A SYSTEM-WIDE, COLLABORATIVE, PURPOSEFUL, AND SUSTAINABLE DISTRIBUTED LEADERSHIP PLAN UTILIZING TEACHER LEADERS TO FACILITATE PROFESSIONAL LEARNING COMMUNITIES

JULIANN SERGI MCBRAYER

Georgia Southern University

JULIE CHANCE

Bulloch County School System, Georgia

SUMMER PANNELL

Georgia Southern University

PAMELA WELLS

Georgia Southern University

ABSTRACT

Through collaboration between one rural southeastern university and a local rural school system of high-poverty in southeast Georgia (a pseudonym, Justice County School System [[CSS]), a mixed method case study analysis was conducted to examine a system-wide professional learning initiative. The goal of this initiative was to provide professional learning that was collaborative, purposeful, and sustainable. The professional learning initiative is a semi-structured plan developed based on distributed leadership to share the responsibilities of administration by utilizing teacher leaders to facilitate system-wide professional learning. In addition, school personnel perceptions of their changes in professional practices as a result of this collaborative PLC work were explored to determine effectiveness of the professional learning communities. The outcome of this study resulted in the presentation of a replicable or modifiable plan that was formalized with evidence-based practices that could be disseminated to other districts and schools exploring similar professional learning opportunities. Georgia certification mandates require that districts and schools possess accountability measures that ensure the professional growth of all school personnel through PLCs. The mode in which JCSS approached professional learning could advance other professional learning initiatives or in many cases launch these initiatives. *JCSS* should serve as a model system with a proven record of using an innovative professional learning approach that distributed the responsibilities among both administrators and staff, specifically teacher leaders to effectively improve teachers' classroom practices. Institutions of higher education and local school systems need to implement collaborative, purposeful and sustainable professional learning with fidelity by distributing leadership efforts.

INTRODUCTION

School leaders are continually charged with adhering to federal and state mandates to lead district and school improvement initiatives in an effort to improve teaching and learning. For reasons related to school improvement, school leaders are working diligently to identify sound professional learning to keep pace with these mandates. Embracing school improvement to achieve organizational change is a constant challenge for school leaders. These professional learning demands add to the current pressures of school leaders' responsibilities when challenged with the overwhelming tasks required to maintain daily operations. As Walker (2009) stated, "the increase in the principal's responsibilities and the incongruence between what instructional leaders want to do and have time to do create serious consequences for school leaders and their work in making a difference in schools" (p. 214). In addition, with the current fiscal state of public education at the state and national levels, making the most of already available resources is the number one priority for most school districts (for the purposes of this study, system will be used interchangeably with district), as school leaders are tasked with addressing professional learning needs with limited resources. Now more than ever, these dwindling resources require professional learning efforts to be collaborative and strategically designed.

Professional learning in Georgia and many other states have required educators to attend workshops and conferences with the goal of returning to the classroom to implement and disseminate what was learned to improve teaching and learning (Georgia Professional Standards Commission [GaPSC], 2018). These tactics as an improvement strategy resulted in a focus on seat-time rather than authentic opportunities for educators to engage in individualized experiences that would best fit their professional learning needs. As schools noted these growing concerns, the GaPSC answered their call and shifted the focus to standard-based, job-embedded professional learning conducted on a continuous and collaborative basis within a professional learning community (PLC) at the school or district-level. Thus, the new requirements in Georgia for teacher re-certification moved away from gaining Professional Learning Units (PLUs) via seat-time to the implementation of professional learning goals or plans designed specifically around the professional growth needs of individual educators. To meet these professional growth expectations, districts are required to derive an accountability plan that includes collaborative, job-embedded professional learning. Schools and districts have been tasked with implementing PLCs as the mode in which to deliver this type of professional learning. The challenge, however, is to develop effective PLCs and not just collaborative time to vent. For the purpose of this study, PLCs are defined as "an ongoing process in which educators work collaboratively in recurring cycles of collective inquiry and action research to achieve better results for the students they serve" (DuFour, DuFour, Eaker, Many & Mattos, 2016, p.16).

Without the provision of adequate cost-effective training and resources, to be able to do this effectively, districts need to be not only collaborative, but also innovative. The added responsibilities of implementing PLCs with fidelity are even more pronounced within high poverty districts that are operating with very limited resources including financial and human. While the research on PLCs is not new, system and school improvement strategies designed around collaborative, purposeful, and sustainable system-wide professional learning is an innovative approach to meet these new professional learning mandates in Georgia. Thus, this study sought to examine a pilot of a semi-structured system-wide professional learning initiative in a rural, high-poverty district in southeast Georgia that developed and implemented a formalized plan with limited resources. The outcome included sharing this formalized plan in an effort to help other districts who are struggling with these new required professional learning mandates to provide sound professional learning in their own districts.

REVIEW OF THE LITERATURE

Distributed Leadership

The job of the school leader is daunting and school leaders struggle to complete all of the administrative work needed on a daily basis. Distributing leadership not only builds

capacity and supports change, it expands the degree of change possible in leading educational reform efforts (York-Barr & Duke, 2004). Distributed leadership needs to be meaningfully connected with the experiences and aspirations of those who are practitioners and should place an emphasis on interactions rather than actions of school leaders (Harris, 2013). School leaders need to understand their practice and leadership role as one actively brokering, facilitating, and supporting the leadership of others (Harris, 2013). As the sharing of leadership responsibilities develops among organizational members, an appreciation develops of interdependence and how one's behavior impacts the organization as a whole through increased participation in decision-making, which may result in a greater commitment to organizational goals (Fullan, 2001). Distributed leadership is critical in developing effective leaders who are able to understand their own learning and how their learning impacts the learning of others (Elmore, 2002). Distributed leadership has the potential to increase on-the-job leadership development experiences and redistribute the workload for those in administrative roles (Leithwood & Mascall, 2008).

Distributing responsibility helps balance an administrator's workload by sharing duties to afford the school leader the opportunity to do a better job on the most pertinent demands of the school. As school leaders desire to have more time for their instructional leadership role, they often fail to spend an appropriate amount of time in this role due to the management tasks that are needed (Hallinger & Murphy, 2012). A recent study showed that administrators' self-efficacy increased by .36 of a standard deviation for every unit increase in amount of time spent on instructional leadership and decreased by -.09 of a standard deviation for every unit increase in amount of time spent on school management tasks (McBrayer, Jackson, Pannell, Sorgen, Gutierrez, & Melton, 2018). The support of different persons leading various aspects of leadership allows school leaders to be more productive in completing all of the tasks they are challenged with daily as the responsibilities are shared.

Distributed leadership closely resembles the transformational leadership style, which transforms both leaders and members to accomplish more than what is usually expected and raises motivation. Inspiring intrinsic motivation is a key to the development and sustainment of organizational change, and in their landmark study, Kouzes and Posner (2007) described the transformational leader as one who manifests the five practices of an exemplary leader by inspiring a shared vision, modeling the way, challenging the process, enabling others to act, and encouraging the heart. To fully transform and enact change, it takes distributing responsibility, adding effective leadership, building capacity, and providing support. In transformative leadership, leaders transform the school environment to create collaboration, trust, and support for individuals to bring about change, and this involves all stakeholders in the decision-making process as leaders influence change initiatives and challenge others to embrace change within their school (Bradley-Levine, 2016).

Moving forward with a distributed leadership plan to implement a professional learning initiative is a challenge. Even effective school leaders have met their match when assigned the responsibility to change the mission, culture, and/or operations of an ongoing organization. A clear purpose for organizational change can help everyone understand what needs to be accomplished and why. School leaders must solve problems and implement change through mutually beneficial relationships (Fullan, 2001). To ensure long-term improvement, behaviors must become rooted in an organization's norms and values with specific changes linked to performance improvements and not to charismatic individuals (Kotter, 1996). With trust built into these relationships, transformational leaders can freely discuss the need for change and convey a collaborative understanding as to what changes are needed and discover why these changes are important. Thus, distributing effective leadership becomes integral in impacting and sustaining long-term organizational change (Fullan, 2001).

Teacher Leadership

For distributed leadership to be effective, the district and school administrators must support the notion of collaboration and shared roles and responsibilities. Progressive planning must be happening within the district with school leaders understanding the importance of building a collaborative network and not being challenged by sharing power with other people. Teacher leadership is an integral part of school improvement and an essential component of distributed leadership. Teacher leadership, referred to as the means by which teachers influence school-wide instruction or policy, has become an increasingly recognized lever for reform (Cambum, Rowan, & Taylor, 2003; Stein, Macaluso, & Nevins, 2016). Efforts to increase and enhance the role of teacher leaders in guiding instructional change have become wide-spread (Berg, Carver, & Mangin, 2014). In a recent study centered on transformative leadership, the participants all agreed that critical leaders are not only administrators but also teacher leaders (Bradley-Levine, 2016). It is pertinent to recognize the value of teacher leaders in that their leadership positively impacts schools (Stein et al., 2016). Teacher leadership creates new roles and responsibilities that are critical for both elevating the profession of teaching and advancing educational reform.

Recognizing teachers as agents of change creates a culture that continues to support the notion of collaboration, and school leaders are discovering the wealth of expertise within classrooms and among their diverse staff of teachers. The pathway for both generating and sharing teacher expertise is empowering both school leaders and teachers to build mutually beneficial and reciprocal relationships. Teacher engagement in this process builds ownership, which leads to commitment. The concept and practice of distributed leadership stems from recognition that leadership is present throughout schools on all levels and with distributed responsibility comes distributed accountability. A clear delineation of the structures and expectations enables the distribution of responsibility to become the collaborative norm, as collaboration shapes the attainment of a positive school climate (Wahlstrom & York-Barr, 2011). Shared leadership also contributes to a positive district culture by valuing and respecting teachers with a public acknowledgment of their leadership skills through their designation as a teacher leader and through support such as supplemental pay for this work. Teacher leadership holds great promise for schools focused on closing the achievement gap if school leaders provide teacher leaders with the capacity to lead the school by means of increasing teacher collaboration, disseminating best practices, offering support for differentiation, and focusing on content-specific issues (Muijs & Harris, 2006).

The traditional idea of teachers as education givers could only permit them to practice leadership at the expense of being administrators. Teachers can be looked upon as leaders in their school without having to be in an administrative role by providing them the ability to take on leadership roles consistently throughout the school-year (Warren, 2011). In addition, teachers can be leaders without being formal administrators because of the autonomy the teachers have in implementing leadership duties and responsibilities with their peers. Teachers should be respected as autonomous leaders with the ability to enforce responsibility independently, as well as display initiative. There is a need to shift toward teacher leadership being a viable option to distribute administrative duties, as effective teaching demands the presence of leadership skills to enforce the duties in their daily work (Warren, 2011). The notion of teachers fully carrying out leadership roles and administrative duties are often overlooked, and as a result, teachers' leadership abilities are often underutilized. The teacher as a reflection of the school leader is the primary reason to support teachers being viewed as leaders without having to become formal administrators (Warren, 2011).

Collaborative, Purposeful, and Sustainable Professional Learning

Purposeful professional learning has been defined as "continuous, job-embedded professional learning that is designed to meet a specific need identified within an annual process of a systematic comprehensive needs assessment" (Chance, 2018 unpublished manuscript). Although progress has been made in this area, school schedules and calendars traditionally do not allow adequate time for job-embedded professional learning and collaboration among teachers. This makes it difficult for teachers to discuss planning, instruction, and assessment. Darling-Hammond and McLaughlin explained that teacher development must deepen their understanding of the teaching and learning processes, assist with their understanding of their students, and help in dealing with the uncertainties of their roles as both teachers and learners. With great relevance to our current educational status, these findings identified a number of characteristics common to effective professional development including the engagement of teachers in concrete tasks of teaching, assessment, observation, and reflection that illuminate the processes of learning and development; grounded inquiry, reflection, and experimentation that is participant-driven; collaboration, involving a sharing of knowledge among educators and a focus on teachers' communities of practice rather than on individual teachers; connected to teachers' work with their students; sustained, ongoing, intensive, and supported by modeling, coaching, and the collective solving of specific problems of practice; and connected to other aspects of school change. These characteristics remain relevant today as school systems continue to be challenged with the question of how to develop purposeful and sustainable professional learning plans that are meaningful, relevant, and collaborative in nature.

Professional Learning Communities (PLCs)

In a seminal study, Eaker, DuFour, and DuFour (2002) provided important information about district-level support for school-level PLCs. Their work verified the importance of consistently designating job-embedded support and building time for collaborative learning within system-wide planning. A PLC is comprised of teams whose members work collectively to achieve a common goal linked to the purpose of teaching and learning; the purpose of the PLC is to improve student learning through collaborative inquiry and action research (DuFour et al., 2016). As teachers gather to examine student work and build shared knowledge, their professional capacity begins to grow, and through the analysis of student work, PLC members develop reflective qualities, which allow them to challenge their assumptions and grow as educators (Brodie, 2014). By enhancing teacher capacity through collaboration, schools not only improve student achievement, but also support affective, social, and cognitive aspects of teacher growth (Trust, Krutka, & Carpenter, 2016). Such collaboration also promotes teacher motivation and welfare, which can aid in the prevention of teacher burnout (Webb, Vulliamy, Sarja, Hamalainen & Poikonen, 2009).

Sigurðardóttir (2010) established a strong relationship between school effectiveness and teacher perceptions of PLCs. The very essence of a learning community is a focus on and a commitment to the learning of each student. When a system or a school functions as a PLC, educators within the organization embrace high levels of learning for all students as both the reason the organization exists and the fundamental responsibilities of those who work within it (DuFour et al., 2016). DeMatthews (2014) noted that PLCs through shared leadership is integral in providing a forum for teachers to come together to solve issues they face on a daily basis and in doing so improve student achievement. With the potential to serve as a catalyst for improving student achievement, increasing professional capacity, supporting affective aspects of professional growth, and improving overall teacher motivation, it is imperative that schools not only implement PLCs, but implement them effectively. Hipp and Huffman (2010) conceptualized dimensions of effective PLCs and these dimensions were shaped around shared and supportive leadership, as well as involving school leaders and supporting leadership efforts among staff members. School leaders must provide guidance in the PLC process, but autonomy is a key element that energizes staff and contributes to collaboration (Linder, Post & Calabrese, 2012). While much of the professional learning can and should be owned at the grassroots level, school leaders must ensure that resources are in place to support these efforts (DuFour, DuFour, Eaker, & Many, 2010).

Without shared leadership, cultures of compliance can be created in which teachers struggle to find meaning in the work of the PLC (Wilson, 2016). Shared values and vision may result in teachers having more confidence in their principals' abilities to implement PLCs if a strong vision was identified, as a strong vision can address the roadblock of isolation that often hinders effective PLCs (Lujan & Day, 2009). Once PLC members have ownership of the work guided by shared values and vision, they must engage in collective learning and application (Hipp & Huffman, 2010). Through shared personal practice, collaboration results in mutual accountability and support, as collegial trust is established. This collegial trust coupled with academic emphasis within PLCs is essential, as one cannot exist without the other (Gray, Kruse, & Tarter, 2016). Trust is a primary factor in determining the effectiveness of PLCs as correlations between levels of trust and levels of collaborative inquiry have been noted (Thornton & Cherrington, 2014). PLCs when implemented effectively provide a structure for teacher collaboration that often results in pedagogical shifts intended to have positive effects on student learning (Sinnema, Sewell, & Milligan, 2011).

Despite recent mandates in Georgia to implement PLCs, many schools are not implementing effective PLCs, or for that matter implementing PLCs at all. PLCs have become synonymous with individuals who just share a common interest in education (DuFour et al., 2016), but without action these interests cannot translate into accountable outcomes. For school leaders, it is not enough to simply provide professional learning and label them PLCs, as there are critical components that must be in place to ensure that such work results in collaborative, purposeful, and sustained efforts to achieve school improvement. This is why utilizing teacher leaders as the backbone of a purposeful and sustainable professional learning program is a definitive educational plan to distribute leadership and supports the need for collaborative efforts. In addition, the combination of utilizing teacher leaders to facilitate purposeful and sustainable professional learning becomes the catalyst that supports effective collaborative learning and positive change within the organization. The culmination of this type of progressive organizational change can be further demonstrated when a school system not only relies on teacher leaders to facilitate professional learning, but involves them collectively in the development of a comprehensive, system-wide professional development initiative that utilizes PLCs as one of its most important professional learning components.

STATEMENT OF THE PROBLEM

The researchers engaged in discussions with numerous districts and schools to better understand the professional learning work going on across Georgia, specifically with PLCs. These collaborative conversations led the researchers to determine that implementing purposeful and sustainable professional learning, in particular implementing PLCs with fidelity, was a challenge across Georgia. During these conversations, many challenges were noted within the PLC work with the most prominent being that much of this work was not happening in any formalized manner nor was it a collaborative effort. However, one school system emerged as a district that had a PLC initiative that was being piloted as a semi-structured approach that resulted in a formalized comprehensive and collective plan of action after implementation throughout the school-year. This formalized plan included a system-wide initiative focused on distributed leadership and teacher leadership to provide collaborative, purposeful, and sustainable professional learning by having teacher leaders support administration by facilitating some of the PLC work. Thus, a collaboration between a university and a local school district ensued, and a long-term goal was established to aid the work of professional learning in the southeast region of Georgia by providing exemplars from districts and schools who were effectively implementing PLCs. The idea was that if educators in Georgia needed help in implementing PLCs to meet state mandates, they needed evidence-based practices and a plan that could potentially serve as a replicable or modifiable framework for designing their own professional learning initiatives. Thus, the intentions of both the university and local school system were to provide a formalized plan of action for sound professional learning that could translate into the field by working closely with their neighboring practitioners.

RESEARCH QUESTIONS

1. How was a professional learning initiative based on distributed leadership utilized to implement collaborative, purposeful, and sustainable professional learning via professional learning communities (PLCs)? 2. Based on the system-wide professional learning initiative, how did teachers' instructional and/or professional practices change as a result of their system-wide professional learning communities (PLCs) involvement? 3. How do educators rate their level of performance in terms of professional learning community (PLC) participation in applying the knowledge and skills learned in classroom practice?

PROCEDURES

Research Design

The researchers collaborated with JCSS to conduct a mixed method case study analysis to examine a system-wide professional learning initiative, specifically focusing on PLCs. According to Yin (2003) the need for case studies arises out of the desire to understand complex social phenomena, such as organizational processes, as case studies are often the preferred strategy when answering *how* or *why* questions. This study sought to examine how a professional learning initiative based on distributed leadership was utilized to implement collaborative, purposeful, and sustainable professional learning. This initiative included teacher leaders to share in the administrative responsibilities of providing system-wide professional learning. JCSS gathered artifacts and support resources used to develop, implement, and assess their professional learning work. In addition, JCSS collected narrative and quantitative data to ascertain the perceptions of school personnel engaged in the professional learning to determine if the PLCs being implemented were effective in changing teachers' professional practices. JCSS shared the data collected with the researchers in an effort to develop a formalized professional learning plan and provide support for the plans' effectiveness. The researchers were provided de-identified archival data from the 2016-2017 schoolyear from JCSS and thus, all participants remained anonymous.

Participants

The participants in this study were the certified teachers at JCSS during the 2016-2017 schoolyear, and included 93 participants (certified teachers involved in the state evaluation process). These participants collaborated as a system and generated numerous artifacts and support resources to develop, implement, and assess their overall professional learning initiative.

Setting

The setting for this study was Justice County School System (JCSS), a pseudonym. JCSS is a southeastern rural school district in Georgia identified as high poverty. For the 2016-2017 schoolyear, ICSS employed 9 administrators, 102 teachers, and 26 paraprofessionals. In addition, the school district served 1,150 students in pre-kindergarten through Grade 12. The district was comprised of two schools: Justice Elementary School (pre-kindergarten through grades 5) and Justice Middle and High School (grades 6 through 12). Demographics of the student population for race indicated: 604 Black; 435 White; 66 Hispanic; 39 Multi-Racial; 5 Asian / Pacific Islander; and 1 American Indian / Alaskan Native; gender indicated 585 males and 565 females; the grade span enrollment was 609 in the elementary school and 541 collectively in the middle and high school setting. The mission of the school district is aimed at educating all students for college and careers and the core beliefs and values are to provide a well-rounded, quality education so that all students are prepared for college and careers; maintain a safe and student-centered learning environment; develop and maintain highly-effective and diverse employees; optimize stakeholder involvement including parents, colleges, community partners, and local businesses and industry; and be good stewards of district resources.

One of the district's major barriers for academic achievement is its high poverty percentage, which in 2016-2017 was at 64.52% system-wide. Within this small rural community, JCSS continues to deal with the aftereffects of the last nationwide recession and ongoing funding cuts from local, state and federal sources. High poverty percentages, low economic status, and a nearly non-existent local tax base are just a few of the factors that impact the well-being of the students in the JCSS. Like many neighboring districts, JCSS suffered through the continued austerity cuts and student academic achievement was suffering. With funds continuing to be cut at the federal, state, and local levels, professional learning and support resources began to be depleted. Students were unmotivated, teachers were discouraged, and parents were discontent. A solution had to be found and soon before students were left without adequate preparation for their lives after graduating from high school or worse before they dropped out of school.

Data Collection

Varied sets of data were collected to better understand the inner workings of the semi-structured professional learning initiative (considered by JCSS as a pilot), as well as the evidence-based practices that shaped the PLC work. A letter of cooperation with the JCSS Su-

perintendent was attained by the researchers to analyze de-identified archival data collected during the 2016-2017 schoolyear. These data sets were collected over the course of the 2016-2017 schoolyear, as well as upon completion of the PLC yearly cycle and included a JCSS System Level PLC Structure (Appendix A), the JCSS professional learning plan, the Teacher Leader Responsibilities Chart, examples of PLC work plans, a collective document for school meeting agenda, notes, and minutes (these were collected by teacher leaders), informal observations, informal dialogue with administration and staff, staff narrative data (open-ended questions), and quantitative data (self-reported performance measurement utilizing a Likert-scale item) from a questionnaire. At the conclusion of the schoolyear, the questionnaire was distributed to 93 participants via hard copy and collected and analyzed by the Director of Curriculum, Instruction, and Assessment (tasked with coordination and supervision of curriculum, instruction, and assessment; coordination of accreditation; and facilitation of system improvement activities; coordination all testing activities) and the Director of Federal Programs (tasked with supporting the Superintendent through organization, operations, and supervision of statewide programs, staff, and resources, including assessing all professional learning work to meet certification mandates). The questionnaire was utilized to ascertain the impact that the PLC work had on classroom practices. Because the questionnaire was distributed at the yearend PLC via hard copy to all certified staff, JCSS was able to attain a 100% response rate. The Director of Federal Programs provided the questionnaire data to the researchers in a de-identified format to maintain all participants' confidentiality. Because the participants were anonymous, no personal demographic data were shared. The questionnaire titled JCSS Professional Learning Goal/Plan Component Rating was comprised of four open-ended questions to ascertain information about the employing school, list the names of the two PLCs each participant attended, identify the teachers' professional learning goal or plan, and determine how as an educator their instructional and/or professional practices changed as a result of their system-wide PLC involvement. Additionally, there was a final question for participants to selfrate their level of PLC performance in applying the knowledge and skills learned in classroom practice using a Likert-scale and these performance levels included level 4=exemplary, level 3=proficient, level 2=needs development, and level 1=ineffective. So in total the questionnaire had five questions requiring 10 minutes to complete.

Data Analysis

The data were analyzed and presented to provide insight into the potential benefits of utilizing this professional learning initiative to conduct purposeful and sustainable professional learning through the use of collaborative PLCs facilitated by teacher leaders to support the distribution of leadership. To answer Research Question 1, all artifacts provided were examined in an effort to develop a formalized professional learning plan unique to JCSS. For Research Question 2, the qualitative questionnaire data were analyzed and themes and patterns in the findings were noted. From these themes and patterns, codes were created to examine the data in an organizational manner aligned to the research question. For research question 3, the quantitative questionnaire data were analyzed using descriptive measures. Overall, the outcomes resulted in the presentation of a formalized professional learning plan, supported with narrative and numerical data to ascertain the effectiveness of the PLC work from the perceptions of those leading and those engaging in the PLC work.

FINDINGS

Because the state of Georgia mandated an internal district accountability plan that required school leaders to provide adequate, job-embedded professional learning to all school personnel, JCSS developed a system-wide professional learning plan considered at launch to be a semi-structured pilot plan. This mandated accountability plan included measuring demonstrated professional growth of all school personnel. To be in compliance with this new mandate, JCSS was intentional about this process and created an initial plan of evidence-based practices and accountability measures. The results of this study allowed the researchers to present a finalized and formalized professional learning plan with findings to support the effectiveness of this initiative in positively shaping the professional growth of school personnel at JCSS.

To answer the first question about the system level structure of a system-wide collaborative, purposeful, and sustainable professional learning initiative that utilized distributed and teacher leadership to implement PLCs, the researchers first looked to the JCSS System Level PLC Structure chart (Appendix A) to understand the organization of leadership distribution. Under the guidance of the Superintendent, deemed by her staff as a transformational school leader, full support was provided to initiate a distributed leadership approach via the implementation of a system-wide professional learning initiative to develop a formalized professional learning plan. With the involvement of the Director of Federal Programs, who oversaw the development of this collaborative work, JCSS developed what the researchers coined the JCSS Purposeful Professional Learning Plan. The outcome of this exploration was the development, implementation, and continual assessment of a system-wide professional learning plan that became formalized over the course of the schoolyear and was based on distributed and teacher leadership. The researchers worked collaboratively to review all artifacts and support resources used to create this formalized professional learning plan. The details of this professional learning plan are presented below.

JCSS Purposeful Professional Learning Plan

The semi-structured, professional learning initiative was developed based on the work of DuFour et al., (2010), as ICSS supported their work to embed adequate preparation time for teachers to discuss, plan, and reflect together within their PLC work. Based on the definition "an ongoing process in which educators work collaboratively in recurring cycles of collective inquiry and action research to achieve better results for the students they serve" (DuFour, et al., 2016, p. 11), the researchers presented their definition of a collaborative, purposeful, and sustainable PLC as "A collaborative, purposeful, and sustainable PLC is an ongoing process in which educators learn and work for the collective good of the district and schools to identify evidence-based practices for all school personnel to achieve better results for the students they serve" (McBrayer, Pannell, & Chance, as written in The utilization of a Teacher Leader Network (TLN) to facilitate professional learning communities through distributed leadership, unpublished manuscript). Based on the organizational structure created, PLCs were designed to be led by identified teacher experts and the PLCs operated under the assumption that the "key to improved learning for students is continuous job-embedded learning for educators" (DuFour et al., 2010, p. 11). A system-wide initiative was selected because JCSS believed system-level support to be the key component of effective PLCs and much more important than sending educators to a one-time workshop or offering in-house professional learning that was offered in silos at their specified schools. To develop, implement, and continually assess the initiative, JCSS gathered artifacts and support resources via a system-based Google Site that included a JCSS System Level PLC Structure, a semi-structured, professional learning plan that upon completion of the school-year was coined by the researchers, the JCSS Professional Learning Plan, and the JCSS Teacher Leader Roles and Responsibilities, as well as other resources and assessments utilized throughout the school-year.

According to the structure, the ICSS Superintendent compiled a system-wide structure of distributed leadership. To ensure distributed leadership, expertise and input were ascertained from all levels including administrators (senior and mid-level), teachers, teacher leaders, and paraprofessionals. This structure started with the System Improvement Team (SYIT) comprised of district and school-level leaders and teacher leaders. The SYIT met three times in the schoolyear (fall, spring, summer) on three formal and scheduled professional learning days at the beginning of the schoolyear, mid-point, and at the end of the schoolyear. The next level of the structure was the Leadership Support Level, which included School Improvement Teams (SIT), a Principals PLC, a Leadership Support PLC, and a System Leadership PLC, also comprised of district and school-level leaders and teacher leaders. The Leadership PLCs supported school and district instructional leaders in development and implementation of a distributed leadership framework for school and district improvement strategies, which included professional learning activities, processes and procedures, instruction and assessment, and program monitoring and evaluation. In addition, the System Leadership PLC was directly responsible for outlining the school-year calendar for professional learning and multigrade organizational activities for staff.

The next level of structure encompassed what is known as the Teacher Leader Network, which is a network of teacher leaders serving as facilitators for the system-wide PLCs. The Teacher Leader Network (TLN) was comprised of teacher leaders and assistant teacher leaders working under the guidance of the Director of Federal Programs. The TLN was designed to transform teachers into leaders and change the climate of their organization into one where motivated, hard-working people were rewarded for their willingness to become a part of the system's comprehensive school improvement process. The JCSS TLN was intended to validate the roles of the teacher leaders within the system. Validation was done by developing written roles and responsibilities for the teacher leaders, but allowing these roles and responsibilities to be flexible, based on the changing needs of the system. As part of the process to develop the capacity to build and sustain purposeful professional learning, the TLN incorporated teachers with the skills to adopt a mindset of looking at issues from a system-wide view and not just from the classroom or school level. The notion of focusing on teacher leaders was a sound use of the skills possessed by expert teachers who desired to remain in the classroom while having a more active role in the administrative process and thus, the solution in this case created a culture of professional learning that was collaborative, purposeful, and sustainable and facilitated by teacher leaders and supported by administration. In addition, these efforts utilized federal and state funds to provide payment of stipends to staff who were participating in professional learning outside of their contract time, as well as payment for these supplemental services provided by the teacher leaders based on the deliverables described in the JCSS Teacher Leader Roles and Responsibilities. The JCSS System Level PLC Structure was intended to be non-hierarchical in nature and have the distribution of work flow within all levels, as well as between all levels.

According to the initial JCSS professional learning semi-structured plan, the goal of the professional learning initiative was for all certified personnel to complete job-embedded professional learning that enhanced their skills as an educator. In addition, the system was tasked with providing job-embedded opportunities for personnel to meet a Professional Learning Goal (PLG) or Professional Learning Plan (PLP) to maintain their certification credentials per state licensure mandates designated by the GaPSC requirements. Certified staff were required to have either a PLG for teachers and leaders who were proficient or above in their annual performance evaluations (i.e., Teacher Keys Effectiveness System [TKES]) or a PLP for teachers and leaders who are new to the profession, new to their current assignments, or not proficient on their annual performance evaluations.

The PLGs and PLPs for all school personnel were designed based on the system PLCs which were purposefully planned via alignment with the system's identified instructional needs and designed to meet the professional growth needs of all certified staff. Developed with the guidance of the Director of Curriculum, Instruction, and Assessment and the Director of Federal Programs, these administrators worked collaboratively to create a PLC rubric and a tracking process for the documentation of individual goals. They worked with the teacher leaders, discussed current research of best practices, reviewed current school and district plans, and identified evidence-based practices that were most cost-efficient while being supported by data. This work included assessing student data to determine what areas and topics the PLCs needed to address; identifying system and school improvement expectations and communicating these expectations to all stakeholders; implementing the system and school improvement plans; monitoring and evaluating the effectiveness by reviewing completion of tasks; and aligning district and school work with proposed outcomes.

The initiative called for all certified teachers and paraprofessionals to participate in two separate PLCs during the three scheduled professional learning days, which were embedded in advance in the school-year calendar. One of the two required PLCs was the Innovative Teacher Technology Project (ITTP), which was an instructional technology-based PLC as JCSS has a strong focus on the integration of instructional technology throughout their districts' curriculum and formative assessment process. All certified teachers and paraprofessionals participated in the second PLC by choosing from the following: ENGAGE PLC (parent and family engagement), Induction PLC (teachers with 0–3 years of experience with induction certificates or new to JCSS), FIP PLC (Formative Instructional Practices), Literacy PLC (standards-based literacy strategies), and Mathematics PLC (standards-based math strategies). The one exception for choosing a second PLC was applied to teachers new or new to JCSS who were required to attend the Induction PLC.

The ENGAGE PLC planned and implemented evidence-based strategies for improving parent and family engagement and assisted in helping parents build capacity to support their child's learning. The Induction PLC utilized ongoing support for new teachers in the areas of instructional technology integration, classroom management, time management, data disaggregation and planning, differentiation planning and instruction, formative instructional practices, and family engagement. The FIP PLC assisted educators in integrating formative instructional practices and formative assessments in order to improve teaching and student learning. A key expectation of FIP is that teachers will learn to guide students in taking ownership of their own learning and to monitor their academic progress. The Literacy PLC supported educators in the use of online tools and resources that facilitate collaboration, content development, and vertical alignment of instruction in all content areas other than math. The Mathematics PLC supported educators in the use of online tools and resources that facilitate collaboration, content development, and vertical alignment of instruction based on mathematics standards. The ITTP PLC was focused on integrating instructional technology into daily classroom practices to increase student engagement and achievement.

PLCs were shaped around areas focused on learning, results, and celebrations, as well as building a collaborative culture. Thus, the JCSS Purposeful Professional Learning Plan was comprised of norms for the PLCs and included the acronym SPEAK, Speak, Professionally, Encouragingly, Appropriately, and Kindly. PLCs included the discussion of student performance data, both in the aggregate (district) and individual student data (grade or content level) depending upon the PLC. An important part of building a professional culture within ICSS was establishing an environment conducive to sharing confidential student information in a safe space. Artifacts and support resources were collected electronically via the Google Site area assigned to each PLC. Required artifacts included agendas, minutes, sign in sheets, handouts, and other resources distributed during the PLC session. PLC teacher leaders with support from the Director of Federal Programs were responsible for uploading these artifacts within five working days of the professional learning session. All professional learning sessions were mandatory and held at scheduled times throughout the school-year during the job-embedded, system professional learning days. Additional job-embedded professional learning opportunities were also provided throughout the school-year and included additional monthly PLC meetings, online training modules such as FIP, Google Certified Educator training, ongoing instructional technology sessions as needed, edCamp, which is peer-led, participant-driven professional learning opportunities among surrounding counties, and online annual required staff training.

The PLC work was framed around these guiding questions based on the work of Eaker, DuFour and DuFour (2002):1) What do we want students to learn? What should each student know and be able to do as a result of each unit, grade level, and/or course? 2) How will we know if they have learned? Are we monitoring each student's learning on a timely basis? 3) What will we do if they don't learn? What system process is in place to provide additional time and support for students who are experiencing difficulty? 4) What will we do if they already know it? What will we offer for acceleration?

In summary, JCSS expects all staff members to continuously expand their professional knowledge by participating in ongoing professional learning. A system-wide professional learning initiative was intentional in ensuring collaborative professional learning and a structured PLC process. JCSS supports PLCs as an ongoing process in which educators learn and work to achieve better results for the students they serve (DuFour, et al., 2016). PLCs operate under the assumptions of DuFour et al. (2016) in that the key to improved learning for students is continuous job-embedded learning for educators. JCSS has embraced many challenges in order to improve instruction and increase learning and this professional learning initiative was no different. Thus, the launch of this pilot initiative, which intended to serve the entire district, required careful consideration before being implemented and before formalizing the plan. Although deemed a high poverty rural district that continuously dealt with the lack of needed resources, ICSS was committed to a collaborative, purposeful, and sustainable professional learning initiative that produced positive outcomes. Thus, the formalized JCSS Purposeful Professional Learning Plan was deemed effective with outcomes that included improving the culture of the system, increasing the commitment of staff, obtaining overall stakeholder buy-in of a common mission, and supporting a grassroots effort to grow their own future leaders. For JCSS, the initiative provided vital professional learning components such as additional leadership personnel to expand professional learning opportunities, supported new teacher

induction, implemented continuous parent and family engagement, and integrated instructional technology strategies.

Again, of importance to note was that this professional learning initiative was one truly of shared leadership in which the JCSS System Level PLC Structure (Appendix A) flows at all levels and is not one of hierarchy with top-down distribution of administration, but rather non-hierarchical with the distribution of work flowing within and between levels. The SYIT provided the foundation on which to build upon the professional learning work and the TLN was monitored through SYIT and the Leadership Support PLCs to ensure the professional learning initiative was implemented with fidelity. As part of the work of the SYIT, the TLN expanded transformative practices within the district via ongoing assessment and accountability processes that are revisited annually. Findings from these ongoing assessments are utilized for continuous professional learning improvement designed to encourage teacher leaders to model the adoption of new, evidence-based practices to increase student engagement and improve student achievement; to recognize and reward teacher leaders and other instructional staff for making change happen; to identify people who are resisting the change and garner support from teacher leaders on how to help them embrace the organization's mission and vision and to remain vigilant in identifying barriers and addressing them as soon as they are recognized. By establishing teacher leaders as the facilitators for the system's professional learning work, the teacher leaders become a vital part of the system's ongoing improvement work. Sustaining work that supports academic improvement is a reflective consideration for all school systems and thus, vital for JCSS to continue valuing teacher leaders and assigning training and work opportunities specific to their roles within the system. This structure, created and implemented by JCSS, ensured that effective organizational change was collaborative, purposeful, and sustainable so this work will continue and evolve in an effort to meet the needs of the district, the schools, and the individual educators.

Teachers' Instructional/Professional Practices

The second research question explored how teachers' instructional and/or professional practices changed as a result of their system-wide PLC involvement. The findings from the participant's self-reflection provided rich narrative information about what the participants of the PLCs gained during the process. The questionnaire captured 93 responses from certified teachers and included questions to determine where they were employed, which PLCs they attended, their identified PLC goal/plan, PLC narrative feedback about how the PLC work impacted their classroom practices, and a self-reported performance level score measured by the JCSS Professional Learning Rubric 2016-2017. Of these, 31% reported being at the high school level, 16% at the middle school level, 44% at the elementary level, 7% other, and 2% did not report. Of these participants, 23% reported attending the ITTP/ENGAGE PLCs with a goal/plan of increasing professional knowledge and skills in instructional technology integration and family engagement. The ITTP/FIP PLCs was attended by 22% of the participants and had a goal/plan of increasing professional knowledge and skills in instructional technology integration and formative instructional practices. The ITTC/Literacy PLC was attended by 19% of the participants and had a goal/plan of increasing professional knowledge and skills in instructional technology integration, literacy assessment methods, and content literacy standards. The ITTP/Leadership PLCs was attended by 14% of the participants and had a goal/plan of increasing professional knowledge and skills in instructional technology integration and PLC facilitation to explore leadership. The ITTP/Induction PLCs was attended by 6% of the participants and had a goal/plan included increasing professional knowledge and skills in instructional technology integration research-based teaching and learning instructional strategies. The Mathematics/Leadership PLC was attended by 4% and had a goal/plan included increasing professional knowledge and skills in mathematics instructional practices and PLC facilitation to explore leadership. The ITTP/Mathematics PLCs was attended by 4% with a goal/plan of increasing professional knowledge and skills in instructional technology integration and mathematics instructional practices. The Literature/Leadership PLCs was attended by 3% of the participants with a goal/plan of increasing professional knowledge and skills in literacy assessment methods, content literacy standards, and PLC facilitation. The Engage/Leadership PLCs was attended by 3% of the participants and had a goal/plan of increasing professional knowledge and skills in family engagement practices and PLC facilitation. The Induction/Leadership PLC was attended by 3% of the participants and had a goal/plan of increasing professional knowledge and skills in teaching and learning strategies and PLC facilitation. The Induction/Leadership PLCs was attended by 3% of the participants and had a goal/plan of increasing professional knowledge and skills in teaching and learning strategies and PLC facilitation. The Induction/Leadership PLCs was attended by 2% and had a goal/plan included increasing professional knowledge and skills in teaching and learning strategies and PLC facilitation. The FIP/Leadership PLCs was attended by 2% and had a goal/plan included increasing professional knowledge and skills in formative instructional practices and PLC facilitation.

PLC participants were asked how their instructional and/or professional practices changed as a result of their system-wide PLC involvement. From the data, patterns, and trends were identified and the narrative outcomes are best explained in Figure 1 below.



Figure 1: Justice County School System teachers' PLC narrative outcomes

The center circle - the core - represents the three emergent themes (investment, community, and connection) and aspirational aspects of the PLCs. The light gray (right) circle represents technology, or the additional information participants deemed important, and the deep cognitive work members of the PLC engaged in during the PLC process. The filled (bottom) circle represents pride, which participants imbued in their PLC work, classroom, and school community. The dark gray (left) circle represents engagement of participants in their PLCs, in their school, and in their greater community. The unfilled (top) circle represents the subject knowledge, which participants gained in the PLCs, as well as the delight in learning additional subject knowledge. All of these circles are inter-connected by arrows because the individual participants might vary in the impact of each, but all found the four traits in the outer circles to be important in the PLC work in which they engaged and the overall outcomes participants

noted from the PLCS work is represented in the core circle. Each circle is discreet and yet connected. These connections not only show the emphasis made by individual participants, but also the connections to the major identified themes. These themes highlight the importance of the PLC work, in which they engaged and the overall outcomes participants noted from the PLCS work are represented in the core circle.

Professional Learning Performance

The third and final research question examined how educators rated their level of PLC performance in alignment with their performance evaluation and in applying the knowledge and skills learned in classroom practice. The participants in the PLCs self-reported their performance scores at either exemplary, proficient, needs development, and ineffective. Level 4, exemplary was noted as the teacher leader actively and consistently leads others in PLCs and consistently applies the knowledge/skills of the PLC(s) into his/her classroom; the teacher leader has made progress toward or has met his/her professional learning goal/plan. The assumption with the exemplary level was that this rating would be reserved for teacher leaders only. Level 3, proficient was noted as the teacher is consistently and actively engaged in PLCs and applies the knowledge/skills learned in his/her classroom; the teacher is making progress toward or has met his/her professional learning goal/plan. Level 2, needs development was noted as the teacher has consistently participated in PLCs and is beginning to apply the knowledge/skills learned in his/her classroom; the teacher is making progress toward his/her professional learning goal/plan. Level 1, ineffective was noted as the teacher has inconsistently attended and/or participated in PLCs and/or has not made progress in reaching his/her professional learning goal/plan. Of the 93 PLC participants 14% self-reported their performance level at exemplary, 76% self-reported at proficient, 3% self-reported at needs development, and 0% reported at ineffective (1). Overall the mean performance level for the PLC participants was 3.12/4.0.

DISCUSSION

The findings revealed that JCSS was able to develop, implement, and assess a professional learning plan as a collective group by focusing on a system-wide approach that at the conclusion of the school-year led to a formalized plan of action. The outcomes demonstrated that the JCSS Purposeful Professional Learning Plan was effective in positively changing the professional and classroom practices of school personnel and as such was considered collaborative, purposeful, and sustainable in nature. Assessment for continual school improvement and accountability was maintained. Administrators and staff shared the leadership by discussing current research on evidence-based practices and the diligence in reviewing current school and district plans, which drove this professional learning initiative. JCSS was able to adopt evidence-based practices that were supported by data to enhance the school improvement and professional learning process through PLCs via a distributed teacher leadership mode, and this in turn resulted in JCSS being in compliance with state professional learning and certification mandates. Through collaboration, JCSS administrators communicated expectations to all stakeholders and carried out school improvement plans by sharing the leadership roles and responsibilities. The notion of school leaders truly, sharing leadership and entrusting in staff to be part of the change process, proved to be an effective manner in which to gain buy-in and have all school personnel have ownership in the school improvement process in an effort to implement professional learning that is collective, purposeful, and sustainable.

IMPLICATIONS FOR PRACTICE

Overall, the larger scope of this study was to present a replicable or modifiable plan that other districts and schools could use as the framework when developing, implementing, and assessing their own professional learning initiatives. Georgia mandates require all districts and schools to possess accountability measures that ensure the professional growth of all school personnel and this must be done through job-embedded professional learning, specifically PLCs. The mode in which JCSS delivered this professional learning initiative that later became a formalized professional learning plan of action could serve as the blueprint for many districts needing to advance professional learning efforts or in many cases launch these initiatives.

RECOMMENDATIONS FOR FUTURE RESEARCH

The researchers intend to continue to collaborate with JCSS and learn how the JCSS Professional Learning Plan evolves over time based on feedback provided throughout the process. JCSS plans to modify their 2017-2018 plan to have PLCs be more content-specific and use some of the areas of focus from the 2016-2017 PLCs that were proven to be highly effective and revise all PLCs to be more interdisciplinary in nature. JCSS intends to collect data in the 2017-2018 school-year at specified check points to ensure the professional learning via PLCs continues to be collective, purposeful, and sustainable and to determine through assessments that the feedback had documentable impact. Through continued collaborative efforts, the researchers plan to have conversations with other districts and schools in hopes that we can work with them to disseminate the work of JCSS in an effort to help them shape their own professional learning work. The greater outlook of this study is to help districts and schools individualize and formalize their own professional learning plans in an effort to not only meet the professional mandates of accountability planning, but to provide a professional learning plan that is collaborative, purposeful, and sustainable. ICSS should serve as a model school with a proven record of using an innovative professional learning initiative that distributes responsibilities among both administrators and staff, specifically, teacher leaders to be effective in changing teachers' classroom practices. If schools in Georgia and beyond are challenged with providing professional learning, institutions of higher education and local school systems should make every effort for all systems and schools in Georgia, as well as nationwide, to be implementing professional learning with fidelity.

REFERENCES

- Berg, J., Carver, C, & Mangin, M. (2014). Teacher leader model standards: Implications for preparation, policy, and practice. *Journal of Research on Leadership Education*, 9(2), 195–217.
- Bradley-Levine, J. (2016). Demands for school leaders. *International Journal of Teacher Leadership*, 7(2), 28-44.
- Brodie, K. (2014). Learning about learner errors in professional learning communities. *Educational Studies in Mathematics*, *85*(2), 221-239.
- Cambum, E., Rowan, B., & Taylor, J. E. (2003). Distributed leadership in schools: The case of elementary schools adopting comprehensive school reform models. *Educational Evaluation and Policy Analysis*, *25*(A), 347-373.

- Chance, J. (2018) *Impact of purposeful professional learning on instructional technology integration in daily classroom practices.* (Unpublished doctoral dissertation, 2018, Georgia Southern University, Statesboro, GA.
- Darling-Hammond, L., & McLaughlin, M. W. (1995). Policies that support professional development in an era of reform. [electronic version]. *Phi Delta Kappan*, *76*(8). Available at https://search.proquest.com/docview/218525193?pq-origsite=gscholar.
- DeMatthews, D. (2014). Principal and teacher collaboration: An exploration of distributed leadership in professional learning communities. *International Journal of Educational Leadership and Management*, *2*(2), 176-206.
- DuFour, R., DuFour, R., Eaker, R., & Many, T. (2010). *Learning by doing: A handbook for professional learning communities at work* (2nd ed.). Bloomington, IN: Solution Tree Press.
- DuFour, R., DuFour, R, Eaker, R., Many, T, & Mattos, M. (2016). *Learning by doing: A handbook for professional learning communities at work* (3rd ed.). Bloomington, IN: Solution Tree Press.
- Eaker, R., DuFour, R. & DuFour, R. (2002). *Getting started: Reculturing schools to become professional learning communities.* Bloomington IN: National Education Service.
- Elmore, R. (2002). Hard questions about practice. *Educational Leadership*, 59(8), 22-25.
- Fullan, M. (2001). *Leading in a culture of change*. San Francisco, CA: Jossey-Bass.
- Georgia Professional Standards Commission (GaPSC; 2018). Professional Learning for Certificate Renewal. Retrieved from https://www.gapsc.com/ProfessionalLearning/ professionalLearning.aspx
- Gray, J., Kruse, S., & Tarter, C. J. (2016). Enabling school structures, collegial trust and academic emphasis. *Educational Management Administration & Leadership*, 44(6), 875-891.
- Hallinger, P., & Murphy, J. (2012). Running on empty? Finding the time and capacity to leadlearning. *National Association of Secondary School Principals Bulletin*, 97(1), 5-21.
- Harris, A. (2013). Distributed leadership: Friend or foe? *Educational Management Administration & Leadership 41*(5) 545–554.
- Hipp, K. K., & Huffman, J. B. (2010). *Demystifying professional learning communities: School leadership at its best.* Lanham, MD: Rowman & Littlefield Education.
- Kotter, J. (1996). *Leading change*. Boston, MA: Harvard Business School Press.
- Kouzes, J. M., & Posner, B. Z. (2007). *The leadership challenge* (4th ed.). San Francisco, CA: Jossey-Bass.
- Leithwood, K., & Mascall, B. (2008). Collective leadership effects on student achievement. *Educational Administration Quarterly* 44(4): 529–561.
- Linder, R. A., Post, G., & Calabrese, K. (2012). Professional learning communities: Practices for successful implementation. *Delta Kappa Gamma Bulletin*, *78*(3), 13-22.
- Lujan, N., & Day, B. (2009). Professional learning communities: Overcoming the roadblocks. *Delta Kappa Gamma Bulletin, 76*(2), 10-17.
- McBrayer, J. S., Jackson, T., Pannell, S., Sorgen, C., Gutierrez, A, & Melton, T. (2018). Balance of instructional and managerial tasks as it relates to school leaders' self-efficacy. *Journal of School Leadership, 28*, 596-617.
- McBrayer, J.S., Chance, J., & Pannell, S.S. The utilization of a Teacher Leader Network (TLN) to facilitate professional learning communities through distributed leadership, unpublished manuscript.
- Muijs, D., & Harris, A. (2006) Teacher led school improvement: Teacher leadership in the UK. *Teaching and Teacher Education*, 22(8), 961-972.

Sigurðardóttir, A. K. (2010). Professional learning community in relation to school effectiveness. *Scandinavian Journal of Educational Research*, *54*(5), 395-412.

- Sinnema, C., Sewell, A., & Milligan, A. (2011). Ece-informed collaborative inquiry for improving teaching and learning. *Asia-Pacific Journal of Teacher Education*, *39*(3), 247-261.
- Stein, K. C., Macaluso, M., & Stanulis, R. N. (2016). The interplay between principal leadership and teacher leader efficacy. *Journal Of School Leadership*, (6), 1002.
- Thornton, K., & Cherrington, S. (2014). Leadership in professional learning communities. *Australasian Journal of Early Childhood*, *39*(3), 94-102.
- Trust, T., Krutka, D. G., & Carpenter, J. P. (2016). "Together we are better": Professional learning networks for teachers. *Computers & Education*, *102*, 15-34.
- Wahlstrom, K., & York-Barr, J. (2011). Leadership: Support and Structures Make the Difference for Educators and Students. *Journal of Staff Development*, *32*(4), 22-25.
- Walker, J. (2009). Reorganizing leaders' time: Does it create better schools for students? National Association of Secondary School Principals Bulletin, 93(4), 213-226. doi: 10.1177/0192636510361639.
- Warren, L. L. (2011). Viewing teachers as leaders without being administrators. *Education*, *136*(4), 508-514.
- Webb, R., Vulliamy, G., Sarja, A., Hamalainen, S., & Poikonen, P. (2009). Professional learning communities and teacher well-being? A comparative analysis of primary schools in England and Finland. Oxford Review of Education, 35(3), 405-422.
- Wilson, A. (2016). From professional practice to practical leader: Teacher leadership in professional learning communities. *International Journal of Teacher Leadership*, 7(2), 45-62.
- Yin, R. (2003). *Case study research, design and methods*. Thousand Oaks: Sage.
- York-Barr, J., & Duke, K. (2004). What do we know about teacher leadership? Findings from two decades of scholarship. *Review of Educational Research*, 74(3), 255-316.

APPENDIX A

JCSS System Level PLC Structure





**Note:* This structure is non-hierarchical in nature and the distribution or professional learning work flows at all levels and between all levels.