence

Combined quantitative and qualitative data indicate that time constraints impede implementation of PLCs more than any other factor. It takes time for teachers to gain the necessary prerequisite skills, organize team meetings, gather assessment data, and execute a plan based upon decisions made during PLC meetings. Carefully making scheduling adjustments based upon factors such as teacher contracts, required number of instructional hours, and transportation arrangements emerged as the primary means through which leaders at center-based schools can successfully compensate for time constraints when implementing PLCs. Systemic planning emerged as the primary

means through which leaders can potentially compensate for the scarcity of time. Quantitative and qualitative data reinforced each other regarding this research question. No significant points of divergence were identified.

Research Question 5

What types of structures are in place to allow PLC participation and what type of content do PLCs address?

RQ5) Quantitative Data Analysis

Leaders of center-based programs were presented with a series of nine statements pertaining to current conditions and behaviors of teachers, ancillary staff and administrators at their schools. The conditions and behaviors described by the statements reflect essential characteristics of PLCs (Dufour et al., 2006). Survey participants chose a likert scale response for each statement. Response options included a) *Strongly Disagree* = 1, b) *Disagree* = 2, c) *Neutral* = 3, d) *Agree* = 4, e) *Strongly Agree* = 5. The statements in in Table 13 are arranged in descending order from characteristics with the highest arithmetic mean based survey responses to those with the lowest arithmetic mean. The mean of combined responses is 4.07 (*SD* = .83). These data indicate the majority of survey participants generally agree that these statements reflect the current structures and behaviors within their learning communities.

The three statements with highest mean (4.29, 4.26, and 4.21) each describe a culture of collaboration. The three statements with the lowest mean (4.09, 3.97, and 3.48) describe availability of resources and a focus on data-driven decision making to meet the learning needs of individual students during PLC meetings. The availability of

relevant disaggregated data and other resources necessary for identifying and addressing the learning needs of individual students may be an area of opportunity for center-based schools in the state of Michigan.

Table 13

Views on Current Conditions and Behaviors of Teachers, Ancillary Staff, and Administrators

Please indicate the degree to which you agree or disagree that the following statements describe current conditions and behaviors of teachers, ancillary staff, and administrators at the center-based school/s and/or programs you lead.

Statement	***M***	***SD***
Share repertoire, experiences, and solutions to challenges.	4.29	.75
Create a culture in which community members trust each enough to provide suggestions, discuss critical student needs, and explore ways to deliver interventions.	4.26	.74
Respect different styles of conversation, interaction and conflict management.	4.21	.71
Learn from each other through observation and the exchange of ideas and resources.	4.17	.78
Seek help from master teachers, central office personnel and/or external consultant in order to meet the challenges of	4.14	.69
Provide adequate resources such as paper, technology, and personnel on a consistent basis.	4.09	.98
Discuss ways to meet the learning needs of individual students during PLC meetings.	3.97	.98
Distribute disaggregated data from multiple sources in easy to read, understandable formats to PLC participants.	3.48	1.01

1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4= Agree, 5 = Strongly Agree
N = 35

RQ5) Qualitative Data Analysis

Interviewees described several different ways of grouping teachers for participation in PLCs. Three commonly described ways of grouping teachers included a) dividing the teachers up based upon student disability category, b) dividing teachers up

based upon grade band, and c) dividing teachers up both ways during different increments of PLC time. One interviewee said, "*Teachers move from continuum meeting (common student needs) to grade band meeting,"* over the course of a ½ day set aside for PLCs to meet with each other. Another interviewee stated, "*Currently we have our teams divided into groups according to age. We have a transition team, a middle and lower high school team and an elementary team."* While in most traditional settings there are multiple teachers who teach the same grade level (such as elementary schools) or multiple teachers who teach the same subjects at the same grade level (such as middle schools and high schools), in center-based schools, teachers are usually singletons, meaning they are the only ones who work with a particular group of students. For this reason, leaders of center-based programs group teachers differently than how they are traditionally grouped for PLC meetings.

A sample of documents from PLC meetings were reviewed for the purpose of this study, including PLCs agendas from three different center-based schools. Each of the documents reviewed was a template that specified the name of a PLC group (Young Adult and Postsecondary, for example), topics to be covered, roles and responsibilities, as well as what, why and who would take what actions. All interviewees described a similar process for determining meeting agendas. Most described having a folder within a shared Google Drive which contained a template for planning the meetings. A leader such as a department chair or other administrator would set the agenda based upon the template and feedback from the participants. As one interviewee explained, "*Chairpersons have been trained around agenda setting. They have access to a google*

folder that holds the templates and instructions on how best to set the agenda." All consistent with Adaptive Schools skills.

According the sample of documents reviewed and the responses from interviewees, the content of PLC meetings varied considerably across groups, but all involved analyzing test data including score reports from MI-Access and MI-STEP. Other data examined by PLCs included teacher made formative assessments, districts benchmarks, and even data measuring factors such as organizational health. One interviewee gave the following example:

> *So we would utilize our professional learning days, especially our half days, to provide time for them to meet, because it would give them 3 hours of consistent time to work on whatever they were developing. And you know, they use that time when they were sitting down to look at the MI-Access results to take that information back their group, so that they could figure out what to do to address curriculum.*

She went on to give an example of how teachers established that they needed to work on core vocabulary and graphing when they looked over the data together. Another interviewee said,

> *Each PLC had its own folder. And then within there, they would develop their own agenda for the year to make it connect to student learning, we train the teachers on how to look at their MI-Access data, and then we would give them the results, they as a team would review the data, and then they would pull the information together and present it to us in the areas that they had identified and*

addressing from the data they pulled. And then they would come up with a plan of how they would address those academic areas.

Another interviewee refers to looking over benchmark data:

So they are looking through the ULS curriculum. We've tried to have a sort of ULS curriculum leader in each grade band, so there's one person and our instructional consultant to kind of lead the way. They are also going through some of the benchmark testing and stuff that they are doing within ULS.

Finally, an interviewees describes PLCs examining three different sets of data including academic data pertaining core subjects, academic data pertaining to a school wide initiative to improve student communications skills, and last, a self-assessment based upon Adaptive Schools:

Academics, communications and Adaptive Schools Skills. Academic comes from our school's K-12 curriculum. School wide communication data is part of a school wide communications data collection and intervention plan. Adaptive schools skill is from the self-rating scale.

Documents used as artifacts and responses of interviewees each reflect ubiquitous use and availability of disaggregated data from multiple sources.

RQ5) Convergence and Divergence

Two points of divergence emerged between quantitative and qualitative data sets regarding research question 5. First, although less than 50% of survey respondents strongly agreed or agreed with the statement "Provide scheduled times for PLC teams to meet daily, or weekly at a minimum," all interviewees indicated that they provide regularly scheduled times for PLCs to meet. Second, only 60% of survey respondents

Strongly Agreed or *Agreed* with the statement “Distribute disaggregated data from multiple sources is easy to read, understandable formats to PLC participants (*M* = 3.48). However, the narrative responses of interviewees reflect a pervasive availability of assessment data which teams analyze and use to decide upon appropriate interventions and monitor student academic progress.

Research Question 6

Do the leaders of centered based schools in the state of Michigan observe the expected behaviors among teachers that correspond to the seven indicators of professional learning policy implementation as defined in the MDE Professional Learning Policy, Supporting Guidance, 2011?

RQ6) Quantitative Analysis

As prompts for a series of survey questions, leaders of center-based programs were given seven descriptions of teacher behavior based upon indicators of professional learning policy implementation as identified by MDE Professional Learning Policy, Supporting Guidance, 2011. The survey is designed to indicate how frequently leaders of center based programs in Michigan are seeing the expected teacher behaviors associated professional learning. Response options included a) *Never* = 1, b) *Occasionally* = 2, c) *Sometimes* = 3, d) *Often* = 4, e) *Always* = 5. The statements in Table 14 are arranged in descending order from characteristics with the highest arithmetic mean based survey responses to those with the lowest arithmetic mean. The mean of combined responses is 2.94 (Average *SD* = 1.03).

The majority of survey respondents (62.8%) indicated that teachers at the center based schools where they are leaders either Often or Always participate in professional

learning activities designed to improve instructional practices and impact student learning outcomes (*M* = 3.66, *SD* = .93). However, for each of the descriptions of teacher behavior associated with the six other indicators, the majority of respondents chose either Never, Occasionally, or Sometimes. The mean for all other questions was less than 3.22. Survey responses indicate that the majority of leaders of center-based programs within the state of Michigan often do not see the teacher behaviors that typify professional learning as defined by MDE policy. Conversely, the data also indicates leaders occasionally see some of the teacher behaviors that ideally manifest within a professional learning community.

Indicator 6 of MDE Learning Policy states, “Provide increased opportunities among stakeholder organizations for collaboration and collective responsibility for the learning of children, youth and adults.” The arithmetic mean on the 5 point likert scale for the statement “Collaborate with other community organizations to broaden the scope of learning opportunities available to students” was only 2.51, which suggest there is a lack of initiatives aligned with indicator 6 among many center-based schools.

For the statement “Evaluate evidence of effectiveness of professional learning on job performance and student proficiency and growth” the arithmetic mean on the 5 point likert scale was 2.48 (*SD* = 1.09). This teacher behavior is aligned with Indicator 3, which states, “Engage personnel in a process of continuous improvement in which evidence and data are used to assess needs, define learning goals, design learning opportunities, and evaluate the effectiveness of professional learning in meeting identified learning goals.” Survey responses point to a lack of alignment between the

professional learning goals of individual teachers and the content and activities of professional learning communities.

Table 14

Extent Participants See Teacher Behaviors Associated With Professional Learning

Teachers at the center-based school where I am an administrator:

Item	*M*	*SD*
Consistently participate in professional learning activities designed to improve instructional practices and impact student learning outcomes.	3.66	.93
Apply new skills and knowledge gained as a result of participation in professional learning communities, provide and accept feedback with peers, share new knowledge and skills with others.	3.22	.91
Identify, review and analyze multiple types of evidence and data including disaggregated data, to determine learning needs of individual students and monitor student response to interventions.	3.11	.90
Support flexible scheduling to promote job-embedded professional learning.	2.97	1.18
Meet regularly in teams during the workday to solve real problems related to job performance and student proficiency and growth.	2.91	1.34
Engage in professional learning activities based upon a yearly individual develop plan (IDP).	2.66	1.11
Collaborate with other community organizations to broaden scope of learning opportunities available to students.	2.51	.74
Evaluate evidence of effectiveness of professional learning on job performance and student proficiency and growth.	2.48	1.09

1 = Never, 2 = Occasionally, 3 = Sometimes, 4 = Often, 5 = Always
N = 35

RQ6) Qualitative Data Analysis

Interviewees consistently described visible effects of professional learning on teacher behaviors. They described how professional learning affected instruction, curriculum and assessment. In addition, some interviewees explained how PLCs

discussed universal supports and interventions based upon a multitiered system of support. All interviewees enthusiastically talked about witnessing collaboration among teachers as the result of participation in PLC. Notwithstanding that Interviewees consistently attributed positive changes in teacher behavior to participation in PLCs, they also emphasized a lack of evidence for a concrete connection between the two variables. They stressed they were in the beginning stages of implementation and they expected to see more salient effects as PLCs become an embedded part of their school culture.

Most of the interviewees described how professional learning affected instruction, curriculum and assessment. Some of the interviewees described evidence of the positive effects of participation in PLCs that they saw when doing classroom walkthroughs. One interviewee said:

> *I see it when I do observations. The teachers are just providing more differentiated instruction for different groups of students. They divide them up more carefully. I see it when they do whole group discussion, and do modeling. They just kind of … and give kids more opportunities to be generative...I am seeing more evidence-based practices being used, more universal supports, throughout the school, and more individualized instruction taking place in both one-on-one and small group settings.*

Another interview said:

> *We know that staff members are beginning to identify holes in instructional practices as well as teaming procedures. Our walkthroughs indicate that we still have a ways to go surrounding our tier 2 and tier 3 supports. We are in the*

awareness stage moving towards the intervention stage. Collaboration among teaching staff, aides and support staff is evident as well.

Leaders also commented on how PLCs were leading to deeper conversations about curriculum. An interviewee explained how teachers of young adults were scaffolding transition focused instruction and providing opportunities for students to practice using assistive technology devices to communicate at job sites.

They're having them do work-boxes, and things like that, and like one to two step tasks. And once they master one to two step tasks, add other stuff, you know, and scaffolding. And then also using their devices to communicate. So we're coming up with phrases that they can put on their laptop, like greeting people at a job site or just all of these types of things. So they really the young adult program, I would say, is really to work on gathering data related to transition planning and how independent they are at certain tasks, but also trying to activate communication of those students that are not verbal.

Creating assessments and using the results to make informed decisions was another example of the effects of PLCs according to leaders of center based programs. Describing a realization that teachers have through PLCs participation, one interviewee said:

It's like oh, now we want to meet to make things together that help support student learning, we're able to work together, we're able to create what our data collection tools are going to be.

Another interviewee explains how teachers use data during PLC meetings to make critical decisions such as student placement:

> *I do believe they end of up talking about specific students because that group does also when they're meeting, they also have to look at class list. They have to look at who's going to be in what class during the next school year.*

One interviewee concedes that although teachers at his school do not always make data driven decisions based upon locally created assessments, everyone at his school is conscious of this area of opportunity and they are working toward changing it.

Two of the six interviewees made a connection between PLCs and MTSS. One of these interviewees said, "*We're using the PLCs to see what tier 2 and tier 3 interventions are going to look like and then what they actually do."* Another says, "*Currently, we are having teachers discuss data and interventions that support our plan for intensifying our tier 2 and tier 3 supports."* Some interviewees connected behavior interventions with MTSS and PLCs. For example, "*The meetings also give them the opportunity to say, 'Hey I've got this student with this behavior. Does anyone have any suggestions for more intense tier 2 interventions?'"* Most interviewees did not connect PLCs with MTSS.

Leaders of center-based schools reported seeing positive effects, although the results were not always measured. One interviewee stated:

> *We do not have concrete evidence to support this question yet. This our first year of implementation with these three data categories. Staff have formally reported improvements made, but it is not documented in a concrete manner. However, staff have been able to apply strategies discussed and learned within PLCs within their classroom and other group work.*

Interviewees are not systematically documenting changes in teacher knowledge or

changes in teacher behavior connected with participation in professional learning communities. However, leaders of center based program consistently provide strong anecdotal evidence that they see positive effects of PLCs participation.

RQ6) Convergence and Divergence

Indicator 3 of 2011 MDE Professional Learning Policy states, " Engage personnel in a process of continuous improvement in which evidence and data are used to assess needs, define learning goals, design learning opportunities, and evaluate the effectiveness of professional learning in meeting identified learning goals." The policy specifies teacher behaviors based upon this indicator. These behaviors include making data-driven decisions, participating in professional learning, and monitoring of the effects of professional learning on job performance and student proficiency and growth. Both survey data and interviewee responses show that leaders of center based schools in Michigan to some degree see the teacher behaviors that correspond to Indicator 3. Indicator 4 which states, "Facilitate sustained, collaborative, job-embedded professional learning, including opportunities to participate in communities of practice." Teacher behaviors associated with this indicator include collaboration, collegiality, trust, respect and support. It also means teachers meet regularly to solve real problems. Here again, both survey data and the responses of interviewees demonstrate a significant number of leaders of center based programs in Michigan regularly witness these teacher behaviors. The perception of many leaders of center-based schools is that teachers "Support flexible scheduling to promote job embedded professional learning," a teacher behavior associated with indicator 7 of 2011 MDE Policy.

Survey data and interviewee responses point to Indicator 6 and Indicator 3 as an

area of opportunity for the majority of center-based schools. Teacher behaviors associated with indicator 6 include “Collaborate regularly with education stakeholders and organizations external to the school district to identify, develop, and/or disseminate resources for professional learning that support job performance and student proficiency and growth.” Indicator 3 means aligning the PD goals of individual teachers with the activities and content of PLCs. Quantitative and qualitative data sources reinforced each other on this research question. No significant points of divergence were identified.

Summary

Qualitative and quantitative data collected for the purpose of this research suggests the majority of center based schools in Michigan have started to implement PLCs in spite of the associated challenges and constraints. There is a small minority of such schools that have institutionalized professional learning practices. PLCs within center-based schools in Michigan are not consciously aligned with MDE policy pertaining to professional learning and by no means reflect an intentional move away from traditional PD. Implementation of PLCs requires leaders to intentionally transform school culture. It also requires careful planning to compensate for a complex set of limiting variables such as the relevancy of state assessment data for identifying the learning needs of exceptional children to working with other constituencies such as community transportation providers. Many of the teacher behaviors identified within MDE professional learning policy are observable in center-based schools according to the survey results, documentation from PLC meetings and interview responses of leaders of center-based schools. So while this research suggests little acquaintance with MDE professional learning policy among leaders of center-based schools in

Michigan, many of the initiatives these leaders have taken, based upon other sources, have produced outcomes similar to those defined by MDE.

CHAPTER V

CONCLUSION

The purpose of this study was to find out the degree to which PLCs are being implemented in center-based schools within the State of Michigan and whether these PLCs were being implemented according to MDE policy. Further the study was conducted to find out what hurdles leaders of center-based programs encountered during the implementation process and how they overcome these hurdles. Finally, the study explored whether leaders of center-based schools were seeing teacher behaviors associated with implementation of PLCs as identified in MDE policy. This study used a concurrent triangulation mixed methods research design to answer these questions. Quantitative data consists of descriptive statistics based upon a survey completed by members of SLIP. Qualitative data includes interviews with six principals of center-based schools in southwestern Michigan and a review of documentation from PLC meetings from three out of the six principals interviewed.

Interpretation of Findings

Research Question 1

How do leaders of center-based programs in the State of Michigan view the relationship between PD and PLCs?

Research findings indicate the majority of leaders of center-based programs in the state of Michigan do not view professional learning as a replacement for traditional PD. These leaders see PD as an opportunity for teachers to gain the necessary prerequisite skills for participation in PLCs. Leaders also indicated PLCs function as a process through which teachers discover the PD opportunities most relevant to them.

The combined quantitative and qualitative data indicate the majority of leaders of center-based schools believe PLCs have a greater impact on student learning outcomes than PD, but the two practices are inextricably linked.

This research indicates a schism between policy makers and policy implementers on the nature of the relationship between PD and PLC. Policy makers within MDE urge schools to move away from traditional PD and toward PLCs as if the two concepts are mutually exclusive. Policy implementers - leaders of center based schools in Michigan - see the relationship between PD and PLC as mutually reinforcing. There is no indication center-based schools in the State of Michigan are adopting this aspect of MDE policy pertaining to implementation of professional learning.

Fowler (2000) acknowledges mobilization as the first and most crucial step in the policy implementation process (p. 79). Mobilization starts with policy adoption. If adoption never takes place, policy implementation fails. School administrators must be able to answer three questions in the affirmative as a condition for policy adoption:

1) Do we have good reason to adopt the policy?
2) Is the policy appropriate for our school or district?
3) Does the policy have sufficient support among key stakeholders?

The responses of survey participants and interviewees do not signal that leaders of center-based schools believe they have good reason to work toward exclusive reliance upon PLCs as a means through which to improve instructional practices and student learning outcomes. Nor do they find the policy is appropriate for their schools and/or school districts. Although research findings for this study show teachers and

administrators often have negative associations with traditional PD, there is no indication that elimination of PD would receive sufficient support among key stakeholders such as administrators and teachers. Finally, even though MDE policy urges schools to move away from traditional PD, state law requires teachers to participate in PD to maintain licensure. Replacing so called “traditional professional development” with professional learning, as called for by MDE policy makers, is neither possible nor desirable for policy implementers in real world settings, making the guideline an archetypal example of the policy implementation problem.

Research Question 2

To what degree have centered-based schools in the State of Michigan implemented PLCs?

Survey data gathered for the purpose of this study indicates that over 90% of center-based schools in the State of Michigan have at least started to implement PLCs. Around 70% of participants indicated they were in the intermediate stages of PLC implementation. Further, almost 25% of survey respondents indicated that PLCs were seamlessly integrated into routine practices at their school. When survey participants were given a list of five indicators of PLC policy institutionalization and asked to check all indicators in place at their school or within their district, affirmative responses ranged between 25% and 65% for each indicator. Interviewees emphasized a) how PLCs were connected to the mission and vision of their schools, b) the challenge of getting everyone on board, c) the importance of providing relevant PD as part of the implementation process, d) the importance of slowly and methodically implementing PLCs. The majority of center based schools in Michigan are intentionally implementing

PLCs, but at the majority of these schools, PLC activities are not seamlessly integrated into routine practices.

Ideally implementation of PLCs means teachers and other stakeholders function as a PLC in a way that is fluid, routine and not contrived. Tacit assumptions, values and actions of school personnel determine school culture and thereby influence school climate (Miskel & Hoy, 2010). Transforming schools into learning communities requires leaders to slowly and methodically go about making the necessary changes in school culture for institutionalization of PLCs. Responses of many of the interviewees reflect a deep understanding of this concept. The percent of center-based schools in the State of Michigan starting to implement PLCs matches the national average of roughly 90% (Basileo, 2016). Nonetheless, the majority of these schools have not fully implemented PLCs. Ultimately, leaders of center-based schools must focus on PLC policy institutionalization initiatives and transformation of school culture in order to naturally operate as a PLC.

Research Question 3

Are center-based schools in the State of Michigan implementing PLCs based upon the 2011 MDE policy statement?

There was little indication that any of the center-based schools represented in the data collected for this study were implementing PLCs based upon the 2011 MDE policy statement. Fowler (2000, p. 270) writes “Implementation is the stage of the policy process in which a policy formally adopted by a governmental body is put into practice.” MDE policy concerning professional learning has not intentionally been adopted by center-based schools. When asked if their school was implementing PLCs based upon

policy issued by MDE, 80% of survey respondents choose either NO or UNSURE, while 20% chose YES. However, when leaders of center-based schools in southwestern Michigan were interviewed, none their responses demonstrated an awareness of the policy. MDE does not appear to have made leaders of center-based schools aware of the policy or offered any type of incentive for policy adoption.

Research Question 4

What are a) the primary challenges of implementing PLCs, b) what resources have been most valuable in overcoming these challenges, and c) which resources have been most difficult to attain?

Teacher time as well as competition with other priorities were identified as two of the most common challenges facing leaders of center-based schools when implementing PLCs. The most valuable resources for overcoming these challenges were a) adequate time dedicated to implementation, b) follow up sessions and meeting with other leaders implementing PLCs, and c) pre-start up training. Adequate time was the most valuable resource and the most difficult to acquire. Survey participants also identified visits to other schools and an adequate number of paraprofessionals and teaching aids as high value resources. At center-based schools, paraprofessionals usually make up the majority of personnel working with students on a daily basis. Recruitment, training, and retention of an adequate number of paraprofessionals may be one of the unique challenges of implementing PLCs within center-based schools.

Findings based upon quantitative and qualitative data reinforced each other for this research question. Time constraints, acquisition of prerequisite skills, and making the necessary arrangements for teachers to meet with one another were

implementation challenges identified by interviewees. When interviewees were asked how they overcome these challenges they consistently described an intricate planning process taking factors into account such as the providing the required number of instructional hours for students to coordinating transportation arrangements.

There is little research addressing how principals can overcome budget, time, data, and political constraints of PLC implementation. However, leaders emphasized the importance of planning in the PLC implementation process to overcome these constraints. Louis and Miles (1990) offer methods of coping with implementation problems which they divide into three broad categories, including a) technical, b) political, and c) cultural. The implementation problems identified in this research question fall under the category of technical problems, the solutions to which require careful analysis and mobilization of resources (Fowler, 2000; Louis & Miles, 1990). Louis and Miles (1990) recommend several possible actions that may apply for overcoming PLC implementation hurdles:

- Break up the project into smaller parts
- Create task forces to work on problem areas
- Phase in implementation gradually
- Train staff to train other staff
- Tailor training to staff needs

The challenge of overcoming these resource deficits also substantiates the emphasis that many leaders of center-based schools placed on making PLC implementation a multi-year process.

Research Question 5

What types of structures are in place to allow PLC participation and what type of content do PLCs address?

Multiple teachers usually teach the same grade level at a typical elementary school, while in a high school/middle school setting, multiple teachers usually teach the same subject such as Algebra I for example. Teachers who teach the same grade level within an elementary school or same subject within a high school or middle school can work together to create a common assessment. These teachers then administer the assessment and analyze the data results to see which students need more intense interventions, in what areas these interventions are needed, and to monitor student progress once interventions are implemented. Teachers collaboratively compare assessments results, figure out what students need to learn and monitor student response to chosen interventions. This is the typical way in which a PLC functions (Dufour et al., 2006). Such structures are inapplicable within a center-based school.

At center-based schools most classrooms are self-contained, meaning small groups of students receive instruction in all core subjects, and many of the specials, in the same classroom from the same teacher. Most of these teachers are “singletons.” This means they are the only person at a school assigned to teach a particular group of students. (Hansen & Wood, 2015). An example of a group of students at a center-based school may be six to seven elementary aged students eligible for special education programs and services under ASD. Typically only one teacher at a center-based school will work with this relatively small group of students. These unique circumstances are what makes implementing PLCs at center-based schools somewhat challenging.

Leaders of center-based schools were asked to indicate the degree to which they disagreed or agreed with a series of eight statements concerning teacher behavior and the structure of PLCs at their school/s. Of eight statements, two have the highest mean:

- Share repertoire, experiences, and solutions to challenges (*M* = 4.29, *SD* = .75).
- Create a culture in which community members trust each other enough to provide suggestions, discuss critical student needs, and explore ways to deliver interventions (*M* = 4.26, *SD* = .74).

While the two with the lowest mean were:

- Discuss ways to meet the learning needs of individual students during PLC meetings (*M* = 3.97, *SD* = .98).
- Distribute disaggregated data from multiple sources in easy to read, understandable formats to PLC participants (*M* = 3.48, *SD* = 1.01).

These data imply that although teachers within center-based schools function as a learning community in that they share ideas based upon trusting relationships with one another, they do not as often make data driven decisions to meet the learning needs of individual students.

The responses of interviewees told a different story than survey results. Interviewees described using multiple types of assessment data to identify and address the learning needs of individual students. For example, one interviewee described how her teachers focussed on three things for PLC meetings. The first was two specific academic areas which were core vocabulary and graphing. These areas applied across curriculum and grade level which allowed teachers to use a common assessment so that they could have conversations with each other and generate ideas about student

academic growth based upon shared data. Second, the teachers routinely analyzed data pertaining to school wide communications. Third, teachers used data from the Adaptive Schools self-assessment tool. Interviewees described using multiple types of assessment data to identify the learning needs of students, monitor student progress, and evaluate organizational health.

These points of divergence between qualitative and quantitative data threaten the validity of the instruments used to answer this particular research question. It may be that the survey respondents were apprehensive about agreeing with the statement because of the time range that was specified. The survey prompt referred to scheduled times for PLCs to meet “daily or weekly at minimum.” Interviewees described PLCs meeting twice a month in many cases as opposed to daily or weekly. Only 60% of survey respondents agreed that disaggregated data was routinely available, but interviewees described ubiquitous availability of relevant data. This discrepancy may be attributable to the wording of the survey question. Perhaps teachers rather than administrators disaggregate the data for example. Last, it may be that those who agreed to participate in the interview were not representative of the the group that responded to the survey. The interviewees may be in the 40% to 60% of respondents that agreed to the survey questions regarding time and data availability, in which case the survey questions are still valid. Those who agreed to take part in the interviews may be those who are most confident about the structure and content of their PLCs. Or, it might so happen that leaders of center-based schools in southwestern Michigan are further ahead on the PLC implementation process than the majority of leaders in other parts of the state. In any case, this discrepancy may be corrected by more carefully calibrating

the instruments before further research takes place and perhaps increasing the sample size.

Research Question 6

Do the leaders of centered-based programs in the State of Michigan see the expected behaviors among teachers that correspond to the seven indicators of professional learning policy implementation as defined in the MDE Professional Learning Policy, Supporting Guidance, 2011?

Leaders of center-based schools to some degree see the expected behaviors among teachers that correspond to the seven indicators of professional learning policy implementation as defined by MDE *Professional Learning Policy, Supporting Guidance,* 2011. However, as established by research question 3, few leaders of center-based schools are consciously aligning PLCs with this policy. This means that although leaders of center-based schools are unaware of MDE policy and are not intentionally using it for guidance, they nonetheless observe many of the specified teacher behaviors. They see similar teacher behaviors because they have started to implement PLCs based upon framework other than MDE Policy. Solutions Tree, a company that provides PD for teachers and educational administrators, provides the most frequently applied training and resources for implementation of PLCs. Leaders of center-based schools use sources such as the book *Learning by Doing* by Richard Dufour, Rebecca Dufour and Robert Eaker as a point of reference for implementation of PLCs.

Even though many of the desired teacher behaviors specified in MDE policy are observed by leaders of center-based schools, two areas of opportunity emerged from the data. First, when survey respondents were given a prompt asking them to indicate

how often teachers evaluate the effectiveness of professional learning on job performance and student growth estimates, the mean was 2.48 (*SD* = 1.09). Interviewees did not describe any behaviors suggesting teachers evaluate the effects of PLC participation on job performance or student growth either. Second, when survey respondents were given a prompt asking them to indicate how often teachers work with other community organizations the mean of the likert scale score was 2.51 (*SD* = .74). Interviewees did not give any responses suggesting that teachers routinely work with external stakeholders as part of the professional learning process.

Darling-Hammond (2012) lists several important qualities of effective PD:

- Focussed on the learning and teaching of specific curriculum content.
- Organized around real problems of practice.
- Linked to analysis of teaching and student learning.
- Intensive, sustained and continuous over time.
- Connected to teachers' collaborative work in professional learning communities (p. 44).

High quality PD opportunities require teachers to reflect on how their participation in PLCs affects what they teach and how they teach it. Creating a way to make this process happen within PLCs appears to be an opportunity for leaders of center-based schools.

Kohler et al. (2016) recognize interagency collaboration as one of five important components of planning, organizing, and evaluating transition focused education. Center-based schools work with students in grades K-12, and in many cases, work with young adults ages 18 to 26. Since effective transition planning for students with

disabilities must involve interagency collaboration, and only 8.6% of survey respondents indicated teachers regularly collaborate with other organizations, this data may indicate a glaring area of opportunity for center-based schools. Many other community organizations have the potential to positively contribute to the learning opportunities of children of all grade levels attending center-based schools. These schools may have the opportunity to maximize academic growth, reduce the dropout rate, and increase the graduation rate of students with disabilities by working more closely with other community organizations. Building the bridge between schools and other community organizations potentially comes from the actions of teachers within PLCs.

Implications for Practice

Special education administrators have the opportunity to improve the quality of public education provided for students with disabilities within the he State of Michigan. Transforming center-based schools into PLCs offers one of the most effective ways to make it happen. The data gathered for the purpose of this study indicates that the overwhelming majority of center-based schools in Michigan have started to implement PLCs. Leaders of these schools must continue to work toward institutionalization of PLCs through actions such as ensuring teachers have access to necessary prerequisite training, professional learning is addressed in school policy, and cost items associated with PLCs are included in line items of the school's and/or district's regular operating budget.

Leaders will have to meticulously plan around a complex set of variables in order to provide the necessary time and resources for teachers within center-based schools to function as PLCs. The content of the PLC meetings must be based upon the unique

learning needs of the student body. Identifying the learning needs of students within center-based schools requires using multiple sources of data including diagnostic assessments and each student's present levels of academic and functional performance. Teachers at center-based schools must also focus on ensuring students accomplish their IEP goals along with essential elements of common core. Leaders of center-based schools have to provide teachers with the resources necessary to discover a set of common denominators within the individualized curriculum of a diverse group of students. Based upon these common denominators, teachers can then create common assessments that they can use to monitor student progress and help each other generate ideas for intervention in necessary cases.

Policy-implementers such as leaders of center-based schools and policy-makers such as those associated with MDE must recognize that successful policy implementation does not usually take place in a uniform manner. The structure of PLCs will vary considerably among schools depending on local conditions. These local conditions will shape change in education more than policy guidelines (McLaughlin, 1990). Successful policy implementation requires "mutual adaptation," meaning that the policy and the organization in which it is being implemented must reshape each other in order to become compatible (McLaughlin, 1990). Implementation of PLCs within center-based schools requires educational leaders to learn along with everyone else, provide the necessary training for teachers over an extended period of time, generate solutions to everyday problems as they arise, and include teachers in the decision making process.

Limitations

This research did not include site visits to confirm the validity, reliability and accuracy of survey responses or descriptions of conditions within center-based schools provided by interviewees. Further this research does not establish an association between implementation of PLCs and increases in student academic growth within center-baseds schools. Only a basic description of how PLCs operate within the center-based schools is provided. Last, the study does not provide an in depth analysis of what assessment data PLCs use to choose interventions and monitor progress.

Recommendations for Research

Further research could include the following questions:

1) According to leaders of center-based schools, which types of training are most relevant to teachers during the PLC implementation process?
2) How does MDE policy pertaining to professional learning compare to policy concerning the same concept in other states?
3) What types of local assessments are used by PLCs within center-based schools compared to regular public schools.
4) What types of PLC implementation evaluation systems are available, which ones are being used, and how does use of these evaluation tools affect implementation.
5) Does the policy implementation problem manifest in other policy initiatives affecting center-based schools such as new guidelines pertaining to seclusion and restraint?

Summary

This study clarifies the degree to which center-based schools in the state of Michigan have started to implement PLCs. Most center-based schools have started to implement PLCs, but have not yet achieved institutionalization. It also explains what the relationship between PLCs and PD looks like from the point of view of leaders of center-based schools in Michigan compared to the relationship between these two concepts as framed by MDE policy. Leaders of center-based schools do not believe that professional learning is a viable replacement for traditional PD, but they place much higher value on PLC than PD for the purpose of increasing student academic growth. The study also demonstrates there are a diverse array of hurdles for leaders of center-based schools to overcome when implementing PLCs, the most conspicuous of which is providing an adequate amount of time for teachers to collaborate. These leaders indicate that implementation of PLCs requires planning around a complex set of variables depending on local conditions. Center-based schools ask slightly different questions within PLCs than traditional schools and they use different types of assessments to provide answers. Leaders of center-based schools see some of the behaviors among teachers identified in MDE policy pertaining to professional learning. PLCs offer a way for center-based schools within the State of Michigan to improve the quality of public education for students with disabilities.

REFERENCES

About PLCs - “All Things PLC” *allthingsplc.info* Solution Tree. Retrieved January 15, 2019.

Arens, S. A., Stoker, G., Barker, J., Shebby, S., Wang, X., Cicchinelli, L. F., & Williams, J. M. (2012). Effects of Curriculum and Teacher Professional Development on the Language Proficiency of Elementary English Language Learner Students in the Central Region. Final Report. NCEE 2012-4013. *National Center for Education Evaluation and Regional Assistance*.

Argyris, C. (1991). Teaching smart people how to learn. *Harvard business review*, *69*(3).

Astuto, T.A., Clark, D.L., Read, A-M., McGree, K. & Fernandez, L.deK.P. (1993). *Challenges to dominant assumptions controlling educational reform.* Andover, MA: Regional Laboratory for the Educational Improvement of the Northeast and Islands.

Basileo, L. D. (2016). Did you know? Your school’s PLCs have a major impact. *Learning Sciences International*.

Berman, P., & McLaughlin, M. W. (1978). *Federal programs supporting educational change, Vol. VIII: Implementing and sustaining innovations*. Santa Monica, CA: Rand.

Bos, C., Mather, N., Dickson, S., Podhajski, B., & Chard, D. (2001). Perceptions and knowledge of preservice and inservice educators about early reading instruction. *Annals of Dyslexia*, 51(1), 97–120. http://eric.ed.gov/?id=EJ637272

Boser, U. (2014). Return on educational investment: 2014. *Center for American Progress*.

Cambron-McCabe, N., Lucas, T., Smith, B., & Dutton, J. (2012). *Schools that learn: A fifth discipline fieldbook for educators, parents, and everyone who cares about education*. Broadway Business.

Cameron, R., & Miller, P. (2007, December). Mixed methods research: Phoenix of the paradigm wars. In *21st Annual Australian & New Zealand Academy of Management (ANZAM) Conference*.

Camp, H. (2017). Goal setting as teacher development practice. *International journal of teaching and learning in higher education. 29(1)*, 61-72.

Chomsky, N., & Macedo, D. P. (2000). *Chomsky on miseducation*. Lanham, Md: Rowman & Littlefield Publishers.

Covey, S. R. (1989). *The 7 Habits of Highly Effective People*. Simon & Schuster.

Creswell, J. W. (2008). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (3rd ed.). Upper Saddle River, NJ: Pearson Education, Inc.

Cunningham, J. (2002). Building education professionals. *Leadership March/April 2002.*

Darling-Hammond, L., Hyler, M. E., & Gardner, M. (2017). *Effective teacher professional development*.

Darling-Hammond, L., Jaquith, A., & Hamilton, M. (2012). *Creating a comprehensive system for evaluating and supporting effective teaching*. Stanford, CA: Stanford Center for Opportunity Policy in Education.

Desimone, L. M., & Pak, K. (2017). Instructional coaching as high-quality professional development. *Theory Into Practice*, *56*(1), 3-12.

Dewey, J. (1908). What does pragmatism mean by practical?. *The journal of philosophy, psychology and scientific methods*, *5*(4), 85-99.

DuFour, R. (2004). What is a" professional learning community"?. *Educational leadership*, *61*(8), 6-11.

DuFour, R., & DuFour, R. (2012). *The school leader's guide to professional learning communities at WorkTM*. Solution Tree Press.

DuFour, R., DuFour, R., Eaker, R., Many, T., Mattos, M. (2006). *Learning by doing; A handbook for professional learning communities at work.* Solution Tree Press.

Dufour, R., Eaker, R. (1998). *Professional learning communities at work; Best practices for enhancing student achievement.* Solution Tree Press.

DuFour, R., & Marzano, R. J. (2011). *Leaders of learning: How district, school, and classroom leaders improve student achievement*. Solution Tree Press.

Education for all Handicapped Children Education Act (1975).

Every Student Succeeds Act (2015).

Fowler, F. C. (2000). *Policy studies for educational leaders: An introduction*. Upper Saddle River, NJ: Merrill.

Frank, S., & Hovey, D. (2014). Return on Investment in Education: A" System-Strategy" Approach. *Education Resource Strategies*.

Fullan, M. (2006). Leading professional learning. *School Administrator*, *63*(10), 10.

Fullan, M., & Stiegelbauer, S. (1991). *The new meaning of educational change*. New York: Teachers College Press.

Gage, N. L. (1989). The paradigm wars and their aftermath a “historical” sketch of research on teaching since 1989. *Educational researcher*, *18*(7), 4-10.

Garet, M. S., Cronen, S., Eaton, M., Kurki, A., Ludwig, M., Jones, W., ... & Zhu, P. (2008). The Impact of Two Professional Development Interventions on Early Reading Instruction and Achievement. NCEE 2008-4030. *National Center for Education Evaluation and Regional Assistance*.

Garet, M. S., Wayne, A. J., Stancavage, F., Taylor, J., Eaton, M., Walters, K., ... & Sepanik, S. (2011). Middle School Mathematics Professional Development Impact Study: Findings after the Second Year of Implementation. NCEE 2011-4024. *National Center for Education Evaluation and Regional Assistance*.

Garmston, R. J., & Wellman, B. M. (2016). *The adaptive school: A sourcebook for developing collaborative groups*. Rowman & Littlefield.

Graham, P. A. (1974). *Community and class in American education, 1865-1918* (Vol. 6). John Wiley & Sons.

Gross, N. C., Giacquinta, J. B., & Bernstein, M. (1971). *Implementing organizational innovations: A sociological analysis of planned educational change*. Basic Books.

Hansen (2015). How to develop PLCs for singletons and small schools. Solution Tree Press.

Horn, P. J., Sterling, H. A., & Subhan, S. (2002). Accountability through" Best Practice" Induction Models.

Hord, S. M. (1997). Professional learning communities: Communities of continuous inquiry and improvement.

Hord, S. & Hirsh, S. (2009). The principal's role in supporting learning communities. *Educational Leadership, 66*(5), 22-23.

Hord, S. M., & Tobia, E. F. (2015). *Reclaiming our teaching profession: The power of educators learning in community*. Teachers College Press.

Individuals with Disabilities Education Act (2004).

Jacob, A., & McGovern, K. (2015). The Mirage: Confronting the Hard Truth about Our Quest for Teacher Development. *TNTP*.

Jaquith, A., Mindich, D., Wei, R. C., & Darling-Hammond, L. (2010). Teacher Professional Learning in the United States: Case Studies of State Policies and Strategies. Summary Report. *Learning Forward (NJ)*.

Kohler, P. D., & Gothberg, J. E. (2016). Taxonomy for Transition Programming 2.0. *Retrieved May 28, 2018 from*.

Killion, J. (2013). *Professional learning policy review: A workbook for states and districts.* Oxford, OH: Learning Forward.

Kirtman, L. & Fullan, M. (2015). *Leadership; Key competencies for whole system change.* Solution Tree Press.

Kline, M. (1973). *Why Johnny can't add: the failure of the new math*. New York: St. Martin's Press.

Kuhn, T., S. (1962). The structure of scientific revolutions. *Chicago: University of Chicago*.

Lattier, D., (2016). Did public education really improve american literacy? *Foundation for economic education.* Retrieved from: https://fee.org/articles/did-public-schools-really-improve-american-literacy/

Levenson, N. (May, 2012). *Smarter Budgets, Smarter Schools* (Harvard Education Press).

Levenson, N., Baehr, K., Smith, J., Sullivan, C. (2014) *Spending money wisely; Getting the most from school district budgets.* The District Management Council.

Louis, K. S., & Miles, M. B. (1990). *Improving the urban high school: What works and why*. Teachers College Press, 1234 Amsterdam Avenue, New York, NY 10027.

Marzano, R. J., Heflebower, T., Grift, G., & Warrick, P. (2016). *Collaborative teams that transform schools: The next step in PLCs*. Hawker Brownlow Education.

Mattos, M. (2016). Connecting PLCs and RTI. allthingsplc.info. Retrieved from: http://www.allthingsplc.info/blog/view/335/connecting-plcs-and-rti

Miskel, C. G., & Hoy, W. K. (2001). Educational administration: Theory, research, and practice.

McLaughlin, M. (1995). National Staff Development Council.

McLaughlin, M. W. (1998). Listening and learning from the field: Tales of policy implementation and situated practice. In *International handbook of educational change* (pp. 70-84). Springer, Dordrecht.

McLaughlin, M. W., & Talbert, J. E. (1993). Contexts that matter for teaching and learning: Strategic opportunities for meeting the nation's educational goals.

McLaughlin, M., & Talbert, J. (2003). Reforming Districts: How Districts Support School Reform. A Research Report. Document R-03-6. *Center for the Study of Teaching and Policy*.

Michigan Compiled Law Sections 380.1526-1527.

Michigan Department of Education: Professional Learning Policy (2011); Supporting Guidance.

Morningstar, M. E., Kurth, J. A., & Johnson, P. E. (2017). Examining national trends in educational placements for students with significant disabilities. *Remedial and Special Education*, *38*(1), 3-12.

Murphy-Latta, T. (2008). *A comparative study of professional development utilizing the Missouri Commissioner's Award of Excellence and indicators of student achievement* (Doctoral dissertation, University of Kansas).

Owen, S. (2016). Professional learning communities: Building skills, reinvigorating the passion, and nurturing teacher wellbeing and “flourishing” within significantly innovative schooling contexts. *Educational Review*, *68*(4), 403-419.

Owen, S. M. (2015). Teacher professional learning communities in innovative contexts:‘ah hah moments’,‘passion and ‘making a difference for student learning. *Professional Development in Education*, *41*(1), 57-74.

Peca, K. (2000). Positivism in Education: Philosophical, Research, and Organizational Assumptions.

Pirtle, S., & Tobia, E. (2014). Implementing effective professional learning communities. *SEDL Insights. Vol 2(3).*

Reinhorn, S. K., Johnson, S. M., & Simon, N. S. (2017). Investing in development: Six high-performing, high-poverty schools implement the Massachusetts teacher evaluation policy. *Educational Evaluation and Policy Analysis*, *39*(3), 383-406.

Roberts, S. M., & Pruitt, E. Z. (Eds.). (2008). *Schools as professional learning communities: Collaborative activities and strategies for professional development*. Corwin Press.

Romme, G. (2016). *The quest for professionalism: The case of management and entrepreneurship*. Oxford University Press.

Rosenholtz, S. J. (1989). *Teachers' workplace: The social organization of schools*. Addison-Wesley Longman Ltd.

Roser, M. & Ortiz-Ospina, E., (2019) - "Primary and Secondary Education". Published online at OurWorldInData.org. Retrieved from: https://ourworldindata.org/primary-and-secondary-education' [Online Resource]

Sawchuk, S. (2010). District Strives for ‘Learning System’. *Education Week. November*, *10*, 2010.

Schmidt, J. (2001). *Disciplined minds: A critical look at salaried professionals and the soul-battering system that shapes their lives*. Rowman & Littlefield.

Scribner, J. P., Cockrell, K. S., Cockrell, D. H., & Valentine, J. W. (1999). Creating professional communities in schools through organizational learning: An evaluation of a school improvement process. *Educational Administration Quarterly*, *35(1)*, 130–160.

Senge, P. M. (1990). The art and practice of the learning organization.

Stoll, L., Bolam, R., McMahon, A., Wallace, M., & Thomas, S. (2006). Professional learning communities: A review of the literature. *Journal of educational change*, *7*(4), 221-258.

Tom, A. (1984). *Teaching as a moral craft.* New York: Longman.

UNESCO Institute of Statistics (2016). Sustainable Goals. Literacy Rate. Retrieved from: http://data.uis.unesco.org/

U.S. Department of Education, NCES, 2017.

U.S. Department of Education Office of Special Education and Rehabilitative Services 2018 Determination Letters on State of Implementation of IDEA

U.S. Government Accountability Office (February 7,2014). GAO 14-211R. K-12 Education. Characteristics of the investing in innovation fund.

Vanblaere, B., & Devos, G. (2016). Relating school leadership to perceived professional learning community characteristics: A multilevel analysis. *Teaching and Teacher Education*, *57*, 26-38.

van Zanden, J., et al. (eds.) (2014), *How Was Life?: Global Well-being since 1820*, OECD Publishing, Paris. DOI: http://dx.doi.org/10.1787/9789264214262-en

Woodland, R. H. (2016). Evaluating PK–12 professional learning communities: An improvement science perspective. *American Journal of Evaluation*, *37*(4), 505-521.

World Bank EdStats. (2018). Retrieved from: http://datatopics.worldbank.org/education/

Young, A. (2010). *Adapting the PLC framework for small schools*. Allthingsplc.info. Retrieved from: http://www.allthingsplc.info/blog/view/88/adapting-the-plc-framework-for-small-schools

Appendix A

Human Subjects Internal Review Board Approval

WESTERN MICHIGAN UNIVERSITY

Institutional Review Board
FWA00007042
IRB00000254

Date: December 11, 2018

To: Elizabeth Whitten, Principal Investigator
Benjamin Oakley, Student Investigator for dissertation

From: Amy Naugle, Ph.D., Chair

Re: IRB Project Number 18-12-05

This letter will serve as confirmation that your research project titled "Implementing PLCs in Center-Based Schools" has been **approved** under the **expedited** category of review by the Western Michigan University Institutional Review Board (IRB). The conditions and duration of this approval are specified in the policies of Western Michigan University. You may now begin to implement the research as described in the application.

Please note: This research may **only** be conducted exactly in the form it was approved. You must seek specific board approval for any changes to this project (e.g., ***you must request a post-approval change to enroll subjects beyond the number stated in your application under "Number of subjects you want to complete the study"***). Failure to obtain approval for changes will result in a protocol deviation. In addition, if there are any unanticipated adverse reactions or unanticipated events associated with the conduct of this research, you should immediately suspend the project and contact the Chair of the IRB for consultation.

Reapproval of the project is required if it extends beyond the termination date stated below.

The Board wishes you success in the pursuit of your research goals.

Approval Termination: **December 10, 2019**

Office of the Vice President for Research
Research Compliance Office
1903 W. Michigan Ave., Kalamazoo, MI 49008-5456
PHONE: (269) 387-8293 FAX: (269) 387-8276
WEBSITE: wmich.edu/research/compliance/hsirb

CAMPUS SITE: Room 251 W. Walwood Hall

Western Michigan University
H.S.I.R.B.
Approved for use for one year from this date:

DEC 05 2018

HSIRB Office

Western Michigan University
Department of Special Education and Literacy Studies

Principal Investigator: **Elizabeth Whitten**
Student Investigator: **Benjamin Oakley**

Implementation of PLCs within Center-Based Schools in Michigan

You are invited to participate in a study examining the implementation of Professional Learning Communities within center-based schools and program in the state of Michigan. This study is being conducted by Benjamin L. Oakley, a doctoral student at Western Michigan University, under the supervision of Elizabeth Whitten, his academic advisor. The study will serve as an independent study and possible dissertation proposal to fulfil the degree requirements for an Ed.D. in special education. This consent will explain the purpose of this research project, and will go over all of the time commitments, the procedures used in the study, and the risk and benefits of participating in this research project. Please read this consent form completely and carefully, and please ask any questions if you need clarification.

What we are trying to explore in this study?

The purpose of this study is to explore to what degree center-based schools in Michigan are implementing PLCs, explore what types of challenges they encountered during the implementation process, how they have overcome these challenges and what successful implementation looks like within a center-based program. Your participation may give researchers the information needed to evaluate implementation of PLCs within center-based programs, identify areas of opportunity, and propose possible solutions to some of the challenges faced by schools during the implementation process.

Who can participate in this study?

You can participate if you are a Special Education Director, Special Education Supervisor, or Principal of Center-Based School, or Assistant Principal of a Center-Based Program.

Where will this study take place?

The researcher and you will choose a location where the interview can place. The location can be a library, an office, a conference room or any other private setting where you and the researcher

feel safe and comfortable. The researcher and you will establish a location for the interview when the you reply to the solicitation.

What will you be asked to do if you choose to participate in the study?

If you choose to participate in the interview, you will be asked to answer a set of opened ended questions about implementation of PLCs at the school/s or program/s where you are a leader in special education. The interview will take approximately 60 minutes.

What are the risk of participating in this study?

There are no known risks of participating in this study.

What are the benefits of participating in this study?

Participating in this study you may give the opportunity to make an indirect contribution to scholarly work in the field of special education. It may also provide a chance for you to help broaden our understanding of center-based special education programs in the state of Michigan. There are no known direct benefits for you as volunteer for this study.

Are there any cost of participating in the study?

There are no known financial costs to participating in this study. Participation will take approximately 1 hour of your time. The interviewer will provide you with a gift card to thank you for your time.

Who will access to the information collected in this study?

Your participation in this study will be kept confidential. The study will hopefully lead to completion of dissertation and possible publication of a peer reviewed journal article, and/or presentation at a conference. Your name, or any other indication of your identify, will never be used in the research.

An audio recording of the interview will be made. Interviewees will not state their name during the interview process. The interviews will be transcribed into transcripts. After the transcripts are created, the audio recording of the interviews will be destroyed. The transcripts will be kept on a zip drive in a secure location at WMU within the department of Special Education and Literacy Studies. The names of the participants in the interview will not be used in the research nor specified in the transcripts. Interviewees will be referenced using titles, such as "interviewee 1" and "interviewee 4".

Western Michigan University
H.S.I.R.B.
Approved for use for one year from this date:

DEC 05 2018

HSIRB Office

What if you want to stop participation in the interview?

You can choose to stop participation in the interview at any time for any reason. You will not suffer any prejudice or penalty by your decision to stop participation in the study.

If you have any questions about this study, please contact Benjamin L Oakley, the student investigator, at 614.738.8255 (Cell) or via email benjamin.l.oakley@wmich.edu or Dr. Elizabeth Whitten, primary investigator, at 269.760.6801 or via email at ewhitten@wmich.edu. You may also contact the Western Michigan Human Subjects Institutional Review Board at 269.387.8293 if you have any questions about the study.

This consent document has been approved for use by the researcher for one year by the Human Subjects Internal Review Board as indicated by the stamped date and signature of board chair in the upper right hand corner. Do not participate in the study if the stamp is older than one year.

A signed copy of this consent document will be given to you for your records.

_____
Participant Name

_____ _____
Participant Signature Date

_____
Consent Obtained by: Interviewer Student investigators/Principal Investigator

Appendix B

Summary of Michigan Department of Education Professional Learning Indicators and Outcomes for Teachers

Summary of Michigan Department of Education Professional Learning Indicators and Outcomes for Teachers		
INDICATORS	**OUTCOMES**	**Teachers**
INDICATOR 1: Build from learning goals and objectives established during pre-service preparation and developed throughout the educator's career.	Outcome: 1.A. Develop an individual development plan aligned with student needs and improvement plans. Outcome: 1.B. Support and engage in professional learning consistent with research and best practice. Outcome: 1.C. Maintain licensure through continuous professional learning.	T.1.A.i: Develop a yearly individual development plan (IDP) that aligns to district and school improvement plans and student proficiency and growth needs. T.1.B.i: Select and engage in multiple designs of professional learning consistent with research that supports the IDP. T.1.B.ii: Support colleagues in the transfer of professional learning to the classroom.

		T.1.C.i: Maintain licensure through required continuous professional learning.
INDICATOR 2: Align with national and state standards and local school improvement plans to improve job performance and student growth and proficiency.	Outcome 2.A. Align improvement plans with student content standards and adult performance standards in order to improve job performance and student proficiency and growth. Outcome 2.B. Align professional learning with standards for adult learning in order to improve job performance and student proficiency and growth.	T.2.A.i: Collaboratively align improvement plans with national and state student standards, including career and college readiness, and teaching standards in order to improve job performance and student proficiency and growth. T.2.B.i: Select or design professional learning aligned with adult learning standards in order to improve job performance and student proficiency and growth.

INDICATOR 3: Engage personnel in a process of continuous improvement in which evidence and data are used to assess needs, define learning goals, design learning opportunities, and evaluate the effectiveness of professional learning in meeting identified learning goals.	Outcome 3.A. Utilize multiple types of evidence and data for decision-making. Outcome 3.B. Design and provide professional learning consistent with data analysis. Outcome 3.C. Evaluate and reflect on the effectiveness of professional learning on job performance and student proficiency and growth. Outcome 3.D. Support the continuous improvement process.	T.3.A.i: Identify, review, and analyze multiple types of evidence and data, including disaggregated data, to determine needs and develop individual professional learning and school improvement plans. T.3.B.i: Identify, design, provide, and participate in professional learning aligned with plans. T.3.C.i: Regularly monitor evidence of effectiveness of professional learning on job performance and student proficiency and growth and revise plans based on reflections and evidence.

		T.3.C.ii: Evaluate evidence of effectiveness of professional learning on job performance and student proficiency and growth. 3D N/A
INDICATOR 4: Facilitate sustained, collaborative, job-embedded professional learning, including opportunities to participate in communities of practice.	Outcome 4.A. Create the conditions to support ongoing, collaborative, job-embedded professional learning for continuous improvement. Outcome 4.B. Engage in job-embedded professional learning in order to establish collective responsibility for job performance and student proficiency and growth.	T.4.A.i: Establish and sustain a team-based collaborative culture that promotes collegiality, trust and respect to support professional learning for continuous improvement. T.4.A.ii: Meet regularly in teams during the work day to solve real problems related to job performance and student proficiency ad growth.

		T.4.A.iii: Develop an agreement about how the team will accomplish and document its work, including collaborative processes and resulting products. T.4.B.i: Share in leadership, including coordination and facilitation of the team's work to improve job performance and student proficiency and growth. T.4.B.ii: Invite, explore, and apply diverse perspectives as part of professional learning. T.4.B.iii: Select and

		engage in a variety of evidence-based professional learning experiences, such as learning communities, communities of practice, lesson study, examining student work, action research, that support achievement of improvement goals. T.4.C.i Access and use expertise within the team, school and district first to build collective understanding, including content and instructional knowledge and skills, needed to improve job performance and student proficiency and growth.

		T.4.C.ii Access and use external expertise only when the necessary knowledge and skills are unavailable within the team, school and district.
INDICATOR 5: Provide continuous learning to support and sustain the transfer of new knowledge and skills to the work place.	Outcome 5A: Engage in and provide opportunities for follow-up, feedback, and reflection to support transfer of knowledge and skills into practice as part of ongoing professional learning. Outcome 5B: Share knowledge, skills, and resources acquired from professional learning in order to improve and sustain job performance and student proficiency	T.5.A.i: Engage in initial and follow-up professional learning of sufficient duration (a minimum of 40 hours) to impact depth of understanding and application in the classroom. T.5.A.ii: Engage in follow-up experiences, such as mentoring or coaching, to support transfer of new learning, including multiple opportunities to practice a new instructional strategy.

	and growth.	T.5.A.iii: Share and use regular feedback and reflections from colleagues and supervisors to support transfer of knowledge and skills into practice as part of ongoing professional learning. T.5.B.i: Document and share knowledge, skills, and resources acquired from professional learning with other teams and education stakeholders in order to improve and sustain job performance and student proficiency and growth.
INDICATOR 6: Provide increased opportunities	Outcome 6.A. Collaborate regularly with education	T.6.A.i: Collaborate regularly with education

among stakeholder organizations for collaboration and collective responsibility for the learning of children, youth, and adults.	stakeholders and organizations to support professional learning to improve job performance and student proficiency and growth. Outcome 6.B. Establish collective responsibility for leadership in support of professional learning to improve job performance and student proficiency and growth.	stakeholders and organizations external to the school and district to identify, develop, and/or disseminate resources for professional learning that support job performance and student proficiency and growth. T.6.B.i: Assume leadership roles with education stakeholders and organizations to initiate, advocate for, coordinate, model, and/or facilitate professional learning to improve job performance and student proficiency and growth.
INDICATOR 7: Utilize and leverage the necessary	Outcome 7.A. Support the use of resources to	T.7.A.i: Advocate for a percentage of the district

resources for continuous professional learning, ensuring that local, state, and federal funds are aligned and in compliance with professional learning policy.	maintain continuous professional learning. Outcome 7.B. Collaborate with stakeholders to identify and provide resources. Outcome 7.C. Align and use local, state and federal resources to support continuous professional learning.	budget and time during the work day to be dedicated exclusively for continuous professional learning. T.7.A.ii: Support flexible scheduling to promote job-embedded professional learning. T.7.B.i: Collaborate with school, district, and education stakeholders to identify and provide various programs, services, time and/or resources (i.e., people, money, technology, print and non-print materials) to enhance continuous professional learning. T.7.C.i. Collaborate with

		administrators and education stakeholders to maximize the use of local, state, and federal resources to support continuous professional learning.

*Based upon (MDE Professional Learning Policy, Supporting Guidance, 2011)

Appendix C

Concurrent Triangulation Mixed Methods Research Questions Alignment

Research Questions	Mixed Methods		
	Quantitative	**Qualitative**	
	Deductive Approach based upon survey information: **Instrument Components:**	**Inductive Approach based upon interviews.** **Instrument Components:** *Although interview questions are consciously aligned with particular research questions, participant responses may provide insight into any or all research questions.	**Inductive Approach based upon Review of Documents**
How do leaders of center-based schools in the state of Michigan view the relationship between PD and PLCs?	Survey question explicitly asking leaders to decide which has a greater effect on teacher performance, PD or PLCs. (Section 4 of 7) Survey question describing 4 different possibilities for the relationship between PD and PLCs. Asks respondents to choose one option. (Section 4 of 7)	<u>Interview Questions:</u> Describe the function of PLCs at the school(s) you lead. Follow-up question: ● How are PLCs connected with the fundamental purpose of your school/s? Describe the relationship between professional development and professional learning communities at your school.	Do documents reflect PLC activities, PD activities or both?
To what degree	Survey question	<u>Interview Questions:</u>	What level of

have center-based schools in the state of Michigan implemented PLCs?	describing 4 levels of implementation from not at all to institutionalization. (Section 4 of 7) Survey question that list indicators of institutionalization, which asks participants to check each indicator that applies to their program. (Section 4 of 7) Survey questions asking specific characteristics of a professional learning community. Participants are asked to indicate the degree to which they agree with each statement based upon a likert scale. (Section 5 of 7)	What actions have you taken to ensure collaboration and shared responsibility for student learning within PLCs? In other words, how have you created buy-in? Describe how PLCs are organized within school/s you lead and why they are organized in this way. Follow-up questions: ● Explain how teams are structured? ● How often do they meet? ● When do they meet? Describe how teachers apply what they've learned or conclusions they've come to during PLC meetings. Follow-up questions: ● What is the relationship between response to intervention (or MTSS) and the topics discussed during PLC meetings at your school? ● Do teachers use PLCs	of policy implementation do documents reflect?

		to choose third tier behavior interventions and monitor progress? What does this look like?	
Are Center-based schools in the state of Michigan implementing PLCs based upon the 2011 MDE policy statement?	Survey question explicitly asking respondents if they are implementing PLCs based upon MDE policy. (Section 4 of 7)	Are PLCs at your school based upon any type of state or federal policy?	Do documents indicate a framework for PLCs aligned with MDE policy guidance?
What are a) the primary challenges of implementing PLCs, b) what resources have been most valuable in overcoming these challenges, and c) which resources have been most difficult to attain?	Survey questions asking participants to indicate responses in rank order to each of these questions. (Section 6 of 7)	What are some the most challenging aspects of implementing and maintaining PLCs at your school/s? Follow-up questions: ● What resources have been most valuable during the implementation process? ● What resources have been hardest to obtain and how have you compensated?	Are the challenges and solutions to implementation reflected in the documents? What do they look like?

What types of structures are in place to allow PLC participation and what type of content do PLCs address?	Survey questions in section 5 of 7 provides some indication. However this primarily is a qualitative question.	Describe what teachers and other staff do in a typical PLC meeting at your school/s. Follow-up questions: ● How is the agenda set? ● What types of data do teams examine? ● What types of problems do they address?	What type of content is reflected in the agenda?
Do the leaders of centered-based schools in the state of Michigan see the expected behaviors among teachers that correspond to the seven indicators of PLC policy implementation as defined in the MDE Professional Learning Policy, Supporting Guidance, 2011?	Survey questions describing teacher behaviors based upon PLC policy implementation as defined in the MDE Professional Learning Policy, Supporting Guidance, 2011. (Section 7 of 7)	<u>Interview Questions:</u> How do PLC meetings at your school affect what you see in the classroom? Follow-up questions: ● How does participation in PLC meetings affect instructional practices you see when conducting walkthroughs? ● How do PLCs affect curriculum and what you have	Do documents reflect changes in teacher practices in the classroom or student academic growth?

		seen students learning in the classroom? ● How do PLCs impact the types of assessments used by teachers?	

Appendix D

Online Survey

Section 1 of 7
Implementation of PLCs
Center-Based Schools and Programs in Michigan

Section 2 of 7
Participant Agreement

You are being invited to participate in a research study titled "Implementation of PLCs in Center-Based Schools and Programs". This study is being done by Dr. Elizabeth Whitten and Benjamin L, Oakley. You were selected to participate in this study because of your position as an administrator of a special education program in the state of Michigan.

The purpose of this research study is to find out to what degree PLCs are being implemented in center-based programs here in Michigan. If you agree to take part in this study, you will be asked to complete an online survey/questionnaire. This survey/questionnaire will ask about PLC implementation at the school/s you lead and it will take you approximately 20 minutes to complete.

You may not directly benefit from this research; however, we hope that your participation in the study may help professionals in the field of elementary and secondary education gain insight into how to successfully implement policy and function as members of a professional learning community.

We believe there are no known risks associated with this research study; however, as with any online related activity the risk of a breach of confidentiality is always possible. To the best of our ability your answers in this study will remain confidential. We will minimize any risks by ensuring anonymity of responses and making the responses available only to the researchers identified above.

Your participation in this study is completely voluntary and you can withdraw at any time. You are free to skip any question that you choose.

If you have questions about this project or if you have a research-related problem, you may contact the researcher(s), Benjamin L. Oakley at 614.738.8255 or Dr. Elizabeth Whitten at 269.387.5940. If you have any questions concerning your rights as a research subject, you may contact Office of the Vice President of Research, Western Michigan University 269.387.8298.

By clicking “I agree” below you are indicating that you are at least 18 years old, have read and understood this consent form and agree to participate in this research study.

- I Agree
- I Do Not Agree

Section 3 of 7
Demographics

What is your gender?
- Male
- Female

What is your age?

- 21-30
- 31-40
- 41-50
- 51-60
- 61 or older

What is your highest level of educational attainment?

- Bachelor's Degree
- Master's Degree
- Specialist Degree
- Doctoral Degree

What is your total number of years as a special education administrator?

- 0-5
- 6-10
- 11-15
- 16-20
- >20

What is your current title?

- Supervisor of Special Education
- Center-based Principal
- Director of Special Education
- Planner/Monitor of Special Education Programs
- Center-based Assistant Principal

What is your district type?

- Local public district
- ISD/ESA
- Charter

Which category best describes your district?

- Urban
- Rural
- Suburban

Section 4 of 7
PLCs and Professional Development

Please choose the statement that most accurately describes implementation of PLCs at the school/s you lead.

- We have not started to implement PLCs.
- We have started to implement PLCs by gathering resources, providing training, and setting aside time to begin the change process.
- We have implemented PLCs and are now gathering feedback, providing assistance, for PLC teams, and coping with challenges as they arise.
- PLCs have been seamlessly integrated into the routine practices of our school.

Please choose the statement you agree with most.

- There is little relationship between PLCs and PD.
- PLCs are an alternative to traditional PD.
- PD is a way to give teachers the skills and knowledge needed to participate in PLCs.
- PD and PLC are essentially the same thing.

In your opinion, what is the most effective option for positively impacting teacher performance and student learning outcomes?

- Professional Development
- Professional Learning Communities

Our school/s has implemented (or is implementing) PLCs based upon policy issued by the Michigan Department of Education.

- Yes
- No
- Unsure

Please check all that apply.

- Professional learning is addressed in our school board policy manual.
- Professional learning is addressed in teacher contracts.
- Teacher and administrator evaluation procedures are based in part upon professional learning.
- Necessary training for participation in PLCs is part of the new teacher initiation process.
- Cost items associated with PLCs are included in line items of the districts/schools regular operating budget.

Section 5 of 7
Implementing PLCs

Please indicate the degree to which agree or disagree that the following statements describe current conditions and behaviors of teachers, ancillary staff and administrators at the center-based school/s and/or programs you lead.

Provide scheduled times for PLC teams to meet dailey, or weekly at minimum.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

Provide adequate resources such as paper, technology, and personnel on a consistent basis.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

Distribute disaggregated data from multiple sources in easy to read, understandable formats to PLC participants.
Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

Discuss ways to meet the learning needs of individual students during PLC meetings.

- Strongly disagree
- Disagree

- Neutral
- Agree
- Strongly agree

Share repertoire, experiences, and solutions to challenges.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

Seek help from master teachers, central office personnel and/or external consultants in order to meet the challenges of providing high quality instruction for all students.
Learn from each other through observation and exchange of ideas and resources.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

Create a culture in which community members trust each other enough to provide suggestions, discuss critical student needs, and explore ways to deliver interventions.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

Respect different styles of conversation, interaction, and conflict management.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

Section 6 of 7
Resources and Challenges

Which of the following best describes the primary challenge you've faced as a leader at a center-based school when implementing PLCs. Please choose the top three in rank order.

- Teacher time and energy
- Arranging staff development
- Effective ongoing communication
- Limited facilities
- Teacher moral or resistance
- Lack of skills among staff
- Slow progress
- Disagreement over goals
- Maintaining interest
- Overambitious implementation goals
- Unexpected crisis
- Competition with other priorities

Which three of the following resources have been most valuable in implementing PLCs? Please choose the top three:

- Pre-start up training
- Follow-up sessions
- External consultants
- Internal consultants
- Visits to other schools
- Conferences
- Regular meetings with other leaders implementing PLCs
- Printed material
- Adequate time dedicated to implementation of PLCs
- Paraprofessionals and other teaching aides
- Demonstrations
- Formative evaluations
- Sympathetic ear

Which three of the following resources have been most difficult to provide during implementation of PLCs?

- Pre-start up training
- Follow-up sessions
- External consultants
- Internal consultants
- Visits to other schools
- Conferences
- Regular meetings with other leaders implementing PLCs
- Printed material
- Adequate time dedicated to implementation of PLCs
- Paraprofessionals and other teaching aides

- Demonstrations
- Formative evaluations
- Sympathetic ear

Section 7 of 7
Teacher Behaviors

Teacher at the center-based school where I am administrator:

Engage in professional learning activities based upon a yearly Individual Development Plan.

- Never
- Occasionally
- Sometimes
- Often
- Always

Consistently participate in professional learning activities designed to improve instructional practices and impact student learning outcomes.

- Never
- Occasionally
- Sometimes
- Often
- Always

Identify, review, and analyze multiple types of evidence and data including disaggregated data, to determine the learning needs of individual students and monitor student response to intervention.

- Never
- Occasionally
- Sometimes
- Often
- Always

Meet regularly in teams during the workday to solve real problems related to job performance and student proficiency and growth.

- Never
- Occasionally
- Sometimes
- Often

- Always

Apply new skills and knowledge gained as a result of participation in professional learning communities, provide and accept feedback with peers, share new knowledge and skills with others.

- Never
- Occasionally
- Sometimes
- Often
- Always

Collaborate with other community organizations to broaden the scope of learning opportunities available to our students.

- Never
- Occasionally
- Sometimes
- Often
- Always

Evaluate evidence of effectiveness of professional learning on job performance and student proficiency and growth.

- Never
- Occasionally
- Sometimes
- Often
- Always

Support flexible scheduling to promote job-embedded professional learning.

- Never
- Occasionally
- Sometimes
- Often
- Always