VOICES FROM THE FRONT LINE:

EXAMINING PERCEPTIONS REGARDING IMPLEMENTATION DRIVERS

AS VIEWED THROUGH PRACTICES IN ONE SCHOOL SYSTEM

A Dissertation Submitted to the

College of Graduate and Postdoctoral Studies

In Partial Fulfillment of the Requirements for the

Degree of Doctor of Philosophy

In the Department of Educational Administration

University of Saskatchewan

Saskatoon, Saskatchewan, Canada

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ABSTRACT

The intent of this study was to understand practitioners' perceptions regarding the process of implementation within one rural school system, examining the implementation process through the lens of the National Implementation Research Network's (NIRN) Implementation Framework (Fixsen, Naoom, Blase, Friedman, & Wallace, 2005). The synthesis of the literature undertaken by Fixsen and his colleagues (2005) resulted in a conceptual framework that included implementation drivers as engines of change. Related studies have demonstrated implementation frameworks as effective and efficient catalysts for change (Balas & Boren, 2000; Berman & McLaughlin, 1996; Century, Cassava, Rudnick & Freeman, 2012; Damschroder, Aron, Keith, Kirsh, Alexander & Lowery, 2009; Fenwick, 2007; Fixsen et al, 2005). The NIRN framework was selected for this study because of its scope and depth, and its situation within the discipline of education. System administrators participated in semi-structured interviews, and front-line practitioners' perceptions were gathered through a workshop format using the carousel strategy. The interactive methodology facilitated a rich dialogue, critical in nature and constructive in presentation. Results highlighted the value of the implementation framework, the interactive role of communication with decision-making and motivation across implementation drivers, the critical value of leadership styles, the centrality of mindset and disposition to the success of the implementation, and the value of practitioner voice as an additional implementation driver. This study led to a reconceptualization of the framework which included the influence of the drivers on organizational culture and climate, mindset and disposition as well as practitioner and leadership practices.

This research expands the understanding of the value of practitioner voice and the value of an implementation framework to improve understandings and practices to support strategic planning for change in school systems. Future research should explore the voices of other practitioners such as mid-management; school-based administrators and itinerant staff; the dynamic relationship between psychological contract and implementation frameworks; and further understandings of the context, barriers and facilitative structures of implementation.

ACKNOWLEDGEMENTS

laughing, and Dave generously giving me time and space. I love you all, this much, to the moon and back!

DEDICATION

My children and my husband each suggested I dedicate this dissertation to my father and late mother. My mother, Maureen McLeod has been my guardian angel. My father, Dr. John McLeod, and I planned to write articles together although his Alzheimer's and dementia has changed that plan.

I dedicate this scholarly work and the journey of learning to my family. It is dedicated to my father and to the memory of my mother for their unwavering encouragement. I also dedicate this dissertation to my children Jack, Tom, and Jane for their generosity, patience and love. Most importantly, I dedicate this to my husband Dave for his unconditional love and support.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER ONE
INTRODUCTION TO THE STUDY

It is my firm belief that school and system initiatives need to be successful because of, not in spite of, the organizational system. At one point in my career, I had the opportunity to coach a school through a significant change to their discipline policy and practices with the implementation of the Positive Behaviour Intervention and Supports (PBIS) program (Sugai et al., 2000), a research-validated strategy to create positive school environments. Two phases of implementation were planned for the adoption of program. Phase I focused on technical leadership to establish a strong foundation of understanding throughout the learning community. Phase II concentrated on the more intensive intervention for the targeted population of students evidenced as needing additional support. In Phase I, school administrators participated in professional learning events, a school planning team was identified, technical support throughout the process was provided on a scheduled basis and system structures were redesigned to support the initiation and maintenance of the new approach. Success was evidenced in the significant decrease in discipline referrals, increase in positive behaviour awards and reduction in student and staff absences. It was assumed that these outcomes also indicated that the school community had the foundational understandings of the new approach.

In the first four months, Phase I of the change initiative appeared to be very successful and, therefore, the school planning team intended to implement Phase II. Although not required, the School-wide Evaluation Tool (SET) (Sugai, Lewis-Palmer, Todd, & Horner, 2001) was used to measure the fidelity of implementation and to assess readiness for Phase II. This involved interviews with students and staff, a document review, and observations; the review identified a significant difference in perceptions of understanding between the students, staff and school team. As a result, the team chose to reinforce Phase I instead of moving ahead.

I share this story because it opened my eyes to the reality that system implementation strategies need to activate the voices of all stakeholders, not just the administrators directly or indirectly involved with the initiative. It is my belief that the implementation of this initiative would not have sustained success had the voices all the stakeholders not been heard. Gathering stakeholder input to inform policy has become part of in my administrative practices as a result of this experience.

As a system administrator, I observed schools diligently seeking out practices to improve

students' learning outcomes. Where a school initiated a program, which resulted in unsatisfactory student achievement gains in comparison to the independent research behind the program (Ransford-Kaldon et al, 2010), disappointment and frustration prevailed. The discrepancy between population outcomes and outcomes in the field versus outcomes in research settings may be viewed as a research-to-practice gap.

Research-to-practice gaps have been attributed to issues such as lack of local capacity, lack of communication between researchers and practitioners, lack of fidelity to the intervention and a lack of real-life context within the research (Bero, et al., 1998; Ringeisen, Henderson, & Hoagwood, 2003). Research on implementation has addressed conceptual understanding (terminology and frameworks), delivery issues (strategies, timeframes, stages) and generalization across disciplines. Exploration of such issues, with the intent to develop understandings and practices related to successful implementation within a system, contributes to the theory of implementation (Damschroder et al., 2009; Proctor & Landsverk, 2005, Sugai et al., 2000). Fixsen et al. (2005) conducted a synthesis of implementation research literature, identified stages of implementation and developed a conceptual framework that included components, or "implementation drivers", of effective implementation. This framework is widely recognized as influential work in implementation theory by implementation theorists across disciplines because of its scope and depth (Atkins & Kupersmith, 2010; Damschroder et al., 2009; Meyers, Durlak & Wandersman, 2012). Therefore, it was the source of my study.

This chapter introduces the study followed by background information related to a conceptual model that is key to the study's purpose. A description of the significance of the study and the terms associated with the study is presented after the research questions. The chapter then focuses on the parameters of the study itself – its assumptions, delimitations, limitations and the positionality of the researcher. Finally, an outline of the organization of the dissertation is presented.

Description of the Study

This was a study exploring the process of a system-wide implementation in one school system. It was praxis-in-action, which brought together implementation theory and practices through participants' reflections of their perceptions of the system initiative, "21st Century Competency" Professional Development. The initiative was implemented in multiple sites, K-12, for at least three years (i.e.) potentially in its initial or full stage of implementation. Resources

were included in the annual budget approved by the Board of education. The intent of the system initiative was to infuse 21st Century learning skills into all curricula and into the development of any and all educational programming. According to system documents (C21 Canada, 2012; Policy 18, 2012), 21st Century Competencies included: Creativity, Critical Thinking, Collaboration, Communication, Character, Cultural and Ethical Citizenship, and Computer and Digital Technologies. Teachers, the front-line practitioners, were expected to continually develop their 21st Century Competencies and create "artifacts" of lesson and program plans as evidence of their expanded instructional strategies and professional practices.

With the introduction of the United States' No Child Left Behind Act (U.S. Department of Education, 2002), came an emphasis on the expectation to implement evidence-based practices to improve students' achievement. Similar legislation, policies and commitment can be found throughout the world (Council of Ministers of Education, Canada, 2008; United Kingdom Department of Education, Morgan & Timpson, 2013), yet practice outcomes have not reflected the independent research outcomes (Atkins & Kupersmith, 2010; Glasgow, Lichenstein & Marcus, 2003; Proctor & Landsverk, 2005; Ransford-Kaldon et al., 2010). Depending on the organization, the term evidence-based may be substituted with another term such as research-based, promising practices or effective practices. Although multiple definitions of "evidence-based" exist across disciplines, the common elements state that interventions need to involve the best research evidence available to inform decision-making and application. The internet has simplified finding effective interventions so that if dissatisfying outcomes result, schools can readily access and implement a different program, practice or intervention. Resources are invested in the new practice or intervention with little attention to the implementation strategy (Fixsen, Naoom, Blase, Friedman & Wallace, 2005).

The Developing Field of Implementation Research

There is a growing body of research on models of effective implementation strategies across disciplines. While most of the implementation strategy research is found predominantly in the health sector, Huberman's (1994) work on research utilization brought attention to this need in the education sector. He studied the added value of sustained interactivity between researchers and practitioners with the latter described as partners or actors and as active members in the research utilization. Across disciplines, research has consistently concluded that inconsistencies and gaps exist between the theory and praxis (Damschroder et al., 2009; Fixsen et al., 2005;

Greenhalgh, Robert, MacFarlane, Bate & Kyriakidou, 2004; Tabak, Khoong, Chambers & Brownson, 2013; Water, Marzano & McNulty, 2003).

Theories have differed in the recognition of core elements, terminology and underlying concepts. According to Kelly (2012), "empiricism needs to answer real-world problems more effectively" (p.464) within research frames to establish specific and distinct purposes (Dunst & Trivette, 2012). Research frames have spanned the continuum between development and application to address construct flexibility (Tabak et al., 2013), efficacy and effectiveness studies (Damschroder et al., 2009; Glasgow, Lichenstein & Marcus, 2003), efficiency research (Woolf, 2008) and translational research (Rohrbach, Grana, Valente, & Sussman, 2006).

Kelly's statement referred social validity, the value society places on a product, as defined by Woolf (1978). Marchant, Allen & Miramontes, (2013, p. 227) asserted that "researchers would be wise to evaluate stakeholders' perceptions of treatment goals on an inclusive scale and ensure adequate representation of indirect stakeholders" in an investigation of empiricism and humanism. This assertion was not only supported by Miramontes (2011) who found that involving front-line staff added value to the practices of an intervention and its implementation, but it also validated Huberman's (1985) concept of interactive dissemination to "refine the conceptual tools with which we ply our trade." (p. 29).

Many frameworks of implementation have system administrators plan, design and resource the intervention initiative, though the capacity of education systems needs to be expanded to provide more effective implementation of initiatives by gaining deeper understanding of strategic implementation processes. Further, setting higher standards for student achievement makes sense only if teachers, staff, and educational leaders are prepared, strategic and committed. Elmore (2002), and Barber and Fullan (2005), advocated for developing the capacity of education systems to support teachers and staff so they can make full and effective uses of innovations in order to significantly improve student achievement. However, the relationship between the intended outcomes proposed by research and the actual outcomes are not typically explored. The outcomes are addressed through a review or the adoption of a new strategy. The core components involved in the implementation continue to be developed through a top-down approach which may involve feedback, but often not the input, of front-line practitioners such as teachers.

The word *implement* is often synonymous with the word *use*. School systems will invest

in an intervention practice and appear to assume it includes an implementation strategy. However, implementation is not synonymous with intervention. "The 'how' of implementation is critical to ensure that teachers and staff can make the "what" of science available and effective" (Blase, Van Dyke, Fixsen, & Bailey, 2012, p.29). Figure 1.1 merges research (Balas & Boren, 2000; Fixsen, Blase, Timber, & Wolf, 2001) to illustrate the significant impact in both the efficiency of implementation and the effectiveness of the intervention when a research-based implementation strategy is utilized.

Figure 1.1 Impact of Implementation strategy on effectiveness of intervention (Schroeder, 2011)

Organizations without a research-based implementation strategy are characterized as "letting it happen" or "helping it happen", as shown in Figure 1.1. Greenhalgh et al.'s (2004) literature review recognized diffusion as a passive spreading action, or "letting it happen" (p. 593), and dissemination as a planned approach aimed at adopting the change, or "helping it happen" (p. 593). Implementation was characterized as an active approach to mainstreaming the change, or "making it happen" (Greenhalgh et al., 2004, p. 593). Due to the universal and multi-disciplinary recognition of this conceptual model, it will be the framework for the current study.

School systems are committed to using "best" practices in their mission to maximize students' learning. To do so, they filter practices based on effectiveness and employ research-based and evidenced-based instructional strategies. Research identifying the powerful impact of such strategies on student learning and achievement, as evidenced in controlled experimental conditions, informs the decision to select these strategies. Governments and school systems utilize large scale assessments, such as the Programme for International Student Assessment (PISA) (Organisation for Economic Co-operation and Development [OECD], 2010), as a data source to measure local, regional, and national growth in achievement, despite their limitations.

North American students' achievement has been significantly below that of students in other countries (OECD, 2010; OECD, 2012; OECD, 2016). How is it that school systems' chosen research-based instructional strategies have had limited impact on North American student learning and achievement?

Fixsen et al.'s Implementation Framework

Blase, Van Dyke, Fixsen, and Bailey (2012) stated, "effective educational and behavioral approaches must be implemented successfully and sustained in very messy real-world settings" (p. 13). When effective instructional practices are implemented with an effective research-based strategy, students' learning achievements will improve (Wallace, Blase, Fixsen, & Naoom, 2008). Aarons, Hurlburt and Horwitz (2011) found that less effective strategies, when coupled with a strong research-driven implementation process, are more effective than powerful instructional strategies with a weak implementation process. As previously stated, the science of implementation is a relatively new field with studies of implementation found predominantly in the health and business sectors. The focus of studies in public education systems have been on efficacy, effectiveness and outcomes rather than on strategic models, contextual factors or sustainability. Kelly (2012) stated that "implementation science is creating an evidence base of effective social constructions and social conditions" (p. 454). An exploration of barriers to implementation (Fixsen et al., 2005; Johnson, Jackson, Guillaume, Meier & Goyder, 2010) led to the recognition of implementation drivers, or essential components as illustrated in Figure 2 (Fixsen, Blase, Naoom & Duda, 2013).

Figure 1.2 Implementation Drivers (Fixsen, et al., 2013)

Figure 1.2 outlines the strategic components required for maximum benefit for educational leaders (Fixsen et al., 2013). This implementation framework allows an organization to conduct an ecological assessment to determine its implementation capacity (Blase & Fixsen, 2013).

The intent of this study was to explore Fixen et al.'s implementation framework employed within a real-life context. Dean Fixsen shared his interest in implementation came during his undergraduate days at the University of Kansas (Fixsen & Blase, 2018). Producing socially significant change was one focus of the university's Bureau of Child Research, which had research centers in several communities including Parsons (Kansas) State Hospital, a large institution for children with severe developmental disabilities. It was while working at Parsons that Fixsen joined in research activities and, later as a graduate student, assisted with data collection for a research study involving rehabilitation of delinquent youth through a group home setting instead of the State Boys Industrial School using the Teaching-Family Model (Fixsen & Blase, 2018). This experience appears to have influenced Fixsen's research interests to focus on implementation as he stated in a recent article, "the Model's lessons are being used to advance implementation science" (Fixsen & Blase, 2018, p. 19).

Purpose

The intent of this study was to examine front-line practitioners' perceptions of implementation drivers (Fixsen, et al., 2005), through the lens of one rural system's developing initiative.

Research Questions

The research questions retrospectively explored the perceptions of one rural school system staff who participated actively in the implementation of an initiative within one rural school system. Specifically, the questions explored participants' perceptions of implementation drivers (leadership, competency and organization). The following research questions were examined:

1. What was the role played by each implementation driver in the initiative?
2. How did the participants perceive the influence of each implementation driver on the success of the initiative?
3. What were the participants' perceptions of the value of the implementation drivers at each stage of implementation?
4. What adjustments did participants make to the implementation process to address

gaps or needs?

Significance of Study

The research horizon is rich with studies across disciplines on identifying core components and stages of implementation related to new initiatives (Damschroder, et al, 2009; Dane & Schneider, 1998; Fixsen, et al., 2005). Much has been written through a positivist lens to identify levels at which a specific aspect of implementation was in place, the impact on outcomes, without the input of practitioners. However, Metz and Bartley (2012) reported that further research on implementation that focuses on hearing the voices of practitioners is needed. The research field, particularly Education, is lacking in studies involving practitioner experiences. Specifically, considerations are recommended for exploring methodology initiated from practitioners that informs policy and, therefore, practice around "what's working" (Metz & Bartley, 2012, p. 16). Ogden and Fixsen (2014) identified research areas that have gaps and suggested areas of study: a type of formative assessment of mid-range theory development, measurement and methodology issues, program fidelity, sustainability, implementation capacity and interaction of implementation drivers. Understanding of the *what*, or the "effective interventions" (Ogden & Fixsen, 2014, p. 4) of implementation, is readily understood and studied. The challenges come from the more complex components of implementation research, understanding the *how* and *who*.

I had hoped that as a result of this study, improved understanding and practices for effective implementation related to new initiatives, would be available for strategic planning of future interventions in the system under study. Research exploring the relationships between practitioner adaptations and implementation science is limited. Future research may explore other initiatives for consistency in experiences, the interactions between front-line practices and implementation drivers over time and how intended outcomes can be realized through a blend of adaptations and fidelity. My intention was to add to this body of understanding. This study represented a significant addition to the education sector of the growing body of knowledge on bridging research and practice. It challenged the assumption that system administrators' understanding of the science of implementation, as evidenced by strategically planning the drivers of implementation (Fixsen, et al., 2005; Fixsen & Blase, 2009), set the stage for increased fidelity of an intervention leading to optimal outcomes (Sprague, Sugai, Horner, & Walker, 1999). Voices of front-line practitioners may generate double-loop learning experiences

(Argryis, 2002) through reflection on processes and norms that may improve system administrators' conceptual mastery of the initiative (Huberman, 1985).

Terms and Definitions

For the purpose of this study, implementation was operationally defined as the activities designed and then employed by the participants who put into practice a selected intervention. The inconsistency across disciplines in the definitions of concepts and terms related to implementation research is narrowing with the growth of interdisciplinary collaborations and conversations. The following terms and definitions included adaptations from Fixsen (2013) and are presented within the context of the current study:

1. Implementation – the adoption of an initiative leading to a change in process and outcomes of the organization. The underlying processes involved in the adoption of an initiative.

2. Initiative – the school system's new plan to achieve improved instruction involving two or more schools for a period of three years.

3. Implementation Drivers – the cultural and procedural system components that enable the process of implementation. The integrative and compensatory processes that create the capacity for practice, program, and systems level changes needed to achieve improved population outcomes:

   a. Competency Drivers – implementation capabilities of practitioners addressing staff selection, training, coaching, and performance assessment (fidelity).

   b. Leadership Drivers – strategies designed to discriminate adaptive challenges from technical challenges to implementation in order to identify and align appropriate leadership strategies to leadership challenges.

   c. Organization Drivers – organizational processes and procedures that attend to administrative, funding, policy and procedure environments.

4. Implementation Stage – one of the phases within the process of implementation that has a set of core activities and resources creating a qualitatively different timeframe in the process (Exploration, Installation, Initial Implementation, and Full Implementation).

5. Rural School System – a school system where most schools are in communities of less than 1000 residents.

Further explanation of these terms will be provided in Chapter Two's review of the literature.

Delimitations

The following delimitations represented the parameters of this study:

1. This study was delimited to participants who had been directly involved with the implementation of the target system initiative since its inception. Participants were selected based on their direct involvement in order to gather credible information about the implementation process throughout its progression.

2. The sample was limited by the size of the initiative affecting the number of participants to the front-line practitioners (teachers), front-line support practitioners (principals, consultants and coordinators) and system administrators responsible for either the schools and/or the initiative.

3. One rural school system was the site of the study.

4. The study was conducted in 2015.

5. This conceptual model of implementation had been established by the National Implementation Research Network and was selected because of its scope, depth and prevalence of its use by implementation practitioners across disciplines. The literature review was then selected based on research related to this conceptual model. The content of the initiative being implemented was not the focus of the study and, therefore, not part of the literature review.

6. Due to the universal recognition of the Implementation Framework (Fixsen, et al., 2005), its components were the focus of the interviews.

Limitations

The study was subject to the following limitations:

1. The study was dependent on participants' willingness share information about their managers' and/or system administrators' support.

2. This retrospective study required participants to remember events and perceptions from the previous years and may have been limited by their ability to recall information from the initial stage of implementation of the system initiative.

3. The researcher was previously a government administrator which may bring into question the presence of an imbalanced power relation (Hatch, 2002) and an ethical limitation. Participant concerns regarding student outcomes may have created stress in sharing their experiences.

4. There may have been an the ethical challenge of placing the study in a location that shared a vested interest with the researcher, thereby impacting the trustworthiness of the research. For this reason, an objective observer with experience in conducting case studies with focus groups and interviews was involved.

Assumptions

In exploring implementation practices across the school system, I hold the assumption that the implementation framework is valid for rural school systems and that within each site there will be unique differences due to its leadership, the resources available and the competencies of the staff members involved in implementing the intervention. The participants were made aware of both the researcher's past experiences with research and the field of education. The assumption that participants may have provided guarded responses existed due to both the researcher's past government and school system leadership roles, thereby eliciting a need for reciprocity in the researcher-participant relationship. Obtaining the personal perspectives from these key informants increased understanding of the implementation process. It was expected that the presented reality would elicit diverse opinions and perceptions leading to deeper probing and rich information. With this in mind, there was a need to follow strict procedures for record-handling and maintaining privacy so that no identifying information was communicated.

Positionality

At the time of this study, I was in my 24th year with school systems (23.5 years in rural communities) and 28th year working in the field of Education. My early experiences were as an elementary classroom teacher before becoming an educational psychologist. It was this latter position where a Speech Language Pathologist and I introduced collaborative interdisciplinary teaming and report writing to a school system's student support service delivery that ignited my passion for maximizing effectiveness of resources. My career continued to gravitate to regional and provincial collaborative ventures such as Shared Services (student support services shared among several school systems), Wraparound (coordinating interdisciplinary support planning for complex needs), Student Support Services Working Groups (multiple school systems and universities collaboratively addressing specific learning needs) and Intersectoral Committees (interagency groups planning and responding to emerging and continuing complex community needs). My leadership roles later included that of a government Regional Superintendent of

Student Support Services and a Superintendent of a rural school system. These roles involved diverse responsibilities from Responsiveness to Intervention (a tiered support structure to respond to student needs), curriculum adaptations and interagency collaborations, to supervision of first- and second-year teachers, secondary curricula, Home-based Education, and English as an Additional Language. In these latter two positions, I was asked to participate in system initiatives due to the insights I brought to the interpretation of the data and in-depth knowledge and experience with Response to Intervention.

I have made efforts throughout my career to validate my understanding of student learning needs and responsive pedagogy in a current context. To this end, I have maintained direct involvement with students, teachers, and parents throughout my career such as returning to the classroom to teach, supporting research initiatives with hands-on assistance and facilitating workshops. Effective and responsive teaching practices have been an on-going professional interest. A highlight of this focus was participating in a multi-agency knowledge exchange in New Zealand to gain insight into understanding that the roots of the challenge are in the balance between discursive and traditional pedagogy with inquiry being a cornerstone that can positively impact both literacy learning and Indigenous students' learning experience and achievement. I have since been added to the provincial research team that is reviewing voices of students, parents, and staff as a method to co-construct a responsive teaching profile.

I have sought out opportunities with research initiatives to build my experience with, and understanding of, qualitative research methodologies. To this end, I have capitalized on opportunities to assist with focus groups involving students, parents, and teachers and to co-facilitate interviews with school-based administrators as part of approved research studies. Opportunities have allowed me to thematically code transcripts using topic coding, analytic coding, and narrative coding. Examples of my active involvement in qualitative research include: being a research assistant on a school system program review using focus groups; a graduate student assistant coding survey responses; a field research assistant with two studies involving focus groups and multi-tester unit-count analysis based on thematic coding to create a quantitative assessment tool (Berryman et al., 2014); and a co-researcher for a qualitative case study which has recently been accepted by a double-blind refereed journal (Sloboda, Brenna & Kosovan-Kirk, 2014).

Organization of the Dissertation

In Chapter 1, the background to the study, the purpose of the study with its research questions, the significance, definitions of language used and the limitations of the study were presented. My positionality outlined in Chapter 1 recognizes the context that motivated this research. Chapter 2 sets the conceptual framework for the study within the synthesis of the literature on implementation science. The qualitative research design and the methodology used to conduct the research is presented in Chapter 3, followed by the reporting and analysis of the data in Chapter 4. The final chapter, Chapter 5, summarizes the finding, draws conclusions, and expands understandings through discussion involving related research. It closes with a discussion of implications related to theory, policy and practice, and a statement of recommendations for future research.

CHAPTER TWO
LITERATURE REVIEW

Although a plethora of research exists across disciplines, implementation research is a relatively new field of study within Education. Research exploring the voices of practitioners regarding implementation frameworks is limited. Within the scope of this chapter, research and frameworks directed to the study of implementation will be presented through the following sections: (a) background and challenges of implementation research; (b) development of an implementation research community; (c) implementing research within a context of change; (d) challenges facing implementation research; (e) relevance with the field of education; and (f) key concepts within implementation science. Frequently cited implementation theories and frameworks will conclude the chapter, highlighting the stages of implementation drivers which constituted the focus of the current study.

Background and Challenges of Implementation Research

Concerns over the lag between the development of research-based practices and their application in authentic settings is common to multiple disciplines (Aarons et al., 2011). Within the field of Education, growing expectations for improving student achievement with limited resources led to resource allocation issues creating unpredictable conditions for success. The results from applying research-based practices did not match expected outcomes. In response, school systems adjusted, abandoned, or replaced the practice to improve future outcomes. To maximize the conditions for success (i.e., cost-efficient and cost-effective allocation of financial and human resources for student achievement), further research on implementation practices was needed. Implementation research became a field of scientific study motivated by the way in which deviations in program delivery influenced outcomes. The intent of such research within an educational context was directed to this concept: "the bridge between a promising idea and its impact on students is implementation" (Berman & McLaughlin, 1976, p. 349). Substantial resources were invested in theoretical research to create valuable information of effective practices and interventions that improve conditions for children, youth, and families (Century, Cassata, Rudnick, & Freeman, 2012; Damschroder et al., 2009; Fenwick, 2007; Fixsen et al., 2005). However, the issue of uptake, specifically that which influences the commitment to research-based effective practices and the resulting cost-effectiveness of the strategy, created a motivation for implementation research.

System decision-makers needed evidence of added value from utilizing an implementation framework. Research-based implementation frameworks create purposeful strategic practice with efficiencies as the intended outcomes. Fenwick (2007) questioned whether the uptake issues were a question of value, specifically the value of a particular intervention, or practitioners' knowledge and/or attitude.

Significant issues translating research to daily practice were documented, including adoption timeframes and fidelity of the practice, (Balas & Boren, 2000; Fixsen et al, 2001; Westfall, Mold & Fagnan, 2007). These writers noted that expectations from the research for effectiveness differed in practical applications, decreased over time or varied with personnel. The benefits of the research could not be actualized until practitioners adopted them into practice. Mittmann (2013) related the "slow uptake of new, innovative practices and research findings" to the lack of expected benefits and unsatisfactory outcomes (p. 2). Fullan (2001, 2011) acknowledged an implementation dip experienced by organizations employing innovative practices and the need for a proactive response. An urgency was created to maximize research findings (Center for Implementation Practice and Research Support (CIPRS), 2011; Fenwick, 2007) and addressing barriers such as implementation dips (Sharratt & Fullan, 2012). According to Fixsen and his colleagues (2007), the goal of the research was to make better use of knowledge about implementation science to enable using products of research more rapidly and more effectively to benefit children, families, and communities.

Development of an Implementation Research Community

Implementation research became the catalyst for high fidelity applications of initiatives in order to maximize investment of resources and outcomes. The World Health Organization (WHO) described implementation research as "the scientific study of the processes used in the implementation of initiatives as well as the contextual factors that affect these processes" (as cited in Peters, Tran & Adam, 2013, p. 27). The research conducted by Fixsen et al. (2001) met the criteria of this description of implementation research and contributed to a growing body of knowledge focused on bridging from research to practice.

Journals, conferences, and networks dedicated to implementation research have been created globally and regionally since 2005 (Fixsen & Blase, 2011; World Health Organization, 2011). Providing a theory-driven approach rather than relying on common-sense to develop a systematic method for identifying and understanding implementation processes will promote

15

fidelity, replication and sustainability (Blase, Van Dyke & Fixsen, 2015; Fixsen, Blase, Naoom & Wallace, 2009; Nilsen, 2015). Implementation research has provided the contextual information of how and why an initiative could replicate the research findings in the practical application of the theoretical research. International and multidisciplinary communities of researchers shared definitions, theories, frameworks, and models in the relatively new discipline of implementation science from which the field of Education has benefited.

In 2008, the Global Implementation Initiative was created as a non-profit organization to establish international collaborative opportunities focused on implementation research development. The primary initiatives are the biennial Global Implementation Conference (GIC), the development of a Global Implementation Society (GIS), and establishing the Global Implementation Education (GIE) to develop courses and credited programs to support the advancement of implementation as a scientific field of research. Dean Fixsen, founder of the National Implementation Research Network, was instrumental in the development of the GIC and is a board member of the GII.

Professionals seek out promising research to improve outcomes for children, adults, and families often without the understanding of how to maximize the effectiveness of a program or strategy to produce the anticipated outcomes. Cochrane (1972) acknowledged that many clinical strategies existed but without effectiveness. Contextual variables were not widely considered (Dane & Schneider, 1998). With the global interest in implementation research, practitioners have access to a vast amount of research and the volume can be overwhelming. The academic language, or practitioners' lack of understanding of how to use it to make an educated choice of strategy, may add to the challenges of applying a research-based implementation strategy (Papoutsi, Boaden, Foy, Grimshaw, & Rycroft-Malone, 2016).

Implementation Research within the Context of Change

Within the many avenues to explore the relationships among implementation and change, the focus of this review addresses innovations within educational contexts. Fullan and Pomfret (1977) conducted a review of implementation through the lens of curriculum and instruction implementation which formed the basis of *The New Meaning of Educational Change* (Fullan, 2007). They identified implementation as the study of factors and processes related to putting new ideas into practice particularly with consideration to the role of organizations and collaborative cultures, thus connecting implementation with organizational learning (Senge,

1990).

Fullan (1993) suggested that the limitations of change processes need to be recognized through other literature, such as implementation research, to direct the collection of data to gain further insights. He further advocated that educational systems become learning organizations "expert at dealing with change as a normal part of its work " (Fullan, 1993, p. 4). Fullan (2008) suggested that implementation research is the link between effectiveness and improvement of educational reform.

Chambers, Glasgow and Stange (2013) described the paradox between the need to sustain interventions within the context of change. 'Program drift' (Chambers et al., 2013, p.2), practitioners' deviation from protocols, has been evidenced as an attempt to maintain familiar settings and practices as interventions are adopted. Chambers, Glasgow & Stange (2013) further reported that efforts to prevent 'program drift' has led to "extensive pressure on real-world practices to adhere to the intervention protocols without evidence that this adherence will lead to optimal outcomes" (Chambers, et al., 2013, p.2). In their description of a sustainability framework, they suggested that gathering input from practitioners across sites would benefit practices.

Recent research on change within schools highlighted that attention to change processes is critical to the successful implementation of the innovation or content of the change. Centrality of process has emerged as an important concept in its own right (Louis, 2010) and change has become recognized as a design process with shared focus on the process as well as the product or desired outcome (Thomson, 2010). Montague (2014) extracted implementation theory from a logic model, aligned it with a change theory and referenced implementation theory as "action theory". He concluded that new evaluation designs need to look at theory and related interactions.

Challenges Facing Implementation Research

Implementation studies have explored real-world applications of clinical research to address issues of replication, generalization and effectiveness. Since the 1980s, research on implementation grew from the field of behavioural sciences and predominantly from Health and Health Services (Bansal, Bertels, Ewart, MacConnachie, & O'Brien, 2012; Bertram, Blase, Shern, Shea, & Fixsen 2011; Cochrane, 1972; Graham & Tetroe, 2009; Grol & Jones, 2000; Mendel, Meredith, Schoebaum, Sherbourne, & Wells, 2008; Noble, 1999; Peters et al., 2013;

17

Sugai & Horner, 2008). Balas and Boren (2000) reviewed clinical research studies and concluded that original research averaged a lag time of approximately 17 years to be accepted into clinical practice which Fixsen et al. (2005) characterized as a stage of adoption or full implementation; 9.3 years was identified as the lag time between the release of the report, review or textbook and full implementation. Westfall et al. (2007) noted that only 14% of original research resulted in full implementation as accepted practice. Both of the above studies noted that strategic implementation teams were not in place. Fixsen et al. (2001) focused on implementation teams using active methods and found 80% of the research was fully implemented within three years. Greenhalgh et al. (2004) conducted a significant literature review of diffusion and dissemination research and noted three types of approaches: "letting it happen", "helping it happen" and "making it happen" (p. 567). Only a very small percentage of the literature identified a need to explicitly study the dissemination and sustainability of the research in real-world contexts (Greenhalgh et al., 2004).

A theme that emerged from the research reviewed was that all information (translation, diffusion, dissemination, and implementation) began with the researchers themselves and found its way to the practitioner via a series of steps as in a pipeline. Green, Ottoson, Garcia, and Hiatt (2009) illustrated the challenges with this type of system (Figure 2.1) within the health research community.

The 17-Year Journey: Research to Practice:

4. Peer Reviews, Publications
5. Guideline and Resource Development
6. Practice/Application of the Research

1. Inquiry, Priorities for Research
2. Grant Applications
3. Research
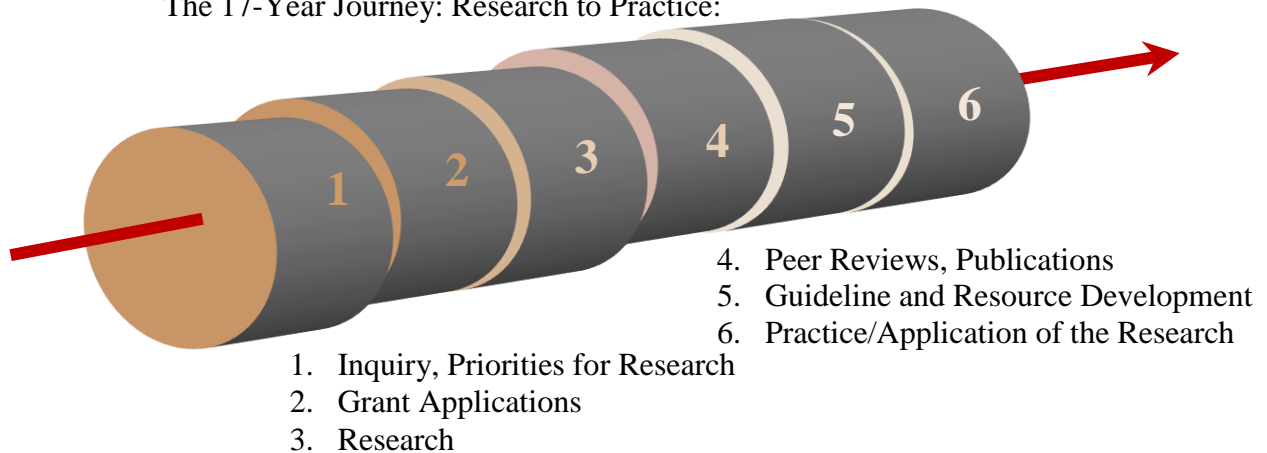
Figure 2.1. Pipeline concept for disseminating research (adapted from Green et al, 2009)

As suggested in Figure 2.1, the purpose of studying implementation is to increase the application of research within systems. The pipeline conceptualization of the implementation of transferring research to practice would assume a smooth flow of communication. However, different steps along the pipeline reflected different priorities of the system which, at times,

created constrictions of the flow of knowledge resulting in a research-to-practice challenge (Balas & Boren, 2000; Green et al, 2009; Westfall et al., 2007). According to Balas and Boren's (2000) model, more research was created than could be accessed by the practitioner.

Relevance with the Field of Education

Programme for International Student Assessment (PISA) scores have identified countries whose children and youth have demonstrated well-rounded thinking skills and a strong knowledge base (Organisation for Economic Co-operation and Development [OECD],2010). Individual countries have conducted regional assessments with a focus to close, even eliminate, gaps in achievement scores across populations. Research on developing strategies to address achievement discrepancies has led to an industry of professional development with little impact on student achievement (OECD, 2012). Applying the pipeline conceptualization of transferring research to practice would suggest that closer attention to the adoption of these strategies is needed, specifically to address the barriers that are impeding their implementation and adoption to daily practice.

Key Concepts within Implementation Science

The journal *Implementation Science* defines implementation science as including all aspects of research relevant to the scientific study of methods to promote the uptake of research findings into routine settings in clinical, community and policy contexts (Eccles & Mittman, 2009). As a multidisciplinary field, the absence of common terminology has been an issue in implementation research. Graham et al. (2006) found more than 29 terms were used in nine countries to refer to knowledge in action. Knowledge utilization has been identified as an umbrella term for diffusion, dissemination, knowledge translation and implementation (Fixsen et al., 2005; Graham et al., 2006; Rogers, 1995). Tabak (2013) found that each of these terms developed as a distinct concept. Greenhalgh's (2004) literature review categorized diffusion research from 'making it happen' intentionally to 'letting it happen' naturally. These concepts and associated terminology are collated and presented on a continuum (Figure 2.2).

The Diffusion & Implementation Continuum in Figure 2.2 illustrates that Knowledge Translation encompasses the full range of research interests from the sharing of discoveries and developments of process to the delivery process, or application, of these findings in real world settings. The concepts of diffusion, dissemination and implementation are viewed as focus points

Discovery/Development	*Knowledge Translation*	Delivery
	- exchange, synthesis and application	

Diffusion	Dissemination	Implementation
- Communication across the scientific/learning community	- Communication through the target community/population	- Exploration after the installation/adoption

"letting it happen"	*"helping it happen"*	*"making it happen"*

Passive Process   **Active Process**

Figure 2.2. Diffusion and Implementation Continuum

along the continuum which share the common purpose of informing and directing policy and practice developments. These concepts are highlighted in the following section.

Diffusion

Diffusion theory emerged within the social sciences in the early twentieth century through the work of French researchers focused on the spreading of social and cultural elements needed to create social change or "diffusion" (Kinnunen, 1996). Rogers (1995), a rural sociologist and the most frequently cited reporter of theoretical and empirical literature on diffusion within natural and social sciences, introduced the concept of diffusion of innovation through his meta-analysis of studies from multiple disciplines. According to Rogers (1995), diffusion is a five-step process for a target population to support the adoption of an innovation. Within Greenhalgh's literature review (2004), diffusion research was categorized as 'letting it happen'.

Dissemination

Havelock (1969) extended Roger's theory with structure. His addition of institutionalizing the knowledge through systemic integration and collaborative research created a communication formula. Knowledge dissemination became characterized by consistent interpretation and application. Dissemination is the "purposive distribution of information and intervention materials to a specific public health or clinical practice audience. The intent is to spread information and the associated evidence-based interventions" (Health Services Research Information Central, 2012, p. 1). For example, Gagnon (2009) identified that knowledge dissemination requires consideration of the researchers and the practitioners, particularly with the reality of accessing grant monies. Within Greenhalgh's (2004) literature review, dissemination

research was categorized as 'helping it happen'.

Knowledge Translation

The Canadian Institute for Health Research (CIHR) defined knowledge translation as the exchange, synthesis, and application of researcher findings within a complex system of relationships among researchers and knowledge users. Implementation research originated in the natural sciences through clinical application research cited as evidence-based medicine (Sackett, Rosenberg, Gray, Haynes, & Richardson, 1996), translational research (Woolf, 2008) or practice policies (Eddy, 1990). The American National Institutes of Health (NIH, 2011) have made translational research a priority in response to pressures related to scientific integrity, public accountability, and social responsibility (NIH, 2012). The motivational driver for this branch of research was to better understand diseases, interventions and their interactions with the intent of establishing a more managed practice culture, committee-based interpretation, or translation of the science to create guidance for practices. To provide guidance for practice, Eddy (1990), from a multidisciplinary perspective, identified a distinction between standards (mandatory applications), guidelines (flexible applications) and options (optional applications); however, adherence to the mandated application was not followed by either practitioners or scientists. Wandersman et al. (2008) noted that all stakeholders will selectively filter and adapt information and advice to accommodate their contexts, needs and priorities.

Implementation

Fixsen et al. (2005) noted that implementation is "a specified set of activities designed to put into practice an activity or program of known dimensions" (p. 5). According to this definition, implementation processes are purposeful and are described in sufficient detail such that independent observers can detect the presence and strength of the specific set of activities related to implementation. The National Implementation Research Network (NIRN) found that high fidelity implementation produced higher, or more positive, outcomes when the organization expected specific conditions to establish a cultural environment unique to the philosophy underlying the initiative being implemented (Fixsen et al, 2005).

Fixsen and his colleagues, in their review of the research literature on implementation, acknowledged a significant contrast between the extensive research on developing and identifying practices and the limited research on implementation, particularly fidelity with generalizability of practices associated with positive outcomes. It was assumed that a

transformational change would result from a transactional approach. Manuals, instructional videos, and innovative scheduling of instruction did not create deep meaningful change (Fixsen et al, 2005). A multi-dimensional tiered approach needed to be established within a culture of improvement. Fixsen (2005) stated that critical elements, the components of implementation, were needed to promote and understand the effectiveness of the strategy: policies to create the environment; strategic identification of participants; intentional planning, and; continuous supervision and support. Within the Greenhalgh (2004) literature review, diffusion research was categorized as 'making it happen' or intentional, rather than 'letting it happen' by unfolding naturally.

<center>**Frequently Cited Implementation Theories and Frameworks**</center>

Theories, conceptual frameworks, and literature syntheses have become recent influences to the implementation research base and the community of researchers is broad and diverse and the research increasingly extensive. Wandersman et al. (2008) described implementation frameworks as a view into the attributes, facilitators and challenges to promoting implementation. The current study was based on the NIRN implementation framework that is widely recognized in the research community, particularly its Stages of Implementation and Implementation Drivers (Fixsen et al., 2005). This section of the chapter highlights the influences on implementation research within the field of Education. It is from this literature that a specific framework was selected..

Damschroder et al. (2009) referred to the collective models, frameworks and theories simply as theory although clarification around terminology had been addressed. Kitson et al. (2008) explored whether a difference exists between conceptual frameworks, theories and models and Graham et al. (2006) identified more than 60 frameworks or theories (without differentiating between these terms). Kitson et al. (2008) presented an analytic framework informed by Ostrom, Gardner and Walker (1994) to make sense of the terminology through its intended purpose for its application across the multidisciplinary fields of study. A conceptual framework identified elements and relationships to explain the phenomena and provide a language to compare theories. Ostrom, Gardner, and Walker (1994) stated that theories suggest causal relationships to explain phenomena and various theories may be consistent with a conceptual framework. Models were specific to a given situation, providing the opportunity to understand specific approaches within that context.

<center>22</center>

Frameworks and theories that are frequently cited include: The Promoting Action on Research Implementation in Health Services (PARIHS) framework (Rycroft-Malone, 2004); The RE-AIM dimensions of Reach, Efficacy, Adoption, Implementation, and Maintenance (Glasgow, Vogt & Boles, 1999); and the Ottawa Model of Research Use (Logan & Graham, 2010). The following theories and conceptual frameworks have been consistently referenced in educational research studies: Havelock's (1973) Research Dissemination Utilization Conceptual Framework; Roger's (1995) Diffusion of Innovation Theory; Greenhalgh et al.'s (2004) mental health services' review; Damschroder et al.'s (2009) Consolidated Framework for Implementation Research (CFIR); Aarons et al.'s (2011) Conceptual Model of Evidence-Based Practice Implementation, and; Fixsen et al.'s (2005) synthesis of the literature on evidence-based programs. Each has developed a constructive framework for understanding contributing variables of successful implementation of school-based initiatives, for demonstrating how implementation fidelity impacts positive student outcomes, and for monitoring and documenting the quality of the implementation of programs. However, the innovative work by Fixsen and his colleagues has been critically recognized and frequently cited since 2005 (Aarons et al., 2011; Damschroder et al., 2009; Meyers et al., 2012; Tabak, Khoong, Chambers, & Brownson, 2012) and as such, it was selected to be the focus of the current study.

Action Implementation Frameworks

Fixsen and his colleagues (2005) identified organizational contexts and external influences as critical features for effective implementation. Their review resulted in the identification of implementation factors and the development of conceptual frameworks for active implementation: an overall framework for implementation, a framework for core implementation components (implementation drivers), and a framework illustrating how various factors influence these core components. Recognizing that implementation is a process, several stages of implementation were also described.

Three frameworks (conceptual model, core components and organizational/external influences) formed the overall 'ecology' of implementation. These frameworks were unique to the relatively new field of implementation. The frameworks are referred to as the "Active Implementation Framework": stages of implementation, implementation drivers, policy-practice feedback loop and the organized expert implementation support. Two of these frameworks, stages of implementation and implementation drivers, have been developed further since NIRN's

2005 monograph.

Poor or incomplete implementation of an intervention may result in:

(a) too little or too much of the core elements of the intervention being used;

(b) variable use of the intervention across students, staff, or settings; or

(c) mismatch between the intervention and the staff or student (Fixsen et al., 2005).

These issues contribute to the low rate of translation of the interventions into routine use. According to Fixsen and colleagues (2005), when implementing interventions, it is important to distinguish the implementation processes (i.e., is the intervention being used as designed) and the effectiveness outcomes (i.e., is the program achieving expected outcomes). Failure to assess the implementation process has led to the conclusion that the intervention or practice is not effective under the prepared conditions.

Originally, the conceptual model for implementation was simple and pragmatic, containing five components: Source; Destination; Communication; Feedback; and Influence. The outcomes derived from this model were: changes in adult professional behavior, changes in organizational structures and cultures, and changes in relationships to consumers/stakeholders. This five-element model functioned as a lens for better specifying the activities designed to put into practice an activity or program of known dimensions. The model remains a solid foundation but subsequent research has provided refinements to its components (Bertram, Blase & Fixsen, 2013).

The framework has depicted the core components for implementation for adult learning to progress "from orientation and new learning to mechanical use, routine use, refinement, integration, and innovation as new knowledge, skills, and abilities become developed" (Fixsen et al., 2005, p. 42). The six components were highly interdependent, or "integrative" and "compensatory" (Fixsen et al., 2005, p. 28). The core implementation components had to be present for implementation to occur with fidelity and good outcomes. For example, weakness in one area such as personnel selection may be compensated through training and the two stages of innovation and sustainability must be integrated into each of the remaining functional stages to be achieved.

Also, derived from their synthesis of the literature were six stages of implementation: exploration, installation, initial implementation, full implementation, innovation and sustainability (Fixsen et al., 2005). The stages have been considered to be sequential, each with

unique performance requirements that, depending upon the degree met, will either increase or decrease the probability of subsequent implementation success.

Stages of Implementation

New initiatives or activities need to be done "purposefully, efficiently, and effectively to produce consistent and reliable outcomes" (Fixsen al., 2013, p.4). With focused attention on the implementation drivers, implementation is a two to four-year process (Bertram et al., 2011) through a stage-based process (see Figure 2.3).

Exploration	Installation	Initial Implementation	Full Implementation
- assess needs & fit	*- access resources, preparation of system*	*- manage change, collect data, make adjustments,*	*- monitor and manage implementation drivers, improve/achieve fidelity & outcomes,*

2 – 4 years
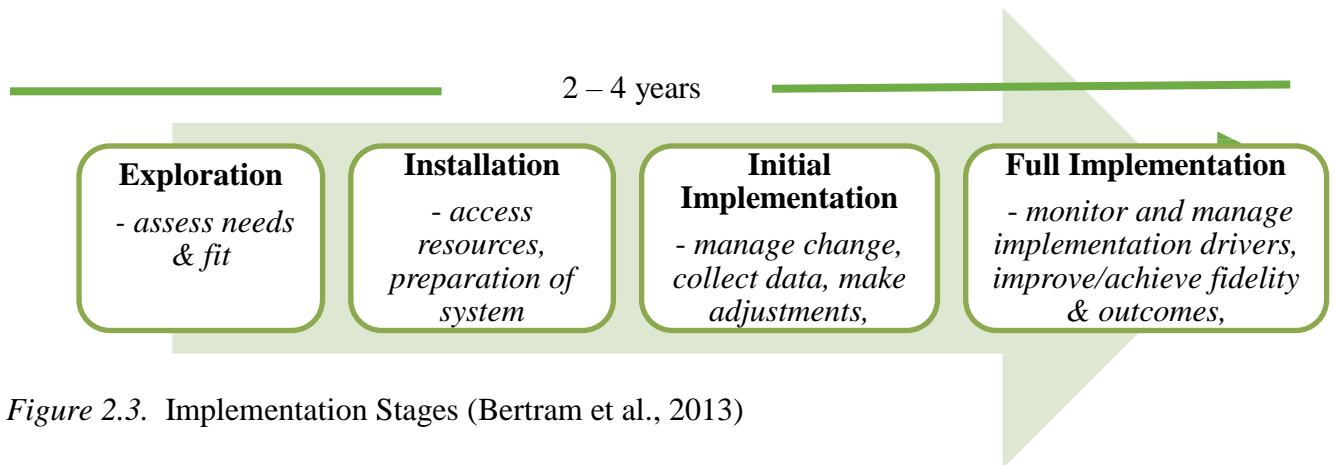
Figure 2.3. Implementation Stages (Bertram et al., 2013)

Although the 2005 monograph described implementation in six stages, further research advanced this description which is illustrated in Figure 2.3 (Bertram et al., 2013). Two of the original stages, innovation and sustainability, can thrive when full implementation has been achieved and are no longer described as separate stages (Bertram et al., 2011). If innovations are studied, the stages would be re-visited through the lens of the innovation. According to National Implementation Research Network (n.d.), research on the stages on implementation is rare, especially research that evaluates the roles of implementation components across stages.

Exploration. Within this stage, an assessment of the organizational needs, resources, current practices and initiative requirements is conducted to guide the decision-making process to proceed. Strengths, challenges and opportunities related to system impact and resource allocation of finances and staffing are studied (Bertram et al. 2011). Within the exploration stage, the assessment focuses on both the implementation outcomes, or organizational variations, and the behavioural or structural outcomes for the targeted population. An extensive review of literature around a widely-adopted initiative found that implementation outcomes were only intermittently explored and, therefore, strongly recommended to be addressed (Bertram, Suter,

Bruns & O'Rourke, 2011).

Installation. After the decision to implement an initiative has been made, preparation and planning is needed to obtain or repurpose necessary resources with the intent of a smooth transition and start-up. Within this stage, the pragmatic decisions are made such as staff selection and training, space, scheduling, equipment and materials, discussions with stakeholders, etc.

Initial implementation. Within this stage, the complex work of implementation and change occurs (Bertram et al., 2011). Confidence with new competencies is developing and the initiative may be modified or abandoned in response to the new understandings and activities (Bertram et al., 2013). Unexpected realities may surface in response to the initiative's required changes to roles, responsibilities and practices reinforcing the need for strong and responsive leadership. Each of the implementation drivers (competency, organization and leadership) are critical for supporting the initiative both systematically and systemically within this stage.

Full implementation. Within this stage, 50% or more of the staff involved in the initiative are using the innovation with fidelity, population outcomes consistent with the research are achieved and the innovation is recognized as expected practice (NIRN, n.d.). The implementation drivers are developed, available and reviewed regularly as part of a continuous improvement mindset. Without a strategic application of implementation, only 14% of innovations would reach Full Implementation and that process would require approximately 17 years (Balas & Boren, 2000).

Implementation Drivers

Since 2005, Fixsen and his colleagues have continued to revisit, refine and expand the framework through dissemination and implementation theory applications (i.e., helping it happen, making it happen). Implementation drivers create the infrastructure to establish practice, program and system changes to support the new initiative and achieve population outcomes. Their conceptual framework for the implementation drivers is presented in Figure 2.4.
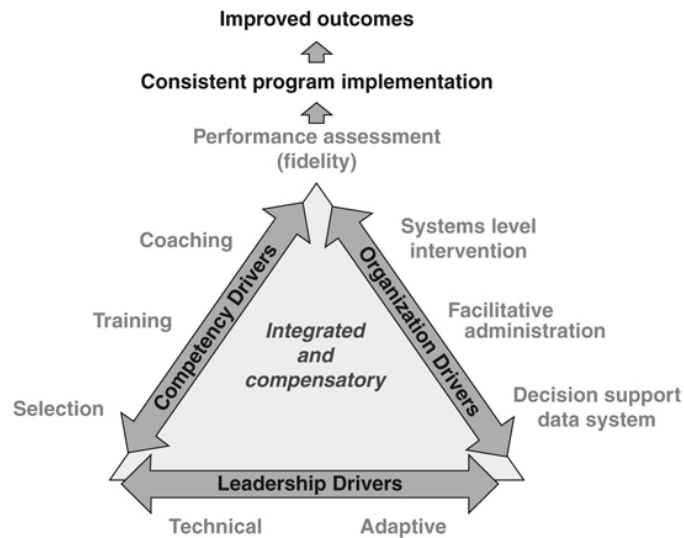
Figure 2.4 Implementation Drivers (Fixsen et al., 2013)

In Figure 2.4, the implementation drivers are depicted on the arrows with their individual components on the perimeter although they are expected to be integrated and compensatory. These drivers are not intended to work in isolation as each influences the others and uses the innovation as the common lens. Weaknesses or challenges in one are to be compensated through the strengths of another. Further information is provided in the following sections.

  Competency drivers. The focus of competency drivers is to confirm the ability of the individuals involved to actualize the practices with fidelity. The intent is to build both the confidence and competence of the practitioner to build proficiency and commitment. Thus, the fidelity of the initiative or intervention is maximized to lead to improved outcomes. Each competency driver targets knowledge and skills. The performance assessment has the capacity to inform system leaders how the other implementation drivers are functioning.

  Selection. In reviews of program implementation, few described staff selection (Bertram et al., 2011; Fixsen et al., 2005). If staff selection is prescribed, it is possible to establish staff selection criteria of skills and abilities within the population, established and improved during different stages of implementation (Bertram et al., 2011, Metz & Bartley, 2012).

  *Training***.** Training should provide the foundation for the initiative through exploration of the theory and underlying values of the program. Training assists with understanding and promotes basic knowledge and skill development. Key practices are experienced within training events to match fidelity criteria (Fixsen et al., 2005).

27

Coaching. Coaching leads to 95% application of new learnings (Joyce & Showers, 2002). Change is influenced by behaviour in real-world settings. Coaches support staff in persisting with new skills and practices through observation, feedback and modelling.

Performance assessment. Performance assessment addresses fidelity issues around staff and organizational performance. It is impacted by both the competency drivers and the organizational drivers. Data from this assessment informs further developments of the initiative (Bertram et al., 2011).

Organizational drivers. The focus of organizational drivers is to create the environment and culture that facilitates the ease of implementing the new practices through attention to organizational and system processes and structures. These drivers ensure that competency drivers are accessible and effective. Competency drivers cannot function adequately without changes to the system. The organizational drivers demonstrate system commitment by providing necessary structures for program success.

Decision support data system. Data needs to be reliable and routinely obtained to be meaningful in decision-making processes (Fixsen & Blase, 2009).

Facilitative administration. Administrators need to be proactive. Leadership committed to the initiative will ensure that challenges are addresses, feedback loops are developed and administrative barriers are minimized (Fixsen et al., 2009).

System intervention. These are strategies related to working with the different systems of stakeholders that influence the initiative. Alignment of external systems is a critical facet of program success (Bertram et al., 2011).

Leadership Drivers. The focus of leadership drivers is on the function of leadership, rather than hierarchical positioning, providing direction and vision for the practices. Organizations tend to be "over managed and under led" (Fixsen, 2012). Some challenges are more technical, requiring a managerial response whereas other challenges are related to conflict requiring a more adaptive solution-focused approach. Leadership drivers support the sustainability of the new practices. Leadership drivers are activated as needed and demonstrate organizational commitment by addressing the external influences including funding.

Technical leadership. This leadership component focuses on procedural challenges related to implementation components. It is employed when there is agreement about the nature of the challenge and the recommended course of action. A single point of accountability exists

(Fixsen et al, 2009).

Adaptive leadership. This leadership component addresses conflict resolution issues and mediating for consensus and/or solutions. These are complex issues requiring a shared response resulting in multiple points of accountability (Hall & Hord, 1987).

Summary

Knowledge about implementation is relatively new and only recently communities have had the opportunity to share learnings through frameworks and literature syntheses (e.g., Fixsen et al., 2005; Kelly & Perkins, 2012). Human service providers could not have known that interventions would require the support of strategic research-based implementation methods if effective and sustainable services, the promises of improved outcomes, and the closing of achievement gaps were to be realized. Evidence of what does not work has challenged traditional models of implementation: research studies have shown diffusion as a passive process, dissemination of information by itself has not led to successful implementation, and training alone has not lead to successful implementation. The implementation process, with its specific stages and components, has resulted in a significant number of outcomes being achieved in a significantly smaller window of time.

Related research illustrates an urgency around the need to understand effective implementation. The current study was designed to add to the science-to-practice literature, changing the question from, "how can we make practice more informed by research?" to "how can we make research more informed by practice?"

CHAPTER THREE
METHODOLOGY

In researching implementation strategies to better understand how to capitalize on investments made by an organization to creating optimal outcomes, I learned about different implementation drivers (Fixsen et al, 2005) and strategic planning tools for system administrators. I also noted the silence of voices from front-line practitioners such as teachers. The need to gather their voices and their perceptions through their stories provided the seed for this study. Taking a qualitative research approach to study front-line practitioners' perceptions of implementation drivers allows for the consideration of alternative ways by which this issue can be addressed.

The research questions were formulated around the implementation drivers, with the research addressing those involved in the process of implementing a system-wide initiative. This retrospective case study was viewed through the lens of the implementation framework provided by the National Implementation Research Network (Fixsen, et al., 2005) through questions that explore the role of the core components of implementation. The research involved the participants' perceptions of the school system's initiative implementation as the unit of study. A series of analyses were conducted with focus groups of front-line practitioners and managers across implementation sites and interviews with system administrators responsible for the system initiative. Similarities, differences, and insights in the deployment of the program were explored along with the experiences from the different levels of participants (system administrators, school-based administrators, teacher participants). This chapter is organized through discussions of: design, data collection methods, data analysis and establishing trustworthiness.

Design

Rationale

Qualitative research involves studying issues in their natural context to understand the issue authentically and thoroughly. Qualitative research techniques respond to the research questions and add to the research base, and potentially to the theory, of implementation research. These techniques add value to the research in at least three ways.

First, they look for indicators of success, sustainability and growth through the experiences and stories of the participants and have these individuals participate in the data collection (Glesne, 1999; Merriam, 1988). As qualitative methods allow for the researchers to

bring their personal-self into the research along with their researcher-self, the researcher's biases, values, and interests are acknowledged and included in the reporting (Creswell, 2013; Glesne, 1999; Merriam, 1988). Finally, qualitative research looks at the research setting from the viewpoint of deep understanding rather than micro-analysis of limited variables. The interest is in the stories and the experiences of people in the natural setting. Instead of trying to prove or disprove a hypothesis, qualitative research looks for themes, theories, and general patterns to emerge from the data. It is "is hypothesis-generating" (Merriam, 1988, p. 3) rather than serving to test a hypothesis, which is the underlying intent of the research questions.

My research questions examined the role, not the existence, of the implementation drivers which involved questions that were more appropriately examined through qualitative methods than through a quantitative lens (Creswell, 2013; Patton, 2002). Qualitative methods offered a more appropriate means to explore these perspectives. Examining the experiences and stories of front-line practitioners, specifically teachers with their coaches and principals, provided a unique lens on the roles played by implementation drivers and the affiliation of implementation drivers with the stages of implementation.

The journey of this research study extended through four distinct phases of activity as outlined in Table 3.1. In Phase One, several boundary criteria led to the selection of the research site and specific initiative to be the focus of the study. In preparation, a pilot study was conducted to bring familiarity to the process and to allow for refinements in process. After the participants were identified and their stories gathered, an interpretive panel provided initial coding suggestions (Kvale & Brinkmann, 2009).

Phase Two and Three focused on becoming intimate with the data. The data were gathered by audio recording, note taking, and actively listening to accounts of the initiative from the voices of system leaders and practitioners. Phase Three involved collaborating with participants to create initial codes to guide further coding and theming analysis. By organizing the data to build ideas and concepts, insights emerged. The research learnings and their implications were compared with implementation research and within the context of the implementation stages and drivers observed with a system initiative.

Table 3.1
Phases of Research Study

Phase	Activity	Intention

1
Study Preparation
	• Site selection
	• Initiative selection
	• Pilot Study
		• Criteria for research study
		
		• Practice, revise, refine techniques:
		  o interview
		  o focus group – workshop and guided interview
		  o field notes
		  o recording templates
		  o audio recording

2 Data Collection	• Participant Selection – Individual Interviews • Participant Selection – Focus Groups	• Data Collection – Individual Interviews • Determine Focus Group participant pool • Confirm Focus Group participants • Data Collection – Focus Groups
3 Interpretation & Analysis	• Interpretive Panel • Data analysis • External Auditor	• Provide initial coding suggestions • Coding and theming • Generalizations and lessons learned • Examine the research process and product • Assess for accuracy
4 Discussion of Implications	• Conference presentations • Articles	• Represent lessons learned • Engage dialogue on the topic

Phase Four was characterized by sharing the study's findings with the school system and the research community. The phases presented in Table 3.1 provided a roadmap for the study. Elements of each phase are explained in detail within this chapter.

Research paradigm: Constructivist Approach

The intent of this research was to understand front-line practitioners' perceptions regarding the process of implementation. In this study, the selected research paradigm of constructivism (Lincoln & Guba, 2011) aligned with the purpose of the study as it recognizes the existence of multiple understandings of a given reality. No benchmark data judged the quality of data because multiple constructs of the data were required to understand the issue (Lincoln & Guba, 1985, p. 295). Constructivism is a "relativist ontology" (Denzin & Lincoln, 2011, p.13) and assumes the research is addressing relative truths dependent on the perception of the

individuals. Humans are incapable of total objectivity because their world is understood through the interpretation. The participants' perceptions were observed as a social construction of reality not as an absolute or universal truth (Denzin & Lincoln, 2011).

Constructivism assumes a "subjective epistemology" in which meaning and understandings are co-created through the enmeshed interaction between the researcher and participants in a hermeneutic cycle (Denzin & Lincoln, 2011, p.13). Hermeneutic interaction added an interpretive element to extricate meanings from participants' responses, and a method of exploring the leadership processes through language as well as the context of decisions. Constructivists accept the view of the world as a creation of multiple perceptions triangulated with other data sources. The paradigm provides understanding of the world of experience. I gained knowledge about each implementation driver through the sharing of unique experiences of both system leaders and practitioners, with myself the researcher as a "passionate participant" who interpreted how the participants perceived and interacted within their given context (Denzin & Lincoln, 2011, p. 110).

The rationale for using constructivism was to employ a paradigm that endorsed the complexities of human experiences. As a constructivist researcher, themes to explore included human construction of reality and how the interpretation of the experiences differ between front-line practitioners and system leaders. Constructivists hold the assumption that any collection of data is based on experiences shared through perceptions and understandings of the participants as told to the researcher (Denzin & Lincoln, 2011). Data and its interpretation were, therefore, dependent on the researcher's positionality.

The constructivist assumes a subjective epistemology in which meaning and understandings are co-created through the enmeshed interaction between the researcher and participants in a hermeneutic cycle (Denzin & Lincoln, 2011). The research questions sought to expand or create a theoretical perspective that would add to the understanding about implementation frameworks. There was a need to understand what participants were thinking and feeling as well as how they responded to understand their responses.

Case Study Design

Case study design and methods, specifically the retrospective case study design and methods described by Yin (2003) and Merriam (1988), were used in the proposed study. Yin (2003) defined case study as an exploration of a contextualized contemporary phenomenon

within specified boundaries and Merriam (2008) offered descriptions of recognized boundaries that include process, time and place. Lincoln and Guba (1985) provided a logical structure to the case study design following the journey of the "case" from problem identification, context description and issue description to the "lessons learned" or the outcome of the inquiry journey. Recommended resources for the journey included interviews with those involved in the implementation and document reviews to create a narrative to draw the reader into the themes and the voices of the case (Merriam, 1988). The strength of the case study approach is in its ability to examine a "full variety of evidence – documents, artifacts, interview, and observations" (Yin, 2003, p. 8) within a real-world context. By using multiple sources of evidence, and by checking with participants, the thematic analysis or interpretation of the case was validated. Case studies seek to understand, rather than manipulate the phenomenon to indicate cause and effect (Merriam, 1988). Consistent within all approaches is the thick, rich, thorough description to create the imagery for the reader, the passenger on the journey.

Yin's (2003) approach to choosing the appropriate strategy considered three conditions: the type of research question, how much control the investigator has over the events, and whether the focus is on contemporary or historical events and to what extent. As these conditions matched my intended research, case study was selected as the strategic methodology. Yin's three conditions set the context of my research. First, my questions elicited information that focuses on assessment, deep understandings and actualization of the interpretation of the implementation framework. Second, the selection of the school system's instructional reform initiative provided the boundary criteria:

- an ongoing initiative that had been in place for two to three years;
- strategic plan and/or documentation demonstrating the Exploration and Installation Stages (Fixsen, et al., 2005);
- dedicated funds; and
- assigned personnel.

Using an initiative that had been operationalized for two to three years placed it at a critical transition point that required strategic planning for continued viability through full implementation. Third, one of the criteria for choosing the participants was that they had been with the initiative continually since its inception to provide the historical context and to fit the NIRN's definition of initial implementation stage.

In summary, case study was determined to be the appropriate methodology within the constructivist approach of the qualitative tradition of research as illustrated in Figure 3.1.

	Qualitative Research	• Creswell, 2013 • Glesne, 1999 • Merriam, 1998 • Patton, 2002
	Constructivism	• Lincoln & Guba, 1985 • Denzin & Lincoln, 2011
	Case Study	• Lincoln & Guba, 2011 • Merriam, 1088 • Yin, 2003
		``
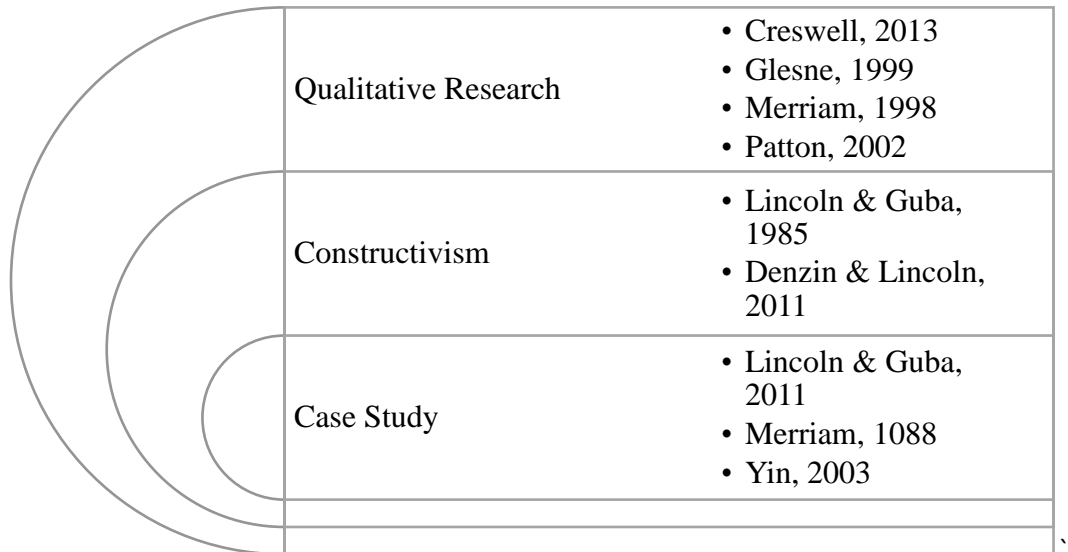
Figure 3.1 Research Design: Constructivist Approach

As indicated in Figure 3.1, case study was selected as the most appropriate vehicle for exploring front-line practitioners' voices on implementation strategies for several reasons based on related research (. First, Yin's (2013) criteria were met in terms of choosing case study as a methodology as the initiative to be explored is a bounded system unique to the school system. Secondly, case study methodology accepted the researcher's involvement in the collection of data as a "passionate participant" (Guba and Lincoln 2005, p.198) to provide the context of the initiative described in deep, rich detail. The data was verified by the participants and organized into general themes before an intensive focus on salient themes is undertaken. Finally, the research outcomes were intended to benefit the school system in its continued efforts to implement initiatives that meet the needs of all stakeholders.

Site Selection: Central School System

In selecting the site for the study, I discussed the purpose of my research, its design and methodology with senior system administrators, Chief Executive Officers (CEO), of several school systems. I then contacted them by email correspondence providing a review of our discussions and a letter of invitation (Appendix A2). Rural and urban school systems within 200 km of my home community were invited to participate in the research study and the selected

school system met the criteria. The CEOs of two rural school systems expressed interest in learning how to create more effective implementation across the system and spoke of several initiatives that were currently in place including those developed since each CEO had recently joined their respective school system as the CEO. One stated that involvement in studying their implementation might "provide some great insight to support its continued expansion" (CEO 1, personal communication, December 18, 2014).

One of these two school systems, Central School System, was selected based on the criteria of researcher accessibility and a recently implemented an initiative that met the required criteria. The research activities were conducted in a central location within the selected school system. Space within a local community agency office had been requested for the interviews and focus group, and the school system offered space within its office and a school after school hours. Archival documentation were accessed from the school system office as authorized by the CEO (CEO 2, personal communication, November 15, 2015). The 2013-2014 annual report for the school system characterized it as a rural school division in central Canada, covering a large geographic area with two small urban centres, seventeen rural communities, and seventeen Hutterian communities within its boundaries. It served approximately 9,000 students in over 30 schools with over 1000 full- time staff, including almost 600 full-time teachers, within an operating budget of approximately \$100M. The school system contained a diversity of school arrangements across nineteen : pre-Kindergarten to Grade Four, Kindergarten to Grade Six, Kindergarten to Grade Twelve, Kindergarten to Grade Nine Hutterite Colony schools, Grade Five to Grade Eight, Grade Nine to Grade Twelve, a distance education centre, and independent education programs for at-risk secondary students.

Initiative Selection: 21st Century Competency Professional Development

The criteria for the initiative selection included: accountable to a system administrator, assigned staff, dedicated resources, and implemented in multiple sites for at least three years, placing it in the initial or full stage of implementation. The CEO of Central School System shared that three initiatives fit the selection criteria and supported the use of any of the three system initiatives as the focus. The 21st Century Competency Professional Development initiative was selected. The intent of the System Initiative was to infuse 21st Century learning skills into all curricula as well as the development of any and all educational programming. The 21st Century Competencies included: Creativity, Critical Thinking, Collaboration,

Communication, Character, Cultural and Ethical Citizenship, Computer and Digital Technologies (C21 Canada, 2012). For at least three years through the initiative, staff were expected to continually develop their 21st Century Competencies, resources were included in the annual budget approved by the Central School System's Board of Education, and implementation was expected in multiple sites across all grade levels. After three years, the initiative would be expected to be in its initial or full stage of implementation, according to the NIRN framework (Fixsen et al., 2005).

It was selected to be the reflection of the research study because it best fit the criteria. It was implemented in the largest number of sites as all school division professional staff were required to participate in the initiative (CEO 2, personal email communication, November 15, 2015). The senior system leader with oversight for the initiative was identified as a contact (CEO 2, personal communication, November 30, 2015).

Participant Selection

Once the research site and initiative were identified, it was determined that the participants would include the system leaders who designed and approved the implementation strategy as well as the end-users in school settings. According to the Oxford Living Dictionaries (n.d.), an end-user is a person who actually uses a particular product. Within this study, the end-user was identified as "front-line practitioners" (i.e., teachers). Based on recommendations from my dissertation committee and conversations with my dissertation advisor, the sample pool was limited to include professional staff who worked or lived within a 50 kilometer radius of my workplace. Table 3.2 identifies the participant groups of my research and their involvement in the data collection.

The study included individual interviews with system administrators who had been directly involved with the initiative along with front-line practitioners (teachers) as members of

Table 3.2

Sample Selection – Methodology Framework

Participants (Involved 2012- 2015: Exploration &/or Installation Stage to Initial Implementation Stage)		Method
System Administrators (2)	CEO Senior Administrator	Semi- Structured Interviews
Front-Line Practitioners (10)	Teachers	Focus Group

the focus group. The system administrators identified schools with potential participants using a criterion purposeful sampling method of identifying teachers who had been directly involved with the school system initiative from its inception (2012- 2013). Staff who matched the criteria from these schools were invited to participate in the focus group. As identified in Table 3.2, the focus group had 10 participants with a timeframe to allow for interactive activities during a workshop phase. The size of the group provided the opportunity for each participant to respond within the focus group discussion (Krueger and Casey, 2000).

With approval for this research project, on ethical grounds by the University of Saskatchewan Research Ethics Board, interviews with each system administrator were scheduled. After the system administrators' interviews, the researcher sent out an invitation letter (Appendix A.3) to all staff of identified schools outlining criteria for involvement and requested interested staff to contact the researcher directly. Those that fit the criteria were surveyed to determine a mutually agreeable meeting time. At the focus group event, the consent form was given to each participant to confirm their involvement along with a time/schedule to set-up the focus group (Appendix A.4). The consent letter provided a detailed outline with the name of the study, focus group location and date, purpose, methodology (including the recording of the session), time commitment, potential risks and benefits. The letter also included how the information was to be verified by the participant, used and destroyed after completion of the research.

Because the study was qualitative and sought to discover what occurs, how and why and what the implications are, purposive sampling has been recognized as an appropriate sampling strategy. "Purposive sampling is based on the assumption that one wants to discover, understand, gain insight; therefore, one needs to select a sample from which one can learn the most" (Merriam, 1988, p. 48). Purposive sampling is criterion-based which allow researchers to study cases where predetermined criteria for participant selection had been met. The established specific criteria used for the selection of the participants was that, in the past two years, they had been directly involved with the school system's 21st Century Competency initiative including the CEO and members of the senior administration.

Those identified were invited to indicate their availability to attend the focus group workshop. From those available, 12 from each of the practitioner groups were randomly selected

to attend based on the majority of people available on a common day. A random selection process was used where each front-line practitioner who responded was assigned a sequential number. A computer-generated random selection program then created the list of the focus group members.

<h3 style="text-align:center">Data Collection Procedures</h3>

Of the several sources of evidence recommended for case study research (Yin, 2003; Stake, 1995; Glesne, 1999; Creswell, 2013), this study used interviews, focus groups, archival records and documentation. A series of analyses was conducted through interviews with system administrators responsible for the system initiative and through the focus group of front-line practitioners from across implementation sites. Similarities, differences, and insights in the deployment of the program were explored along with the experiences from the different levels of participants (system administrators and teacher participants).

The interviews were conducted with two school system administrators who had been responsible for the system initiative since its inception. Both the CEO and the senior system leader were involved in the exploration stage (i.e., determining if the program met the needs of students and "fit" for the school system) and installation stage (i.e., when the decision was made to initiate the program, the preparatory work to initiate the program in each site such as training and scheduling of staff, etc.).

Table 3.3

Alignment of Research Questions and Framework

Data Source	Research Questions				Implementation Drivers		
	1. How do the participants perceive the *influence* of each implementation driver on the success of the initiative?	2. What is *the role played* by each implementation driver (leadership, competency, structure) in the initiative?	3. What are the participants' perceptions of *the value* of the implementation drivers *at each stage* of implementation?	4. Which *adjustments* do participants make to the implementation process to address gaps or needs?	Competency	Organization	Leadership
Interviews	X	X	X	X	X	X	X
Focus Group	X	X	X	X	X	X	X
Documents[1]	X	X	X		X	X	X

[1] Policy 18, Innovation That Sticks Application, ESSP Cycle 2 Engagement, Comprehensive System Review, Annual Reports

The following research questions guided the semi-structured interviews, the focus group, and document reviews:

1. What was the role played by each implementation driver in the initiative?

2. How did the participants perceive the influence of each implementation driver on the success of the initiative?

3. What were the participants' perceptions of the value of the implementation drivers at each stage of implementation?

4. What adjustments did participants make to the implementation process to address gaps or needs?

Patton (1999) referred to having multiple observers providing analysis and unique data as analyst and data source triangulation, which influences the credibility of the research. The alignment between the research questions and the data sources is framed in Table 3.3.

An objective observer assisted with the focus group data collection by observing participant interactions and enhance data analysis. The observer was an educator with extensive experience with focus group discussions and a Master's degree in Education. As recommended by Onwuegbuzie et al (2009), the observer recorded non-verbal language (e.g., group dynamics through body language) as well as discourse information (e.g., consensus, dissention) during the focus groups using matrix templates (Appendix B).

Interviews

Patton (1987) reminded us that interviews allow us to learn when we cannot observe. Individual interviews contributed to the rich description of the case, the issue being studied, which allowed me to make decisions about the transferability of the research outcomes (Merriam, 2002). Choosing to conduct a one-to-one interview indicates an intention to probe for information, explore self-reflections and to gather extensive history and understanding of the phenomenon. Several researchers addressed the quality controls and stages of conducting qualitative interviews (Kvale & Brinkmann, 2009; Patton, 1990; Rubin & Rubin, 2012). Variation has been found within the rigidity or flexibility of each approach of asking questions. Patton (1990) described a temporal structured approach for planning: pre-interview (preparing for the session, developing the questions, planning the session), peri-interview (facilitating the session) and post-interview (ending the session, analyzing the data). This approach was used within my study.

Interviews provide a record of participants' voices, thoughts, and understandings in

response to pre-determined questions. Within qualitative research, interviews are a recursive activity that create a relationship between the researcher and the participants (Seidman, 2012). Creswell (2013) emphasized the value of a reflective relationship during the interview, including confirming that the interpretation of the interviewee's responses illustrates the intent of the response. During the interview, the person being interviewed is considered the expert and the interviewer holds the role of student. The interviewer's questions were motivated by the opportunity to learn all that the participant knows and understands about the case. The semi-structured approach allows for deeper exploration through probing responses. Participant responses provided a unique perspective of their experience and the relationships they saw between events, assumptions, and beliefs.

Interviews are an integral data source as the researcher creates an in-depth picture of the case which is then triangulated with information gathered from other sources, increasing the credibility of the research outcomes (Creswell, 2013; Lincoln & Guba, 2011; Merriam, 2002; Stake, 1995). The interview questions and format used in my research were adapted from those framed by the National Implementation Research Network (Appendices E & F). A semi-structured format with open-ended questions moved the conversation from a general overarching exploration to a focused one, continually probing as a means of seeking saturation. The individual interviews were just over an hour in length and provided a different context to the research questions than the focus group interviews.

Focus Groups

The participant sample was stratified according to leadership position within the initiative. Therefore, the homogeneity recommendation aligned with the level of leadership allowing for a common level of authority within the focus group which supported free- flowing conversation within the group. Choosing to conduct a focus group indicates an intention to generate ideas for consideration. Focus groups are group interviews. In introducing focus groups as a methodology for the socially situated researcher, Denzin and Lincoln (2011) described their unique value of "giving voice to the previously silenced by the creation of a safe place for sharing one's life experiences" (p. 419). Like interviews, the opportunity for advocacy and political action could be provided (Kambereis & Dimitriadis, 2011).

In keeping with the research and literature on the topic connection (Breen, 2006; Creswell, 2013; Kitzinger, 1995; Stewart, Shamdasani & Rook, 2007; Yin, 2009), the focus

groups within this study provided me with both benefits and challenges. They provided

stimulation and fun. A heightened sense of trust between members because of their common.

The group process encourages conversation between members, including asking questions,

sharing understandings, expanding on others' comments, and analyzing their own experiences. I

serves as moderator, building trust, and encouraging interactions while following an interview

protocol or guide of five to seven questions. Thus, a deeper understanding of the phenomenon

was developed including anticipated reactions to policy development.

The challenges with the focus group may involved close monitoring of the group

dynamics while maintaining the value of synergistic activity and marginalizing the role of the

researcher. Due to varying levels of interaction with the initiative, self-appointed experts could

divert the group's focus. An interest in early closure of the activity may create a "groupthink"

experience (Janis, 1972). Also, the information could be specific to a particular context negating

potential generalization. Breen (2006) also contended that issues of reliability of the thematic

analysis may exist. The objective observer was critical in addressing these challenges by

assisting with the monitoring. The objective observer and members of the focus group also

played a significant role with thematic analysis to address issues of trustworthiness. The observer

recorded non-verbal language to add another layer of information related to the engagement of

the participants. The participants provided feedback on the transcript of the focus group as well

as an analytic lens for the reflection of the initial data interpretation to diminish researcher bias.

Discussion Format

The workshop format that was used with the focus group within my research provided an

overview of NIRN's Implementation Framework, an interactive activity, and concluded with a

guided discussion using the semi-structured interview guide (Appendix A.6). The interactive

activity followed the Carousel strategy. Kagan and Kagan (2009) described the carousel

feedback strategy as a highly effective approach to demonstrating understandings and sharing

information. Carousel is a cooperative learning activity utilizing multiple stations and, although

it can be used both to discover and discuss background knowledge prior to studying a new topic

as well as for review of content already learned, its purpose within the context of my research is

to review past and current decisions and actions. This technique allowed for small-group

discussion, followed by a large-group reflection as outlined in Table 3.4. Table 3.4 presents the

Carousel strategy as it contributed to the formation of a "safe" environment. The Carousel

strategy was characterized by an open style of sharing, intentional interest in all participants'

perceptions, and the value of all voices

Table 3.4
Carousel Feedback Strategic Activity

Process	Activity	
The Carousel strategy begins with pairs of participants, or "groups", assigned to a "station" for a designated period of time (1-2 minutes) as indicated by the researcher. *(Questions of each station are listed in the last row of this chart.)*	Each group will discuss their experiences related to the topic with their partner during their time at the station. ・ The researcher and objective observers will be available only to provide clarification on the topic if requested. ・ Each group will then post their ideas on the chart paper as responses to the topic for other groups to read	Each station will feature a topic presented on chart paper which will be related to the research questions about implementation drivers. ・ As there may be another group's response to the topic already recorded on the chart paper, the group may wish to expand on the response or provide new information about the topic.
Each group continues to rotate around the room when signaled, stopping at successive stations	・ Repeat the activities.	
When each group has attended each station at least twice, and no additional or new information is able to be added as responses, the researcher will close the activity.	・ Carousel and bring all the chart papers to the discussion circle.	・ All participants will then gather in the discussion circle to see and hear the chart paper responses to explore them in greater detail through a guided discussion using the semi-structured interview guide.

Questions Posted on Chart Paper for Each Station
・ Write everything you have observed &/or needed about developing ***competency*** in relation to the system initiative.
・ Write everything you have observed &/or needed about the ***system organization*** in relation to the system initiative.
・ Write everything you know, have observed &/or needed about ***leadership*** in relation to the 21st Century Competency Professional Development Initiative.

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Archival Records and Documentation

Merriam (2002) stated that the value of archival records and documentation is that because they already exist, they cannot impact a setting the way that an outside researcher or observer does just by being in the space. Involving them is based on organizational policy not on personal choice. The history of the initiative is recorded in documentation, the naturally occurring materials of the organization (Silverman, 2001), and may be presented as public or in-house documents. These materials also provided valuable context for the data. Contextual information regarding the selected sites, policy impact and need for change provided an added dimension to the analyses. Such documentation of the school system's initiative provided insight into the original intent of the initiative as set out by the system administrators. Documentation related to the system initiative's mission statement, characteristics of target sites, strategic plan, implementation plan, communication and collaboration plan, budget, evaluation and statistics were received. Documentation also served to clarify or verify participants and their descriptions (Glaser & Strauss, 1967) and added to the thick description (Merriam, 2002). Challenges related to the documentation included locating materials, assessing their significance to the research and obtaining permission for their inclusion for analysis.

Miles and Huberman (1994) detailed a data analysis method that involves recording incidental notes, a summary from the session and making metaphors or a reflection within the researcher's field notes. I used an adaptation of the Cornell Note-Taking Strategy (Pauk & Owens, 2001; see Appendix C) to record field notes while engaged in data collection. This method was developed to generate deeper understanding of and connections between the information being recorded. The strategy divided notepaper into three sections: the bottom for a summary, a large left margin for themes and quotes and the body for detailed notes taken during the session. The format allowed me to record as much information as possible during the time with participants, to have key quotes or connections visible and to record initial summary and nonverbal responses immediately after the data collection event. The notes were then fleshed out and filled in to offer a robust description of the experience and the information gathered. When combined with the discourse and non-verbal language recording templates of the objective observers, a more comprehensive context was provided. The Cornell Note-taking Strategy was familiar to me and framed my reflexive journal when tracking methodological decisions and reflecting on my own perspectives and values.

44

Pilot Study

Morgan, Kruger and King (1998) recommended that a pilot study be conducted in advance of the actual data collection process. The pilot study allowed me and the objective observer to refine the process of data collection, documenting field notes and recording the interviews and focus groups (Sampson, 2004; Yin, 2009). In addition, the pilot study improved the workshop format of the focus groups, further developed probing techniques and/or questions and increased awareness as to my effectiveness as a moderator (Breen, 2006; Creswell, 2013). The pilot study involved volunteers familiar with common implementation of a program and who could gather at a time and location within close proximity to my home community that was convenient for all participants.

Data Analysis

Several researchers offer different forms of data analysis and interpretation. Creswell (2013) identified common strategies for data analysis from different perspectives, all of which share the common steps of preparing and organizing the data, reducing the data to codes and themes and representing the data. Hsieh and Shannon (2005) identified three distinct approaches to content analysis in that the determination of the initial code is dependent on the approach chosen: the conventional approach creates its code through the data during the initial data analysis; the directed approach finds the initial codes in the associated theory and later refines the initial coding scheme; the summative approach is distinctly different and codes are determined from individual words or specific data segments that are related to specific content, instead of to the whole data, and may be quantified at a later stage to create interpretations of specific contextual data. Stake (1995) promoted four approaches of analysis and interpretation:

- categorical aggregation (looking for meaning in a collection of instances),
- direct interpretation (creating meaning from different instances),
- patterning (seeking relationships between categories) and
- naturalistic generalization (identifying generalizations to apply to a population).

Hsieh and Shannon's (2005) conventional approach of analysis was selected followed by Stake's (1995) four approaches for interpretation. The researcher's challenge was to make meaning of the substantial amount of data through patterns and themes and later categories to connect the data in a meaningful way to the reader. Computer assisted qualitative data analysis software (NVivo) was used to organize and manage the data's coding and theming. An

interpretive panel assisted in the initial selection of codes. Further description of the software, coding and interpretive panel are provided in the following sections.

Computer Assisted Qualitative Data Analysis Software

Computer assisted qualitative data analysis software provides an efficient data storage, management, and sorting system for researchers. As Creswell (2013) stated, the process of analyzing the data remains the same, requiring the researcher to read the data, assign a code to a segment and then to search for other segments that share the same code. The software does not analyze the data independently.

Computer assisted qualitative data analysis software can place a researcher at a disadvantage if practical realities are not considered. Learning the program can be an obstacle for researchers; however, I participated in a training event offered by the Social Science Research Laboratories (SSRL) at the University of Saskatchewan in 2014. As a student with computer education as an area of study in my undergraduate degree, I found the program intuitive and user-friendly as evidenced by my analyses of political speeches. As a result of this training, I was listed with the SSRL as a qualitative student researcher with NVivo competency. Software support is available through the SSRL and web tools.

NVivo 11 was selected to support my study for several reasons. It has an intuitive storage and management system designed on the familiar Microsoft Office interface and provides a higher level of security because all the data is stored in one place. Its management system facilitates specific data location and access, it produces requested searches of data in a format that allows for meaningful review to determine codes and themes, highlights annotations and comments and maintains a log of all activities for audit purposes. The visual modelling features of concept mapping and word frequency profiles provide additional modes of analysis to the researcher. NVivo software fulfils multiple purposes (sort, organize, and classify data) while leaving the "art" of the analysis to the researcher.

All interviews and focus groups were audio-taped using the Notability app on an iPad. Notability allowed for synchronous audio recording and note-taking. Note files and audio files were exported to NVivo 11 where the audio files were transcribed verbatim for manual and computer assisted qualitative data analysis. Documentation, observations by the objective observers and field notes were also entered into NVivo to support my sense-making during the data analysis.

Coding & Theming

Following a coding scheme approach increases trustworthiness, or validity, of the study. Coding acknowledges important data points prior to engaging the process of interpretation (Boyatzis, 1998). Saldana (2013) maintains that a single comment could be considered as important as those that are repeated or agreed on by others within the group. Recognizing patterns leads to the identification of themes in the data (Crabtree & Miller, 1999). Strauss & Corbin (1998) described three stages of data analysis in terms of coding:

- open coding where data is chunked into small units and the researcher applies a descriptor to the chunk of code,
- axial coding where the codes are categorized, and
- selective coding where themes are identified to give meaning to the content.

These three stages framed the data analysis approach of my study. An interpretive panel augmented the analysis by providing feedback on initial coding suggestions to a portion of the data. The analysis then continued with the axial coding process with the remainder of the data leading to the selective coding process with a portion of the data. The interpretive panel reviewed the selective coding providing recommendations and suggestions which strengthened the analyses of the researcher by having my interpretations tested by the source during the analysis process. The remainder of the coding was completed leading to generalizations of the lessons learned.

Interpretive Panel

An interpretive panel is a group of invested participants who reflect on the data, limiting the subjectivity of the researcher's interpretations. Noonan (2002) asked members of an interpretive panel to review the researcher's understandings of the results of the analysis or to help explain the results. The feedback from the interpretive panels was used to confirm themes and generalizations perceived within the given context and to identify emerging themes as well. Members of an interpretive panel will have distinctive understandings because of their unique experiences with the issue and, as a result, offer enhanced interpretation of the data.

The purpose of an interpretive panel was to review the raw data and provide preliminary codes for the researcher. Each member of the focus groups and the interviews was invited to participate in an interpretive panel and met on one occasion to process a segment of the focus group raw data. A group of three focus group participants volunteered to be members of the

interpretive panel. The process saw a segment of the raw data presented on flipchart paper and put up on the wall of the room as a record. Panel members were invited to generate propositions for codes to qualify and describe the data. All responses were accepted and discussed. Another segment of data was then displayed. Previously proposed codes were reviewed and new ones were generated. This process continued until the portion of raw data had been shared and discussed. The discussion was lively and focused as they reduced the data. The resulting analysis was significantly similar to my own and provided me with confidence that I was representing the data, their voices, with minimal to no modifications as a result of the process.

Establishing Trustworthiness

Qualitative researchers maintain a very close connection with their research setting and participants and incorporate specific methods to address potential questions of bias in the interpretation of results. Guba (1981) proposed four criteria to establishing trustworthiness: credibility, transferability, dependability and confirmability.

Credibility

Two ways by which a researcher can monitor subjectivity is using a researcher's journal and recording semi-structured interview sessions, including focus groups. Triangulation of methods (document analysis, focus groups and interviews) and participants (system administrators and front-line practitioners) compensated for individual method limitations (Lincoln & Guba, 1985). The questions intended to probe and verify understandings were debriefed with the objective observer both before and after the pilot session and focus group. The intent was to discern if the questions would be understandable in the context of the setting and the participant group. These were all expected activities and research methodologies for the study. My experience in using qualitative research facilitated the gathering of rich data sources and the analysis of the data to find common patterns and emerging themes across the cases. Through monitoring the use of my subjectivity, I was be able to tell the story in meaningful, verifiable ways (Glesne, 1999).

Transferability

Case studies are focused and, therefore, small in size bringing into question the transferability and generalization of the results. However, Lincoln and Guba (1985) emphasized that it is not the researcher's responsibility to ensure the transferability of the results. It is the reader who assesses for transferability. The researcher's responsibility is to ensure that the level

48

of description throughout the study provides an opportunity for the reader to determine if the study and its findings "fit", or resonates, with their situation.

Dependability and Confirmability

If the study was to be repeated, in the same context, similar results would be obtained due to the audit trail (Merriam, 2002). The external auditor, not connected with the study, was invited to challenge the process and the results. Overlapping methods, such as interviews and focus groups, also lead to the understanding that the results could again be achieved. Confirmability addresses the concept of objectivity. Miles and Huberman (1994) considered that a researcher's reflexivity is the key to ensuring confirmability through explicitly discussing their position in terms of their experience with the issue and how past experiences have shaped their perspectives. This resides in Chapter 1 of this study and will be revisited in Chapter 5 (Summary, Conclusions, Discussion, and Implications).

<center>**Verisimilitude**</center>

In reviewing numerous studies about improving outcomes, I learned about timeframes for implementation, surveys of activities and levels of fidelity. I found myself searching for the descriptions of the experiences, particularly those of the practitioner, to compare them with my own and how strategic implementation changed and sustained practice. Sharing these "truths" of front-line practitioners was critical to accurately reflect the complex realities of this case study to the reader. In doing so, hermeneutics was an on-going concern for the data to reflect the voices of the participants rather than my interpretation of the transcripts.

Cresswell (2013) described verisimilitude as the "level of detail that makes the work come alive" (p. 218). It is my responsibility to bring a credible and accurate representation of the participants' perspectives. To bring verisimilitude to the study, data collection methods for the interviews and focus groups included audio-recording, memoing, note-taking and member checking. As an instrument of the data collection, I requested clarification and probed for understanding. During the data collection, I monitored my own thoughts and interpretations by recording them on the summary section of the Cornell Note-Taking Template (see Appendix C). The critical observer noted participants' body language and discourse behaviours as indicators of engagement (Appendix B). Participants reviewed the verbatim transcripts and were invited to participate in an interpretive panel experience. Member checking had the participants review codes and themes for appropriate representation before being included in the final reporting of

<center>49</center>

the results.

Ethical Considerations

This retrospective case study adhered to the research guidelines and requirements articulated within the application for approval by the Behavioural Research Ethics Board (Beh-REB). This study was submitted as a low risk study. The application identified detailed information regarding potential conflict, participant consent forms including confidentiality procedures, release of transcribed data forms and the questions for both the focus group and interviews. The Beh-REB awarded a certificate of approval for the study (see Appendix A.1). The rationale and objective of the study was detailed both orally and in writing to each participant. Each participant stated that they understood that their involvement was voluntary and their identity would remain anonymous throughout each phase of the research study and that the data would be secured, maintained and destroyed as per university policy. The participants were invited to offer spontaneous input after all the semi-structured questions had been completed. Each participant was treated with respect by both the researcher and other participants if they were part of the focus group.

Summary

This chapter described the methodology and research design of my study. A retrospective case study through a constructivist perspective to study front-line practitioners' perceptions of implementation drivers allowed for the generalization of the lessons learned to address theories of implementation. The research process was designed with rigor and provided sufficient data to lend to new understandings.

CHAPTER FOUR
PRESENTATION OF THE DATA
Introduction

This chapter begins with an introduction to revisit the focus of the current study and its research questions, before being divided into four sections. The first section reviews the system context of the implementation process within a rural school district and the participants involved in the research study. The next section presents the participants' perceptions of the implementation process as guided through the study's four research questions. The third section describes the overarching tensions noted within the data. Finally, the last section provides a summary of each section to conclude the chapter.

This retrospective study of implementation involved a reflection through the lens of an initiative, in order to anchor participants' recollections and the researcher's reviews of relevant documentation to the core components, the drivers, of NIRN's (2005) implementation framework. The research questions explored the perceptions of one rural school system's staff who actively participated in the implementation of the initiative from its inception. It should be noted that the responses of the focus group could be construed as negative commentary. However, these were authentic responses of their perceptions offered within a relaxed environment, free of potential consequences. The relaxed nature of the study's focus group was fostered with the introduction to the study being shared over refreshments, followed by a carousel activity to facilitate interaction within the forum, between participants, and between the researcher and individual participants. These efforts to create a relaxed environment, to encourage participation freely, were strategies to promote opportunities to hear the authentic voices of the participants. Throughout the experience, the voices were generous in their content and framed as critiques not criticisms. There appeared to be a group recognition for the need to maintain their professionalism within their voiced frustrations. The group expressed their appreciation to the researcher for the opportunity to offer feedback that could potentially impact future implementation efforts.

Specifically, the research questions explored participants' perceptions of implementation drivers [leadership, competency and organization]. Data were gathered from a focus group, semi-structured interviews, and a review of system documents and presented through the study's research questions:

1. What was the role played by each implementation driver in the initiative?
2. How did the participants perceive the influence of each implementation driver on the success of the initiative?
3. What were the participants' perceptions of the value of the implementation drivers at each stage of implementation?
4. What adjustments did participants make to the implementation process to address gaps or needs?

System Context

The 2015-2016 annual report for the school system [identified from this point forward by the pseudonym Central School District] characterized it as a rural school district in central Canada, covering a large geographic area. It served approximately 5,000 students in over 40 schools with three communities that had more than one school. Central School District employed over 800 full-time staff, including almost 300 full-time teachers. It had been recognized regionally, nationally, and internationally for its progressive mindset in developing 21st Century Competencies in its students and staff through a technological initiative. In its third year, the initiative had progressed to a targeted focus and continued to be characterized by a significant commitment to professional development and the provision of numerous supports for teachers and students, including opportunities for teachers to work in collaborative teams. A school was created to exclusively provide online education, design courses and activities through a transformative view of learning involving blended learning ("Central" School Division, 2015) and develop many of the resources for the initiative.

Initiative Context

The initiative was introduced to better meet the learning needs of students. Teachers were introduced to using technology as a form of differentiation and to provide more control of students' learning. The initiative was intended to provide the student with more control over learning factors such as pace, place, time, and format. Teachers were expected to manage the learning environment, guide students' ownership of their learning, and develop 21st Century Competencies as evidenced through their development of digitized resources. These resources also served as fidelity data artifacts for the system.

The criteria for selecting the initiative included: a system administrator accountable for the initiative, assigned staff, dedicated resources, and multiple site involvement for at least three

years in order for the initiative to be in the full stage of implementation as per the NIRN Implementation Framework (Fixsen et al., 2005). The Central School District provided targeted funds from September 2013 until June 2016 to establish a 21st Century Competency initiative characterized by a blended learning philosophy. This initiative grew from the Central School District's Board policy to "infuse 21st Century learning skills into all curricula and into the development of any and all educational programming" ("Central" School Division, 2013). Learning coaches constituted a previously designed support intended to establish a system culture of professional collaboration. They were refocused to the development of staff's 21st Century Competencies, including supporting the self-directed professional learning experiences of staff.

The Participants

Thirteen staff volunteered to participate in the study, two system leaders for the semi-structured interviews and eleven teachers for the focus group. Pseudonyms were randomly selected through a computerized random name generator to identify each participant. Moments prior to the focus group activity, one teacher received tragic family news and was unable to continue. She offered to participate in a semi-structured interview but was unable to do so within the timeframe of the data collection phase. Thus, the participants included the two system leaders and ten classroom teachers. Their descriptions are as follows:

Front-Line Practitioners

Scott, Catherine, Emily, Karen, Marilyn, Joyce, Debra, Ronald, Alice, Nicole. The front-line practitioners participated as a focus group. Each participant was an elementary educator with teaching experience ranging from ten to thirty years as illustrated in Table 4.1.

Table 4.1
Focus Group Demographic

Years of Teaching Experience:	Less than 15 years	15 – 25 years	More than 25 years
Number of Focus Group participants:	4	1	5

Eight of the ten participants had taught only in the Central School District and two had international experience. Three members of the focus group were identified by themselves or by their peers as informal leaders within their school, which was evidenced by their role as a

substitute administrator, event organizer, or union representative. One teacher had experience as a 21ˢᵗ Century Lead Teacher for Central School District.

System Administrators

       Betty, Keith. The two system administrators with oversight for the implementation of the initiative each had more than twenty-five years of experience in the education sector and at least one graduate degree. They shared a similar career journey from the classroom to principalship to system administrator all within rural school districts and had served in various leadership roles on advisory committees and agency boards. It was in their years of experience in system administration where they differed, as illustrated in Table 4.2.

Table 4.2

System Administrator Demographic

Years of System Administration Experience:	Less than 10 years	More than 20 years
Number of participants:	1	1

Similar to the focus group participants, the system administrators' perceptions came from significantly different experience levels providing unique views on the implementation process.

<h3 style="text-align:center">Presentation of the Data</h3>

       The data are organized through the four research questions of the study. Front-line practitioners' data are generally presented first, followed by the data from the system administrators, to align with the intent of the study to highlight the voice of the front-line practitioner. Data from system documentation are also presented when it related to the focus of the research question. Front-line practitioners reflected on what they had observed during the three years of the implementation of the system initiative through the lens of each implementation driver, initially through a carousel activity to organize and focus their understandings of the implementation drivers, then through a semi-structured group interview to reflect on the research questions. Front-line practitioners frequently referred to the posted descriptions of the three implementation drivers during the carousel activity in forming their responses. The notes from the focus group's carousel activity, which outlined the front-line practitioners' observations and perceptions of the implementation process, are provided in Appendix D. Common themes emerging from the data are presented through the words of

participants in Appendix E which identifies the aligning research study question, keywords from participants' responses, and emerging coding categories.

Perceived Roles Played by Implementation Drivers

The strategic components that drive implementation efforts were recognized as leadership drivers, competency drivers, and organizational drivers. The perceptions of the participants were organized through each driver to provide targeted focus of the data within the research question and provide insight into the operationalization of each driver within the context of the system initiative.

Leadership driver. The leadership driver addressed technical leadership and adaptive leadership practices in response to managing the required activities for enabling and supporting changes in the organization's culture and climate. Participants' discussions related to the role of attitudes, reflected issues of equitable opportunities as well as democratic leadership and professional space. Emotional impact was shared by the front-line practitioners in regard to building culture and engaging staff through equitable outcomes. Debra spoke about her experiences related to the leadership driver which appeared contrary to the system administrators' intentions:

> *The problem also was I felt undervalued in the whole process. As they did a [promotional] video after to get our input, and our students' input, and <u>none</u> [emphasis added] of our side of the [school district] was on it. The only people represented in that [video], was the other side of the school district. They're the only ones that made it on the video. They're the only ones that made comments. So, I just felt like, I just felt like we were all on our own! None of it was represented [on the promotional video].*

As a system administrator, Betty related efforts to engage with a democratic leadership style to develop a personalized professional learning culture across the school district:

> *Initially we did more [system-wide professional learning activities] but we backed off because principals wanted more autonomy in deciding what their staffs needed in professional development.*

Betty also addressed technical leadership issues clarifying roles and responsibilities, respecting professional space, and responding to learning needs by describing the strategic efforts to promote democratic leadership with front-line staff:

> *What we did is to provide them with supports so that principals could say, okay these*

three or four teachers will do this here and three or four teachers could do that. And now we're developing a reserve of professional development webinars and some differentiated PD. It's really needs-based.

The system's intended outcome of building commitment was initially developed from interested staff and later from school principals. The responses of the focus group pointed to an issue in the system's plan by highlighting the absence of those voices who may not have been part of the original discussion and recognizing their potential value and contributions.

System administrators encouraged the situational leadership model (CEO 2, 2017). Betty stated, *"the leader must become adept at gauging what skill and maturity level their followers or colleagues have in a given situation and then utilize an appropriate style of leadership for that situation."* Keith illustrated by describing the progression from directive style to empowering style:

We have some core things that, that we want everyone to learn about. So usually our Day 1, the first half day of all of the last three years has been a common message. And then we let people pick their, um, area and what they kinda wanted to pursue. . . . We'd design some kind of activity where it was consistent enough that everybody would get the same message, but it was broad enough that they could bring in their individualized, uh you know, their focus.

Comparing the implementation drivers' descriptions with her own observations, Alice discussed the role of the leadership driver in terms of providing vision and direction:

We were never given a really clear vision. I think we never felt there was an actual definition of [the initiative] given to us. I feel like we [emphasis added] defined it and then went with it. And then we did the best we could. I think we did a great job last year [Year 2] considering we didn't have a lot of guidance. And I'm not sure where [the coach's] guidance came from either.

System documentation provided background indicating that the initiative had been defined and a professional development plan established to provide guidance, although Alice felt that a clear vision had not been communicated by the system administrators. Betty succinctly articulated the overarching goal, *"because we are [a rural school district], spread over 32, 000 kilometres and having 40 schools in that area, a big focus of the Board [of Education] was, "how can we provide equity of learning for our students?".* She expanded with the specific focus on 21st

Century Learning:

> *The key things to implement in 21st Century Learning is you're going to have to change teaching pedagogy. Well how do you change teaching pedagogy? Well I think you got to do it through as many, maybe different ways. But the biggest way is you're going to have to have awesome professional development that's focused on that.*

The leadership driver of technical leadership and adaptive leadership practices was intended to support organizational changes in culture and climate. System documentation identified the vision of the initiative and direction of the implementation which aligned with system administrators' perceptions of their technical and adaptive leadership roles. Maintaining order and disciplined attention are critical roles within the leadership driver. The data revealed distinctly different assessments of these roles, particularly around the system communication and common understandings of the vision, direction, and assumed interests of front-line practitioners.

Competency driver. The competency driver addressed the development of staff competencies and skills to apply the intervention effectively. Keith shared that an equitable opportunity was presented to all front-line practitioners to be part of the initial topic exploration and professional development, which later became the system initiative.

> *[We] just put out an email to the group that said, "This is an option that we have available. If anybody's interested, let me know." And we more than filled that just by that, sending out the email. It wasn't any pressure, like you have to do it. Just interested teachers that would be wanting to do this.*

Keith emphasized that the professional learning plan for each front-line practitioner was about *"taking them from where they are"*, in terms of awareness and knowledge of the initiative's tools and processes, with the intention of providing equitable opportunities for involvement. Linking the equitable opportunities with added-value for the front-line practitioner with the intended outcome of building commitment with the new ways offered through the initiative, was an intentional system strategy:

> *Having them taking some relevance in their subject area or their grade level area… A way to facilitate sharing of ideas is the idea that we had of the [fidelity indicator]. Um...Because we know that a lot of people learn best from models. And so, we thought if we did have some examples of what teachers are doing and then, you know, have a 'bank' as a teacher to pull from. That could be a good way to continue to get it moving.*

Recognition for the coaches to have a deep level of knowledge as part of the strategic plan was articulated by Ronald:

> *The [system administrators] have to prepare it themselves before they present it to us because the presenters [coaches] are really very, they're generalists. They don't have any experts in that head office on any one area [of the initiative]. So, we have no clear training in any area that we could ever become, I would think, comfortable. If you throw mud on the wall, some of it will stick, but it doesn't stick for long. It dries up and falls off.*

Alice expanded on the concept of strategic planning, *"...let alone efficient. I often feel like the people running sessions at these things, they're not even sure what their end goal is with us in the room."* Alice then spoke about striving for effectiveness, *"and in that three-year time frame, that would be ideal for everybody to be effective, but there's more and more initiatives. So, I'm trying to be effective at this one, but then there's more."* Nicole agreed, *"I think if the expectation is we're all using [a specific tool], then give all of us an entry-level course in it. Not making it an optional thing that isn't just giving the basics."*

Reflecting on observations of the competency driver indicators, Catherine addressed leadership practices of management and support. She described an option that would be reflective of a particular focus of the initiative and responsive to teachers' context and learning style needs. *"I do think it [monthly collaborative planning time] would make more sense and would feed into the idea of being more comfortable with topics before going on to the next thing."* Joyce concurred, *"Right! And recognize that not everybody's comfortable. Because if you're working with it once a month, and you're working with a group of three or four, you're going to develop trust and comfort with that."*

With their unique perceptions, both front-line practitioners and system administrators addressed the context needed for adult learning principles to engage staff resulting in the intended policy outcomes. The relationship between front-line practitioners and system administrators appeared to be predominantly one of accountability where professional learning events were organized to demonstrate benchmarks of learning, not quality or nature of fit for the participants. For example, closely linked to the teachers' context and learning style was the need to be using adult learning principles. As Nicole shared, *"more guidelines [are needed]. Not everyone is exactly sure what that needs to look like, especially, when they say we have to be using [a specific tool]."* Continuing with the guidance element, Ronald, said, *"They haven't*

given us the clear training with the feedback… with the feedback loop. It's not like there's a Module One, Module Two, etc. We never become experts in anything." The emotional impact affecting active engagement by staff was described by Debra, *"[the coaching] wasn't meeting the needs of the entry-level person. So, what it does, in fact, is freak you all out. It scares them off a little further than they already were because it feels unreachable."* The front-line practitioners indicated that the feedback loop as designed by the system administrators did not perform the role as intended.

The competency driver addressed the development of staff competencies and skills to apply the intervention effectively and, according to the system administrators, was intended to build commitment across the organization. The front-line practitioners perceived the role of the competency driver as building universal knowledge and use of new tools and strategies, which they suggested was influenced by the preparation of the implementation coaches. Both groups identified the need for adult learning principles as integral to the roles of each of the implementation drivers, which highlighted their integrated and compensatory nature.

Organization driver. The organization driver addressed the infrastructure challenges and circumstances, feedback loops of communication for data-based decision-making, and creating an enabling environment through policy, procedures and opportunities. Transparency in communication and system expectations were aspects of the organizational drivers that were brought forward by the focus group participants several times. Ronald articulated:

I've always felt, well over the last three years that, uh, they do have somewhat of a broad vision to, you know, make us use [the initiative], all those things. But basically, they're not focusing on any one particular area [of the initiative]. They haven't decided where they want us to go. We just become confused with all those different things. So, if they want us to have some kind of an excellent [initiative] in our classroom, they gotta have their own plans.

Debra related this lack of transparency with lack of trust when she disclosed, *"I also felt that we were taken. And that was a thorn in our side last year [Year Two], the [district office] isn't …(pause)… doesn't have a consistent message with its players there."* However, Keith stated that the system message and focus was developed from system engagement strategies, *"we tried to also incorporate feedback about, you know, what was working, what do they want more of, what did they like, what did they not like."* Keith described an effort to employ continuous

improvement strategies:

> *We tried to do an exit survey after every session. Was there something we could do different before we move on to the next stage, um, and keep that in mind for the next time we do it. We also identified concerns, or trends, that we noticed and tried to accommodate for them.*

The system administrators spoke of scaling up the project and the need to be responsive to feedback in order to increase staff engagement. Keith shared an example of the feedback that led to a change in the following year's process with the intended outcome of increasing engagement by front-line practitioners:

> *We also heard from teachers that they wanted a chance to collaborate and hear from others. Like because we have pretty small schools, they wanted to be able to work with other teachers that were in the same situation. Some people find travelling one day in their schedule frustrating because they don't like to drive, and I think that has to do with how big [our district] is. So, we do have the [initiative] educator which is the position in the school as well.*

Often the messaging by the system administrators led to frustrations among the front-line practitioners of the focus group. Nicole added a statement of emotional impact to this observation of consistency in messaging:

> *And then all of a sudden, 'Oh but that's not what we mean.' Well, let us in on that information 'cause you can tell right now that my anxiety level is rising 'cause I went home from that P.D. fuming because I felt so, um, like what are, you know, I felt like being yanked around.*

The group shared their agreement on the emotional impact felt by each participant from the system's messages. The following comments by Debra also received full group consensus, *"and then we get upset. Like we were told at that workshop that it's not [the initiative] unless it's [a specific tool]-based. Well, frick, sorry. We've never heard that before!"* The emotional response of the front-line practitioners challenged the transparency, authenticity, and engagement of the system messaging. System administrators may have presented the information, but the front-line practitioners may not have heard the intended message.

As a system administrator, Betty identified managing structural changes to support front-line practitioners which involved the school calendar, number of professional development days,

refocusing targeted staff functions, and system support versus in-school support. Keith expanded:

> *We had tried very hard to have it on-site and so that teachers could have, um, individualized PD. It was really difficult to schedule substitute teachers and, um, sometimes when people were working in their building, although it's convenient and they don't have to travel, they get distracted if something comes up and they have to be involved in. And we found that our principals were coming in for part of the session and then leaving. And that wasn't the, uh, very good modelling. We felt for our, the teachers because the message was, "Well, this is for you not for all of us." So we looked at changing how we delivered that for the principals and, uh, Year 2 we gave, uh, a separate presentation at an admin meeting because then they were in the room.*

The organization driver was intended to address the infrastructure challenges and opportunities including communication strategies towards continuous improvement. The front-line practitioners perceived the role of this driver to develop the significant relationship between transparency and trust. The primary role of the organizational driver, through the perceptions of the system administrators appeared to focus on accessing feedback on events to develop responsive procedures and activities.

The roles played by each implementation driver in the initiative were perceived as complex by both groups. In reacting to the definitions of each implementation driver, the front-line practitioner spoke to the shortcomings of the activities they perceived to represent the potential role of the drivers whereas system administrators acknowledged the intention of building commitment throughout the organization. While a lack of clarity and transparency were consistently presented by front-line practitioners, system administrators described multiple activities specific to the functions of the drivers.

Perceived Influences of Implementation Drivers

As previously stated, implementation drivers were identified as the strategic components that drive implementation efforts. Participants' perceptions of the influences of implementation drivers within the context of the system initiative were organized through each driver.

Leadership driver. Participants' perceptions of the influence of leadership practices addressed vision and direction, strategic planning, transparency, and the relationship between system administrator and front-line practitioner. When Ronald spoke of strategic opportunities

which are created when every member understands the vision and direction of the system, each member of the focus group expressed agreement:

> *What's the [system administration] trying to do? [They] don't want to be pushy possibly. But when it comes to some of these things, you have to push and push one thing through. If you want us to be experts at [a specific tool], then we need that training. If you want us to use [other tools] we need more training in that. If you're a leader with a vision, you better drive the vision and drive it successfully. But right now [they] have vision but [they're] not driving it.*

System administrators' change in plans, specifically in practitioners' expected practices, was identified as confusing and led to practitioners' expressed frustrations. As Scott observed, *"They seemed to have no idea and then I guess they adjusted that a little."* His observation contrasted with Keith's focus on the strategic plan:

> *I always tried to make sure I understood what exactly [emphasis added] the intent was and what the vision was as far as big picture. And then um, tried to view how that would look drilling down to the actual student level of what that might mean in the classroom.*

Keith described the decision-making process for the implementation plan:

> *I'm not really sure exactly how we picked the [initiative's areas of focus each year]. I think we were just looking at the literature out there and looking at what sort of things people had done in different divisions and different districts, and said, "You know, that seems more like the climate of ours and our needs right now. And this would fit better." I think that's probably what we used for sifting. We wanted to make sure there was a clarity about what it exactly was that was being taught. That there was time allocated to, um, start the initiative and do some of the learning before it was elected to be enacted.*

Participants' attitudes reflected issues of equity and fairness between groups, professional respect, relevance and value, engagement, and democratic leadership. The initial professional learning pieces were responsive to the needs of the school district without a roll-out plan. Debra spoke to professional respect and shared her emotional response to the trainings, *"And did I ever leave one of those [professional learning events] thinking, 'I'm on the path!' I was like, 'What the hell do they want us to do?'"* Alice added, *"And I thought, I felt like I was back in an [undergraduate class]!"*

Front-line practitioners conveyed stories of leadership drivers related to their attitude

towards engagement and influencing the success of the initiative. Scott shared, *"We were criticized two years ago at Opening Day. There's only,what? Such a small percentage and we were scorned. Like, 'Why aren't you using this tool?' We sat there, and you were made to feel like a schmo."* Nicole sought clarification from coaches and system administrators on how to make it relevant for her unique professional role, which related to engaging with the implementation of the initiative:

> *They want us to be implementing this, but we're told to teach programs, so I'm not sure where this [the initiative] all fits in. And I've asked what my [fidelity data artifact] should look like and they say, "Oh just make it work for you and it doesn't have to relate to the [initiative]. So last year I didn't do one [submission of a fidelity data artifact]. I didn't know where it fit into my role. No one looked into it so, and this year I'm doing [a different topic] and it doesn't relate to our [initiative] at all. But I've been told that's fine.*

Scott also addressed engagement when he spoke to the relevance of the training to support his actualizing the information and the need for different training practices. *"You often catch yourself thinking, 'Well, how will this work for me?' You get lost, come in and show me what [the initiative] will do for me [emphasis added], for us, to make it worthwhile for me to invest the time."* Karen reinforced this latter statement, *"and you haven't had a chance to try any of it"*, which was then unanimously supported by the members of the focus group. Joyce summarized the value of the training practices:

> *It's not like you'd be able to sit at a computer or whatever and they could bring it up and you could look at it, it becomes something you've jotted on a piece of paper [laughter], and if you're like me, you know, if I don't think about it again, it's all gone. It is superficial. It is. That's a good was to put it. That's exactly what it is.*

Yet developing staff engagement by focusing on the relevancy of the professional learning to the front-line experience was a significant focus according to Keith:

> *I think the biggest question I always had as a teacher was, "How does this already fit in with the curriculum that we're required to teach?" I needed to see a connection and the big picture, um, and make sense of that so that I didn't feel like it was an add-on. So, I also wanted to make sure that I had the resources and time because it required a huge shift.*

Fairness was addressed by the system administrators by emphasizing that efforts should be relevant to the front-line practitioner and that equitable was not synonymous with equal. As Keith shared:

This one was a little bit messier too because we had a policy, but we also wanted to encourage teachers to be able to fit it into what they were doing. So, we kind of picked a general, we picked a couple of competencies and then gave people general training in that. And then they were to take their subject expertise and look at it. So, we tried to make it so that it was applicable for all teachers and I think that's one of the things, making it relevant, giving time for learning and thinking about how it would work in your own room.

Keith spoke to the professional learning focus of the initiative needing to be a priority in each school:

We wanted them [principals] to be more involved and I think there were quite a few initiatives they were balancing. In some schools they were really, ran with it and in others it was, like, "Well, I'll fit it in when I can get to it." And you can certainly see the difference in how it was rolled out in schools just by the tone and attitude of the leader.

The perceived influence of the leadership driver on building engagement was described by both groups. Front-line practitioners saw the leadership driver as shaping the actualization of the vision for the intervention. Similarly, system administrators recognized the opportunity to provide clarity to their staff regarding the activities by adapting them from other organizations to align with their vision. System administrators also acknowledged the opportunity to leverage the entrepreneurial spirit of school-based administrators. Front-line practitioners continued to seek inspiration from system administration.

Competency driver. As the vision and system plan was considered through the lens of the implementation drivers, competency drivers appeared to be the easiest to understand for the participants of the study. Alice noted strategic planning of the training pieces, *"Year 1 would have been stronger and more successful if they'd had everybody doing the same kind of thing [entry-level]!"* Ronald agreed and expanded, *"And then reinforce that in Year 2 and then in this year [Year 3] make it work for you in your own particular interest area. It felt like there was no direction or focus."* Marilyn added*, "and plan activities that are relevant to our classroom situation, like the needs of your classroom."*

Keith also spoke to redirecting the role of the learning coaches*, "I guess we knew it was*

going to take ...like it was going to require a bit of shift in the role of the coaches." Specifically, the system's plan was *"to get away from trying to prescribe the professional development".* The professional development experience appeared to impact attitudes as a result of the system intention versus the practitioners' need; the focus from the system administration appeared to be content-related whereas application was the priority shared by the front-line practitioner. Joyce spoke to the value of peer collaboration, *"and teachers have different styles of learning, teaching and philosophies. So, when you find somebody who's on the same page as you then it's really, you know, you kind of come at things from the same angle."* From a system perspective, Keith provided several examples of management applied to address adult learning needs:

> *So, what we would do is look at, you know, possibilities of resources and ways that, um, there could be some learning as a group. And then looking at learning as an individual, like where everybody is at, there would be opportunities to make tweaks so that it would fit rural situations or whatever size of school or classroom it was being implemented in.*

The perceived influence of competency drivers appeared to be significant by each group. Each described the coaches' capacity to have an effect on the success of the initiative. The front-line practitioners identified the potential for increased engagement through deep understandings of defined sets of skills and procedures practiced over time. System administrators also recognized competency drivers' potential for building commitment and engagement but through a broad array of options to personalize the learning experiences.

Organization driver. Participants' perceptions of the influence of communication focused on trust and engagement. Understanding engagement through feedback and making informed strategic decisions contributed to the emotional connection and trust-building of front-line practitioners As Debra stated:

> *That side of the [district] is more what [system administrators] considers as valuable teaching. So, then that's what my perception is. They're out of touch. The problem also was that I felt undervalued in the whole process. As they did a [promotional] video after to get our input, and our students' input. And none of our side, none of ours, the only people represented on that video was the other side of the school district. They're the only ones that made the video. They're the only ones that made the comments. So, it just feels like our work, our students, weren't good enough.*

Although Debra expressed a lack of acknowledgement of their work, Keith noted that the system

continuously made efforts to engage the front-line practitioner throughout the initiative's implementation as *"a way to facilitate sharing of ideas is the idea that we had of the [fidelity indicators]. And so, we thought if we did have a 'bank' as a teacher to pull from. That could be a good way to continue to get it moving".*

These voices demonstrated a recognition of the role of communication in the engagement process and a difference in the understanding of engagement. The front-line practitioner aligned engagement with authenticity whereas the system administration equated engagement with an expectation of involvement in response to a request or notification. In another example of needing clarification, the front-line practitioners discussed the organization and access to the fidelity data artifacts, the lesson and program plans submitted as evidence of their application of the 21st Century Competency professional development. The challenging process to locate them discouraged seeking them out as instructional tools. According to Emily's experiences, the system administrators did not consider the reality of the users:

> *That's exactly how it needs to be [a one-stop-shop], so that it's more of a place for teachers to house your lessons. Then all your videos are in one spot, your checklists are in one spot. I think it's more important for you to be able to access and then share with other colleagues.*

This disconnect illustrates an example of the system administrator creating a structure with the intention of developing or fortifying a relationship with the front-line practitioner.

Professional learning opportunities within the school district and internationally were promoted and financially as part of the initiative infrastructure available. A majority of the focus group addressed this decision-making process. As Emily stated:

> *It's uncertain how you were selected [to the international professional learning opportunity] and how others weren't. I'm the [initiative] teacher yet I don't get to go but two other staff members are going. If you look at how that's perceived from the rest of the staff, well, it might cause some internal conflict and animosity.*

Keith also described a plan to target supports, *"We knew we had some people trained initially so that they could be experts or catalysts to work with others and then sort of continue on".* He elaborated on the intention to build collaborative structures with key personnel:

> *We also knew we had to equip leaders with key leaders. So, when I talked about key leaders, traditionally the ones I was involved in, a principal would be a key leader and*

then would kind of be their, uh, role to go and work with their staff and make sure that

they were moving along. And maybe, if there were needs at the staff level, they would

have to accommodate or find a way to address that need. We cross-trained our leaders,

uh, learning coaches because we felt they were more closer [sic] to the grassroots. And

we also worked with principals, um, and gave them the training.

As a front-line practitioner, Alice shared her feelings about the relationship with system administrators related to both the competency and organizational drivers:

I feel very disrespected as professionals. When we tell them we aren't using the [fidelity

data artifacts] and we aren't looking at [those created by other teachers] and they're still

saying, "You've got to crank out [fidelity data artifacts]." That's a make-work project.

Joyce affirmed the expectation to look at the fidelity data artifacts as instructional tools. *"We all get asked, 'How many of you have looked at [them]?' and you sit and think."* To which Marilyn responded, *"When? When?!"* The frustration and confusion expressed by the front-line practitioners challenged the stated intention of the system administrators and appeared to be directed at the practices and processes rather than at the administrators themselves.

The influence of the organizational drivers on the success of the initiative appeared to focus on the capacity of communication to improve quality practices and align the organizational culture and climate to the needs of the front-line practitioners. System administrators appeared to guide the development of the implementation primarily on their data systems for decision-making, which were described as assessments of learning activities. Transparency in decision-making shaped the focus group's perceptions of equity and organizational support. Specifically, determination of professional learning opportunities, along with consistent messaging across the school district, among staff groups, and over time were questioned.

The application of the implementation drivers influenced staffs' commitment and engagement with the initiative and trust in their system administrators to lead decisively. Front-line practitioners spoke to the need for assertive leadership to actualize the vision for the initiative. System administrators described the functions of each driver and their influence on engagement and commitment of staff.

Perceived Significance of Each Implementation Driver at Each Stage of Implementation

The perceived significance of each implementation driver on the success of the initiative was considered at each of three stages of implementation specifically installation, initial

implementation, and full implementation (Fixsen, 2013). The stages are interconnected and affected by internal and external influences. Challenges addressed, or not addressed, in one stage may affect the overall implementation process. Participants' shared their perceptions of how the significance of the implementation driver varied for each of the three stages of implementation which actively involved both the front-line practitioner and the system administrator. Representative comments about the significance of each implementation driver at different stages of implementation are presented in Table 4.3. These perceptions focused on the broad theme of communication, which reflected transparency, engagement, and messaging.

Regularly accessing feedback from front-line participants, using it to make revisions to the strategic plan, and sharing how the feedback was used were key elements contributing to the concept of transparency. Debra indicated *"[Organization] is key to me, the only way a model is going to work with the front-line workers is if you develop a system of feedback and you listen, so that [feedback] can be used to modify what's needed"*. Emily echoed that sentiment with an evaluation on the system's past practices*, "considering we're not getting any feedback and they're not really listening to all of us, I'd say organization [is the least effective]"*. Scott addressed communication through the lens of the social influence of the system administrators, *"I think because they've presented it and feel like they've done what they need to do and they're assuming that we're good to go. And I don't think we are. There's no communication."* This suggested linear model of communication by the system administrators was also identified by Scott and Joyce who received consensus from the other members of the focus group, *"If they consider it fully implemented, then there's a problem!"*, *"A huge problem [group laughter]."* The understanding and operationalization of the organization driver was identified as weak, based on the front-line practitioner's reflection of its intent to focus on both people and processes and to focus on continual improvement through collaboration and communication (NIRN, 2013).

Transparency of the vision and direction, through sharing of a strategic plan, were key pieces for communication according to Alice. Ronald supported her comments, expanding them to include the concept of democratic leadership, *"That's the word [direction] that was in my mind. Give me direction. Give me the tools to get there and the time and I'll do it."* As the group applauded these observations, there was a shared recognition of their common willingness and interest to improve their practices. However, there was also a questioning of the strength of the plan and the detection of cynicism of the system's engagement practices.

Table 4.3
Front-line practitioners' perceptions of the significance of implementation drivers at different stages of implementation

Driver	Stage of Implementation		
	Year 1	Year 2	Year 3
Leadership	**Scott**: *coaches coming in and leading us through it* **Joyce**: *Without them, having the very solid understanding of what it is, they were able to introduce that to us* **Marilyn**: *the motivation. Like they motivated us that this was the next greatest thing to do!* **Scott**: *They put in the structure for us but didn't do a good job of explaining how that all worked. [Leadership] was the most important, but they didn't do it well.* **Debra**: *Because if you're just told from above, from the leaders, what to do and they don't have any system of getting information from us who are doing [emphasis added] the work, how valid of a system is it?* **Emily**: *There wasn't any clear expectations of what was totally expected. And clear expectations, or realization that everybody had a different ability, because in this, we're the learners!*	**Catherine**: *I was still looking for leadership [group laughter].* **Debra**: *I'm thinking [leadership] was the least effective [consensus]* **Nicole**: *I also think that it relates to Organization too.* **Ronald**: *Their leadership strategies were too broad.*	**Alice**: *I'd say direction [is most important]* **Ronald**: *That's the word that was in my mind. Give me direction. Give me the tools to get there and the time and I'll do it.* **Alice**: *I'd say direction [is most important]*
Competency		**Karen**: *Some topics were skimmed over too quickly, assuming everybody has the necessary background.*	
Organization	**Debra**: *[Competency] is key to me…the only way a model is going to work with the front-line workers is if you develop a system of feedback and you listen, so that [feedback] can be used to modify what's needed* **Ronald**: *I think [the] leadership was trying to do something, but they're trying to push an elephant into a mouse hole.*	**Scott**: *If they consider it fully implemented, then there's a problem!* **Joyce**: *A huge problem [group laughter].* **Scott**: *I think because they've presented it and feel like they've done what they need to do and they're assuming that we're good to go. And I don't think we are. There's no communication.*	**Emily**: *Well, considering we're not getting any feedback and they're not really listening to all of us, I'd say organization [is least effective].* **Ronald**: *From my experience, organization [is least effective] [Consensus]*

Marilyn introduced motivation as a tool for engagement and linked it with the concept of transformational leadership, *"Like they motivated us that this was the next greatest thing to do!"*

Alice proposed, *"Year 1 would have been stronger and more successful, and they'd had everybody doing the same kind of thing [entry-level]!"* Ronald agreed and suggested, *"then reinforce that in Year 2 and then in this year [Year 3] make it work for you in your own particular interest area...It felt like there was no direction or focus."* Scott spoke to the relevance of the training to support his internal motivation by actualizing the information and the need for different training practices. *"You often catch yourself thinking, 'Well, how will this work for me?' You get lost. Come in and show me what [the initiative] will do for me [emphasis added], for us, to make it worthwhile for me to invest the time."* This was the intent that Keith had shared through a quote earlier.

Ensuring that the messaging reflects goals was a missed opportunity according to Scott, *"they put in the structure for us but didn't do a good job of explaining how that all worked. [Leadership] was the most important, but they didn't do it well."* Ronald connected messaging with leadership strategies, "I think [the] leadership was trying to do something, but they're trying to push an elephant into a mouse hole. Their leadership strategies were too broad."

The system administrators also shared their perceptions of the significance of each implementation driver across each stage of implementation, which are summarized in Table 4.4. Both system administrators identified the same implementation driver as significant for each stage of implementation.

In reflecting on the three-year journey of implementation, the two groups of participants clearly identified the perceived value of each implementation driver for each year of the initiative. The first year of implementation found conflicting views from the two groups regarding which was the most, and least, significant driver to the success of the initiative's implementation or adoption as a change in practice. The front-line practitioners identified the leadership driver as the most significant whereas the system administrators identified the organization driver as most significant. The organization driver was least significant according to the front-line practitioners whereas the system administrators identified the leadership driver as the least significant.

Regarding the second year of implementation, the two groups both agreed that the competency driver was most significant and the leadership driver was least significant. The two groups differed again regarding the third year of implementation. The front-line practitioners perceived the leadership driver as most significant for the full-implementation stage whereas the

Table 4.4 *System administrators' perceptions of the significance of implementation drivers at different stages of implementation.*

Stage	Description of Implementation Driver at Different Stages of Implementation
Organization - Year 1: Installation	**Betty:** *Now the leadership piece is starting to come forward as, "Now where do we take the direction?" Really, what we're talking about is personalized learning. And really what we're talking about, we're looking at differentiation, what we did for many years and we took some steroids and dumped the steroids into differentiation. And personalized learning is differentiation on steroids. And the steroids are technology in changing teaching pedagogy. So that's where, that's where we're going.*
Competency - Year 2: Initial Implementation	**Keith:** *I think the biggest thing we want to see is teachers taking what they've learned and making it directly relevant for the student. Um, that's probably the one . . . the individualized coaching and contact that the teachers have at the school level. So, it's not maybe so much the, the actual training sessions that we offer but the follow-up and spin-off that occurs in the classroom after and that our coaches can work to support.* *Betty: Okay, so now we have some resources and we need to adjust their [front-line practitioners] knowledge base so we're looking at coaching them.*
Leadership - Year 3: Full Implementation	**Keith:** *what we would do is look at, you know, possibilities of resources and ways that, um, there could be some learning as a group. Looking at different models, uh,that were already successful where it had been implemented and how that might look in the current situation that I was working in. We wanted to make sure there was a clarity about what it exactly was that was being taught. That there was time allocated to, um, start the initiative and do some of the learning before it was elected to be enacted. And so those were some things that we thought about. And that we knew we had some people trained initially so that they could be experts or catalysts to work with others and then sort of continue on and once we had a main group that were talented or more knowledgeable in the area. We also thought about how, um, who needed to be involved and there was quite a bit of Board knowledge. We were learning with the Board at the time and looking for different ways to, um, change education and look at how kids could be ready for the future. We picked a couple of competencies and then gave people general training in that, freeing up some time, resources. And that would be the release time for teachers to actually do the learning which we hadn't always had. And so that's a big financial commitment and that's kind of evidence that there's a commitment to it. The Board being passionate about Policy 18, and creating that policy (to provide specific instructional strategies), was a big commitment or evidence.* **Betty:** *Leadership support was focused on trying to get the policy and research and [stakeholders] understandings there.*

system administrators perceived the competency driver as the most significant. There was agreement, however, that the organization driver was perceived as the least significant to the success of the initiative in the third year of implementation, the stage of full implementation.

Perceived Adjustments to the Implementation Process

Adjustments in processes and practices throughout the implementation were recognized by both groups. Participants' perceptions were represented through three broad categories that evolved from the coding and categorization process. The categories focused on the role of attitudes, communication, and leadership practices.

Attitude-based adjustments. Participants' attitudes were expressed through concerns related to professional respect, value and commitment, and democratic leadership. Leadership practices as a social influence were suggested by Debra in her reflection of professional respect, *"I leave every workshop feeling incompetent. That's what bothers me is they're making everybody feel, and I talked to different groups, everybody's feeling the same. Incompetent. Incompetent."* As a system administrator, Betty identified system disruption as a goal of the initiative and inferred a relationship between front-line practitioners' professionalism and system change:

> I don't know, what the other problem is, if it's just a fear of change or changing to that degree. I mean that's what we're doing, we're trying to completely disrupt the entire system. You know you're using disruptive change to, um, bring teachers to be activators, which is a completely different ball game for teachers.

Intrinsic value and personal commitment to the initiative were frequently linked by participants to pacing and practice components of competency development. Emily expressed frustration with the annual task changing each year, *"Let me finish this one [fidelity data artifact]!"* Catherine and Joyce were more specific. According to Catherine, "it always seems to be time. The pacing is too fast. [consensus by group]." Joyce offered a suggestion aligned to the front-line practitioners' daily work practices, *"It's like a lesson with your kids. Introduce it, give time to practice, make sure we have the skills to practice it, and then assess it."*

The system administrators noted that to build commitment to the initiative, valued work practices were needed. As Betty shared:

> You need to change teaching pedagogy and you have to have digitized supports big time for those teachers. Where's that going to come from? And then we decided that full online courses are good for some but that blended learning doesn't need that, full-time courses, they need digitized chunks or pieces. And so hence now this year, having teachers want to work in professional learning teams to develop digitized pieces.

Marilyn and Joyce identified the need for professional learning teams, but through a democratic leadership lens recognizing the professionalism of front-line practitioners. Joyce offered:

> *Maybe if you were able to have that idea of time at your school, not to get plopped in a PD situation with people you don't even know, or aren't necessarily comfortable with. But then you need to get introduced to it again and then they say, "okay, two weeks from now we're going to give you an afternoon or even an hour."*

Marilyn suggested that system expectations be integrated into school-based practices, *"Like when I think of what we've been able to do in our grade alike collaborative time [a school activity separate from the initiative] with one period every month. You know, it's been awesome!"* As a system administrator, Betty also recognized the uniqueness of each school's culture for professional learning:

> *what [selected teachers] saw in the schools in that were succeeding as in [a similar initiative] down in the States, they saw the schools spent a lot of time in developing a culture. You know, a leadership culture within their school with their students and with their teachers. And they have to have a champion.*

These comments shared the recognition that adjustments to processes and practices developed from reflective conversations recognizing contextual factors and opportunities at the front-line and system levels.

Communication-based adjustments. Participants' perceptions of the influence of communication focused on value, engagement, and messaging. Emily related her perception of the value of coaching within the competency driver to transparency and authenticity:

> *My preconceived notion was that I needed to be part of what [coach] was doing in the [class]room. She'll come and do a lesson with your kids and you can go and explore the things you never get a chance to do.*

> Several front-line practitioners challenged the validity of the coaching experience. Catherine and Marilyn questioned the frequency*, "And how often is she able to come to my room? Like it's not very often." "That's what I wondered, one time isn't enough. It's just too little to develop anything."* Scott challenged the planning and intent of the coaching, *"it's also dropped on us. You'll get an email [multiple voices]. Yeah, it's not on a schedule. It doesn't matter if it works for us."* These administrative elements affected the perceived value of the resulting engagement with the coaching experiences. Joyce suggested value to the end-user,

needed to be the intent, *"I'd rather see a demo lesson. That's better communication [of the expected practice]."* Catherine affirmed this suggestion, *"Don't ask me what I need. I don't know what I need."*

A recurring viewpoint focused on the messaging of the system administrators' vision and strategic planning regarding the initiative. Karen shared her confusion, *"[The coaches'] role is not clear to us! We don't know what we can expect when they come to our classrooms."* And Alice concurred, *"I felt that in the middle [Year 2] it was a muddle. Like what are we doing? Who's doing what? Who do we talk to if we don't know?"* The group continued to share that the adjustments made by system administrators needed to be purposeful and communicated meaningfully.

Leadership-based adjustments. Participants' perceptions of leadership practices addressed leadership style, strategic planning, managing and supporting, and the relationship between system administrator and front-line practitioner. As a system administrator, Betty alluded to the relationship between leadership style and effecting change:

> *... things happen you know for different reasons. They're not always, most of the time they're not planned. You're just, you're going with opportunities and you're going with circumstances and situations that exist and you take advantage of them if you've got a risk-taking environment and an entrepreneurial spirit, looking at this right down to Kindergarten or Grade One. Well, it wasn't planned that way. We did market research, we looked at the home-schoolers.*

Debra was very clear in her suggestions for adjustments in leadership practices, *"Just [have a] clear vision. And less, I know you can't say less fluffy, but less fluffy! Just a more direct goal that isn't so ambiguous and so broad, where we didn't know where to take it."* Marilyn was more specific, *"We would like to know where the parameters are."* Alice affirmed this suggestion and expanded on it, *"A clear vision. Maybe they need to make a clear [emphasis added] definition of what [the initiative] is so that we can even justify ourselves or say, 'This is what I'm working towards' because I just feel they're terms, just vocabulary."* Specific communication of expectations was also identified by Scott, *"Should they [system administrators] not know when, what the final product should be? The cart's left and we're the horses left behind. The cart's so far ahead."*

Strategic planning was brought forward by each of the front-line practitioners. Within

several school communities, front-line practitioners chose to create their own annual plan in their perceived absence of a system plan in order to have identified benchmarks of progress. From Alice:

> *I just wish they would sit down and write themselves up a really specific 3-year plan and tell the teachers, "that by December of this year we'd like you to have tried this and have evidence of it. By June try that." Be specific. Very, very specific.*

Further suggested adjustments from the front-line practitioners included Nicole's planning suggestion, *"keep a checklist [general agreement]"*, Scott's suggestion for deep learning, *"[this initiative] needs to be at every PD opportunity"*, and Emily's recommendations of clear expectations.

Keith recognized the management changes in the support with the professional learning plans as intentional from the system administration, *"the actual PD sessions, they've changed over the course. We've been trying to really build in an element of choice."* Betty acknowledged the challenges to managing and supporting professional learning, *"it takes time to change people's, uh, people's ways, people's ways of thinking, people's ways of operating. So, it takes time and it takes HUGE amount of support".* The focus group participants acknowledged these challenges. As Nicole suggested*, "I don't think we need to try ALL these things. I think if they want to give us strategies, they can tell us [which one to try]. Yeah, we can take that. We're smart enough [consensus by the group]".* System communication practices appeared to affect the relationship between the system administrators and front-line practitioner as expressed by Nicole:

> *I started [teaching in the school division] the first year they started this and I thought I was way behind. Like I had no idea what we were doing and what we were talking about. And now I realize everyone was feeling that way. It wasn't made clear from the beginning.*

The practice of creating fidelity data artifacts was an additional issue**.** According to Catherine, *"We have to hand [fidelity data artifacts] in and then what happens? Nothing! [laughter] In a way it's refreshing but it's a make-work project."* Nicole echoed this frustration, *"and when [the fidelity data artifact is] completed, no one follows up with it. I didn't do one last year and no one noticed."* Catherine offered a suggested adjustment to add value to the practice, *"maybe next year there could be some follow-up reflecting on it or something."*

75

Betty recognized that the relationship between system administration and front-line practitioner is critical to the implementation of any initiative:

> *the key to being able to bring about that change is you have to get buy-in. So, you have to get buy-in and all kinds of supports to support those that buy-in and then eventually as the thing, as you scale it out, and then when you're scaling it up through the system. Those are all the ingredients. And they're all predicated on one word - relationships. [chuckle] And so that's huge. One of the things we worked quite hard on in [the school district] is creating those relationships so they believe it's not top-down, or it's not [district office] doing something to us.*

She wrote about her belief in the situational leadership model on the school district's website during the full-implementation stage:

> *the key to this type of leadership lies in the ability of the leader to establish relationships with their employees. The relationship leads to an in-depth understanding of the followers [sic] skills and motivation. The leader must have the ability and desire to implement an appropriate leadership style for each work-related situation.*

Adjustments made to the planned leadership practices were not recognized by front-line practitioners as part of a responsive process to improve outcomes but as evidence of a disconnect about effective motivation.

Participants identified attitudes, communication, and leadership practices as needs to be addressed throughout the implementation process. Adjustments to the implementation process were responsive to the relationship between front-line practitioner and system administration. System administrators described the need to change staff attitudes to thinking as innovators and creating system disruption, or disruptive innovation (Christensen, 2015), as a significant opportunity for such growth. Messages from the system administrators generally appeared to have the opposite outcome than intended, resulting in front-line practitioners perceiving a lack of professional respect. Both groups acknowledged an urgency for professional development and growth. The intent for the system administrators' actions was consistently described as focusing on staff growth. The response from the front-line practitioners was consistently described as lacking direction, or lacking the communication of the plan, for professional growth. System administration created exit forms from professional development days as formative feedback yet front-line practitioners did not recognize their influence. There appeared to be a strong

correlation between leadership practices to address needs and the resulting social influence from the communications.

<center>**Tensions Noted from the Voices**</center>

Perceptions were noted within the data that suggested pressures and/or stress in various respects. These perceptions have been organized into themes of within the system, between the system and the front-line practitioners, and between groups of participants.

Tensions within the system

The participants narrated a tension between organizational culture and the organizational climate of the school division related to the implementation process being studied. Organizational culture is a system of shared assumptions, values and beliefs that directs how people in an organization behave (Schein, 2010). The culture of an organization generates the organizational climate, how the members of the organization live within that organization's culture. The five values of the Central School Division were reported as: lifelong learning, leadership, cooperation, accountability, and respect. Situational leadership was operationally defined by a system administrator on the school division's website.

The organizational culture allowed for the work to be accomplished, as evidenced by the submission of fidelity data artifacts and the attendance at learning events by front-line practitioners. System administrators took this data as evidence of a functional and engaged organizational climate. However, a stressful climate was described through the voices of the front-line practitioners. They provided the example of a system expectation to use specific tools resulting in their expressed frustration and request for a mission-driven rather than rule-driven approach that would align with the school division's values. A tension of control versus autonomy emerged though the descriptions of leadership and management practices. Front-line practitioners' comments related to the apparent contradiction between system administrators' commitment to the initiative and the perceived annual changes to the system plan.

Tensions between the system and front-line practitioners

Tensions were noted in descriptions of relationships, innovative spirit, and elements of communication: safety, mutual understanding, function, and value.

Relationships were identified as keys to success by system administrators. The example they provided described a functional relationship with groups associated with the school division who volunteered to explore the background of the initiative. Expectations developed within this

<center>77</center>

relationship between the highly engaged groups and appeared to be generalized to all front-line practitioners. The expressed tension developed when professional learning opportunities met the needs of a select group but did not give them the understanding, tools, or training they felt was needed. Conflicting reports of innovative spirit by a system administrator and a front-line practitioner were noted. Betty shared that, "most people that became teachers weren't entrepreneurs. They weren't innovators. They were people who love kids. And so, the biggest thing against innovation in Education is who are the people who are in it." Whereas Marilyn shared, "when I think of what we've been able to do in our grade-alike collaborative time [a school activity separate from the initiative] with one period every month. It's been awesome!"

The ambiance of the focus group event allowed participants to display the courage to express raw emotions and constructive feedback that had not been expressed to system administration. Their comments were directed towards the system's strategic plan and the implementation process rather than the system administrators themselves. The two groups differed in their descriptions of pathways to competency, specifically providing conflicting understanding of what is foundational information/knowledge. Keith described responsive personalized professional learning as the basis of the competency coaching by taking front-line practitioners'   He did not provide a description of how to assess what competencies, information, and/or knowledge were held by staff in order to create the responsive personalized learning opportunities.

Consensus across the front-line practitioner focus group was a recommendation for the system to create learning modules for the expected competencies, knowledge and information in order to achieve universal understanding and practices across the district. Communication was frequently identified by front-line practitioners as a concern but was not identified by system administrators. Each group described the function and value of communication differently; front-line practitioners viewed it as a tool or motivational strategy whereas system administrators described it as sharing of expectations.

Tensions between groups of participants

The focus group identified tensions related to equity and professional learning. Learning opportunities appeared to be provided to a select group of early volunteers, deepening their level of knowledge and understanding. When this group's video submission of their work was selected by the system administration, and the focus group members' work was ignored, the focus group

identified themselves as not valued by system administrators. However, they chose to celebrate positive outcomes that developed from their own community of practice, though the account of this experience seemed to reflect an 'us versus them' attitude.

The focus group expressed concern for groups of front-line practitioners who were new colleagues, had a different baseline knowledge, and/or a non-classroom teaching assignment such as itinerant staff or specialized program staff. They recognized a lack of consideration or awareness for their learning needs by system administrators. However, system administrators identified the development of personalized professional learning as a defining success of their implementation plan. This disconnect created tensions within schools as their work was not supported in the same way as their colleagues.

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Summary

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Chapter Four presented the data gathered from a focus group of front-line practitioners, semi-structured interviews with two system administrators, and a review of system documents of a rural school district. The research questions explored the participants' perceptions of the system's implementation process of an initiative from its inception. A summary of the data relevant to each research question is provided with a review of the noted tensions that were recognized by the researcher.

Perceived Roles Played by Implementation Drivers

The system's intended outcome of building commitment was initially developed from interested staff and later from school principals. The attitudes presented by members of the focus group countered the system's plan by highlighting the absence, and recognition, of those voices who may not have been part of the original discussions. The emotional responses of the front-line practitioners challenged the organizational culture, particularly its transparency, authenticity, and engagement of the system messaging. System administrators may have presented the information, but front-line practitioners may not have heard the intended message. This disconnect was heard through the passionate outcry of the front-line practitioners.

The front-line practitioners shared that the system's vision for the initiative was vague and not defined. Consistent with this messaging was the system administrators' feedback process which did not influence the implementation processes as intended. The nature of its questions focused on the events and activities rather than the system plan or implementation process.

The roles played by each implementation driver in the initiative were perceived as

complex by both groups. In reacting to the definitions of each implementation driver, the front-line practitioner spoke to the shortcomings of the activities they perceived to represent the potential role of the drivers whereas system administrators acknowledged the intention of building commitment throughout the organization. While a lack of clarity and transparency were consistently presented by front-line practitioners, system administrators described multiple activities specific to the functions of the drivers.

Perceived Influences of Implementation Drivers

The professional development experience appeared to impact attitudes as a result of the system intention versus the practitioners' need. The focus from the system administration appeared to be content-related whereas application was the priority shared by the front-line practitioner. The role of communication in the engagement process and a difference in the understanding of engagement was also recognized by front-line practitioners who perceived engagement as influenced by authenticity. System administration appeared to perceive compliance as engagement. Front-line practitioners spoke to the need for assertive leadership to actualize the vision for the initiative. System administrators described the functions of each driver and their influence on engagement and commitment of staff. Application of the implementation drivers influenced commitment and engagement with the initiative and trust in system administrators to lead decisively.

Perceived Significance of the Role of Implementation Driver per Stage of Implementation

In reflecting on the three-year journey of implementation, the two groups of participants clearly identified the perceived value of each implementation driver for each year of the initiative. They expressed conflicting views regarding the significance of the implementation drivers of the first and final years of the initiative. The first year, or installation stage, front-line practitioners perceived the leadership driver as most significant and the organizational driver as the least significant to the success of the initiative. System administrators perceived the organizational driver as the most significant and the leadership driver as the least significant in the installation stage. The two groups also agreed that the competency driver as most significant and the leadership driver as least significant in the second year of implementation. In the third year, which system administrators identified as matching the criteria for 'full implementation', front-line practitioners perceived the leadership driver as most significant for the success of the initiative. There was agreement across participants that the organization driver was the least

significant in the third year of implementation.

Perceived Adjustments to the Implementation Process

There was a shared recognition that adjustments to processes and practices developed from reflective conversations recognizing contextual factors and opportunities at the front-line and system levels. A recurring viewpoint focused on the messaging of the system administrators' vision and strategic planning regarding the initiative. The group continued to share that the adjustments made by system administrators needed to be purposeful and communicated meaningfully. System administrators questioned whether the internal motivation of the front-line practitioner was a fear of change. Practitioners linked motivation to the system's training and coaching, specifically mastery learning.

Communication practices regarding strategic planning was brought forward by each of the front-line practitioners. System administrators described the need to change staff attitudes to thinking as innovators and creating system disruption as a significant opportunity for such growth. Messaging from the system administrators regarding the vision and strategic planning created confusion and generally appeared to have the opposite outcome than intended. Thus, system communication practices appeared to affect the relationship between the system administrators and front-line practitioner resulting in front-line practitioners perceiving a lack of professional respect.

Both groups acknowledged an urgency for professional development and growth. The intent for the system administrators' actions was consistently described as focusing on staff growth. Adjustments made to the planned leadership practices were not recognized by front-line practitioners as part of a responsive process to improve outcomes but as evidence of a disconnect about effective motivation strategies for front-line practitioners. The response from the front-line practitioners was consistently described as lacking direction, or lacking the communication of the plan, for professional growth. There appeared to be a strong correlation between leadership practices to address needs and the resulting social influence from the communications.

Tensions Noted Through the Voices

Perceptions were noted within the data that suggested pressures and/or stress related to within the system, between the system and the front-line practitioners, and between groups of participants. Within the system, tensions were presented regarding organizational culture and organizational climate. Between the system and the front-line practitioners, descriptions of

relationships between system administrators and a select group of front-line practitioners elicited emotional responses with the focus group participants. There was concern that the expectations would be generalized to all practitioners. The front-line practitioners and the system administrators differently perceived the function and value of communication. Between groups of participants, discussion of equity and fairness related to professional learning opportunities seemed to reflect an 'us versus them' attitude.

In Chapter Five, a summary of the research study is presented with a summary of the findings and the conclusions drawn from the analysis of the data. The conclusions will be discussed through the research of the Literature Review of Chapter Two. Finally, implications for theory, policy, practice, and further study will be outlined followed by reflections on my role as a researcher, and my concluding comments.

CHAPTER 5

SUMMARY, CONCLUSIONS, DISCUSSION, AND IMPLICATIONS

Within this concluding chapter, I summarize both the current study and its findings based on the research questions, and present five conclusions derived from the data analysis as presented in the previous chapter. These conclusions emerged as sense-making from across all the voices with the intention to reflect on the value of the NIRN implementation framework (Fixsen et al., 2005). Furthermore, interpretations of the data alluded to the dynamic relationship between interpersonal skills and implementation drivers, leadership styles, central qualities through the implementation process, and suggest that the voices of practitioners would be a valuable additional element of the framework.

A discussion of the findings and conclusions in relation to the literature review presented in Chapter Two will be followed with an examination of implications of the findings of the study for theory, policy, practice, and further study. A reconceptualization of the implementation framework will be offered within the implications for theory presentation. A reflection on my role as researcher within this study will conclude the chapter.

Summary of the Study

The intent of this study was to understand practitioners' perceptions regarding the process of implementation within one rural school system, examining the implementation process through the lens of the National Implementation Research Network's (NIRN) Implementation Framework (Fixsen et al., 2005). The literature reviewed in Chapter Two identified a gap in the research. The implementation framework was explored through the lens of the practitioner to expand on the conceptual model for the future and to identify potential strategies for consideration. I believed that an in-depth qualitative case study exploring the context of implementation would illustrate understandings with the potential to inform theory and practice. The research questions retrospectively explored the perceptions of a sample of the professional staff of one rural school system, who had been active participants within a recent implementation process. Specifically, the questions explored participants' perceptions regarding the implementation process, based upon the NIRN implementation framework's (Fixsen & Blase, 2008) Competency Drivers, Organization Drivers, and Leadership Drivers. The following research questions were explored:

- What was the role played by each implementation driver in the initiative?
- How did the participants perceive the influence of each implementation driver on

the success of the initiative?

- What were the participants' perceptions of the value of the implementation drivers at each stage of implementation?
- What adjustments did participants make to the implementation process to address gaps or needs?

Within the review of literature, front-line practitioners' feedback was identified as a data point for planning and evaluation (Fixsen et al., 2005; Fixsen & Blase, 2008). This feedback focused on the "what", or the activities, of implementation (Fixsen et al., 2005) not the "how", of the system's implementation strategic plan. The current study explored that void to gather front-line practitioners' perceptions of the "how" of implementation. As it involved a small group to explore the research questions, the conclusions are intended to generate further discussion regarding the process of implementation, not to provide universal generalizations for the body of scientific literature.

Fixsen and his colleagues noted that that the function of implementation teams was to oversee the actualization of NIRN's implementation framework (Fixsen et al. 2008). These teams were not intended to be system advisory teams but simply to operationalize the implementation plan. The framework indicated that the role of the front-line practitioners was to respond to questions regarding practices; front-line practitioners were not members of an implementation advisory team or expected to participate in policy, processes, structures, or strategic plan development. Although these teams were not the focus of the study, the omission of front-line practitioners provided the motivation for the inquiry and drove the intent of the study, particularly as Fenwick et al. (2007) noted that challenges in transferring research to practice represented a question of value, such as practitioners' knowledge and/or attitudes. Aarons and his colleagues (2011) found that powerful instructional strategies with weak implementation processes are ineffective.

The selected focus of study was a system initiative undertaken within three years prior to the study. The participants were selected because of their active involvement with the implementation process as front-line practitioners or system administrators since the beginning of the initiative (three years prior). Interviews based on the research questions were shared with a focus group of front-line practitioners, and semi-structured interviews were conducted with system administrators. The data from the front-line practitioners were gathered through a focus group that had the members participate in a carousel activity prior to engaging in the semi-

structured discussions. The carousel activity was intended to focus participants' thoughts on the research questions. Related system documentation was also gathered as another dimension of the context and to complement participants' descriptions. As detailed in Chapter Three, data analysis involved personally transcribing the focus group and interview transcripts to immerse myself deeper into their voices and using NVivo 11 only to store and manage the data.

The focus of this study was on the perception of the implementation process, not the effectiveness of the implementation process or the outcomes of the initiative. The reduction of the transcripts to a collection of codes was generated initially through the lens of the research questions, then into categories. A sample of the interpretations and themes were shared with participants for feedback asking if the description and interpretation into themes were consistent with their perceptions, if any needed clarification, and/or if any were missed. The interpretation of the data was finally presented through the voices of the participants in Chapter Four.

Findings

The findings, based on the research questions, were presented within the context of the participants' perceptions which focused on the implementation process of a system initiative. Although numerous responses within the focus group could be construed as negative commentary, they were authentic expressions of their perceptions offered within a relaxed environment, free of potential retribution. The participants' perceptions have been presented through each of the four research questions. The first two research questions addressed the roles and influences of each implementation driver; therefore, a summary of the data for each implementation driver has been provided for these two questions. The findings reflected key elements of the data analysis and provided the foundation for the conclusions. Findings are summarized according to the following areas: roles played by the implementation drivers; perceived influences of each driver upon the initiative; perceived value of the drivers at each stage of the initiative; adjustments made to the implementation at each stage; and, the pervasiveness of tensions apparent in participant voices.

Perceived Roles Played by Implementation Drivers

The responses of each group of participants were distinctively different for each implementation driver yet were consistent in highlighting participants' perceptions of the roles of the drivers in reality as opposed to the ideal presented in theory. Generally, the front-line practitioners spoke to the shortcomings of the activities they perceived to represent the potential

role of the drivers; system administrators emphasized the role of drivers in the building of commitment and engagement for the initiative throughout the organization. While a lack of clarity and transparency on the part of system administration was consistently perceived by front-line practitioners as disrupting the research-based role of implementation drivers, system administrators described the constructiveness of the roles of the drivers through specific activities undertaken in the process of implementation.

Leadership driver. The technical leadership and adaptive leadership practices within the leadership driver were intended to support organizational changes in culture and climate and the system documentation supported this intent. System administrators perceived activities of their implementation plan as successful because of the events held and the number of data artifacts submitted. The front-line practitioners perceived such an assessment as evidence of system disconnect; the front-line practitioners viewed attendance at events and the submission of artifacts as compliance measures, not as evidence of change or understanding. They felt that the role of leadership was to create an environment that supported internal motivation for change of practice, not the management of activities which identified an external motivation of a quantity of documentation of activity. The message may have been delivered but it may not have been received as intended, suggesting assumptions were made related to front-line practitioners' interests and engagement.

Competency driver. The two groups of administrators and front-line practitioners understood the role of the competency driver more readily than the other drivers, yet had differing perceptions of the intent and outcomes related to competency driver activities. Both groups emphasized that adult learning principles were critical elements within coaching events. Front-line practitioners perceived the role of the competency driver as building universal knowledge and use of new tools and strategies. The system administrators perceived increased commitment across the organization as an important outcome of the competency driver activities.

Organization driver. Both groups differed in their perceptions of the underlying intent of the organization driver. Front-line practitioners considered its role was to develop the significant relationship between transparency and trust through infrastructure opportunities such as procedural changes to facilitate professional collaboration. System administrators perceived the organization driver's primary role to be the facilitation of data-driven decision-making by

accessing feedback on events to develop responsive procedures and activities.

Perceived Influences of Implementation Drivers

Engagement with and commitment to the initiative along with building trust in the system administrators to lead decisively were common themes within the data exploring the influence of each implementation driver. However, perceptions varied in the two groups' descriptions of each driver's influence on the success of the initiative.

Leadership driver. Both groups of participants discussed building professional engagement as an opportunity provided by the influence of the leadership driver. Front-line practitioners reflected on the actualization of the vision for the intervention through inspiration from system administration as one of the key influences of the leadership driver. System administrators recognized the opportunities within adaptive and technical leadership components to provide clarity to their staff and to guide school-based administrators' strategic plans.

Competency driver. The perceived influence of competency drivers appeared to be a key consideration by each group, specifically the coaches' capacity to influence the success of the initiative. Both groups identified increased engagement and commitment to the initiative as potential outcomes through effective coaching, supervision, and team selection practices. However, the two groups perceived the nature of activities differently with front-line practitioners seeking deep knowledge, whereas system administrators sought to offer a broad array of learning opportunities. Both identified professional learning activities as a determinant of the competency driver's influence.

Organizational driver. The influence of the organizational drivers appeared to focus on the capacity of communication to improve practices to align resources to support and improve front-line practitioners' practices. System administrators described exit surveys for activities and events as their data systems for decision-making about implementation strategies. A perceived need for transparency in decision-making shaped the focus group's perceptions about organizational support, particularly in relation to perceived inequities of support and celebration offered to different staff groups.

Perceived Value of Implementation Drivers at Each Stage of Implementation

Both groups of participants recognized that although each driver was had a quality of obvious purpose and value, the level of value influenced the success of the initiative at each stage of the implementation process. The two groups of participants clearly identified their

87

interpretation of the quality of importance, or value, of each implementation driver for each year of the initiative. Participants' perceptions of the significance of each implementation driver varied across the stages of implementation as illustrated in Table 5.1.

Divergent views related to the final year of the initiative were offered. In the first year, or installation stage, front-line practitioners perceived the leadership driver as most value and the organizational driver as the least value to the success of the initiative; system administrators

Table 5.1

Value of implementation drivers at each stage of implementation

Stage of Implementation	Front-Line Practitioners	System Administrators
Installation Stage	Most value: Leadership *Least value: Organization*	Most value: Organization *Least value: Leadership*
Initial Implementation Stage	Most value: Competency *Least value: Leadership*	Most value: Competency *Least value: Leadership*
Full Implementation Stage	Most value: Leadership *Least value: Organization*	Most value: Leadership *Least value: Organization*

perceived the organizational driver as the most value and the leadership driver as the least value in this stage. The two groups agreed on the significance of the implementation drivers in the second year of implementation, initial implementation stage, with the competency driver perceived as the most value and the leadership driver as least value. In the third year, or full implementation stage, both groups perceived the leadership driver as most value, and the organizational driver as least value, for the success of the initiative.

Perceived Adjustments Made to the Implementation Process

Both groups of participants made adjustments in both processes and practices throughout the implementation stages. Their perceptions of the influences of each implementation driver on the success of the system initiative reflected themes of attitudes, communication, and leadership practices. Attitudes, or viewpoints, expressed by front-line practitioners again focused on lack of professional respect at system gatherings and feelings of incompetence because of mixed messaging by system administrators. The system administrators reflected on the front-line practitioners' responses to system gatherings and learning opportunities as evidence of a fear of change and a need for targeted responsive leadership practices at the school level. Front-line practitioners suggested integrating system expectations into successful school-based democratic leadership practices. Both groups spoke to the recognition of contextual factors and need for

opportunities for reflective conversations for authentic feedback loops to inform process.

Communication was an underlying theme related to adjusting the processes and practices of implementation. Messaging across system administrators and coaches was often perceived by front-line practitioners as inconsistent in content and frequency. The open-ended feedback requested by system administrators was viewed as added frustration because of the confusion around the intent of the activity and the direction of the initiative. System administrators described their leadership preparation for the implementation during the exploration and adoption stage. They recognized their entrepreneurial approach and researched a target group of non-school-based students.

Process changes were recognized by the system administrators as a method of increasing opportunities for professional learning and collaboration. The system administrators recognized the critical value of the relationship with the front-line practitioner and believed their situational leadership model eliminated any perception of a top-down structure. In contrast, front-line practitioners consistently expressed frustration with the top-down structure of the implementation. They did not perceive the increased professional learning opportunities as enhancing the development of a vision of expected practice but as a lack of focus or vision by administrators.

The pervasiveness of tensions evident in the voices. Pressures and/or stressors related to within the system, between the system and the front-line practitioners, and between groups of participants were alluded to by the data. Within the system, tensions were evident regarding organizational culture, the beliefs, and assumptions that the organization promoted regarding the behaviour of its members, and organizational climate. Front-line practitioners and system administrators differed in their perceptions of the function and value of communication. Descriptions of relationships between system administrators and a select group of front-line practitioners elicited emotional responses from focus group participants. They described issues of trust and motivation related to their experiences with perceived inequity.

Conclusions

The intent of this study was to understand practitioners' perceptions regarding the process of implementation within one rural school system, examining the implementation process through the lens of the National Implementation Research Network's (NIRN) Implementation Framework (Fixsen et al., 2005). The conversations with groups of front-line practitioners and

system administrators provided each the opportunity to step outside of reporting on typical activities associated with their role, and to step into reflecting on their experiences through the lens of an implementation framework. The five broad conclusions emerged from my interpretations of the data, the voices of the participants, in response to the research questions. Their voices contributed to my deeper understanding of the implementation experience, and addressed: the value of the NIRN framework in retrospect; the integrative role of communication, decision-making, and motivation across the implementation drivers; the critical value of leadership in maximizing the framework's fidelity; the centrality of mindset and disposition to the success of the implementation process; and, the value of practitioner voice as a fourth implementation driver. The conclusions of this study appeared to be integrated yet presented themselves as distinctive and identifiable through the data.

Value of the NIRN Framework in Retrospect

The NIRN implementation framework allowed for the analysis of the aspect of change through the lenses of its implementation drivers which focus on competency, organization, and leadership. The framework offered transparency, a guidance structure for system change, and relevance to both front-line practitioners and system administrators as evidenced by perceptions of need and actions highlighting its resonance with practice.

Transparency. Implementation drivers provided an organization scheme for systems to make innovative changes (NIRN, n.d.). They addressed both practice and system pieces of implementation. By using an applied implementation framework, the front-line practitioners were able to share concerns, appreciations, and suggestions that were attached to the drivers rather than to individuals. System administrators also voiced appreciation for an objective strategic framework to validate decisions and to identify potential gaps in their planning. Consistency in language was a recurring theme among front-line practitioners, not only between system administrators and staff, but a lack of consistency among administrators may have contributed to staff misinterpretations or frustrations.

Structure. Symbolically, the triangular structure of the NIRN implementation framework was perceived by most of the participants as strong and resilient rather than rigid or resistant. The integrative and compensatory nature of the framework was perceived as an opportunity to personalize the staff response based on their unique needs.

Relevance. Front-line practitioners perceived the framework as a structure of activities

90

and processes whereas the system administrators shared a focus on activities, not process. The latter would be consistent with front-line practitioners' perceptions of system disconnect with the reality in and between schools. The framework as a guide could produce weak implementation if the communication continued as a transmission of information instead of an infusion of opportunities for informed responsiveness created through authentic feedback. However, when used intentionally and deliberately, it was seen to facilitate the actualization of the initiative's intended outcomes, offering financial efficiencies and effective organizational structures.

Integrative Role of Communication, Decision-Making, and Motivation

Within the context of this system, a dynamic relationship existed between communication, motivation, and decision-making across the implementation drivers, namely leadership, competency, and organization. Decisions that impact an organization are generally led by its leaders. The decisions may be made by an individual, a committee, or a group within the organization, and this applied to the system in question.

Communication. Leaders motivate the members of their organization to accept and adopt changes created by decisions through their communication strategies and practices, suggesting communication and motivation are primary functions of leadership. Through this study's data there seemed to be general agreement that communication from system administrators tended to be viewed as transactional in nature by many of the front-line practitioners, rather than transformative as intended. The communication was also viewed as linear, as having a beginning and an endpoint within each stage of implementation. The prevailing level of staff motivation was identified as variable across the organization by both front-line practitioners and system administrators. Several front-line practitioners viewed this as biased, as a reflection of the lack of transparency, in the decision-making of accessing professional learning opportunities. When coupled with perceived issues of a lack of transparency in decision-making, linear communication negatively affected motivation.

Decision-making. Decision-making practices seem to influence the emotional and behavioural responses to decision-making. Decision-making practices and communication strategies are core components of the implementation framework's organization and competency drivers. These core components are processes that can be coordinated and controlled by system administrators whereas staff motivation cannot.

Motivation. Staff motivation affects both the degree and the quality to which the

91

decisions of system administrators are actualized. From the voices of the front-line practitioners, motivation was also directly impacted by the tone, frequency, and consistency in the messaging from the system administrators. According to many, the messaging seemed to affect their trust. The dynamic relationship between decision-making and communication resulted in a negative emotional connection by front-line practitioners to the initiative and its expected practices. They described the effect on their motivation, engagement, and commitment with the initiative.

Critical Value of Leadership Styles in Maximizing the Framework's Fidelity

Fluidity of leadership was critical to maximize implementation fidelity within the school system on the part of inclusive leadership. Throughout the conversations with all the participants, the fluidity of leadership styles was recognized as critical. Fluidity of leadership styles was critical to maximize implementation fidelity within this school system with a call from front-line practitioners for democratic leadership. A situational leadership style was adopted and promoted by the system administration. A strong message was found in the front-line practitioners' voices calling for a more inclusive leadership culture. More broadly, the perceptions of the participants suggested that leadership styles influenced the context of successful application of the implementation drivers. Specifically, the data promoted the concept of fluidity of leadership styles being critical to achieving consistency with the strategically planned implementation.

Participants recognized the situational leadership and democratic leadership styles of the organization. Practitioners voiced a need for leadership styles to be responsive to the intended outcomes of the plan for implementation. Such responsiveness did not appear to be reflected in the way in which the system administrators positioned themselves. The chosen behaviours of the leaders influenced the creation and activation of activities as well as the climate of the initiative. Intended to promote engagement with the initiative through the implementation stages, the situational and democratic leadership styles offered a balanced approach between supportive and directive leadership behaviours. The system administrators shared that they considered the context of the organization within the implementation activities and adapted leadership styles as needed. Situational leadership was the intended universal mindset while encouraging democratic leadership to transform the organization throughout the implementation process.

However, the voices of the practitioners highlighted the need for leadership styles to consider how the unique realities of various schools may influence the implementation fidelity. The leadership style needs to be responsive to the stage of implementation while recognizing the

professional cultural diversity of schools within the school system and their individual journeys on the path of implementation. The different professional cultural realities of schools in terms of their professional competencies, school size, and value sets influenced a school's progress towards full implementation. The voices of the practitioners called for adapting the leadership styles to include one of global leadership which would influence the different schools' cultures to adopt the school district's vision of implementation. The situational leadership style identified by the system administrators was effective with some schools suggesting that flexibility in leadership styles throughout the implementation process may maximize implementation fidelity across the system. The system administrators described diversity in the practices and progress towards full implementation, suggesting their need for fluidity in their leadership styles in order to be discretely responsive and strengthen progress.

Centrality of Mindset and Disposition to the Success of the Implementation Process

A growth mindset and courageous disposition appeared to be central and interconnected qualities in the success of the implementation process. I interpreted the voices of front-line practitioners as being consistent with a growth mindset. Their perseverance through the initiative's implementation appeared to be directly linked to compliance or passive involvement with the system plan. The system administrators recognized their own growth mindset and grit yet described front-line practitioners as having a general tendency towards a fixed mindset.

Most of the front-line practitioners of this study were comfortable enough to be so open and honest about their experiences, and their feelings could be described as a very courageous, yet professional, approach on their part. Motivation and engagement are critical to the adoption of any tool, strategy, and/or change. System administrators of this study seemed to promote a growth mindset but described teachers as not being natural risk-takers, a description consistent with a fixed mindset (Dweck, 2006). Many of the front-line practitioners perceived the actions and communications of administration as evidence of a fixed mindset. The attitudes or mindsets of system leaders permeated the organization, influenced the disposition of its members, and impacted the implementation process. Even when strategies were designed in similar ways with consideration for the culture and readiness of the school community, implementation occurred differently in each context, with different levels of practitioner engagement, and different levels of infusion into the organizational culture. Throughout the study, the value of the implementation drivers was demonstrated as a framework for planning but was limited in its impact, particularly

as most front-line practitioners expressed a need for a growth mindset to be modeled by system administrators.

A core component of the implementation framework's leadership driver is facilitative leadership, which focuses on developing the culture around the implementation journey through relational processes. Through the current study, courageous disposition on the part of the practitioners had the potential to be the foundation of facilitative leadership. Thus, mindset and disposition appeared as central elements of the implementation processes. The mindset evidenced by the behaviours of some system administrators influenced this study's front-line practitioners' disposition. Many front-line practitioners spoke specifically of the tone and wording of the messaging delivered by system administrators that led them away from a curious or courageous disposition. Communication and interpersonal practices by some system leaders were characterized as consistent with a fixed mindset and resulted in a passive disposition among members of the focus group.

The consideration of mindset and disposition go beyond the model of the NIRN implementation framework. An implementation mindset may be governed by any framework which tends to limit the members of an organization to the discussion of the leadership, competency, and organization implementation drivers. The framework provides the science, or the "what, of implementation; the voices of the front-line practitioners offer the art, or the contextual "how", of implementation. In this study, it became apparent that attention to the voices of practitioners presented itself as a missing driver of implementation with powerful implications for the overall analysis and for the way we view the particular qualities of the leadership or competency or organization drivers.

Value of Practitioner Voice as an Implementation Driver

Participants consistently underlined the inherent value of voices of front-line practitioners as a critical layer to the implementation process. Both groups of participants saw value in the NIRN implementation framework (Fixsen et al., 2005). The framework gave them the space to organize their experiences and voice their perceptions regarding the implementation drivers and to reflect on the phenomenon. The front-line practitioners' reflections on incongruence between the intended activities of the drivers in relation to the experienced activities, the fidelity of the implementation, were palpable through their passionate voices. However, there was strong

evidence of the divergent perceptions of the two groups regarding the roles of implementation drivers as well as the assessment of the activities that represented them.

The framework was perceived by the participants as a vehicle that allowed them to assess system plans, actions, and communications as 'critical friends' of the implementation process. It also allowed them to frame their feedback as issues with the implementation drivers and the system itself, not with individuals. A specific line of open-ended questioning allowed their reflections to locate the limitations of the strategic plan of implementation and suggestions for system administrators. Their voices provided an added view of the reality of the implementation process across the variety of front-line practitioners. It was qualitatively different from the views shared by system administrators. With the line of questioning dedicated to system improvement and specifically on the implementation drivers, the voices concentrated on administration of processes not on administrators of their system.

An added dimension to the system's feedback process was created through this study by involving a random sampling of front-line practitioners from a geographic segment of this rural school system. A sense of trust created by developing familiarity with these practitioners enabled the authenticity of their truths to be presented without fear of reprisal. They were eager to share constructive feedback to improve the application of the implementation drivers, to provide insight on the implementation process, and to add value to the activities of their school system's strategic plan. The authenticity of the reflective suggestions of these voices filled a void in the trustworthiness of the assessment perceived by their system administrators. These front-line practitioners' informed feedback regarding the implementation drivers suggested a more stable, and more trustworthy, assessment of the implementation framework within this particular system.

Discussion

The five conclusions developed from the analysis of the data are discussed in relation to the literature review presented in Chapter Two. The recurring identification of contextual factors by this study's participants aligned with the literature on implementation. Fixsen et al. (2005) emphasized that analyses of implementation should link school- and system-level factors that influence the long-term sustainability of a system initiative. Although the following discussion is based on the participants' perceptions specific to the context of their schools and school system, the discussions led to the proposed implications regarding the implementation framework of the

study and the reconceptualization. The conclusions will address considerations to advance the literature.

Value of the NIRN Framework in Retrospect

Persistent identification of the need for a research-based frame to bridge implementation theory development and application within real-world contextual settings has led to implementation frameworks across disciplines (Dunst & Trivette, 2012; Kelly & Perkins, 2012; Tabak et al., 2013). The influential work by Fixsen and his colleagues, which included a conceptual framework that involved components, the "implementation drivers", of effective implementation has been recognized across disciplines because of its scope and depth (Atkins & Kupersmith, 2010; Damschroder et al., 2009; Meyers, Durlak & Wandersman, 2012). It provided a lens to address the contextual factors of competency, organization, and leadership through transparency, a guidance structure for system change, and relevance to both front-line practitioners and system administrators.

Transparency. Both groups of the study spoke to issues of transparency as a key contribution to the value of the implementation framework. Front-line practitioners offered the term "roadmap" to refer to the practice and system pieces of implementation and spoke to the universal need to be aware of timeframes and contextual variables. Their perspective was consistent with earlier research regarding the slow uptake of research-based practices by practitioners due in part to practitioners' knowledge and/or attitude (Fenwick, 2007).

Consistent with the finding of Graham and colleagues (2006), the lack of common terminology had been an issue in the school system's implementation efforts and was a recurring comment among front-line practitioners of the current study. Past practices of system communication were reviewed through the lens of the implementation drivers. Valuable information was recognized as were missed opportunities, confusion and inefficiencies related to process and expected practices resulting from these communications. Consistency in communication between and within groups was questioned by front-line practitioners, although this was not brought forward by system administrators suggesting they did not perceive it as a concern. They did identify a concern for offsetting what Fullan (2001, 2011) termed as an "implementation dip" through frequent communication and compliance with expected teacher behaviours. Both groups acknowledged that a research-based implementation framework would increase the likelihood that communications would be strategically planned throughout the

96

implementation process.

Structure. In the current context of limited budgets, both groups of participants expressed surprise at the research related to the efficiency and effectiveness of an intervention when the structure of a research-based implementation framework was utilized as discussed by several researchers (Balas & Boren, 2000; Fixsen et al., 2001). Participants recognized that the current study's school district's implementation plan addressed the needs of both the system initiative and front-line practitioners, which is consistent with the integrative and compensatory considerations described in Fixsen's (2005) research-based implementation framework. System administrators identified the plan's activities as responsive because of the formative assessments from session exit slips as an opportunity to personalize further activities based on the unique needs of staff.

When formally introduced to the implementation drivers, front-line practitioners perceived the plan's activities as responsive to the needs of a subgroup of front-line practitioners, specifically those who had been connected with the planning process. They also noted the place of system administrators and the expectations of staff within each driver and challenged that the roles of the implementation drivers may validate top-down approaches based on misleading practitioner feedback. Their perception appears to contradict the transactional method of the implementation framework that Fixsen and his colleagues have revisited, refined, and expanded since their seminal work (Blase et al., 2012; Fixsen et al., 2005; NIRN, n.d.).

Fixsen et al. (2005) identified purveyors to oversee the readiness to implement, the implementation process, and the implementation teams, the latter being representative of the organization's stakeholders. The purveyors have not included the front-line practitioners' voices (Fixsen et al., 2005; NIRN, n.d.) or built on previous research suggestions to consider this group as a critical friend element (Senge, 1990). Fullan and his colleagues (Fullan, 1993; Fullan & Pomfret, 1977) had suggested recognizing the limitations of change by connecting implementation with organizational learning and collaborative structures for transformational change. While it could be argued that the implementation teams of the framework were collaborative and involved various stakeholders, the current study's front-line practitioners suggested that the stakeholder representation was not authentic. It did not include members who would ask provocative questions, critique, or view information from the lens of a potential resistor. By balancing the structure with authentic representation of stakeholders, the current

study's school district leader's promotion of situational leadership as an in-depth understanding of the followers (sic) skills and motivation would be more likely (CEO 2, 2015; 2017). Front-line practitioners' challenges regarding the influence of administration on the roles of the implementation drivers would, therefore, be addressed.

Relevance. Paradoxically, NIRN's implementation framework is itself research that strives to provide the bridge with praxis. I recognize that implementation research is a field unfamiliar to most practitioners, as shared by this study's participants. Yet the expressed interest in the framework by both front-line practitioners and system administrators highlights the merit of the research of Cochrane (1972), Dane & Schneider (1998) and Elmore (2002), specifically the need for activities that support high fidelity implementation. Conclusions from my study would support that of current researchers such as Aarons et al. (2011), Fixsen et al. (2005), and Greenhalgh et al. (2004) who stressed the added value of a strong implementation process for a planned strategy or intervention to strengthen the expected outcome or system change. Participants' recognition of the relevance of this implementation framework compelled my further exploration of its relevance through their voices.

Greenhalgh and her colleagues (2004, p. 593) differentiated the practices of implementation in layperson's terms as "letting it happen" (diffusion), "helping it happen" (dissemination), and "making it happen" (implementation). Front-line practitioners perceived the framework as a structure of activities and processes intended to "make it happen". The descriptions of their interpretations of macro- and micro-system activities and processes aligned with descriptions in research literature of diffusion and dissemination activities (Greenhalgh et al., 2004; Kinnunen, 1996; Rogers, 1995; Tabak et al., 2013) and contrasted to their constructively critical descriptions of what could have been.

System administrators shared a focus on activities, rather than process; however, their descriptions to front-line practitioners consistently referred to value, consistent with dissemination practices described by Gagnon (2009). System administrators' intentional plans, which included a communication strategy intended to reinforce the relevance of the initiative and drive practitioners' actions further, were presented as annual plans. The annual plans reflected the relevance to the system's current context of opportunities created through innovative restructuring of resources and appeared to align with Greenhalgh's descriptions of "making it happen" (2004, p. 563), that is implementation. However, information appeared to be selectively

adapted to accommodate their contexts, needs and priorities. For example, Betty expressed her opinion that front-line practitioners were imitators, not innovators or entrepreneurial in spirit and, therefore, information and strategies needed to be passed on to them to maintain adherence to the intended change of practice espoused by the initiative. Wandersman et al. (2008) indicated that such practices would be consistent with diffusion rather than implementation processes. The framework would have added value to the initiative, not only through its transparency and its depth and breadth of structure but also, as shared by Fixsen and his colleagues (2005), through its recognition of authentic feedback systems between the different levels within the organization as a multi-dimensional tiered approach within a culture of improvement.

The Integrative Roles of Communication, Decision-Making, and Motivation Across Implementation Drivers

Throughout discussions regarding implementation drivers, participants frequently alluded to the interplay between communication and decision-making practices and its bearing on their motivation throughout the implementation process. Front-line practitioners asserted that the information offered through their voice, if accepted, could have supported the success of the system initiative and influenced intrinsic motivation among staff.

Communication. Within each stage of implementation and through the components of each implementation driver, Fixsen and his colleagues (2005) included communication as a central strategy. Within the context of the current study, communication was described as linear by both front-line practitioners and system administrators. Front-line practitioners persistently identified feedback loops as a recommended communication process, not just surveys about events. System administrators spoke to their use of communication as the strategic practice used to motivate their staff to accept and adopt their planned changes in practice and philosophy. This intent of system administrators aligned with the concept of single loop learning presented by Argyris (2002). Not surprisingly their communications were viewed as directive by front-line practitioners, with little freedom of choice, which further aligns with Argyris (2002).

Front-line practitioners' request for feedback loops supports both Huberman's (1985) concept of participatory interactive dissemination and Argyris' (2002) concept of double-loop learning in organizations. Both practices would have led to improved understanding of the intended conceptual change. Double-loop learning practices may have had an impact on how the change was defined, supported, and/or experienced across the system. Where front-line

practitioners described frustrations and passive resistance, Argyris (2002) noted that the extent of defensiveness relationships is connected to the learning style of the organization. Single-loop learning would identify an issue and then correct it to allow the organization to continue its implementation of the initiative. Double-loop learning would identify the issue then correct it in a way that might modify the policies or practices of the implementation of the initiative.

The voices of the front-line practitioners specifically identified that schools within the school district were at different places of understanding of the expected practices but reported being told they were all expected to be at the same point of practice. They described this as a lack of transparency in the communications of system administrators which they felt also affected their commitment to the initiative and professional learning opportunities to improve their understandings and practices.

Using communication practices based on Argyris' research, participatory rather than linear designs to encourage inquiry, could have eased the defensive relationship that appeared to exist within the current study. Reflective interactive practices as described by Huberman (1985) may have improved conceptual understanding of the initiative by all participants had they been utilized within each implementation driver.

Decision-making. Front-line practitioners inferred that system administrators' decision-making practices influenced the emotional and behavioural responses to decision-making and, therefore, staff motivation and intended outcomes. If implementation theory is an action theory as Montague (2014) suggested, then the actions from decision-making are the intended outcome. Along with communication strategies, Fixsen and his colleagues (2005) included decision-making strategies as core components of the implementation framework's organization and competency drivers. These core components are intended to be processes that can be coordinated and controlled by system administrators whereas staff motivation cannot. Within the current study, system administrators sought out efficient means of gathering assessment data, such as exit slips from learning events, as part of their decision-making practices to minimize bureaucracy. Front-line practitioners had identified uneven levels of understanding and practices across the school district and suggested a link to staffs levels of interest and motivation. As system decisions for implementation were informed by staffs' feedback, the trustworthiness of this feedback could be challenged for bias, as it may not have been representative of all participants' experiences and would likely support the implementation strategy.

100

Motivation. The front-line practitioners of this study described how messaging affected their trust, their motivation, and their commitment to the change initiative. Their motivation was directly impacted tby he level of system support provided and by the tone, frequency, and consistency in the messaging from the system administrators. A summary of the nature of motivation is provided in Table 5.2 through the voices of front-line practitioners' behavioural descriptions of their responses to system support, which I interpreted as a description of their level of commitment.

Table 5.2
Participant Commitment and Communication System Support

	High System Support Through Communication		
Low Commitment Level Perceived by Front-line Practitioners	· Intermittently engaged · Observe others · Low energy	· Highly engaged · Focused · Entrepreneurial · Excited	***High Commitment Level Perceived by Front-line Practitioners***
	· Minimally engaged · Dismissive · Not engaged	· Initially engaged · Critical · Defensive · Cynical	
	Low System Support Through Communication		

Using the data from the carousel activity and ensuing discussion, several insights suggested themselves. When front-line practitioners identified a strong personal commitment to the implementation coupled with frequent communication from system administration, either school-based or system administrators, they reported a dialogical experience that left them highly engaged and feeling courageous. They described a willingness to initiate a new approach or resource, a feeling that their input was respected, and a tendency to be constructively critical,which were consistent with Argyris' (2002) double-loop learning model. The model highlighted a willingness by system administration to share vulnerability through the nature of questioning the roles of a framework and create a shift in their understanding. When front-line practitioners had a strong personal commitment without the system support, their initial engagement quickly dissipated, they became more cynical in their criticisms, and an attitude of defensiveness characterized their relationship with administrators, all consistent with Argyris' single-loop learning (2002) which involved no accommodation in strategy or activity in order to achieve the intended goal. However, when there was an initial low level of commitment by front-line practitioners, their engagement with the implementation was intermittent, minimal, or non-

101

existent regardless of the level of system support.

Sugai and Horner (2008) described differentiating a student population based on their skills and response to an intervention; most would have the skill and readily accept an intervention, some would need support with their skills and the intervention, and a few would need significant support for their skill deficit and with applying the intervention. Of those receiving support, some would be successful and independent whereas others would continue to need support, and a few may need an increased level of support personalized to their unique situation. Sugai and Horner's (2008) framework could be applied to the current study in terms of differentiating front-line practitioners' practices based on their commitment and on system support. Their descriptions of the impact of system support on increasing skills, system relationship, and attitudes highlighted the need to address the level and nature of system support to maximize staff motivation. Personalizing system supports to enhance skills and maximize implementation fidelity reinforced research findings from both the current study and the research field.

The dynamic relationship between communication and decision-making resulted in a negative emotional connection to the initiative and the fulfillment of its expected practices on the part of the front-line practitioners. They described their motivation, engagement, and commitment with the implementation process as a direct response to decisions made by system administrators.

The Critical Value of Leadership

Based on the descriptions of the front-line practitioners, fluidity of leadership style appeared to be critical to maximize the trustworthiness of the implementation through consistency of practices throughout the system. The majority of front-line practitioners within the current study called out for a more inclusive leadership culture, demonstrating democratic values. A system administrator described situational leadership as their recommended style which is consistent with Fixsen's (2005) description that a transactional leadership method would not result in transformational change. A multi-dimensional approach needed to be established with leadership changing as implementation activities progressed (Fixsen, Blase, Metz & Van Dyke, 2013).

The implementation framework developed by Fixsen and his colleagues (2005), established a leadership driver as a core component of the model. They organized the elements of

leadership into the two subsets of technical and adaptive leadership. The technical leadership involved making corrections and/or modifications based on issues detected and corrected. Adaptive leadership provided responsive leadership practices to challenges that emerged.

As the participants described system leadership practices through the implementation stages, I was listening for these two sets of leadership behaviours to be described within a situational or democratic style. What emerged were descriptions by system administrators with challenges by front-line practitioners. The system administrators spoke to the adaptive practices of problem-solving between schools. Practitioners did not share that perspective and interpreted the activities of system administrators as more consistent with technical leadership practices. Their descriptions supported those of Barber and Fullan (2005) in that the core components of the implementation continued to be developed through a top-down approach. Feedback was requested, but not input, and inequities between groups were identified, both of which conflicted with the democratic approach requested by front-line practitioners. Perspectives of where the leadership provides value is depicted in Figure 5.1.
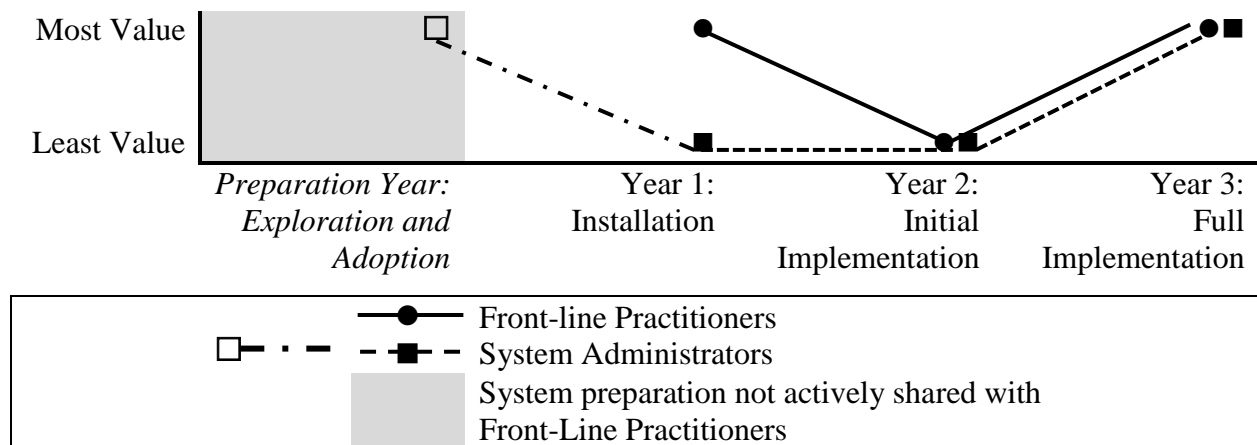

Figure 5.1. Value of leadership driver at each stage of implementation

As reflected in Table 5.1, the data describing the value of the leadership surprised me after recognizing the participants' different perceptions regarding the system administrators' leadership practices. The value of leadership was recognized similarly by both front-line practitioners and system administrators through the initial implementation and full implementation stages. Fixsen and his colleagues (2005) defined the Exploration and Adoption phase as the preparation year before the full system is introduced to the initiative to be

103

implemented. System administrators viewed the leadership driver as having the most value at this stage.

The Installation Phase was a shift in their focus to the organization driver's elements, although front-line practitioners viewed the leadership driver as having the most value during this phase. They perceived the lack of leadership as lack of vision, a lack of common understanding among the system leadership team, a lack of strategic planning, and a leadership behaviour choice. While the front-line practitioners expressed frustrations, it should be noted that the system administrators had similar feelings regarding the perceived lack of willingness by their staff to embrace new approaches. Argyris (2002) was clear that his intent in developing the two models of single-loop and double-loop learning was not to assign blame to administrations or staff, nor was it to create an either-or expectation for communication and problem-solving; it was to create an awareness of options and their consequences.

Both groups of participants in the current study recognized a need for different leadership styles based on the need at the time. If the front-line practitioners were aware of what Sugai and Horner (2008) referred to as the 'work before the work' of the exploration and adoption phase (Fixsen et al., 2005), they may have been more understanding of the situational leadership activities and the system administration's need to engage in activities related to the organizational driver.

Bi-valent aspects of the relationship between front-line practitioners and administrators were evident in the data. System administrators reported a high investment in a culture of innovation to which the front-line practitioners responded with a low level of support for these administrators because of their perceived increased feeling of stress. Leaders must set the cultural environment through their leadership behaviours that drives the resonance that the work, the innovation, has value. This reaffirms Fixsen's need for adaptive leadership skills to be addressed. The adaptive leadership component of the leadership driver can identify the circumstances which can benefit from it. The administrators can then determine which leadership style would be able to support and empower staff to tolerate the discomfort of the disequilibrium they are experiencing as a result of the innovative practices being adopted. Different communities and/or groups of practitioners may need a different approach.

The challenge within the current study was to match the leadership approach with the need of different groups, a differentiated response, rather than continue with a universal

expectation. For example, the system administrators spoke to making the initiative relevant to the front-line practitioners whereas the practitioners spoke to the need for administrators to show them why different components were relevant. There was an assumption by administrators that they understood what would be viewed as relevant. In response, the front-line practitioners sought democratic leadership behaviours for their voice, their needs, to be heard. The implementation framework created by Fixsen and his colleagues (2005) provided administrators with a predictable and comprehensive plan but without strong consistency in creating a common language of leadership. The voice of the practitioner of their defined truths could only resonate through a transactional filter of the implementation drivers.

The Centrality of Mindset and Disposition to the Success of the Implementation Process

Mindset and disposition have not been typical concepts of study within implementation research or an organizational theory and are often used interchangeably. Mindset reflects a self-perception or belief that people hold about themselves, an internal motivation, whereas disposition reflects an orientation to a way of behaving (Dweck, 2012). Dweck (2012) described mindset as implicit theories describing the nature and flexibility of human characteristics and intelligent behaviour. More specifically, the consideration that attributes intelligence to fixed or pre-set traits has been identified as a fixed mindset whereas attributing intelligence to learning, effort, and practice, has been identified as a growth mindset. The disposition to persevere and be resilient has been identified as "grit", comprised of both effort and interest (Duckworth, 2007). Although Dweck's (2012) concepts of mindset and disposition had not been common threads of discussion within the field of implementation research, I believe they contribute to the understanding of the voices of this study's participants. The characteristics and behaviours described by Dweck (2012) through the concepts of fixed mindset, growth mindset, and grit offered insight to the interest and effort levels of participants.

I concluded that the voices of front-line practitioners were consistent with my understanding of growth mindset because of the characteristics that infused their discussions. There was a willingness and courage to improve, adjust, and/or modify their activities to achieve the system goal. However, system administrators described front-line practitioners as having a general tendency towards a fixed mindset, as not risk-takers, as not having an entrepreneurial spirit. Interestingly, most front-line practitioners perceived the actions and communications of administration as evidence of a fixed mindset. This juxtaposition led me to be curious about the

organizational culture and its subsequent climate, particularly as Schein (2010) described climate as members' shared perceptions and attitudes of the organization.

The perceptions of both front-line practitioners and system administrators suggested a relationship between mindset and disposition with the system's organizational culture and climate, particularly as both groups identified groups they perceived as preferential within organization. Schein's (2010) model of organizational culture illustrated how its members interact and behave within and beyond the organization. He described that although direct mechanisms developed by leaders determined the nature of the organizational culture through mission and vision statements, guidelines, and practices, the indirect mechanisms of behaviour, opinions, and status influenced the culture. When a cultural difference becomes evident, Schein (2010) placed the responsibility on system leaders to assume a cultural intervention. He stated that a culture can evolve through shared learning and that changing behaviour does not equate with changing culture unless culture is considered systematically.

The facilitative leadership element within Fixsen's (2005) leadership driver focused on developing the culture around the implementation journey. The mindset evidenced by the behaviours of some system administrators influenced this study's front-line practitioners' disposition. Many front-line practitioners spoke specifically of system administrators' messaging that counteracted their curious or courageous disposition.

Thus, mindset and disposition appeared as central elements of the implementation processes and organizational culture. In this study, it became apparent that attention to the voices of practitioners presented itself as another driver of the implementation framework with influence on the organization's climate. The front-line practitioners of this study appeared to be highly critical of the system administrators. Yet they demonstrated courage in seeking trusting safe environments and positive relationships, suggesting a growth mindset. A growth mindset and courageous disposition appeared to be nourishing the feedback loops of the integrated model of implementation drivers. Front-line practitioners expressed a desire to bring forward issues to learning coaches, or to inform policy, or to change practices of the organization with constructive criticisms with the goal of making positive changes. As Schein (2010) had described the unwritten expectations within organizations, he also expanded on the concept of psychological contracts created between employees and organizations to allow for needs to be openly expressed. If employees felt respected in taking initiative to improve and grow they would

respect the organization as it transformed. When the front-line practitioners described attitudes of administrators and the inequities that appeared to position schools for different levels of readiness, they were revealing the health of their psychological contract. When they perceived deficits in their psychological contract, they chose to try harder and then they chose to withdraw. Passive aggression is defined as, "being angry without expressing your anger openly, but resisting people in authority by refusing to do what they want or to accept responsibility for your actions" (Oxford Learners' Dictionaries, n.d.). Front-line practitioners' disposition appeared to move from one of courage filled with recommendations and solution-focused actions to a lack of trust in the system resulting in a form of passive aggression letting the implementation flow without being part of the solution to the existing implementation issues or challenges. Throughout the data, as critical as the front-line practitioners were, they consistently wanted to be part of the solution.

While courage and trust are found in both concepts of mindset and disposition, mindset involves an evaluation leading to a choice of action and justification. Individuals have a natural disposition. It can be shaped by the people and events around the individual. Mindset appears to have an internal locus of control, demonstrating ownership of interactions with others. When striving for positive relationships to create positive outcomes, one's mindset is critical. The front-line practitioners' disposition, their comments and behaviour, was not necessarily negative. They were identifying a need for improvements in the interests of being more effective in terms of the implementation work, as seen in their accompanying constructive criticisms, and demonstrating their ownership of attitude. Figure 5.2 provides my interpretation of the interactive influence of culture, mindset, disposition, and climate on the implementation drivers.

As Schein (2010) identified, attitudes or mindsets of system leaders influence the culture of the organization, which in turn, influences the organizational climate. In the current study, organizational climate seemed to influence the behaviour and disposition of its members which appeared to impact the implementation process. Throughout the study, the value of the implementation drivers was demonstrated as a framework for planning but was limited in its impact, particularly as most front-line practitioners expressed a need for a growth mindset to be modelled by system administrators. The success of the implementation process was influenced by the mindset and disposition of the organization's members.
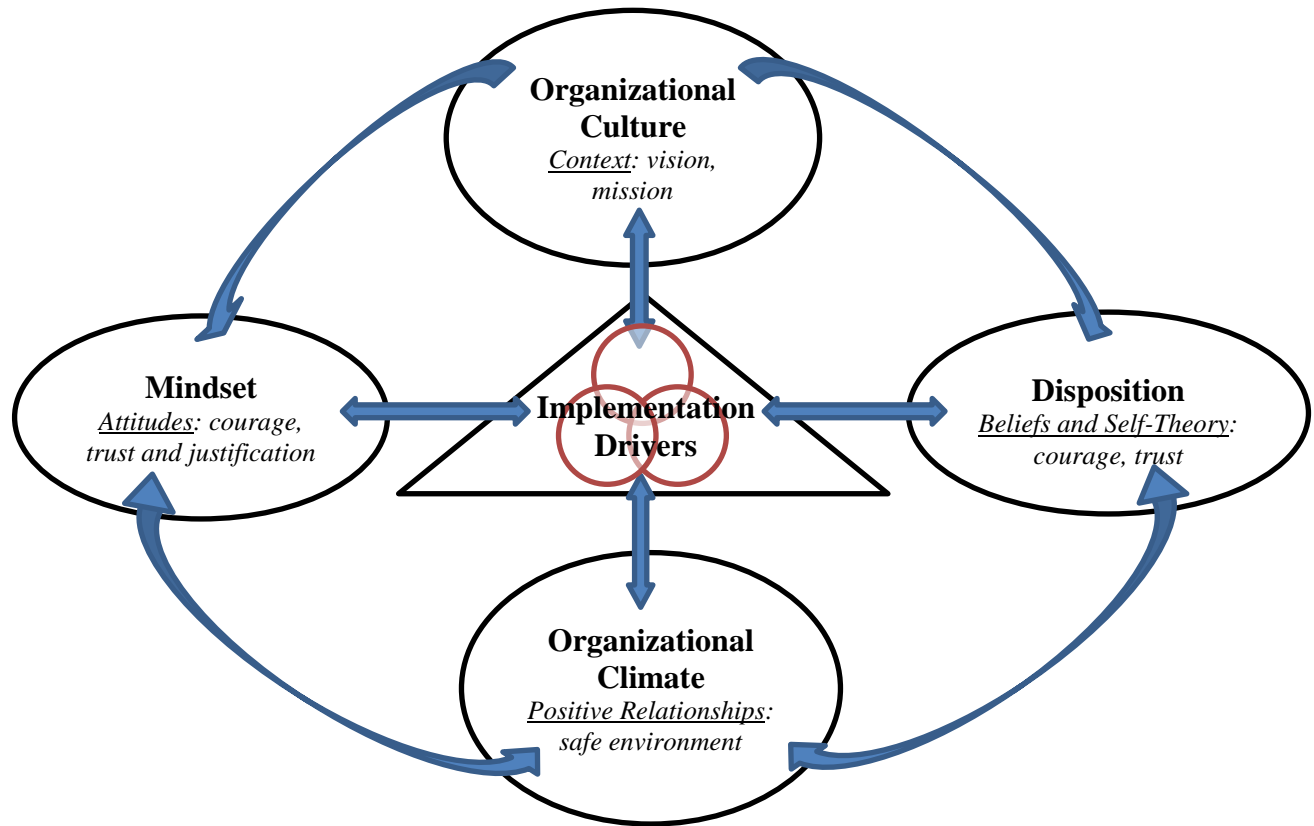
Figure 5.2. Interactive influences on implementation drivers

As reflected in Figure 5.2, organizational culture influences members' self-perceptions and behaviours, which in turn influenced the organizational climate and the outcomes of the implementation drivers. Fixsen's (2005) implementation drivers appeared to interactively influence both the mindset and disposition of most of the participants which appeared to be reflected in their perceptions of the organizational climate. My assertion is that the implementation drivers influence organizational culture through their integrative and compensatory nature and feedback methods. As the implementation framework activities unfold, they reflect the organization's core beliefs and values and drive cultural development by expecting and reinforcing behaviours. Recognizing the voices of front-line practitioners as an implementation driver creates the opportunity for the organizational culture, its values and assumptions to be challenged and transformed as a transformed collective mindset influences the disposition of the organization's members and leads to a constructive organizational and implementation climate.

The Value of Practitioner Voice as an Implementation Driver

The dimension of the practitioner voice was heard through the two perspectives of their own voice and that of the system administrators. The value of the implementation framework in moving change of practices and the safety of the focus group appeared to provide the environment through which an added dimension of the practitioner voice could be found and heard.

Throughout the current study, participants expressed appreciation for the implementation framework which provided the opportunity to organize their experiences and create collective assessments based on common understandings of the NIRN's implementation drivers. Passionate responses were characteristic within the focus group and demonstrated the added value of the framework when explored within a setting of safety, trust, and authenticity. The exploration of the roles of the implementation drivers with the system administrators was characterized by bold generalized statements related to the forward thinking of the system administrators which was not entirely shared by front-line practitioners, which suggested an autocratic organizational culture in conflict with administrators' self-description of a situational leadership culture. While both groups of participants were in agreement regarding the uneven implementation and adoption of the system initiative, they disagreed in their rationale for this outcome. The added dimension of the practitioners' voice provided a different perspective of understanding around issues of implementation across the school district and within its system.

The findings from this study supported Fenwick's (2007) assertion that questions regarding uptake issues related to the value of the intervention or to the knowledge and attitudes of front-line practitioners. Further, the findings also supported Aarons et al.'s (2011) concern regarding the risk of maintaining fidelity to implementation strategies and the need to create enabling environments. The focus group format using the carousel activity to activate perceptions and reflections of front-line practitioners allowed an added dimension of understanding to the process of implementation within the school system. A curiosity and willingness about its implementation drivers came through the voices of both groups of participants. This study's data from the front-line practitioners was qualitatively different than those of the system administrators whose data informed the progression of their implementation process. The differences were palpable. The authenticity of the front-line practitioners concerns for uptake gave validation to Aarons' (2011) attention to inner and outer organizational elements,

inner organizational elements of attitudes, behaviours and actions directly impact the outer organizational element of services delivery.

In the current study, the inner and outer organizational elements described by Aarons (2011) were evidenced in the perceptual contrast between front-line practitioners and system administrators. The system administrators sought feedback on activities whereas the front-line practitioners demonstrated an eagerness to provide constructive feedback on processes and planning. In my professional experiences, I have learned that accessing information is dependent on the "ask". As a standard practice, system administrators sought feedback from all members of the school system through rating scales with the option of written comments. The study accessed feedback through an interactive forum with a random sampling of front-line practitioners. While these two approaches could be characterized as a function of scope of feedback, breadth or depth of information, there is value in both and neither should be discounted. The function of the feedback should drive the choice of approach.

Understanding the process of implementation requires exploring the components of the implementation plan, hence the value of the implementation framework for planning and assessing the work. If determining adherence to, or deviation from, the expected practice is the function of the assessment, understanding the "why" would provide useful recommendations to the system administrators. Currently, the NIRN framework (NIRN, n.d.) seeks practitioner input and feedback on system activities, on the "what". When presented within an enabling environment, practitioners' input and feedback can inform the "how".

There were islands of successful implementation that were used to showcase expected practice. Members of these schools, these implementation sites, were members of the school district's committee that was instrumental in developing the system's professional learning, the competency driver. Without the implementation framework as a guide for strategic planning, variable engagement and utilization was evidenced in the stories of the participants. System administrators expressed concern for system-wide engagement and utilization as a result of their activities. This study's data provided evidence that front-line practitioners' voices impacted the fidelity of the implementation process as illustrated in Table 5.3. The level of input experienced by the front-line practitioners was aligned with the level of fidelity of the implementation observed by both front-line practitioners and system administrators.

Table 5.3
Front-line practitioners' voice on implementation

<table>
<tr><td></td><td colspan="2" align="center">**High Level of Input**</td><td></td></tr>
<tr>
<td rowspan="2">*Implementation with Low Fidelity*</td>
<td>

· Intermittent high energy/engagement
· Competency driver recognizable
   o General feedback
· Evidence of new practice culture
   o Most front-line practitioners
   o Some schools
· Roles perceived as ambiguous
· Construct roles and practices independently

</td>
<td>

· Sustained high energy/engagement
· Competency driver is evident
   o Feedback informs progression
· Evidence of new practice culture
   o Most front-line practitioners
   o Most schools
· Roles perceived as clearly articulated
· Co-construct roles and practices with school-based and/or system administrators

</td>
<td rowspan="2">*Implementation with High Fidelity*</td>
</tr>
<tr>
<td>

· Low energy/engagement
· Competency driver recognizable
   o No feedback
· Evidence of new practice culture
   o Few front-line practitioners
   o Some schools
· Roles perceived as vague
· Optional compliance to system expectations

</td>
<td>

· Intermittent engagement/low energy
· Competency driver recognizable with
   o Some feedback
· Evidence of new practice culture
   o Most front-line practitioners
   o Some schools
· Roles perceived as one-dimensional
· Required compliance to system expectations

</td>
</tr>
<tr><td></td><td colspan="2" align="center">**Low Level of Input**</td><td></td></tr>
</table>

Based on the comments of these participants, in schools where front-line practitioners' voice was encouraged and applied, implementation with greater fidelity was observed. Where practitioner voice was not accessed, diminished engagement and limited evidence of the new practice culture was noted. An enabling environment, focusing on discussions of process and characterized by an inquiry format, appeared to be the common element to the high engagement and greater implementation. The front-line participants of this study described how they received different opportunities to collaborate and how that affected the extent to which they accessed the opportunity. Several outcomes became apparent. When system administrators determined the collaboration, there was variable uptake on the opportunity. When the school administrators determined the collaboration with input from staff, there was universal uptake on the opportunity. The front-line practitioners described how they felt when they were told how to conduct their professional practice. There was less collaboration, increased stress, and less organizational engagement and trust. When they were invited to share their voice, saw their

influence, and engaged in the dialogue to develop a mutually beneficial outcome, they felt valued and motivated which led to higher fidelity practices.

The front-line practitioners' voice seemed to affect both the level to which practitioners engaged with interventions or practices and the level of fidelity with which an intervention or practice was implemented. Understanding their perspective and their perceptions of the plan and processes of implementation through an enabling environment and with the implementation framework as a reference tool was appreciated by the front-line practitioners. Moreover, they repeatedly identified opportunities where they would offer feedback to improve the adoption of new practices, suggesting a valuable data set had not been accessed in a way to make a meaningful difference.

Implications

Implications emerging from the study are highlighted in this section as major implications for theory, policy, practice and research.

Implications for Theory

When we examine life within an organization, we see the ongoing issue of how we go about change and transformation so that the organization is healthy and continues as a learning organization. Fixsen (2005) described implementation drivers as the engine of change. The purpose of the study was to recognize front-line practitioners' perceptions of implementation drivers through the lens of NIRN Implementation Framework (Fixsen, 2005). Their voices spoke volumes regarding the design, pacing, and responsiveness of the implementation plan across the stages of implementation. If, as suggested within the conclusions and discussion sections of this chapter, the voices of front-line practitioners are another implementation driver and if these drivers can feed the organizational culture to facilitate transformation then the organization's culture becomes consistent with that of a learning organization. My study has implications for theory in the questions it raised regarding the organizational culture, the psychological context, and the organizational climate needed to maximize the value of the implementation framework offering the opportunity to reconceptualize the NIRN Implementation Framework (Fixsen, 2005), as shown in Figure 5.3.

This reconceptualization presents the implementation drivers within the fluid dynamic environment of organizational culture and climate. The three implementation drivers, as presented by Fixsen and his colleagues (2005) are infused with the front-line practitioners' voice
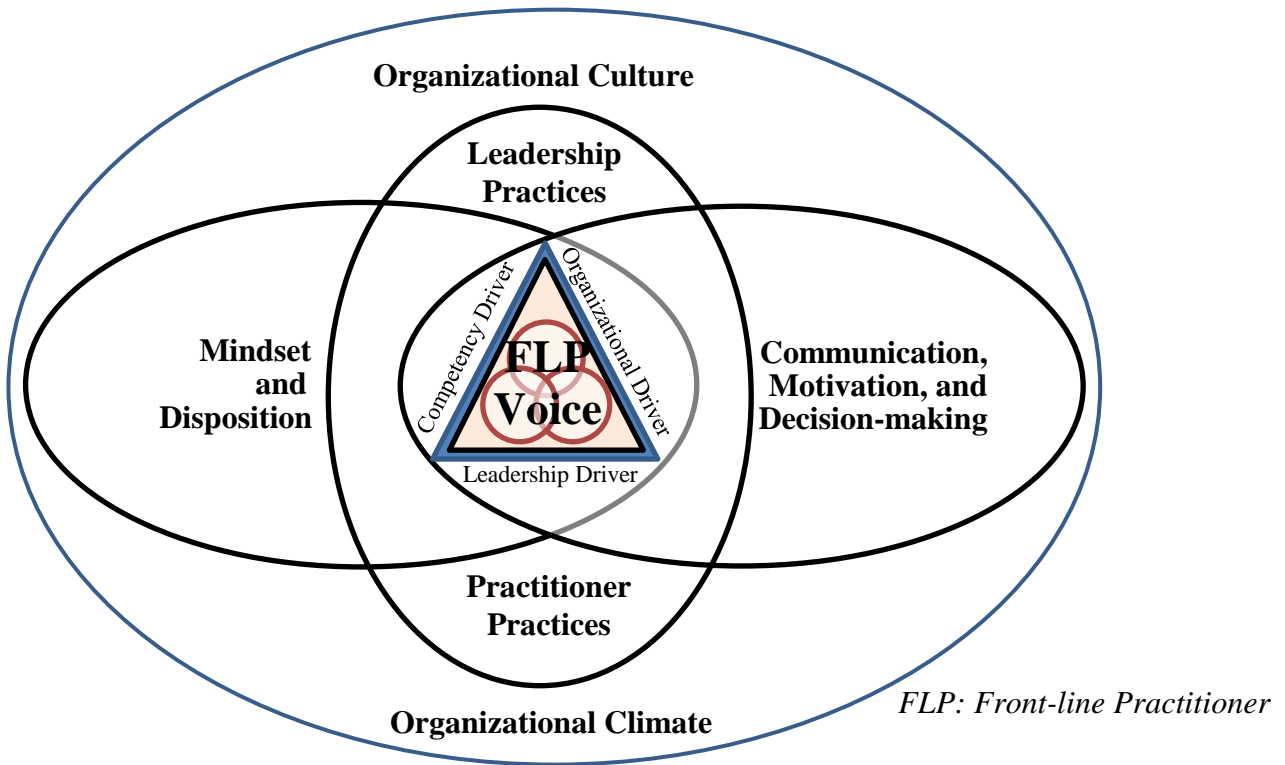
Figure 5.3. Reconceptualization of NIRN Framework (Fixsen et al., 2005)

as a fourth driver of change. The original three drivers address issues of structure and skills while the practitioner voice addresses the heart of practice and behaviour: the affective response and the psychological response. This provides the opportunity to strive for balance and equity during the implementation process. Mindset and disposition are balanced with communication, motivation, and decision-making. Leadership practices are balanced with practitioner practices. These elements may not be present with equal emphasis as the implementation progresses through its stages of development, but they are recognized and addressed resulting in an enrichment of the NIRN framework. Balancing skill set practices with behaviours offers the opportunity to share what their expectations are and what the organization's expectations are of them, instead of having ongoing perceived betrayal creating isolations or inequities in the organization. Thus, this study has implications for the psychological contract and how organizations might benefit from making it transparent.

Presenting organizational culture as part of the framework introduced the opportunity to explore the communication within the drivers through Schein's (2014) humble inquiry approach. The elements of mindset, disposition, and practices of both leaders and practitioners offer the

113

implementation's context. Leadership practices are viewed through a constructivist lens with the infusion of Argyris' double loop feedback to strengthen communication and shared understandings with practitioners. Leadership communication moves beyond transmission of information to negotiation of meaning and transformation of practices. Within this reconceptualization to consider leadership practices as distinct and outside of the leadership driver, practitioners become more engaged. The organizational, competency, and leadership implementation drivers continue to be the framework of what needs to be considered at each stage with appreciation of the voice of front-line practitioners. The addition of leadership and practitioner practices recognized the potential of processes of the key members who influenced the outcome of the implementation initiative.

Implications for Policy

Guba (1984) described three policy types: policy-in-intent, policy-in-implementation, and policy-in-experience. His policy analysis approach is supportive to the current study of implementation because it provides the space to question the purpose of related policy, the behaviours and interactions involved in actualizing the policy, and the actual experience of the client (student) for whom the policy was created. School-based and system-based policy can, therefore be used to monitor implementation drivers and implementation stages through formalizing the presence of practitioner voice within:

- the 360º feedback/feedforward assessment related to actualization of implementation framework components;
- identification of funding plans, opportunities, and processes for technical support;
- the expectations for time and supports required to meet benchmarks/developmental milestones of implementation as it progresses through each stage;
- alignment of performance management with implementation benchmarks/developmental milestones;
- identification of structures of organizational driver (system intervention strategies to support the work of front-line practitioners, facilitative administration, decision/support data system); and
- alignment of policies, procedures, structures, culture, and climate with needs of front-line practitioners.

114

Implications for Practice

   This study found that Fixsen's (2005) implementation framework has value to school districts as reflected in Figure 5.4. To maximize the value of the framework, system structures
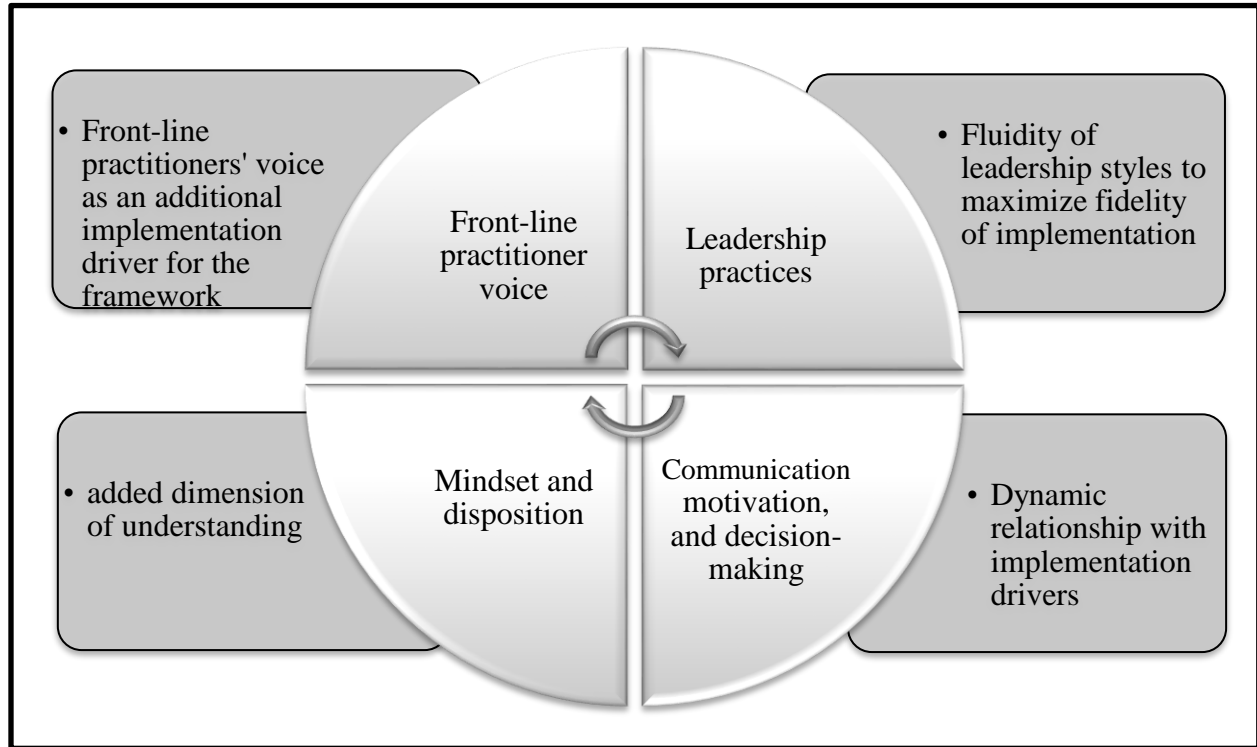

Figure 5.4. Maximizing the value of the implementation framework

need organizational artifacts to provide consistent and shared understanding. Such artifacts would include orientation to mission and vision of the change initiative in a visible and accessible space, a communication strategy with double-loop feedback systems assessing the intervention practices and the system's implementation processes, and practitioner learning events guided by adult learning principles.

   This study provided a unique reflection on the value of the implementation framework beyond the perceptions of its drivers to the contextual factors that influence its outcomes. Just as the integration and compensatory nature of implementation drivers is recognized, so are the contextual and environmental aspects of the process. No voice exists within a vacuum. The practitioner voice needs a safe and trusting space to flourish. Developing trust adds a deeper dimension to collective understanding achieved, in part, through equitable and authentic communication. A fluidity of leadership styles and practices is needed to open the leadership stance to embrace the opportunity for dialogue and courageous conversations and to model and

practice self- and professional-reflection before, during and after initiative activities. This study presented a persuasive need to move from the transmissive practice of telling, to the transformative practice of creating relationships and orchestrating learning by asking the right questions through, for example, Schein's (2014) humble inquiry approach. All levels of the organization need to be consumers of implementation drivers, to understand the experience, which has implications for district board and system administrators' personal and collective competency development.

Implications for Research and Further Study

This study explored perceptions of implementation drivers through the voice of front-line practitioners. The reconceptualization presents the opportunity for extending our learning:

- from the voices of other practitioners at the mid-management level of the organization, the school-based administrators and system-based consultants, coordinators, and supervisors;
- of the dynamic relationship among the psychological contract, organizational culture, and the implementation framework which should be explored further;
- to further the understandings of the context, barriers, and facilitators to implementation such as:
  - impact of the organizational driver (facilitative administration) and leadership driver (adaptive leadership) on practitioners' engagement and intervention outcomes, and/or
  - ideas to adapt/expand implementation framework to include system assessment feedback/feed-forward processes by front-line practitioners;
- to further understandings of the research study's methodology tools, such as:
  - create and assess a tool to gather front-line practitioners' voices to assess process of implementation,
  - explore the transferability of this study's conclusions to other school systems, and
  - explore whether the carousel activity would be as effective in creating focus and climate with a different group of professionals who do not function within the Education sector.

- Through different research methodologies, determined by the researcher's choice of research questions and philosophical perspective through which the questions will be explored.
  - If staying within the Constructivist research paradigm, methodological suggestions include:
    - Narrative methodology to explore the experiences of an individual's lived experience.
    - Action Research, if working as an active participant with and for the group, with the focus of generating solutions for issues identified by the group.
    - Phenomenological methodology to study several individuals to understand the collective lived experiences.
    - Constructivist Grounded Theory research paradigm intended to create new theory, framework, or model based on the views of the participants through building explicit "what" and "how" questions into the data collection.
  - A Mixed Method research paradigm with the intended outcome to improve the intervention, change process, or initiative.

Reflections on the Research Experience

My professional experience has come full circle, starting as a front-line practitioner and growing through various leadership roles in local, regional and international contexts before returning to a practitioner role. Having that unique life experience of seeing systems' efforts to adapt, adopt, and create policies to change population outcomes through changes in practices, led me to question the truths around these policies and practices, their rationale, how would they determine success, how fidelity was ascertained and addressed.

During my leadership roles I observed significant efforts by school systems to include what system administrators perceived as added value to any change effort, using thorough plans based on past experiences and common sense. But common sense did not make sense to me. Why use common sense to implement research-based interventions instead of using research-based implementation strategies to implement research-based interventions? With some digging into this question as it applied to system change efforts, I found the National Implementation

117

Research Network, the seminal synthesis of research (Fixsen et al. 2005), and the Implementation Framework (Fixsen & Blase, 2008) and my curiosity piqued. I appreciated the system leaders, or purveyors, accessing feedback from front-line practitioners on the coaching and their own practices. I noticed that the feedback, for the most part, consisted of unidirectional transmission of information to inform future professional learning opportunities. I wondered what a feedback loop would offer when focused on the system's implementation plan and processes.

I believe my unique professional trajectory offered both groups of participants, the front-line practitioners and the system administrators, a sense of comfort and safety to share openly about their perceptions and stories. I shared a history and familiarity with their role within the organization and could personally relate to their celebrations and excitement as well as their frustrations and questions. It has been my professional practice to create environments where people feel relaxed, safe, and valued by providing personal attention, natural and indirect lighting, snacks, and genuine curiosity. Trust provided the enabling condition for significant sharing to thrive. Both groups provided details about the implementation process and shared raw intimate feelings and thoughts in the semi-structured interviews. Although each group expressed frustration about the other, the focus was on the function or role of the group member, not on the person. A trusting relationship between researcher and participants was evident from the unguarded and open responses of the participants and the willingness to participate in the member-checking process. The participants were professionals and framed their responses accordingly which provided me a sense of balance as researcher.

I was pleasantly surprised with the level of trust and comfort displayed by the focus group. The conversations did not stray off-topic and I believe the overview of both the value of using a research-based process and the NIRN implementation framework that was included before the semi-structured interviews and focus group activity were largely responsible. Each group member demonstrated curiosities about implementation research. The carousel activity was a unique addition to the focus group methodology and encouraged cognitive, physical, and social engagement. It had been a highly engaging constructivist strategy during workshops I have delivered and served to concentrate conversations to the topics on the carousel charts. As a result, each member of the focus group actively and passionately participated.

I felt a tremendous responsibility to capture the participants' voices honestly and without

118

prejudice. The participants expressed appreciation for the availability of this particular platform as a vehicle for sharing their voices. Qualitative research offered an additional lens to the research frameworks as a result of the study. At the outset of the study, I was curious about how the front-line practitioners perceived the different components of a strategic implementation process and to put aside my own thoughts and assumptions. I was impressed by their professionalism and genuine desire to improve the system's plan. Now, at the end of the study, I am humbled that the research design offered the front-line practitioners' strength and a sense of community as they extended their perceptions to in-school and system administrators.

The researcher's hand is everywhere within a research study, creating an experience both rewarding yet challenging. Saldana (2013) suggested that a single comment could be meaningful and, interestingly, I found some comments powerful in their raw truth. One of my biggest challenges was to be an open vessel to the voices and their truths, sifting them with the learnings of other researchers. The Carousel strategy and the interpretive panel were powerfully rewarding experiences, which I intend to use with future research opportunities. The interactive Carousel strategy shared the power within the activity as did the interpretive panel. I found that the voices led the way for the interpretation, which aligned with my personal educational philosophy. This forced me to continuously question to what degree were the interpretation and subsequent conclusions unique to the participants or prompted by the hand of the researcher. The interpretive panel allowed me to see not only my hand in the research, but that I was, in essence, wearing gloves.

Reflective Comments

As recently as 2016, Fixsen and his colleagues continued to refine their framework, its implementation drivers, and knowledge of the stages of implementation. Front-line practitioners continued to be a data source but did not appear to be an active influence on the strategic plan developed for the implementation initiative. They were to provide information and complete assessment tools. They could be engaged in dialogue about the activities, but I had not found their voice to be an active contributor or influence to the understanding on the process of implementation. The opportunity to co-construct process exists and front-line practitioners are hungry for it. Their perceptions of the value of the framework was that their voice could make practices and understandings more consistent, more deeply entrenched, and practiced with greater rigour. With this, practices would be done with greater fidelity and outcomes achieved

within a significantly shorter timeframe (Balas & Boren, 2000; Fixsen et al, 2001).

  This study pointed most singularly and most critically to the need to listen to practitioner voice. It highlighted the need to tap into and listen without prejudice, beyond that of a growth but with an innovative courageous mindset. It also highlight the need to allow front-line practitioners the space and permission to be innovators and to create within the boundaries of the intended outcome. This led me to reflect on how you move a fixed mindset to a growth and innovative mindset, how this might apply to attitude change and whether there is a leadership element to it. Competency drivers are top-down in nature, but what about reciprocal coaching?

  I was not surprised by the critical nature of the practitioner voice. I would have qualified it as negative if not for their persistent offerings of constructive criticism to provide balance and potential solutions. This was in stark contrast to Betty's comment that practitioners were imitators not innovators. Listening to system administrators, it was apparent that practitioner voices, powerful feedback to feed the initiative forward, were not really heard. What was going on? Why couldn't their voice be heard? How does that reflect on the psychological health of the organization? And how was it that I could hear them?

  The most telling thing for me was how powerful is the "ask" when it considers and respects the practitioner and the psychological contract. Participants' voices addressed respect, obligations, trust, fairness, authenticity, risk-taking, and transparency. How the "ask" is communicated, as well as how it is interpreted and perceived, is shaped by the mutual relationship developed through the psychological contract. And it may shape the relationship moving forward. This dynamic reality could lead to co-constructing learning about implementation, evidencing deep understandings of progress towards change, instead of evidencing compliance through simple reporting that implementation practices were completed to indicate progress. The underpinning of psychological contracts is philosophy, not tools. The application of the philosophies of Argyris (2002) and Schein (2010) needs to be evidenced in daily interactions, as well as major initiatives involving system and cultural change. Through sharing their perceptions of implementation drivers, common perceptions between front-line practitioners and system administrators were discovered, and the critical worth of practitioners' voice emerged.

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APPENDICES

Appendix A

Ethics Materials

1. Letter of Invitation to the School System
2. Letter of Invitation to Staff
3. Participant Consent Form – Focus Groups
4. Participant Consent Form – Interviews
5. Focus Group Guide
6. Interview Guide
7. Transcript Release Form – Focus Group
8. Transcript Release Form – Interviews
9. School System Authorization

Appendix A.1

Letter of Invitation to School System

Dear (CEO 2),

I am currently a doctoral candidate in the Department of Educational Administration at the University of Saskatchewan. As partial requirement for my dissertation, I am completing a study exploring the voices of practitioners on implementation processes. The title of my study is **Voices from The Front-Line: examining perceptions regarding implementation drivers As viewed through a rural school system's practice.** The intent of this study is to illuminate the roles played by the researched-based components (the "drivers") of implementation through the reflections and perceptions of the participants related to their experiences with the implementation of a specific initiative.

I am seeking your assistance. "Central" School Division introduced an initiative in the last 2 years with dedicated resources and intended outcomes and I would like to explore staff perceptions on the implementation process. I am inviting teachers involved with the initiative to participate in this study through a focus group and individual interviews to explore their perceptions of:

1. the role played by each Implementation Driver (Leadership, Competency, Organization) in a system initiative,

2. the influence of each Implementation Driver,

3. the value of the implementation drivers at each stage of implementation, and

4. adjustments made to the implementation process to address gaps or needs.

For the purposes of this study, please note that only teachers involved with initiative since its inception will be included. The interviews will take approximately 60 minutes to complete and the focus group will follow a workshop format (approximately 1.5-2 hours). As an incentive for participating in this study, a gift card will be offered to participants. The focus groups and interviews will occur at mutually beneficial times before April 22, 2016.

The data from this study will be used in the completion of a doctoral dissertation and may be published and presented at conferences. Please note that the data will be stored in the University of Saskatchewan office of my supervisor, Dr. Patrick Renihan, for five years after which it will be destroyed. The teacher/administrators may withdraw from the study for any reason, at any time, without penalty of any sort. If any teacher/administrators withdraw from the study at any time, any data collected from them will be destroyed. If teachers/administrators express concern for a conflict of interest, two independent researchers have agreed to conduct

the data collection in order to allow me to step aside. These independent researchers do not have personal or professional ties to "Central" School Division.

It is possible that one or more of the participants may share negative information which could put the staff member and the third-party researchers at risk. Therefore, names and locations will be changed to protect the participants and potentially negative information will be reframed or removed from the summation.   The participants will also have the opportunity to request changes, modifications or removal of identifying or negative aspects within their transcripts. Due to the fact that study involves a small and purposeful population, the participants may be identifiable through their comments. The researcher (Maureen Anne Sloboda) will undertake to safeguard the confidentiality of the discussion but cannot guarantee that other members of the group will do so.

Results will be made available to you and the participants upon the completion of the research. The information attained from this study will benefit "Central" School Division, your colleagues and groups in making future implementation plans and actions effective.

If you have any questions or concerns about this study, please contact me by e-mail at Anne.Sloboda@usask.ca or by phone (-----------). You may also contact my advisor, Dr. Patrick Renihan at Patrick.Renihan@usask.ca .

Thank you very much for your consideration in supporting this study and, potentially, allowing your teachers and administrators to participate in this study.

Please respond to this email, indicating if you will provide consent to participate and support this study, at your earliest convenience.

Sincerely,

Maureen Anne Sloboda
Doctoral Candidate
Educational Administration
University of Saskatchewan
Anne.Sloboda@usask.ca

Appendix A.2

Letter of Invitation to Staff

UNIVERSITY OF SASKATCHEWAN

College of Education

Department of Educational Administration

28 Campus Drive, Saskatoon SK
S7N 0X1 Canada
Telephone: (306) 966-7619
Facsimile: (306) 966-7020

Dear Teacher,

In addition to being a teacher for "Central" School Division, I am currently a doctoral candidate in the Department of Educational Administration at the University of Saskatchewan. As partial requirement for my dissertation, I am completing a study exploring the voices of practitioners on implementation processes called, **Voices from The Front-Line: examining perceptions regarding implementation drivers as viewed through a rural school system's practice** The intent of this study is to illuminate the roles played by the researched-based components (the "drivers") of implementation through the reflections and perceptions of the participants related to their experiences with the implementation of a specific initiative.

You have been chosen to participate because of your specific involvement in "Central" School Division's *21st Century Competency Professional Development* initiative. Names and locations will be changed to protect your anonymity. This study has been submitted to the University of Saskatchewan Behavioural Ethics Board for approval.

Teachers who have been involved with the *21st Century Competency Professional Development* initiative since its inception have been selected for a focus group and individual focused interviews. As part of a focus group or interview, you have the right not to answer all of the questions. I may contact you within six months to clarify comments to assist the data analysis. The focus groups will be a workshop format, will take approximately two hours to complete and will occur at mutually beneficial times before Friday April 22, 2015.

The data from this study will be used in the completion of a doctoral dissertation and may be published and presented at conferences. Please note that the data will be stored in the University of Saskatchewan office of my supervisor, Dr. Patrick Renihan, for five years after which it will be destroyed. You may withdraw from the study for any reason, at any time, without penalty of any sort. If so, any data collected from you will be destroyed. If you express concern for a conflict of interest, two independent researchers have agreed to conduct the data collection in order to allow me to step aside. These independent researchers do not have personal or professional ties to "Central" School Division.

I would like to share a brief overview of my background. I have been an educator in rural school divisions for 22 years from being a classroom teacher in Macklin to an educational psychologist in Aurora (Turtleford) and Saskatoon Regional Shared Services where I predominantly co-developed student, classroom and system programs with teachers and school divisions. It was when I worked with the Ministry of Education developing and supporting school division and provincial programs, that I became curious about evidence-based implementation strategies. There appeared to be considerable diversity in how teachers and school divisions approached implementation, affecting program and student outcomes.

You and "Central" School Division can benefit from this study by examining the results and implications in consideration of future implementation plans and actions. I am looking forward to your response to this request. If you are willing to participate, please reply to this email.

If you have any questions or concerns about this study, please contact me by e-mail at Anne.Sloboda@usask.ca or by phone (-----------). You may also contact my advisor, Dr. Patrick Renihan at Patrick.Renihan@usask.ca .

Please respond to this email, indicating if you will provide consent to participate and support this study, at your earliest convenience. In anticipation of your participation, thank you very much for your assistance with this study.

With appreciation,

Maureen Anne Sloboda
Doctoral Candidate
Educational Administration
University of Saskatchewan
Anne.Sloboda@usask.ca

Appendix A.3

Participant Consent Form – Focus Group

Study Title: VOICES FROM THE FRONT-LINE: EXAMINING PERCEPTIONS REGARDING IMPLEMENTATION DRIVERS AS VIEWED THROUGH A RURAL SCHOOL SYSTEM'S PRACTICE

I,_____, have reviewed the complete transcript of my comments throughout the focus group for this study, and have been provided with the opportunity to add, alter, and delete information from the transcript as appropriate.

I acknowledge that the transcript accurately reflects what I said in the focus group with Maureen Anne Sloboda.

I hereby authorize the release of this transcript to Maureen Anne Sloboda to be used in the manner described in the Consent Form.

I have received a copy of this Data/Transcript Release Form for my own records.

_____   _____
Name of Participant   Date

_____   _____
Signature of Participant   Signature of researcher

Appendix A.4

Participant Consent Form – Interviews

Study Title: VOICES FROM THE FRONT-LINE: EXAMINING PERCEPTIONS REGARDING IMPLEMENTATION DRIVERS AS VIEWED THROUGH A RURAL SCHOOL SYSTEM'S PRACTICE

I,_____, have reviewed the complete transcript of my personal interview in this study, and have been provided with the opportunity to add, alter, and delete information from the transcript as appropriate.

I acknowledge that the transcript accurately reflects what I said in my personal interview with Maureen Anne Sloboda.

I hereby authorize the release of this transcript to Maureen Anne Sloboda to be used in the manner described in the Consent Form.

I have received a copy of this Data/Transcript Release Form for my own records.

_____   _____
Name of Participant   Date

_____   _____
Signature of Participant   Signature of researcher

Appendix A.5

Interview Guide – Focus Group

Interview Guide – Focus Group

Through both focused groups and semi-structured interviews, the following research questions will be examined:

1. What was the role played by each Implementation Driver (Leadership, Competency, Structure) in the initiative?

2. What are the perceptions of the participants regarding the influence of each Implementation Driver for the success of the implementation?

3. What are the participants' perceptions of the relationship between the stage of implementation and the role of each Implementation Driver?

4. Which adjustments did the participants make to the implementation process to address gaps or needs?

The focus group provided teachers with an opportunity to reflect on their involvement with the initiative with reference to each of the implementation drivers (Competency, Leadership, Organization), the elements within each driver, and the role of each driver within each stage of implementation. According to Fixsen et al (2005), the stages of implementation are: exploration, installation, initial implementation and full implementation. The focus groups take place at a time when schools have been involved with the initiative for a period of two years – the stage of initial implementation. The focus group took place at a time when schools have been involved with the initiative for a period of two years.

"Hello and welcome! Thank-you for taking the time to discuss the implementation of the 21st Century Competencies Initiative. My name is Anne Sloboda, and I will serve as the moderator for today's focus group discussion. We have an independent researcher who may lead the work if anyone feels that privacy was compromised.

The purpose of today's discussion is to get information from you is about how programs and services are implemented; that is, the strategic and deliberate processes by which your organization has attempted to establish a program or practice will be studied.

You were invited because you were directly involved with the initiative since its inception. Your participation is voluntary, and you do not have to answer questions you do not feel comfortable answering. There are no right or wrong answers to the questions I am about to ask. Please feel free to share your point of view even if it differs from what others have said. If you want to follow up on something that someone has said, you want to agree, disagree, or give an example, please feel free to do that. This is about having a conversation with one another guided by questions.

I am here to ask questions, listen, and make sure everyone has a chance to share. We are interested in hearing from each of you. So if someone is talking a lot, I may ask that you to give others a chance. And if you aren't saying much, I may call on you. We just want to make sure we hear from all of you. I will ask you to be as specific as possible regarding the content of the implementation process that you experienced whether you are describing the practice or the stage.

I will be taking notes to help us remember what is said. We are also tape recording the session so that all of your comments are captured. No names will be included in any reports. The data will be kept confidentially for five years as per the University of Saskatchewan policy and then destroyed.

Let's begin by having each person share their name, their school and their roles in the Initiative so we have an audio record as well as a written record." (Krueger and Casey, 2000)

Teacher Focus Group

The purpose of the focus group is to build the case study to further understanding of the implementation framework developed by Fixsen et al (2005).

Research Question Link	Focus Group Questions	Prompts and Probes
2. What are the perceptions of the participants regarding the influence of each Implementation Driver for the success of the implementation?	Think back over the past 2 years of the things that have been part of the coaching initiative. • What went particularly well? Why? • How did this strength change throughout the implementation?	• Expectations • Positive features • Difficulties or problems • Training • Leadership • Organizational Structures
*1. What was the role played by each Implementation Driver (Leadership, **Competency**, Organization) in the initiative?*	Help me to understand how ***competency*** with the coaching initiative has been developed and supported.	**Recruitment and selection of staff** • specification of skills and abilities **Training** • Knowledge related to theory and philosophy, introduction of program components and opportunities to receive feedback on practices **Coaching** • Ongoing formative assessment and support **Performance Assessment** • Monitoring of implementation efforts to adjust competency development responses

Research Question Link	Focus Group Questions	Prompts and Probes
*1. What was the role played by each Implementation Driver (Leadership, Competency, **Organization**) in the initiative?*	***Organization*** – • In what ways has the implementation of the Coaching Initiative enabled you to work with others? • How useful has this been?	Which strategies did the school division use that were directed at changing its structure or functioning in ways that would facilitate the implementation of the program? **Systematic data collection and reporting** • Data-based decision-making for continuous improvement **Facilitative administration** • Policies, procedures and structures so staff turnover impact is minimized **Interventions** • External systems (financial, HR, culture)
*1. What was the role played by each Implementation Driver (**Leadership**, Competency, Organizatioon) in the initiative?*	Now consider the ***leadership*** as a particular aspect of the implementation. • What your thoughts on Leadership on this initiative?	Which strategies did the school division use that were more process-oriented (such as planning, reflecting, or evaluating) for the implementation effort? **Adaptive Leadership** • "champions" – ongoing alignment with mission, vision & values, competency & organization drivers **Technical Leadership** • Continuing guidance re: capacity building (communication, mediation, etc)
3. What are the participants' perceptions of the relationship between the stage of implementation and the role of each Implementation Driver?	Of all the things we have discussed, • what to you has been the *most important* at the different stages of implementation? Why? • What has been of the least value at the different stage of the implementation? Why?	• Why were they so important? • If you were to offer advice for the implementation of another program for students, what would you say? • Have we missed anything? Anything that we should have talked about in regards to the implementation process?
4. What adjustments did the participants make to the implementation process to address gaps or needs?	Suppose that you were in charge and could make one change that would make the program better. • How would you change it?	•

Appendix A.6

Interview Guide – System Administrators

Interview Guide – Interview with System Administrators

Through both focused groups and semi-structured interviews, the following research questions will be examined:

5. What was the role played by each Implementation Driver (Leadership, Competency, Structure) in the initiative?

6. What are the perceptions of the participants regarding the influence of each Implementation Driver for the success of the implementation?

7. What are the participants' perceptions of the relationship between the stage of implementation and the role of each Implementation Driver?

8. Which adjustments did the participants make to the implementation process to address gaps or needs?

The personal interviews provided system administrators with an opportunity to reflect on their involvement with the initiative with reference to each of the implementation drivers (Competency, Leadership, Organization), the elements within each driver, and the role of each driver within each stage of implementation. According to Fixsen et al (2005), the stages of implementation are: exploration, installation, initial implementation and full implementation. The interviews took place at a time when schools have been involved with the initiative for a period of two years – the stage of initial implementation.

___

"Hello and welcome! Thank-you for taking the time to discuss the implementation of the 21st Century Competencies Initiative. My name is Anne Sloboda, and I will serve as the moderator for today's interview. There is an independent researcher who may lead the work if you feel that privacy was compromised.

The purpose of today's discussion is to get information from you is about how programs and services are implemented; that is, the strategic and deliberate processes by which your organization has attempted to establish a program or practice will be studied.

You were invited because you were directly involved with the initiative since its inception. There are no right or wrong answers to the questions I am about to ask. Please feel free to share your point of view even if it differs from what others have said. If you want to follow up on something or give an example after our time has finished today, please feel free to contact me by telephone or email. This is about having a conversation guided by questions.

I am here to ask questions, listen, and to encourage your descriptions. I will ask you to be as specific as possible regarding the content of the implementation process that you experienced whether you are describing the practice or the stage.

I will be taking notes to help remember what is said. I am also tape recording the session so that all of your comments are captured. No names will be included in any reports. The data will be kept confidentially for five years as per the University of Saskatchewan policy and then destroyed.

Let's begin by having you share their name, position in the school system, and your role in the Initiative so there is an audio record as well as a written record." (Krueger and Casey, 2000)

System-Based Administrator Interviews

Research Question Link	Interview Questions	Probes (Adapted from Blase & Fixsen, 2013)
2. What are the perceptions of the participants regarding the influence of each Implementation Driver for the success of the implementation? *(reflect on implementation drivers)*	Think about a time early in your career when the school/school division was intentionally doing something across the school division to improve outcomes. • Talk about your own experiences with that new program implementation and its influences on your decisions and actions	• Explore experiences outside of the current school division, within and outside of education • Explore experiences as a front-line worker and as a system leader • Who decided which interventions to use? What factors were considered about how to implement it? • What types of information or "evidence" were most important to inform decisions about the progress, the effectiveness?
4. What adjustments did the participants make to the implementation process to address gaps or needs?	• Describe two or three ways you think you have changed or confirmed your approach to implementation of the initiative as a result of your past experience(s).	• Explore examples
1. What was the role played by each Implementation Driver (Leadership, Competency, Organization) in the initiative?	• With the Dreamcatcher Coaching Initiative, how do you know that successful implementation has been achieved? • Describe the critical components for successful implementation.	Look for implementation drivers and their components: • ***Developing Staff Competency*** *(selection training, coaching, performance assessments)* • ***Organizational Supports*** *(decision support data systems, facilitative administration, systems interventions)* • ***Leadership Supports*** *(technical and adaptive)* • Probe for elements of each implementation driver & measureable outcomes from continuous improvement
3. What are the participants' perceptions of the relationship between the stage of implementation and the role of each Implementation Driver? *4. What adjustments did the participants make to the implementation process to address gaps or needs?*	• Which of these components have stronger value for successful implementation? • Which have lesser value? • Do the components value change over the journey of implementation? • If so, which components change, when and why? How do you identify different stages of implementation? • Which adjustments did the participants make to the implementation process to address gaps or needs?	• Probe for activities related to each implementation driver across stages: • Exploration, • installation, • initial implementation, • full implementation

Appendix A.7

Transcript Release Form – Focus Group

UNIVERSITY OF SASKATCHEWAN

College of Education

Study Title: VOICES FROM THE FRONT-LINE: EXAMINING PERCEPTIONS

REGARDING IMPLEMENTATION DRIVERS AS VIEWED THROUGH A RURAL

SCHOOL SYSTEM'S PRACTICE

I,_____, have reviewed the complete transcript of my

comments throughout the focus group for this study, and have been provided with the

opportunity to add, alter, and delete information from the transcript as appropriate.

I acknowledge that the transcript accurately reflects what I said in the focus group with Maureen

Anne Sloboda. I hereby authorize the release of this transcript to Maureen Anne Sloboda to be

used in the manner described in the Consent Form.

I have received a copy of this Data/Transcript Release Form for my own records.

_____   _____
Name of Participant   Date

_____   _____
Signature of Participant   Signature of researcher

Appendix A.8

Transcript Release Form – Interviews

Study Title: VOICES FROM THE FRONT-LINE: EXAMINING PERCEPTIONS

REGARDING IMPLEMENTATION DRIVERS AS VIEWED THROUGH A RURAL

SCHOOL SYSTEM'S PRACTICE

 I,_____, have reviewed the complete transcript of my

personal interview in this study, and have been provided with the opportunity to add, alter, and

delete information from the transcript as appropriate.

I acknowledge that the transcript accurately reflects what I said in my personal interview with

Maureen Anne Sloboda. I hereby authorize the release of this transcript to Maureen Anne Sloboda

to be used in the manner described in the Consent Form.

I have received a copy of this Data/Transcript Release Form for my own records.

_____   _____
Name of Participant   Date

_____   _____
Signature of Participant   Signature of researcher

Appendix A.9

School System Authorization

Anne Sloboda   3 November, 2015

Glad to see you are now ready to proceed with your dissertation. Before agreeing to your study in ███████ ██████ I would want to know precisely what initiative you would like to examine and how many teachers, schools, administrators you would want to involve. I look forward to hearing more Anne.

CEO
School Division No. ████

<Approval - REB 2015.PDF>
<Letter to Focus Group Participants.pdf>
<Letter to School Division.pdf>

Anne Sloboda   3 November, 2015

Thanks ████
The initiative would be one that has been in place for 2-3 years as suggested by the school division since I would only have limited knowledge of the various developments by the school division in recent years. I am aware that the 21st century competencies professional learning program has been operating for 2-3 years, I

I look forward to hearing from you.

M. Anne Sloboda
Doctoral Candidate (Implementation Research)
Department of Educational Administration
University of Saskatchewan

                                                                              15 November, 2015

Sorry for taking so long to get back to you Anne. I have been away from the office. You mention 3 different initiatives here, I think. Pick one you want to work with and then <mark>I am OK with you going ahead.</mark>

CEO
School Division #

163

Appendix B

Observer Recording Matrix Template

Non-Verbal language Recording Template   OBSERVER: DATE: PG

Enter the following notations in the cells with a time stamp (e.g., 10:17 experi- F, 10:18 S)   (Adapted from Onwuegbuzie, Dickenson, Leech & Zoran, 2009)

... - pause
S - sighing
P - passionate
L ↑ - Speaker leans forward while talking, the length of the arrow indicates how far

L - laughter
F - frowning
"Toda-" - example of being interrupted mid-word
L ↓ - Speaker leans backward while talking the length of the arrow indicates how far

Focus Question	Member 1	Member 2	Member 3	Member 4	Member 5	Member 6	Member 7	Member 8	Member 9	Member 10

Discourse Recording Template

OBSERVER: _____ DATE: _____ PG ___

Enter the following notations in the cells with a time stamp (e.g., 10:17 SA)

AV or AN = Indicated agreement (i.e., verbal or nonverbal)
SA = Provided significant statement or example suggesting agreement
NR = Did not indicate agreement or dissent (i.e., nonresponse)

DV or DN = Indicated dissent (i.e., verbal or nonverbal)
SD = Provided significant statement or example suggesting dissent

Focus Question	Member 1	Member 2	Member 3	Member 4	Member 5	Member 6	Member 7	Member 8	Member 9	Member 10

Appendix C

Cornell Note-Taking Template

Appendix D

Focus Group Carousel Feedback Strategy Notes

Focus Group - Carousel Activity Charts

1. **Write everything you have <u>observed</u> about <u>developing competency</u> with the 21st Century Initiative:**
   - Provided 21stC teachers (staffing) in each school
   - Some professional development
   - Learning Coaches to assist with implementation
   - Coaches sharing information monthly at staff meetings
   - Staff asked to volunteer each year (release time/coverage provide)
   - 21st C teachers share information with us regularly at staff meetings
   - Staff sharing examples that work with us
   - Lots of opportunities for PD
   - Learning Coach very helpful
   - Lots of support given but expected to work into our day/individually/lessons with the Learning Coaches

2. **Write everything you <u>perceive as needed</u> around <u>developing competency</u> with the 21st Century Initiative:**
   - Clear guidelines
   - Technology that works – evaluations of technology (iPad, band-width, etc.)
   - Time to work on developing competency as a professional that you don't need to "prep" for
   - Staff in small schools are overwhelmed with another "thing" to do
   - Too few people to carry the load
   - Experience provided has been selective (ex. Florida trips)
   - Concrete examples of how competencies can be assessed
   - providing enough resources for all the students in our classrooms
   - Leaders to provide continuous support
   - Time to plan with others at you grade level (in your school)

3. **Write everything you have <u>observed</u> about <u>system organization</u> in relation to the 21st Century Initiative:**
   - Problems with computers/internet
   - Bandwidth issues
   - No feedback loops that I've observed
   - Not enough time to create tools or become comfortable with them
   - Tools are wide spread – Moodle, wiki, app store…
   - Little to no training on how to use the tools
   - Feedback loop not in place
   - Tools not user friendly or hard to access
   - Need time to be shown how the tools work
   - Make the tools more user-friendly (intuitive)
   - NO TIEM to look and reflect on others' artifacts

4. **Write everything you <u>perceive as needed</u> about <u>system organization</u> in relation the 21st Century Initiative:**
   - iPads & Band width concerns
   - Time to collaborate with others at school level to develop/plan activities around the competencies, to LOOK at the artifacts!
   - Planning activities that are relevant to our classroom situations
   - Communication (ex, emails) form Learning Coaches are too wide open
   - Feedback on how its working (artifacts)
   - What is the policy? Policy 18?
   - Time spent using/practicing with the tools
   - Time with peers to plan activities for our grade-alike students
   - As professionals, we need to be heard when we say the artifacts are not being used

5. **Write everything you have <u>observed</u> about <u>leadership</u> in relation to the 21st Century Initiative:**
   - Pacing has not been as efficient as it could have been
   - Lots of support, Learning Coaches give fast replies
   - Dedicated time & Teachers are given choices
   - Coaches are willing to support
   - Some topics are "skimmed" over quickly, assuming everyone has necessary background
   - Coaches need to be used more often/effectively by schools (sometimes they're not booked for peopled/dates are offered late)
     - That you don't have to prep for to make more work
   - No adaptive dimension for varied abilities of teachers in regards to technology
   - Too many months between each 21st Century PD days

6. **Write everything you <u>perceive as needed</u> about <u>leadership</u> in relation to the 21st Century Initiative:**
   - Too little TIME dedicated to each competency
   - Too much information given, too little time given to process or implement information
   - Too much information at once
   - Need more time to process
   - Collaboration time would be great
   - Too much "…on to the next thing…"
   - Don't have the time to get comfortable with one before moving on to the next
   - Before we can inform parents we need to be clear (ex, what is Blended Learning, what does it look like in our classroom, how can they support it at home, etc.)
   - Recognizing that not EVERYONE is comfortable with technology
   - Not sure about stakeholders involved in some of the practices, parents?
   - More training for ALL
   - Clear expectation in PBL, Blended, etc.

Appendix E

Common Themes and Keywords

Alignment of Research Question, Participants' Keywords, and Coding Theme Categories

Research Question Link	**Sample of Participants' Key Words**	**Coding Theme Categories**
What are the perceptions of the participants regarding the influence of each Implementation Driver for the success of the implementation?	· Respect · Global · Criticized · Entry-level · Reinforce, support · Direction · Invest the time · Will it work for me? · Time to look at the tools	· Provides vision · Effective communication of plan · Common, consistent message and plan · Feedback · Feel valued · Respectful · Confusion · Relevance · Intentional
*What is the role played by each Implementation Driver (Leadership, **Competency**, Organization) in the initiative?*	· Collaboration time · Mastery, trust · Prepare trainers · More guidelines needed · Generalists · Plan for the year · Support, frequency	· Vision · Master plan · Transparency
*What is the role played by each Implementation Driver (Leadership, Competency, **Organization**) in the initiative?*	· Broad vision · Expectations · Feedback loop · Confused · Guidance · Focus · Feel valued	· Mastery of learning · Pacing · Strategic planning · Intentional coaching · Culture of fairness · Specific expectations · Match skill needs with training
*What is the role played by each Implementation Driver (**Leadership**, Competency, Organization) in the initiative?*	· Need a definite plan · Clear vision · consistent message · communication · define and share · anxiety · yanked around · not sure about end goal · pathway	· Communication/ transmission · Feedback loop/ judgement · Support · Emotional response · Authentic engagement at all levels

Alignment of Researh Question, Coding Categories, and Common Themes

Research Question Link	Coding Categories	Common Themes
What are the perceptions of the participants regarding the influence of each Implementation Driver for the success of the implementation?	· Provides vision · Effective communication of plan · Common, consistent message and plan · Feedback · Feel valued · Respectful · Confusion · Relevance · Intentional	· L, C, O – Engagement · L, C, O – Commitment to fidelity · L, C, O – Continuous improvement · L – Communication · C – Adult Learning Principles · O – Deep understandings · ·
What is the role played by each Implementation Driver (Leadership, Competency, Organization) in the initiative? What is the role played by each Implementation Driver (Leadership, Competency, Organization) in the initiative? What is the role played by each Implementation Driver (Leadership, Competency, Organization) in the initiative?	· Vision · Master plan · Transparency · Mastery of learning · Pacing · Strategic planning · Intentional coaching · Culture of fairness · Specific expectations · Match skill needs with training · Communication/ transmission · Feedback loop/ judgement · Support · Emotional response · Authentic engagement at all levels	· L – Strategic planning · L – Communication; Consistent messaging · C – Mastery learning · C – train coaches · O – Focus on people AND process · O – Culture of fairness, equity · L, C, O – Capacity building