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Advancing Student Achievement in Literacy and Numeracy: Perspectives of Alberta's System Education Leaders



Research Report

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Introduction

Across Alberta and internationally, literacy and numeracy achievement continue to be recognized as foundational to student success, lifelong learning, well-being, and future participation in society and the workforce (Organisation for Economic Co-operation and Development [OECD], 2019). As educational systems respond to increasing classroom complexity, evolving curriculum expectations, diverse student learning needs, and growing accountability pressures, system education leaders must create coherent instructional conditions that support high-quality teaching and improved learning outcomes for all students. Research increasingly suggests that sustained educational improvement depends not only on effective classroom instruction, but also on the capacity of educational systems to establish shared direction, collaborative cultures, aligned professional learning, and evidence-informed leadership practices (Fullan & Quinn, 2016; Leithwood et al., 2020).

Within Alberta, school authorities are implementing a wide range of literacy and numeracy improvement initiatives, including instructional frameworks, collaborative response models, intervention systems, assessment structures, and embedded professional learning approaches. While these efforts vary across local contexts, many school authorities are increasingly focused on strengthening instructional coherence through shared instructional language, aligned assessment practices, collaborative leadership structures, and ongoing instructional support. At the same time, system education leaders navigate significant contextual pressures, including curriculum implementation, staffing shortages, resource sustainability challenges, increasing student complexity, and growing expectations for evidence-informed decision-making.

Research on educational improvement emphasizes the importance of coherence as a critical condition for sustained system change (Fullan & Quinn, 2016; Hargreaves & O'Connor, 2018; Leithwood, 2012). Fullan and Quinn (2016) defined *coherence* as the shared depth of understanding about the purpose and nature of improvement work that develops across a system through focused direction, collaborative cultures, deep learning, and shared accountability (p. 2). Similarly, instructional leadership research highlights the role of leaders in shaping organizational conditions that influence teaching quality, professional learning, and student achievement (Hallinger, 2020; Robinson et al., 2008). Evidence-informed leadership practices, including the effective use of assessment data and collaborative inquiry, have also been identified as essential to supporting instructional improvement and

organizational learning (Datnow & Hubbard, 2016; Earl & Katz, 2006; Fullan, 2010; Leithwood, 2013).

Despite growing attention to literacy and numeracy improvement efforts, less is understood about how system education leaders operationalize coherence across diverse educational contexts, particularly at the system level. Existing research often focuses on school-based leadership or classroom instructional practices, while fewer studies examine how central office and system leaders coordinate organizational structures, instructional priorities, professional learning systems, and evidence-informed processes to strengthen student achievement in literacy and numeracy across entire school authorities. This gap is particularly important in Alberta, where school authorities vary significantly in size, geography, demographics, and local contexts.

The purpose of this study is to examine the leadership practices, system conditions, and evidence-informed approaches employed by system education leaders to strengthen literacy and numeracy instruction and improve student achievement across Alberta school authorities. Using the *Coherence Framework* (Fullan & Quinn, 2016) as a conceptual lens, this study examines how system education leaders establish shared direction, foster collaborative cultures, deepen instructional learning, and use evidence to support continuous improvement in literacy and numeracy achievement.

Through qualitative interviews with system education leaders from across Alberta, this study generated practical and research-informed insights into the conditions and leadership practices that support coherent system improvement. The research explored how coherent leadership practices, instructional supports, professional learning, and evidence-informed decision-making improve student achievement in literacy and numeracy across diverse educational contexts. Ultimately, the findings are intended to support system education leaders in strengthening professional capacity, advancing organizational coherence, and creating the conditions necessary for high-quality instruction and optimum learning for all learners in every school authority in Alberta.

Literature Scan

Improving student achievement in literacy and numeracy remains a central priority within educational systems internationally and across Canada (Organisation for Economic Co-operation and Development [OECD], 2023; United Nations Educational, Scientific and Cultural Organization [UNESCO], 2024). Literacy and numeracy are foundational competencies that influence students' academic achievement, lifelong learning opportunities, workforce readiness, citizenship participation, and overall well-being (OECD, 2023; Council of Ministers of Education, Canada [CMEC], 2023). Increasingly, educational research suggests that sustainable improvement in student achievement depends not only on classroom instruction, but also on the quality of leadership and the coherence of practices across schools and systems (Fullan, 2016; Leithwood et al., 2020). Consequently, growing attention has been directed toward understanding how system education leaders create the organizational conditions necessary to support high-quality teaching, learning, and continuous improvement.

System Education Leadership and Alberta Context

Drawing on the CASS literature scan, *Measuring the Impact of Quality System Education Leadership: A Literature Scan* (College of Alberta School Superintendents [CASS], 2024), several key themes emerge regarding effective system leadership and its influence on student achievement. The literature scan synthesizes research related to instructional leadership, system coherence, collaborative professionalism, organizational learning, and evidence-informed leadership practices. Collectively, this body of research suggests that effective system education leadership plays a significant role in creating the conditions necessary for quality teaching, professional growth, and optimum learning for all students.

Within Alberta, the *Leadership Quality Standard* (LQS) and *Superintendent Leadership Quality Standard* (SLQS) provide a provincial framework for understanding the role of educational leadership in improving student outcomes. Alberta's professional practice standards are intentionally designed as a nested and coherent professional architecture in which the *Teaching Quality Standard* (TQS), *Leadership Quality Standard* (LQS), and *Superintendent Leadership Quality Standard* (SLQS) build upon one another to align teaching, school leadership, and system leadership around a common goal of optimum learning for all students (Alberta Education and Childcare, 2023; Friesen, 2026). Rather than functioning as separate standards for different professional roles, the standards establish interconnected expectations under

which the superintendent leadership creates the conditions for quality school leadership, school leadership creates the conditions for quality teaching, and quality teaching results in optimum learning for all students (Alberta Education and Childcare, 2023; Friesen et al., 2023). According to Alberta Education and Childcare (2023), quality superintendent leadership occurs when leaders’ contextual analysis and leadership decisions result in “quality school leadership, quality teaching, and optimum learning for all students in the school authority” (p. 2). Similarly, the LQS emphasizes leadership practices that support instructional improvement, collaborative cultures, professional learning, and responsive decision-making. These standards align closely with contemporary research emphasizing instructional leadership, system coherence, and collective responsibility for student achievement (CASS, 2024).

The findings from the Alberta-based *Optimum Learning for All* study further reinforce the importance of coherent system leadership. Friesen et al. (2023) examined the implementation of Alberta’s professional practice standards through a four-year mixed-methods study involving surveys and case studies across multiple school authorities. Their findings highlighted the importance of leadership alignment, collaborative professional cultures, and contextual responsiveness in supporting quality leadership and teaching. The study also emphasized the complexity of system leadership roles and the importance of understanding how leadership practices influence teaching and learning across diverse organizational contexts.

Leithwood et al. (2004) identified leadership as second only to classroom instruction among school-related factors influencing student learning. Effective educational leadership contributes to improved student outcomes through the establishment of a shared vision, strategic direction, collaborative cultures, evidence-informed decision-making, and professional learning structures that strengthen instructional practice (Robinson et al., 2008). While earlier scholarship focused primarily on principals and school-based leadership, more recent research increasingly emphasizes the role of system education leaders in coordinating large-scale improvement efforts and sustaining coherence across schools and jurisdictions (Fullan & Quinn, 2016).

Central Office and District Leadership

Research increasingly recognizes the critical role of school authority leadership in supporting instructional improvement and student achievement (Honig, 2012; Leithwood, 2012; Louis et al., 2010). Honig (2012) argued that effective central office leadership extends beyond administrative management to “leadership as teaching,” whereby system education leaders support

principals' development as instructional leaders. In this model, system education leaders engage principals in ongoing learning, inquiry, coaching, and evidence-informed decision-making focused on improving teaching and learning. Rather than functioning primarily as compliance-oriented administrators, effective system leaders create organizational conditions that enable principals and teachers to strengthen instructional practice and respond to student learning needs. Honig's work highlights the importance of coherent system structures, relational trust, and instructional focus in sustaining improvement efforts across schools.

Similarly, Honig and Rainey (2015) emphasized that system education leaders play a critical role in supporting deeper learning and coherent instructional improvement at scale. Their research suggested that sustainable system improvement requires system education leaders to redesign organizational practices, build collaborative professional cultures, and align professional learning, instructional supports, and leadership development around shared improvement goals. These findings align closely with literacy and numeracy improvement efforts that require consistency, alignment, and sustained support across schools and classrooms.

The importance of system coherence is consistently emphasized throughout the educational improvement literature. Drawing on research conducted in Canada and the United States, Brandon (2019) identified four domains strongly associated with effective system education leadership: (a) maintaining a broad commitment to student learning and well-being; (b) fostering coherence between organizational goals, resources, and processes; (c) developing effective communication, relationships, and professional learning cultures; and (d) using multiple forms of evidence to inform organizational learning and accountability. These findings align closely with the work of Fullan and Quinn (2016), who defined *coherence* as a shared depth of understanding regarding the purpose and nature of improvement work that develops through focused direction, collaborative cultures, deep learning, and shared accountability. Coherent systems establish alignment between instructional priorities, professional learning, leadership practices, assessment structures, and organizational goals in ways that support sustained improvement.

Research examining successful districts and systems further highlights the importance of coherent leadership focused on literacy and numeracy improvement (Fullan, 2006; Leithwood, 2019). In a study examining district-wide reform efforts in Ontario, Fullan (2006) found that effective systems established a sustained focus on student achievement through aligned instructional priorities, collaborative leadership, capacity building, and shared

accountability structures. Leadership for learning was evident at all organizational levels, including superintendents, system education leaders, principals, and teacher leaders, with literacy and numeracy positioned as central improvement priorities.

The CASS (2024) literature scan also emphasized the importance of professional capital and collaborative professionalism in strengthening system leadership capacity. Drawing upon the work of Hargreaves and Fullan (2012), the scan highlighted how professional capital develops through the interaction of human capital, social capital, and decisional capital. Effective systems create conditions under which educators work collaboratively, engage in professional learning, and exercise professional judgment informed by evidence and shared expertise. Collaborative professionalism, as described by Hargreaves and O'Connor (2018), involves purposeful and structured collaboration focused on improving teaching and learning outcomes. These collaborative cultures contribute to collective efficacy and organizational learning across school authorities.

Leadership research also emphasizes the importance of instructional leadership in improving literacy and numeracy achievement (Hallinger, 2005; Robinson et al., 2008). Instructional leadership includes actively supporting teaching and learning through classroom observation, feedback, curriculum alignment, professional learning, and evidence-informed decision-making (Hallinger, 2005). Robinson et al. (2008) found that leadership practices that directly connect to teaching and learning have the greatest influence on student outcomes, particularly when leaders actively participate in teacher learning and instructional improvement efforts.

Within literacy education specifically, research demonstrates that leadership plays a critical role in supporting effective instructional implementation, fostering school-wide literacy cultures, and creating the organizational conditions necessary for high-quality literacy instruction (Allington, 2012; Dempster et al., 2012; Lovett & Flückiger, 2014). Studies examining literacy leadership identify several recurring factors associated with improved student outcomes, including clear instructional expectations, coherent literacy frameworks, ongoing professional learning, collaborative teacher practices, and systematic intervention supports (Dempster et al., 2012; Lovett & Flückiger, 2014). System education leadership is particularly important in ensuring that literacy initiatives are sustained over time and implemented consistently across classrooms and schools.

Similarly, numeracy improvement research highlights the importance of leadership in supporting effective mathematics instruction, professional collaboration, and evidence-informed improvement processes (Earl & Katz, 2006; Leithwood et al., 2020; Robinson et al., 2008). Effective numeracy leadership involves creating conditions for inquiry-based learning, strengthening teacher pedagogical content knowledge, promoting formative assessment practices, and fostering collaborative cultures focused on student learning (Earl & Katz, 2006). Research increasingly suggests that numeracy improvement is strengthened when systems establish coherent instructional frameworks and sustained professional learning opportunities aligned with organizational priorities (Fullan & Quinn, 2016; Hargreaves & O'Connor, 2018; Timperley, 2011).

The effective use of evidence and assessment data is also widely recognized as essential for improving literacy and numeracy. Datnow and Hubbard (2016) argued that evidence-informed leadership supports organizational learning when data are used collaboratively to guide instructional decisions rather than solely for accountability purposes. Effective system education leaders establish structures that help educators interpret and apply evidence to improve teaching practices and student outcomes. This includes balancing large-scale assessment information with classroom-based evidence and professional judgment to inform responsive instructional decision-making.

Professional Learning and Capacity Building

Research further highlights the importance of professional capacity building in achieving sustainable educational improvement (Fullan, 2016; Hargreaves & Fullan, 2012; Leithwood, 2019). Fullan (2016) argued that lasting educational change occurs when systems intentionally develop educators' collective capacity through ongoing professional learning, collaborative cultures, and shared leadership. Leithwood (2019) similarly emphasized that leadership influences student achievement indirectly through its impact on teachers' motivation, working conditions, and instructional practices. Professional learning that is job-embedded, collaborative, and directly connected to instructional priorities has been shown to produce stronger impacts on teaching and learning than isolated professional development initiatives (Darling-Hammond et al., 2017; Timperley et al., 2007).

Darling-Hammond's work further reinforced the importance of coherent educational systems that intentionally invest in teacher and leadership capacity to improve student outcomes (Darling-Hammond & Rothman, 2011;

Darling-Hammond et al., 2020). Darling-Hammond and Rothman (2011) explained that comparative studies of high-performing jurisdictions such as Ontario, Finland, and Singapore demonstrated that successful school authorities prioritize instructional leadership, collaborative professionalism, professional learning, and aligned system supports. These jurisdictions established coherent approaches to curriculum, assessment, leadership development, and professional learning that enabled educators to continuously improve instructional practice. More recently, Darling-Hammond et al. (2020) emphasized that educational improvement is most successful when systems create integrated structures that support educator learning, equity, and collective responsibility for student achievement.

Darling-Hammond et al. (2020) emphasized that system-level conditions significantly influence educators' ability to enact evidence-informed instructional practices. Effective systems provided ongoing professional learning, collaborative inquiry opportunities, and leadership support structures that enabled educators to respond to diverse learner needs and strengthened literacy and numeracy achievement. This perspective aligns with contemporary understandings of educational leadership that position system education leaders as architects of organizational learning and instructional coherence.

Gaps in the Literature

Despite the growing body of research related to leadership and student achievement, several gaps remain within the literature. Much of the existing scholarship focuses on school-level leadership rather than system-level leadership perspectives (Honig, 2012; Leithwood et al., 2004; Campbell et al., 2022). Additionally, while substantial literature exists regarding literacy and numeracy interventions, fewer studies specifically examine how system education leaders strategically coordinate instructional improvement efforts across entire school authorities (Fullan & Quinn, 2016; Honig & Rainey, 2015). There is also limited Alberta-specific research examining the leadership practices, organizational conditions, and system structures that support literacy and numeracy achievement at scale (College of Alberta School Superintendents [CASS], 2024; Friesen et al., 2023).

This study seeks to address these gaps by examining the leadership practices, system conditions, and evidence-informed approaches employed by system education leaders to strengthen literacy and numeracy instruction and student achievement across Alberta school authorities. By exploring how system education leaders create coherence, support professional capacity, use evidence to guide improvement, and foster collaborative cultures, this research

aims to contribute to a deeper understanding of system-level leadership for student achievement. Ultimately, the findings may inform future system education leadership practice, professional learning, and policy development intended to strengthen literacy and numeracy outcomes and support optimum learning for all students.

Methodology

This study used a qualitative descriptive research design to examine how system education leaders across Alberta lead literacy and numeracy improvement efforts to strengthen student achievement. The study aimed to identify the system education leadership practices, organizational conditions, and evidence-informed approaches that contributed to coherent, high-quality teaching and learning in these foundational areas. By examining the experiences and perspectives of system education leaders, the research explored how coherent system-level strategies supported literacy and numeracy improvement and contributed to enhanced student achievement outcomes.

Grounded in the Fullan and Quinn (2016) *Coherence Framework*, this study conceptualizes system education leadership practice as embedded within interconnected system structures, collaborative cultures, learning conditions, and accountability processes. The framework's dimensions of *focusing direction*, *cultivating collaborative cultures*, *deepening learning*, and *securing accountability* provided the conceptual lens for examining how systemic education leadership practices influence literacy and numeracy student achievement across school authorities.

Research Design

A qualitative descriptive methodology was selected because it is well suited for exploring complex educational and organizational phenomena situated within authentic contexts. Creswell and Poth (2025) emphasized that qualitative inquiry is particularly appropriate when researchers seek to understand how individuals construct meaning through their lived experiences. In the context of this study, this empirical approach allows for an in-depth exploration of how system education leaders conceptualize, implement, and sustain literacy and numeracy student achievement improvement initiatives within diverse organizational, policy, and community environments.

The study is guided by four research questions aligned with the coherence dimensions identified by Fullan and Quinn (2016):

1. How do system education leaders establish and sustain a shared direction and strategic focus for improving student achievement in literacy and numeracy within their local contexts?

2. How do system education leaders foster collaborative cultures across schools to strengthen collective capacity for improved student achievement in literacy and numeracy?
3. How do system education leaders align system conditions, instructional practices, policies, resources, and professional learning to deepen learning and strengthen instruction in literacy and numeracy?
4. How do system education leaders gather, interpret, and use evidence to monitor coherence, guide decision-making, and support student achievement in literacy and numeracy?

These research questions are intended to surface authentic leadership practices while also identifying patterns of coherence that deepen understanding of how system-level leadership contributes to sustained instructional improvement and student achievement.

Participants and Sampling

Participants included system education leaders representing a diverse range of Alberta school authorities and CASS zones. The sample reflected a broad range of rural, urban, and remote contexts to ensure representation from across the province.

A purposeful sampling strategy (Creswell & Poth, 2025) was applied to identify participants with direct experience and leadership responsibility related to literacy and numeracy student achievement improvement efforts within their school authorities. Invitations to participate were distributed through the CASS network, including the *CASS Connects* weekly email newsletter to members, and direct professional contact. Participation was entirely voluntary. It was originally anticipated that approximately 15 system education leaders would participate in the study, but at the conclusion of the study, 47 people from 24 school authorities participated. This large sampling allowed for sufficient depth and diversity of experience to support thematic saturation while maintaining manageability within the analysis process.

Prior to participation in the semi-structured interviews, each participant received an information email outlining the purpose of the study, research procedures, confidentiality measures, and the voluntary nature of participation. Informed consent was obtained before any data collection occurred (see Appendix A).

Data Collection

Data was collected through semi-structured interviews conducted virtually using Zoom. The interviews were recorded and transcribed using Zoom's automated transcription feature. Each interview was approximately 60 minutes in duration and followed a semi-structured interview guide aligned with the study's research questions.

A semi-structured interview was selected because this structure provided a consistent line of inquiry while allowing participants flexibility to elaborate on their experiences, insights, contextual realities, and leadership challenges. The interview guide was shared with participants in advance to support reflection and preparation for the interview, while clarifying that additional context-specific questions may emerge during the conversation. The interview questions invited participants to reflect on:

- leadership practices supporting literacy and numeracy improvement,
- system conditions that influence instructional coherence,
- professional learning structures and capacity-building approaches,
- evidence-informed decision-making processes, and
- contextual factors shaping implementation and sustainability efforts.

The open-ended design of the interview questions and reflective prompts encouraged detailed descriptions and storytelling, allowing participants to share both successes and challenges related to improving student achievement in literacy and numeracy. Field notes were maintained throughout the interview process to document contextual observations, emerging insights, and researcher reflections. All electronic data is securely stored in encrypted, password-protected files accessible only to the researcher.

Data Analysis

The data analysis followed Braun and Clarke's (2006) thematic analysis process in combination with Creswell and Poth's (2025) approach to coding and theme development in qualitative research. The analysis process involved several recursive and interpretive stages designed to identify patterns, relationships, and themes across participant experiences.

The first stage involved immersion in the data through repeated reading of interview transcripts and field notes. During the second stage, open coding was used to identify meaningful units of text related to system education leadership practices, organizational conditions, instructional coherence, professional learning, evidence-informed decision-making, and contextual

influences. A code book was developed, grouping emerging themes into broader categories reflecting relationships and patterns across participants.

In the final stages of analysis, the categories were refined into overarching themes that captured the essence of system-level leadership for improving student achievement in literacy and numeracy. Attention was paid to ensuring that the themes were coherent, distinct, and reflective of the participants' lived experiences. The analysis process was iterative and reflexive throughout, with ongoing attention to alignment between the study purpose, research questions, and emerging interpretations. The resulting thematic findings were synthesized into a narrative account illustrating how system education leaders establish coherence, strengthen instructional capacity, use evidence to guide improvement, and create organizational conditions that support improved student achievement in literacy and numeracy.

Limitations

Several limitations should be considered when interpreting the findings of this study. First, the study focuses exclusively on the perceptions and experiences of system education leaders. As a result, the findings reflect system education leadership perspectives regarding efforts to improve student achievement in literacy and numeracy and do not include the perspectives of teachers, school-based leaders, students, support staff, families, or community partners. While system education leaders provided important insight into organizational conditions, strategic priorities, and system-level leadership practices, the absence of additional stakeholder perspectives limits the ability to fully understand how these leadership approaches are experienced and enacted across schools and classrooms.

Second, the study does not directly examine classroom instructional practices or the implementation of literacy and numeracy initiatives at the school level. Although participants described system-level strategies that were intended to influence teaching and learning, the study does not independently verify how these approaches are interpreted, implemented, or experienced in individual schools and classrooms.

Third, the study does not include analysis of student achievement results, provincial assessment data, or other quantitative outcome measures related to literacy and numeracy performance. Consequently, the findings should not be interpreted to establish causal relationships between system education leadership practices and student achievement outcomes. Rather, the study is intended to explore system education leaders' perceptions of the leadership

practices, organizational conditions, and evidence-informed approaches they believe contribute to coherent literacy and numeracy improvement efforts.

Additionally, because the study employs a qualitative descriptive methodology set within Alberta's educational context, the findings are context-specific and may not be generalizable to other jurisdictions or educational systems. However, the intent of qualitative research is not statistical generalization, but rather the development of a rich, contextualized understanding that may provide insight and relevance for similar educational contexts.

Finally, as with all qualitative research, the interpretation of data is influenced by the researcher's perspectives, experiences, and professional context. Reflexive practices, member checking, and established qualitative trustworthiness strategies were employed throughout the study to support the credibility and authenticity of interpretation.

Ethical Considerations

Ethical considerations guide all aspects of this study. Participants were fully informed regarding the purpose, scope, and voluntary nature of the research prior to participation. Informed consent was received for both participation and interview recording. Participants were advised of their right to decline any question or withdraw from the study at any time without consequence. Confidentiality has been maintained through the anonymization of interview transcripts and the omission of identifying information in this study's reporting. All electronic data is stored in encrypted and password-protected files accessible only to the researcher.

Trustworthiness and Rigour

To ensure the credibility and trustworthiness of the findings, the study employed established qualitative validation strategies recommended by Creswell and Poth (2025). Triangulation was achieved through the inclusion of participants representing diverse school authority contexts and educational leadership experiences, enabling cross-comparison of perspectives and themes. Participant checking was utilized by inviting participants to review the summary of findings for this study to ensure accuracy, resonance, and authenticity of interpretation. Additionally, the researcher engaged in ongoing reflexive practice by critically examining personal assumptions, biases, and positionality throughout the research process to minimize interpretive distortion.

These strategies support the credibility, transferability, dependability, and confirmability of the study while strengthening confidence that the findings authentically represent the experiences and perspectives of Alberta's system education leaders.

Use of Artificial Intelligence in the Study

Artificial intelligence (AI) tools were used in limited and carefully monitored ways throughout the research development process to support organizational efficiency, language refinement, and analytical thinking. AI technologies, including generative language tools, assisted with tasks such as refining interview questions, improving clarity and organization within written drafts, supporting preliminary thematic organization, and assisting with APA 7 formatting and citation management.

Importantly, AI was not used to independently generate research findings, interpret participant responses, or replace the researcher's analytic judgment. All coding, thematic interpretation, synthesis, and conclusions remained the sole responsibility of the researcher. The researcher maintained full oversight of all analytical decisions and critically reviewed all AI-assisted outputs to ensure accuracy, credibility, alignment with participant meaning, and consistency with qualitative research standards.

The use of AI in this study aligns with emerging discussions on the ethical and transparent integration of AI in educational research. AI tools were used as supportive organizational and writing aids rather than as autonomous analytic agents. Human reflexivity, professional judgment, contextual understanding, and interpretive analysis remained central throughout the research process.

Findings

This section presents the findings from 47 participants in 24 semi-structured interviews conducted for this study. The findings are organized around six interrelated themes that emerged from the four dimensions of the Coherence Framework: *Focusing Direction*, *Cultivating Collaborative Cultures*, *Deepening Learning*, and *Securing Accountability* (Fullan & Quinn, 2016).

Across the dataset, participants consistently emphasized the importance of coherent instructional leadership, aligned organizational structures, collaborative professional cultures, embedded professional learning, and evidence-informed decision-making in supporting improved student achievement in literacy and numeracy. System education leaders described intentional efforts to strengthen instructional coherence through system-wide frameworks, common instructional language, collaborative planning structures, aligned assessment systems, intervention supports, and strategic professional learning. At the same time, participants identified significant challenges related to curriculum implementation, staffing shortages, classroom complexity, resource sustainability, competing priorities, and increasing organizational demands.

Although the themes are presented separately for organizational purposes, they were highly interconnected throughout the interviews. Participants frequently described coherence, collaboration, instructional capacity building, evidence use, and organizational conditions as mutually reinforcing dimensions of system improvement. In particular, the findings suggest that literacy and numeracy improvement efforts were most effective when leadership practices, instructional supports, professional learning structures, and evidence-informed processes were intentionally aligned within a coherent, sustained, system-wide approach.

The six themes presented in this section are: (1) Coherent System Direction, (2) Evidence-Informed System Education Leadership, (3) Instructional Capacity Building, (4) Creating the Conditions for Improvement, (5) Structural and Contextual Conditions, and (6) Differential Development of Literacy and Numeracy Coherence. Collectively, these findings provide insight into how system education leaders across Alberta are navigating increasingly complex educational environments while strengthening instructional coherence to improve students' literacy and numeracy outcomes.

Theme 1: Coherent System Direction

A dominant theme across all 47 participants in 24 interviews was the critical role of coherent system direction in strengthening literacy and numeracy achievement. System education leaders consistently described coherence not as a singular initiative or static framework, but as an intentional, ongoing system leadership strategy designed to align instructional priorities, assessment practices, professional learning, intervention structures, and organizational decision-making across schools and central office departments. Participants repeatedly emphasized that literacy and numeracy improvement required clarity of purpose, disciplined prioritization, and shared understanding throughout the system.

Participants described developing system-wide literacy and numeracy frameworks, instructional models, guiding documents, and strategic plans to create consistency and shared direction for instructional improvement. These frameworks were identified as essential mechanisms for reducing fragmentation and establishing common instructional language and expectations across schools. One participant explained that the school authority had “worked diligently to create guiding documents... creating frameworks that provide background information and guideposts... to all educators and leaders in our district” (Transcript 1). Similarly, another participant described how the implementation of a common literacy approach “created a consistent pathway amongst teachers” and “created a common language amongst teachers” (Transcript 18).

Participants consistently emphasized that coherence was operationalized through alignment across organizational structures and planning processes. Coherence was described as intentionally connecting board strategic plans, division education plans, school education plans, professional learning plans, assessment systems, intervention structures, and instructional frameworks. Several participants described these structures as “through lines” that connected classroom instruction to broader system priorities. One participant noted, “We work really hard to get coherence... from the strategic plan all the way down to the school education plans” (Transcript 9), while another explained that “everything that we say and do, everything that we purchase, all the professional learning that we offer is all aligned with that, or we don’t do it” (Transcript 20).

An important finding involved intentionally narrowing priorities to reduce initiative overload and improve organizational focus. Many participants reflected on previous periods of fragmented improvement efforts characterized

by competing priorities and disconnected initiatives. System education leaders repeatedly described the need to simplify priorities, focus on fewer goals, and resist introducing multiple simultaneous initiatives. One participant explained, “We had too many things going on... we needed to narrow our focus” (Transcript 6), while another stated, “We’ve really tried to tighten up what we’re focusing on... so it’s not everything all at once” (Transcript 12). Across transcripts, coherence was increasingly understood not as the accumulation of programs, but as the disciplined reduction and prioritization of system work.

The findings also demonstrated that coherence was viewed as a collaborative and relational process rather than a top-down compliance structure. Participants repeatedly emphasized co-construction, stakeholder engagement, and shared ownership in developing frameworks and instructional priorities. System education leaders described engaging teachers, principals, school councils, parents, Elders, Indigenous communities, and central office teams in shaping literacy and numeracy directions. One participant stated, “We always want to do things collaboratively with people, not just for them” (Transcript 5), while another participant emphasized the importance of hearing “from our elders and our communities what they wanted” during the development of the school authority’s education plan (Transcript 15). These findings suggest that collaborative engagement strengthened the credibility of implementation and increased organizational commitment to improvement efforts.

Another significant finding involved the conceptualization of frameworks and strategic plans as living documents. Rather than viewing frameworks as static artifacts, participants described coherence as iterative, adaptive, and continuously refined in response to evidence, feedback, curriculum changes, and evolving student needs. Several participants referenced steering committees, leadership teams, instructional reviews, and collaborative planning sessions as mechanisms for revisiting and refining system directions over time. One participant explained, “It should be a working document, and we continuously update it through our steering committees” (Transcript 16), while another emphasized that instructional frameworks were “not just finish it, check that box, and put it on the shelf” (Transcript 24).

Although participants strongly valued alignment and consistency, the findings also revealed important tensions related to school autonomy and contextual responsiveness. Participants acknowledged that coherence could not involve rigid standardization across diverse schools and communities. Many participants emphasized the importance of balancing system direction with local flexibility, professional judgment, and contextual adaptation. One


participant described coherence as a “balance between division coherence and school autonomy” (Transcript 16).

Several participants also highlighted the role of distributed leadership structures in supporting coherence. School authorities described establishing literacy and numeracy leadership positions, instructional facilitators, steering committees, teacher champions, and collaborative leadership networks to strengthen alignment between system priorities and classroom practice. These structures supported communication, implementation consistency, and collaborative problem-solving across schools. Participants viewed coherence as dependent not only on formal plans and frameworks, but also on sustained relational leadership and organizational structures that connected system priorities to instructional practice.

Finally, the findings revealed that coherence work increasingly occurred under conditions of significant external pressure and organizational complexity. Participants described navigating curriculum implementation timelines, political directives, funding instability, staffing shortages, and rapid educational change while attempting to sustain aligned efforts to improve literacy and numeracy. Despite these pressures, system education leaders consistently identified coherence as essential to maintaining instructional focus and reducing fragmentation within increasingly complex educational systems. Collectively, the findings suggest that coherent system direction through instructional alignment served as a foundational condition for improving literacy and numeracy by connecting leadership practices, instructional supports, professional learning, and evidence-informed decision-making within a shared, sustained system-wide improvement agenda.

Theme 2: Evidence-Informed System Education Leadership

A second theme across the 24 interviews with 47 participants was the increasingly central role of evidence-informed system education leadership in supporting literacy and numeracy achievement. Participants consistently described the use of evidence not as a compliance activity but as an essential system practice to guide instructional decision-making, intervention planning, professional learning, resource allocation, and continuous system improvement. System education leaders emphasized that literacy and numeracy improvement efforts depended upon the strategic use of timely, relevant, and instructionally meaningful evidence to inform both classroom and system-level actions.



Participants described increasingly sophisticated approaches to assessment and evidence use, including universal literacy and numeracy screening, longitudinal tracking systems, dashboards, intervention monitoring cycles, triangulated evidence collection, collaborative data review processes, and school-level instructional conversations. Several participants identified the use of evidence as foundational to planning and decision-making processes. One participant explained, “We are always looking at the data... that helps us to really drive the conversations” (Transcript 5), while another stated that “that data is used to decide the next steps” (Transcript 13). Across interviews, participants consistently linked the use of evidence to instructional responsiveness and organizational improvement.

An important finding involved the increasing sophistication of longitudinal and comparative data analysis practices in school authorities. Participants described systems that tracked student growth over time, compared school-level patterns, monitored intervention effectiveness, and identified curricular areas requiring additional instructional support. Several participants referenced the use of provincial literacy and numeracy screeners, centralized dashboards, data walls, spreadsheets, and collaborative review structures to identify students requiring intervention and to support instructional planning. One participant described how “the teachers were using the literacy screeners and numeracy screeners... to organize intervention” and explained that the school authority had organized their data into two time periods “from September to January, [and] February to June” (Transcript 19). Similarly, another participant described how the implementation of division-wide assessment practices strengthened consistency across schools: “Not every school was administering assessments... now they all are, fall and spring” (Transcript 10).

Participants repeatedly emphasized that evidence was most valuable when it was timely, accessible, and directly connected to instructional practice. Participants identified delayed reporting timelines, inaccessible data systems, and fragmented data platforms as significant barriers to effective instructional response. Several participants distinguished between lagging achievement data and real-time classroom evidence that could immediately inform teaching decisions. One participant explained, “Waiting until March [for provincial screening data] ... makes it difficult to help our teachers see the importance of it” (Transcript 5), while another noted that “lagging data sometimes can be problematic” (Transcript 23). Another participant stated, “We were really trying to find ways to make that data immediately accessible to the classroom teacher” (Transcript 23). Collectively, these findings suggest that system

education leaders increasingly viewed instructional relevance and usability as more important than the mere collection of large quantities of data.

Another significant finding involved the growing emphasis on data literacy and evidence interpretation as leadership responsibilities. Participants repeatedly described the importance of helping teachers, principals, and system education leaders interpret assessment information and connect evidence to instructional action. Several participants emphasized that collecting evidence alone was insufficient unless educators understood what the evidence meant and how it should inform instructional practice. One participant explained, “We are using data to guide... but people need to understand what it means for instruction” (Transcript 6). Another participant questioned, “We have the data... but how consistently is it actually informing what happens in classrooms?” (Transcript 11). These findings suggest that the development of data-literate cultures depended not only on assessment systems but also on ongoing professional learning, collaborative interpretation, and instructional leadership capacity.

Several participants also highlighted the increasing normalization of evidence use within the system’s education leadership culture. Participants described evidence-informed leadership as an expectation of professional practice and organizational responsibility. One participant stated, “We’ve really become data-literate and data-focused” (Transcript 22), while another emphasized that “it is incumbent upon us to know what’s going on and what are we going to do about it” (Transcript 22). Across interviews, participants framed evidence-informed decision-making as central to responsible system leadership, instructional transparency, and continuous improvement.

At the same time, participants identified important tensions and limitations associated with the use of evidence. Several participants expressed concerns regarding the over-reliance on standardized provincial assessments and the potential narrowing effects of assessment-driven instructional systems. Participants described situations in which government assessments, reporting structures, or accountability pressures risked shifting instructional focus away from professional judgment, contextual responsiveness, and deeper learning outcomes. One participant argued that “we’re taking the locus of control for assessment out of the classroom... we’re not going to develop trust in our own professional judgment” (Transcript 7). Other participants questioned the validity of certain assessment measures during curriculum transition periods or expressed concerns regarding whether assessment tasks accurately reflected classroom instruction and student learning contexts.

Another important finding involved the emotional and relational dimensions of evidence use. Participants acknowledged that assessment conversations often generated vulnerability, discomfort, and anxiety among educators, particularly when evidence highlighted instructional inconsistencies or areas of concern. Several participants emphasized the importance of framing evidence as supportive and formative rather than punitive or evaluative. One participant explained, “this is about informing our instruction” (Transcript 23), while another noted that leaders needed to remain “calm about what the data looks like” to maintain trust during instructional conversations (Transcript 23). These findings suggest that psychologically safe and trust-centered leadership practices were essential to developing sustainable evidence-informed cultures.

The findings also demonstrated increasing awareness of the operational complexity of educational data systems. Participants described challenges related to fragmented digital platforms, inconsistent assessment practices across schools, limitations in central data infrastructure, and difficulties integrating multiple evidence sources into coherent instructional systems. One participant explained that system education leaders often had to “sit with multiple spreadsheets open” to analyze system-level information (Transcript 24). Other participants emphasized the importance of triangulating formal assessment data with observational evidence, professional judgment, and contextual knowledge to support more accurate instructional decision-making.

Collectively, the findings suggest that evidence-informed leadership and data-literate improvement cultures have become foundational components of literacy and numeracy improvement efforts across Alberta school authorities. However, the findings also indicate that effective use of evidence depends on more than the availability of assessment data alone. Rather, sustainable evidence-informed cultures appear to require timely and accessible data systems, collaborative interpretation structures, instructional relevance, relational trust, leadership capacity, and organizational conditions that support educators in translating evidence into meaningful instructional action.

Theme 3: Instructional Capacity Building

A third theme across the 47 participants in 24 interviews was the central role of instructional capacity building through embedded professional learning in supporting literacy and numeracy improvement efforts. Participants consistently described professional learning as most effective when it was ongoing, collaborative, classroom-connected, and directly aligned with instructional priorities and system goals. Participants emphasized that improving literacy and numeracy achievement required sustained investment

in developing instructional expertise among teachers, school leaders, intervention staff, and central office personnel.

Participants repeatedly described moving away from isolated or episodic professional development toward more embedded and sustained professional learning structures. Professional learning was frequently characterized as iterative, job-embedded, and directly connected to classroom implementation. Several participants described the use of instructional coaches, literacy and numeracy specialists, collaborative planning structures, walkthroughs, mentorship models, and classroom-based support as central components of their improvement efforts. One participant described literacy and numeracy learning specialists who “worked elbow-to-elbow” with teachers and “modeled... every single strategy... showed the teachers how to do it” (Transcript 20). Similarly, another participant explained that “most of those offices are empty most of the week, because they’re out in schools working with teachers” (Transcript 24). These findings suggest that system education leaders increasingly viewed classroom-embedded support as more impactful than traditional workshop-style professional development.

A significant finding emphasized the need to develop shared instructional understanding and system-wide consistency of instructional practice. Participants repeatedly described professional learning not only as a means of improving teacher skill, but also as a mechanism for establishing common expectations regarding high-quality literacy and numeracy instruction. Several participants referenced recurring conversations focused on clarifying effective instructional practice across classrooms. One participant asked, “What does good instruction actually look like in every classroom?” (Transcript 6), while another explained that “we’re spending more time talking about what good instruction actually looks like” (Transcript 12). Across the interviews, instructional capacity building increasingly focused on creating shared instructional language, instructional clarity, and greater consistency across schools and grade levels.

The findings also highlighted the importance of collaborative professional learning structures in supporting instructional improvement. Participants described the use of collaborative team meetings, grade-level collaboration, instructional rounds, curriculum inquiry groups, divisional professional learning series, collaborative marking and calibration processes, and teacher learning cohorts to strengthen instructional practice and collective responsibility for student learning. One participant explained that “collaboration is the key... focus on data that directly informs teaching and learning” (Transcript 13). Another participant described how curriculum-

focused collaborative inquiry processes generated substantive professional dialogue, explaining that “teachers got into some heated debates about what they felt were the 5 most important things” and noted that “it kind of did what we wanted” (Transcript 18). These findings suggest that collaborative inquiry itself functioned as an important mechanism for building professional ownership, instructional coherence, and organizational learning.

Participants also emphasized the importance of building multi-level leadership professional capacity. Several participants described intentional efforts to strengthen not only teacher practice, but also administrator instructional leadership capacity. Participants repeatedly identified principals and school leadership teams as critical to sustaining efforts to improve literacy and numeracy. One participant explained, “We really had to look at how can we specifically train the school leadership teams,” adding that “developing instructional leadership... is our focus” (Transcript 5). Other participants described administrator participation in divisional professional learning, instructional walkthroughs, mentorship programs, and collaborative learning structures designed to strengthen leadership understanding of effective literacy and numeracy instruction. These findings suggest that participants increasingly viewed instructional improvement as dependent upon leadership expertise and shared instructional understanding across all organizational levels.

Another important finding involved the intentional differentiation and responsiveness of professional learning supports. Participants acknowledged that teachers and schools possessed varying levels of literacy and numeracy expertise, confidence, readiness, and instructional need. As a result, several participants described professional learning structures that were differentiated, phased, scaffolded, and responsive to contextual realities. One participant explained that support was “tailored to where you see fit... principals really knowing where each teacher is” (Transcript 7). Another participant described the importance of pacing improvement efforts appropriately, emphasizing the need to “go deeper, not wider” (Transcript 15). These findings suggest that system education leaders recognized sustainable instructional improvement required adaptive, context-responsive approaches to professional learning rather than one-size-fits-all implementation models.

Several participants also highlighted the structural conditions necessary to sustain embedded professional learning. Participants described the importance of protected collaboration time, release-supported professional learning, instructional facilitator positions, coaching structures, onboarding systems, and collaborative planning schedules. Participants described monthly

onboarding sessions, literacy and numeracy symposiums, divisional collaboration days, and steering committees as mechanisms for reducing isolation and supporting ongoing instructional learning. Collectively, these findings indicate that professional learning was increasingly viewed as a structural and organizational responsibility rather than an individual teacher responsibility alone.

The findings also revealed an important shift from pull-out intervention models toward classroom-embedded instructional support. Participants described increasing emphasis on strengthening Tier 1 instruction and supporting students within inclusive classroom environments. Several participants noted that intervention specialists and support staff were increasingly working alongside classroom teachers rather than providing isolated remediation outside classrooms. One participant explained that intervention teachers “would work alongside the teachers... to do that Tier 1 instruction that supports the students” (Transcript 2). Another participant asked, “How can we meet kids where they’re at... within the classroom?” (Transcript 14). These findings suggest that classroom complexity, inclusion priorities, and staffing realities were reshaping how school authorities conceptualized instructional intervention and support.

At the same time, participants identified several challenges associated with sustaining instructional capacity building through embedded professional learning. Participants described staffing shortages, substitute teacher shortages, limited central office personnel, increasing demands for curriculum implementation, and time constraints as barriers to sustained professional learning efforts. Several participants noted that implementation consistency remained difficult to monitor across classrooms despite extensive support structures. Others acknowledged tensions related to administrator role clarity, distributed leadership responsibilities, and the balance between system consistency and teacher autonomy.

Collectively, the findings suggest that instructional capacity building through embedded professional learning served as a foundational condition for literacy and numeracy improvement across Alberta school authorities. The findings indicate that system education leaders increasingly viewed effective professional learning as collaborative, classroom-connected, sustained, and aligned with instructional priorities and organizational coherence efforts. Furthermore, the findings suggest that sustainable improvements in literacy and numeracy depended on building instructional expertise and shared understanding across multiple organizational levels, while creating structural

conditions that supported ongoing collaborative learning and implementation over time.

Theme 4: Creating the Conditions for Improvement

A fourth theme across the 24 interviews with 47 participants was the critical role of system education leadership as the central enabler of coherent implementation within literacy and numeracy improvement efforts. Participants consistently described leadership not as primarily managerial or operational, but as relational, instructional, responsive, and coherence-building. System education leaders were identified as central to establishing direction, sustaining focus, supporting implementation, coordinating instructional supports, and fostering the conditions necessary for improving literacy and numeracy.

Participants repeatedly emphasized that leadership was essential for sustaining focus and reducing fragmentation across increasingly complex educational environments. Several respondents described the importance of continually reinforcing system priorities, aligning messaging, and protecting instructional improvement efforts from competing initiatives and organizational drift. One participant explained, “Leadership has to keep the focus... otherwise we drift” (Transcript 6), while another stated, “If we don’t stay focused as leaders, it just becomes one more thing” (Transcript 11). Participants consistently framed system education leadership as the primary mechanism through which coherence was established, communicated, and sustained across schools and central office departments.

An important finding involved the relational nature of leadership and the significance of trust-building within literacy and numeracy improvement efforts. Participants repeatedly emphasized that sustainable implementation depended upon relational credibility, psychological safety, vulnerability, and collaborative engagement rather than directive or compliance-oriented leadership approaches. One participant explained, “Until they really trust you... they’re not going to do anything different” (Transcript 15), while another emphasized that “we’re all on the same team” and “we exist to help support you” (Transcript 21). Several participants acknowledged historical mistrust between schools and central office structures and described intentional efforts to rebuild trust through transparency, responsiveness, and supportive instructional leadership practices. These findings suggest that relational trust functioned as a foundational condition for implementation credibility and organizational learning.

The findings also demonstrated that system education leadership was increasingly conceptualized as instructional and participatory. Participants described system education leaders as actively involved in professional learning, school visits, instructional review processes, data conversations, classroom walkthroughs, and collaborative planning sessions. Several participants emphasized the importance of visible executive presence and direct engagement in instructional work. One respondent explained that “we’re in schools a lot more” (Transcript 18). Another emphasized the importance of classroom visibility, stating, “Go get into a classroom” (Transcript 23). Across interviews, participants suggested that leadership credibility increased when system education leaders participated directly in instructional learning rather than operating solely from administrative distance.

Another significant finding involved the increasingly distributed nature of leadership structures within literacy and numeracy improvement efforts. Participants described using literacy leads, numeracy facilitators, instructional coaches, steering committees, principal networks, teacher leaders, and collaborative leadership teams to support implementation across schools. Leadership responsibilities were often distributed across multiple organizational levels to strengthen communication, instructional support, and consistency in implementation. One participant described leadership as “not a top-down approach, but... from the sort of ground level up” (Transcript 16). Other participants emphasized the importance of teacher leadership cohorts, collaborative decision-making structures, and school-based leadership networks as mechanisms for strengthening organizational coherence and professional ownership.

Participants also consistently framed system education leadership as highly adaptive within increasingly complex educational contexts. Participants described continually responding to curriculum reform, staffing shortages, funding instability, resource limitations, community expectations, and implementation challenges while attempting to sustain coherent efforts to improve literacy and numeracy. One participant explained that system education leaders needed to maintain “support and accountability” simultaneously (Transcript 10), while another described system education leadership as continually balancing “accountability, support, instructional urgency, empathy for staff realities” (Transcript 20). Several participants also highlighted the role of system education leadership in navigating external networks, policy environments, and provincial initiatives to support local implementation efforts. These findings suggest that system leadership increasingly requires adaptive implementation management rather than static administrative oversight.

The findings further highlighted the importance of communication as a central leadership practice within literacy and numeracy improvement efforts. Participants described intentional communication strategies designed to reinforce vision, explain priorities, support implementation, and maintain alignment across schools. One participant stated, “He always shares his vision... no matter what group he’s talking to” (Transcript 10). Other participants emphasized the importance of listening, feedback loops, strategic questioning, collaborative dialogue, and responsiveness to educator concerns. One participant explained the significance of “Showing them that I’m listening, and that we will respond” (Transcript 22). Across interviews, communication was framed not simply as information dissemination, but as a relational and organizational process central to coherent implementation.

Another important finding involved the variability of leadership capacity and implementation consistency across schools. Several participants acknowledged that differences in principal leadership practices influenced collaboration, implementation quality, instructional consistency, and organizational follow-through. One participant explained that “some principals will really... reiterate that collaboration is key... others will stay within their walls” (Transcript 5). Another participant noted that “if leaders are not aligned, the system won’t be either” (Transcript 6). These findings suggest that variability in leadership practice remained a significant challenge to achieving consistent system-wide implementation.

Collectively, the findings suggest that system education leadership served as the central enabling condition through which instructional coherence, professional learning, evidence-informed practice, and organizational improvement were sustained across Alberta school authorities. The findings indicate that effective leadership within literacy and numeracy improvement efforts was increasingly characterized as relational, instructional, visible, collaborative, adaptive, and trust centered. Furthermore, the findings suggest that leadership influenced not only organizational direction and implementation structures, but also the emotional, relational, and cultural conditions necessary for sustained instructional improvement and coherent implementation.

Theme 5: Structural and Contextual Conditions

A fifth theme across 24 interviews with 47 participants was the significant influence of structural and contextual conditions on literacy and numeracy improvement efforts. Participants consistently described implementation as deeply shaped by organizational, geographic, financial,

human resource, and systemic realities that either enabled or constrained instructional improvement. Participants emphasized that literacy and numeracy improvement efforts did not occur in isolation from broader system conditions but rather within increasingly complex educational environments characterized by staffing pressures, resource limitations, curriculum implementation challenges, substitute teacher shortages, competing priorities, and rising classroom complexity.

Participants repeatedly identified staffing shortages and the availability of substitute teachers as major barriers to implementation. Several participants described difficulties releasing teachers for professional learning, collaborative planning, intervention work, and instructional coaching due to insufficient substitute teacher capacity. One participant explained, “We don’t have enough guest teachers... things that you don’t even consider sometimes” (Transcript 4). Another participant stated, “We couldn’t pull people out,” because “funding is a challenge” and shortages of substitutes significantly constrained opportunities for collaboration (Transcript 20). Participants emphasized that professional learning, collaborative inquiry, and instructional support structures depended heavily upon staffing capacity and operational flexibility.

An important finding involved the growing impact of classroom complexity on literacy and numeracy improvement efforts. Participants consistently described increasingly diverse student learning needs, mental health concerns, growth in English as an additional language (EAL), intervention demands, and varying levels of student readiness as significant implementation conditions. One participant explained that “the complexity in the classroom... has become more complex” (Transcript 19). Another participant noted that “the needs in our classrooms are continuing to expand” (Transcript 16). Several participants also referenced declining early childhood readiness, increased intervention intensity, and growing demands for instructional differentiation. These findings suggest that literacy and numeracy improvement efforts increasingly occurred within highly complex classroom environments requiring responsive and adaptive instructional systems.

The findings also revealed substantial concern regarding curriculum implementation pressures and resource alignment. Participants described rapid curriculum rollout timelines, limited availability of curriculum-aligned instructional materials, inconsistent provincial sequencing, and inadequate implementation guidance as significant barriers to coherent instructional practice. One participant stated, “I’ve never seen a rollout of this much new curriculum at once” (Transcript 24). Another participant explained that the new curriculum is “moving higher content into lower grades... there’s no

resources... it's a huge concern" (Transcript 7). Several participants also expressed frustration regarding the lack of provincial exemplars, assessment transparency, and implementation supports accompanying curriculum changes. Collectively, these findings suggest that implementation strain associated with the new curriculum significantly influenced instructional coherence and educator capacity.

Another significant finding involved growing concern about the sustainability and quality of instructional resources. Participants repeatedly identified escalating subscription costs, dependence on digital platforms, and inconsistent resource availability as emerging system-level challenges. One participant explained that "the subscription costs... are just through the roof" and noted that some resources "have a barrier to the good instructional practices" (Transcript 5). Another participant stated, "Everything is subscription-based" and "the price continues to climb" (Transcript 24). Several participants emphasized the importance of prioritizing pedagogy over products and avoiding the adoption of unsustainable resources. One participant explained, "We don't want to put something in front of people that we know is not sustainable" (Transcript 23). These findings suggest that resource sustainability increasingly shaped instructional decision-making and implementation planning across school authorities.

Geographic dispersion and rural context also emerged as significant implementation conditions within several school authorities. Participants described travel distances, isolated teaching assignments, limited opportunities for collaboration, shrinking enrollment, and reduced central office capacity as important barriers to professional learning, instructional support, and collaborative inquiry. One participant explained that "our professional learning days are cut... to allow for travel... sub coverage is problematic" within a geographically dispersed school authority (Transcript 10). Another participant noted that "teachers are very... isolated in what they teach" and that "it's hard to collaborate... especially in the more remote areas" (Transcript 15). These findings suggest that geographic realities substantially shaped how school authorities organized professional learning, collaboration structures, and instructional supports.

Participants also consistently identified cognitive overload and competing priorities as major implementation barriers. Several participants described educators struggling to sustain focus amidst multiple initiatives, operational demands, curriculum changes, assessment expectations, and organizational pressures. One participant explained, "There's just too much... people can't hold it all" (Transcript 6). Another participant stated, "There's

always something new coming... and it's hard for teachers to keep up with all of it" (Transcript 12). These findings suggest that implementation challenges were increasingly related not only to material resources but also to organizational attention, cognitive capacity, and the ability to sustain disciplined instructional focus over time.

Several participants also highlighted the instability of funding structures and the challenges associated with sustaining long-term improvement efforts. Participants described difficulties planning coherent instructional supports when funding announcements, targeted grants, and staffing allocations were inconsistent or temporary. One participant noted that targeted grant timelines often complicated strategic planning and staffing continuity (Transcript 24). These findings suggest that implementation sustainability depended not only on leadership and instructional capacity, but also on stable organizational conditions and predictable resourcing structures.

The findings further demonstrated that system conditions increasingly included communication overload and implementation fatigue. Participants described email saturation, excessive information flow, and growing demands on teacher and administrator attention as emerging organizational challenges. One participant reflected that "email was an effective tool... I'm coming to believe it is perhaps the least effective tool" (Transcript 23). Across interviews, participants acknowledged that sustaining coherent implementation required careful attention to communication clarity, pacing, and organizational capacity.

At the same time, participants emphasized that effective systems are intentionally adapted to contextual constraints through creative and responsive leadership approaches. Several participants described designing virtual professional learning structures, Zoom-based collaboration, differentiated implementation pacing, collaborative resource development, and strategic prioritization processes to mitigate barriers associated with geography, staffing, and resource limitations. One participant described using "that hedgehog principle, where we do one thing really well" to maintain focus amidst competing demands (Transcript 4). Another participant emphasized the importance of "go[ing] deeper, not wider" when implementing literacy and numeracy initiatives (Transcript 15). These findings suggest that system education leaders increasingly relied upon adaptive systems-thinking approaches to sustain improvement efforts within constrained implementation environments.

Collectively, the findings suggest that structural conditions significantly shaped the pace, scope, and sustainability of literacy and numeracy

improvement efforts across Alberta school authorities. The findings indicate that curriculum implementation was influenced not only by instructional leadership and professional learning but also by broader contextual realities, including staffing capacity, funding stability, geographic conditions, classroom complexity, resource sustainability, competing priorities, and organizational overload. Furthermore, the findings suggest that successful curriculum implementation increasingly depended upon system education leaders' ability to adapt strategically and responsively to these evolving structural conditions while maintaining coherent instructional focus.

Theme 6: Differential Development of Literacy and Numeracy Coherence

A sixth major theme across the interviews was the uneven developmental maturity of literacy and numeracy systems across Alberta school authorities. Participants consistently described literacy improvement efforts as generally more established, coherent, and structurally supported, while numeracy improvement efforts were more frequently characterized as emerging, inconsistent, or still under development. Participants identified differences in framework development, instructional consistency, assessment systems, professional learning structures, intervention models, teacher confidence, and resource availability between literacy and numeracy initiatives.

Participants repeatedly described literacy systems as having stronger organizational coherence and more established instructional infrastructures. Several participants referenced long-standing literacy frameworks, intervention systems, screening processes, collaborative professional learning structures, and divisional literacy priorities that had evolved over multiple years. One participant explained, "We've been able to find good resources... for literacy" (Transcript 5). Another participant stated, "Our literacy results... each year, we've had a 3% increase... what we're doing is definitely working" (Transcript 7). Collectively, these findings suggest that literacy improvement efforts within many school authorities had progressed toward greater system coherence, instructional consistency, and organizational confidence.

In contrast, participants frequently described numeracy as a continuing area of challenge and system development. Participants identified concerns related to instructional consistency, curriculum implementation, teacher preparedness, resource availability, conceptual understanding, and professional confidence within mathematics instruction. One participant stated, "Numeracy in our district... is very difficult for teachers to navigate

through.... [O]ur math scores... are fairly low” (Transcript 2). Another participant explained, “We know that numeracy is an issue” (Transcript 14). Several participants also described the absence of formal numeracy frameworks or of coherent divisional structures to support mathematics instruction. One participant noted, “We don’t have a numeracy framework, per se” (Transcript 16). Across interviews, numeracy systems were frequently characterized as newer, less coordinated, and more variable across classrooms and schools.

A significant finding was general concern regarding teacher preparedness and confidence in mathematics instruction. Participants described situations in which curriculum expectations exceeded teacher preparation or comfort with advanced mathematical concepts and instructional approaches. One participant explained, “There were concepts that I was teaching simultaneously in Math 6 and Math 8” and acknowledged that “we didn’t know that they needed the training” (Transcript 19). Several participants also identified the lack of curriculum-aligned exemplars, released assessment materials, and instructional guidance as barriers to effective numeracy implementation. These findings suggest that numeracy improvement efforts were often constrained by gaps in instructional support structures and mathematics-specific professional learning capacity.

The findings also demonstrated that literacy and numeracy systems differed in organizational maturity and instructional clarity. Literacy systems were frequently associated with clearer frameworks, intervention models, pedagogical approaches, and assessment processes. In contrast, numeracy systems were often described as “off the side of someone’s desk” (Transcript 22) or in earlier stages of strategic development. One participant explained that literacy work had benefited from “earlier strategic prioritization” and stronger pedagogical grounding, whereas numeracy structures were “currently being strengthened due to concerning middle-years results” (Transcript 22). These findings suggest that literacy and numeracy improvement efforts frequently evolved at different rates within school authorities due to differences in historical investment, available resources, professional learning infrastructure, and instructional clarity.

Another important finding involved an increased emphasis on foundational literacy and numeracy instruction in the early years. Participants repeatedly emphasized the importance of strong instruction from Kindergarten to Grade 3 as foundational to later achievement. One participant explained, “If we don’t get it right in K-3, we’ll pay the price” (Transcript 20). Another participant described concerns regarding students entering school without

“some of those fundamental skills” and emphasized the importance of ensuring “Tier 1 is the highest quality it can be” (Transcript 21). Several leaders also identified increasing alignment with science-of-reading approaches, phonological awareness instruction, and early intervention systems within literacy improvement efforts. In contrast, comparable foundational numeracy structures appeared less consistently articulated across interviews.

Participants also described growing efforts to conceptualize literacy and numeracy as cross-curricular and system-wide responsibilities rather than isolated subject areas. One participant emphasized that “literacy is not just language arts” and “numeracy is not just math class” (Transcript 24). Several participants discussed disciplinary literacy, integrated literacy approaches, and increasing recognition that all educators share responsibility for literacy and numeracy development across grade levels and subject areas. At the same time, participants acknowledged continuing gaps in secondary literacy and numeracy responsibility, particularly beyond elementary contexts. One participant explained that “everyone in elementary is a literacy/numeracy teacher” while also acknowledging ongoing coherence gaps across Grades 4–12 (Transcript 16).

The findings further revealed important tensions regarding assessment-driven instructional systems. Several participants expressed concern that literacy screening and numeracy fluency assessments risked narrowing broader conceptions of literacy and numeracy learning. One participant stated, “Comprehension is the point,” and cautioned that “fluency also means flexibility” (Transcript 23). Participants worried that overemphasis on discrete measurable skills could unintentionally reduce attention to deeper conceptual understanding, critical thinking, and authentic application. These findings suggest that participants were increasingly attentive to the balance between foundational skill development and broader conceptions of literacy and numeracy learning.

Several participants also identified emerging innovation and growth within numeracy improvement efforts. Participants described increasing use of evidence-informed mathematics instructional practices, Indigenous-focused numeracy frameworks, instructional coherence work, and curriculum-aligned numeracy supports. One participant explained, “We’re actually developing a parallel Indigenous ed-focused numeracy framework” (Transcript 24). Other leaders referenced professional learning related to the National Council of Teachers of Mathematics (NCTM) teaching practices, mathematics instructional blocks, and divisional numeracy initiatives to improve coherence and instructional consistency. These findings suggest that numeracy leadership and

system development were becoming increasing areas of strategic focus across Alberta school authorities.

Collectively, the findings suggest that literacy and numeracy systems across Alberta school authorities are developing unevenly in terms of coherence, instructional consistency, organizational maturity, and implementation capacity. While literacy systems were generally described as more established and structurally coherent, numeracy systems appeared to be entering a newer phase of focused development characterized by increasing attention to instructional clarity, teacher capacity, curriculum alignment, and system-wide coherence. Furthermore, the findings suggest that system education leaders increasingly recognized literacy and numeracy improvement as interconnected, cross-curricular, and foundational responsibilities requiring sustained leadership, coherent instructional systems, and long-term organizational commitment.

Additional Emergent Findings

Although the six primary themes captured the dominant patterns across the dataset, several additional findings emerged that cut across multiple themes and warrant separate consideration due to their conceptual significance.

Research-Informed Instructional Practice as a System Strategy

Several participants described increasing integration of cognitive science and research-informed instructional strategies within divisional literacy and numeracy improvement efforts. Participants cited instructional approaches such as retrieval practice, spacing, interleaving, metacognition, and explicit instruction as scalable practices that can strengthen instructional consistency across classrooms. One participant explained that these strategies were “quick to implement... in any grade level, any subject matter” (Transcript 18). These findings suggest growing system-level interest in translating research-informed instructional practices into scalable divisional implementation strategies.

Leadership Succession and Onboarding Challenges

Several participants identified leadership turnover, onboarding gaps, and continuity concerns as emerging threats to organizational coherence and the sustainability of implementation. One participant acknowledged, “We do need to resurrect some of those practices... we acknowledge we could do more there” (Transcript 18). Participants emphasized that leadership transitions

could disrupt instructional consistency, collaborative cultures, and implementation momentum if onboarding and succession structures were insufficiently developed.

Curriculum Implementation as a Catalyst for System Change

Although curriculum implementation was frequently discussed as a constraint, several participants also described it as a catalyst for strengthening instructional coherence, collaboration, and evidence-informed practice. One participant explained that “the implementation of the new curriculum... catapulted literacy forward” (Transcript 17). Participants described curriculum implementation as creating opportunities to revisit instructional practices, align resources, strengthen collaboration, and introduce evidence-based approaches within divisional systems. These findings suggest that external policy change, while disruptive, may also function as a lever for organizational learning and system coherence when strategically leveraged by leadership.

System Tensions

In addition to the six primary themes, the findings revealed several persistent system tensions that shaped literacy and numeracy improvement efforts across Alberta school authorities. Participants consistently described these tensions not as isolated implementation problems, but as ongoing organizational realities requiring continual system education, leadership negotiation, adaptation, and balance. Participants emphasized that sustaining coherent instructional improvement required navigating competing priorities, contextual complexities, resource limitations, and relational considerations within increasingly demanding educational environments.

Tension 1: Coherence vs Professional Autonomy

A dominant tension involved balancing system coherence with professional autonomy and contextual responsiveness. Participants consistently emphasized the importance of shared instructional expectations, divisional alignment, common frameworks, and coherent implementation structures; however, participants also acknowledged that excessive standardization risked undermining teacher professionalism, school-based ownership, and local adaptability. Several participants described the challenge of creating “common direction” without imposing rigid compliance-oriented systems.

This tension was particularly evident across geographically dispersed, highly diverse school communities, where participants recognized that implementation approaches needed to remain responsive to local realities. Participants repeatedly emphasized that coherence did not mean uniformity, but rather shared direction combined with differentiated implementation. These findings suggest that effective system leadership requires balancing organizational consistency with contextual flexibility in ways that preserve relational trust and professional ownership while maintaining instructional alignment.

Tension 2: Urgency vs Capacity

A second tension that arose involved increasing pressure to improve literacy and numeracy outcomes while operating within constrained human and organizational capacity. Participants consistently described implementation environments characterized by substitute teacher shortages, staffing instability, workload pressures, competing priorities, onboarding demands, and increasing classroom complexity. Several participants expressed

concern that improvement expectations frequently exceeded available time, personnel, and organizational capacity.

Participants also described growing cognitive overload among educators as systems simultaneously managed curriculum implementation, assessment changes, intervention demands, collaborative learning structures, and multiple improvement initiatives. Several participants emphasized that sustaining instructional improvement required disciplined prioritization, reduced initiative overload, and realistic implementation pacing. Concerns regarding educator fatigue, emotional exhaustion, and long-term sustainability emerged repeatedly across interviews. These findings suggest that system education leaders increasingly viewed organizational capacity and staff well-being as essential conditions influencing implementation success and sustainability.

Tension 3: Evidence-informed Accountability vs Instructional & Relational Responsiveness

Participants consistently emphasized the importance of evidence-informed leadership, assessment systems, and data-informed decision-making; however, the findings also revealed significant tension regarding how evidence was interpreted and used within instructional systems. Several participants acknowledged that, although school authorities had become increasingly “data-rich,” access to data did not necessarily translate into improved instructional practice. Participants repeatedly emphasized that evidence only became meaningful when it was timely, accessible, instructionally relevant, and connected to collaborative professional interpretation.

At the same time, participants expressed concern that excessive emphasis on standardized assessment, monitoring structures, and public performance visibility risked undermining professional judgment, psychological safety, and educators’ confidence. Several participants intentionally reframed assessment conversations as supportive and improvement-oriented rather than evaluative or punitive. Participants also acknowledged that classroom complexity, demographic variability, attendance patterns, and contextual realities complicated simplistic interpretations of achievement data. Collectively, these findings suggest that effective evidence-informed systems require balancing accountability structures with instructional responsiveness, contextual interpretation, relational trust, and respect for professional expertise.

Tension 4: Innovation vs Sustainability

Another tension involved balancing innovation with long-term sustainability. Participants described increasing interest in innovative instructional practices, digital platforms, intervention systems, curriculum resources, and emerging evidence-informed approaches; however, participants also identified significant concerns regarding affordability, scalability, implementation continuity, and long-term sustainability. Several participants specifically referenced escalating subscription-based resource costs, unstable funding structures, and dependence on temporary grant funding as barriers to sustained improvement efforts.

Participants additionally emphasized that innovation frequently competed with organizational focus and implementation stability. Participants acknowledged that introducing too many new initiatives simultaneously often fragmented instructional attention and reduced implementation consistency across classrooms. Several participants emphasized the importance of “doing fewer things better” and prioritizing sustainability over rapid adoption. These findings suggest that effective system leadership increasingly involves evaluating innovation not only in terms of instructional quality but also through the lenses of organizational coherence, scalability, affordability, and long-term viability.

Tension 5: Instructional Priorities vs Classroom Complexity

Participants strongly supported inclusive instructional approaches and equitable learning opportunities for all students; however, the findings revealed substantial tension between inclusive instructional priorities and escalating classroom complexity. Participants consistently described increasing numbers of students requiring behavioural, emotional, mental health, language, and intervention supports within classroom environments. Participants also identified a growing English as an additional language (EAL) population, declining early-years readiness, and increasing demands for instructional differentiation as significant implementation realities.

Several participants acknowledged that traditional intervention and pull-out support models were becoming increasingly difficult to sustain due to staffing shortages, inclusion priorities, and rising student complexity. Participants described ongoing efforts to redesign instructional support systems toward more classroom-embedded and collaborative approaches while recognizing the strain these expectations placed on teachers and support staff. These findings suggest that inclusive instructional priorities increasingly require adaptive organizational structures, expanded intervention capacity, and strengthened classroom instructional supports.

Tension 6: Provincial Expectations vs Local Realities

A final tension involved balancing provincial expectations with highly variable local realities. Participants described rapid curriculum rollout timelines, changing assessment structures, evolving provincial directives, inconsistent curriculum sequencing, and limited implementation guidance as significant organizational pressures. Several participants acknowledged that school authorities were frequently expected to implement substantial instructional change without adequate time, resources, aligned materials, or professional learning supports.

This tension was particularly evident within rural, remote, and geographically dispersed school authorities for which travel barriers, staffing limitations, resource shortages, and declining enrollment further complicated implementation efforts. Participants repeatedly emphasized that provincial expectations were often experienced differently across local contexts due to geography, demographics, staffing realities, and organizational capacity. At the same time, several participants noted that external policy change occasionally created opportunities to strengthen instructional coherence, revisit existing practices, and introduce more evidence-informed approaches. Collectively, these findings suggest that effective implementation depended upon system leaders' ability to strategically interpret, adapt, and operationalize provincial priorities within diverse local educational contexts.

Key Insights

The findings from this study have several key insights to strengthen student achievement in literacy and numeracy across diverse educational contexts in Alberta. Collectively, the findings suggest that sustainable improvement depends not only on instructional quality but also on the coherence, relational capacity, structural alignment, and long-term sustainability of the systems supporting instructional implementation.

1. System coherence requires disciplined focus and organizational alignment.

The findings suggest that school authority literacy and numeracy efforts are strengthened when instructional priorities, professional learning structures, assessment systems, intervention approaches, and organizational processes are intentionally aligned within a coherent improvement strategy. Participants consistently emphasized that improvement efforts became fragmented when systems attempted to address too many competing initiatives simultaneously. Participants identified a need to prioritize and focus on long-term implementation coherence rather than relying on short-term initiative-based improvement approaches.

2. Relational leadership functions as a foundational condition for instructional improvement.

Participants repeatedly emphasized that trust, psychological safety, visibility, responsiveness, and collaborative engagement were essential conditions supporting instructional improvement. The findings suggest that educators seemed more willing to engage in instructional vulnerability, collaborative inquiry, classroom observation, and evidence-informed dialogue when leadership approaches were relationally supportive rather than compliance-oriented. Participants stressed that relational leadership practices should be prioritized alongside technical implementation structures.

3. Distributed instructional leadership strengthens implementation capacity.

The findings demonstrated that distributed leadership structures, including facilitators, instructional coaches, division principals, teacher leaders, and collaborative leadership teams, played a critical role in supporting instructional coherence and implementation consistency. Facilitators were

frequently described as relational instructional coaches who supported modeling, implementation guidance, trust-building, and collaborative learning. At the same time, participants acknowledged the importance of maintaining administrator ownership of literacy and numeracy leadership. Sustainable implementation depends upon distributed instructional leadership capacity across organizational levels.

4. Embedded professional learning is essential for sustained instructional improvement.

Participants consistently identified classroom-connected, collaborative, and ongoing professional learning structures as more impactful than isolated workshop-based professional development models. High-impact structures included modeled lessons, collaborative planning, peer observation, instructional debriefing, and embedded coaching. The findings suggest that system education leaders should intentionally engineer professional learning conditions through protected collaboration time, staffing supports, facilitation structures, and sustained implementation cycles.

5. Data literacy is a critical leadership competency.

The findings demonstrate that evidence-informed leadership increasingly requires organizational data literacy capacity across the school authority. Participants emphasized that access to evidence alone was insufficient unless educators possessed the capacity to interpret, contextualize, and apply data instructionally. Participants stressed the importance of timely, teacher-accessible, and instructionally relevant evidence systems. Participants identified the need to prioritize collaborative data interpretation structures, instructional responsiveness, and relationally supportive evidence-use cultures.

6. Sustainability must be a systems-level priority.

Participants repeatedly identified staffing instability, substitute shortages, leadership turnover, facilitator workload, funding uncertainty, and subscription-based instructional ecosystems as threats to sustained implementation efforts. The findings suggest that system education leaders must evaluate instructional initiatives not only for instructional quality and innovation, but also for affordability, scalability, implementation stability, and long-term sustainability. Sustainability emerged as a significant provincial-level concern affecting coherence and continuity of implementation.

7. Administrator instructional leadership capacity requires a continuous improvement process.

The findings consistently identified principals and school leadership teams as central contributors to instructional consistency, collaborative culture, evidence-informed practice, and implementation follow-through. Participants identified concerns regarding administrator expertise in foundational literacy, numeracy instruction, classroom complexity, and instructional leadership. Leadership development structures need to emphasize instructional leadership expertise, collaborative inquiry facilitation, and instructional understanding of literacy and numeracy.

8. Collective professional responsibility for student achievement in literacy and numeracy must extend across the K–12 education system.


Participants repeatedly emphasized that literacy and numeracy development should not remain isolated within elementary intervention structures or specific subject areas. The findings revealed growing recognition that “everyone is a literacy and numeracy teacher,” particularly within secondary and cross-disciplinary contexts. The participants identified the need to strengthen K–12 coherence structures, secondary literacy and numeracy leadership capacity, and cross-curricular instructional responsibility models.

9. Curriculum implementation is a catalyst for instructional reform.

Although participants described curriculum implementation as a significant organizational challenge, several also identified it as an opportunity to revisit instructional practices, strengthen collaborative structures, refine pedagogical approaches, and establish shared instructional language. Curriculum implementation provides the opportunity to strategically leverage periods of curriculum change to strengthen broader instructional coherence and evidence-informed practice across school authorities.

10. Consideration of local context is essential to sustain system coherence.

The findings consistently demonstrated that coherence is significantly shaped by local contextual realities, including geography, demographics,



staffing conditions, local programming, and community characteristics. Rural and geographically dispersed school authorities described unique implementation challenges related to collaboration, staffing, and resource allocation. System coherence is strengthened not through rigid standardization but through strategically aligned flexibility that allows leaders to adapt approaches to diverse educational contexts while maintaining common instructional direction.

Considerations for System Education Leaders

The findings from this study identified several important considerations for system education leaders seeking to strengthen student achievement in literacy and numeracy. Collectively, the findings suggest that sustainable improvement depends on coherent instructional systems, relational leadership, embedded professional learning, evidence-informed practice, and organizational conditions that support long-term implementation sustainability.

1. Coherent System-Wide Instructional Alignment

Literacy and numeracy improvement efforts can be strengthened through coherent instructional frameworks that intentionally align assessment systems, intervention structures, professional learning, instructional expectations, and resource allocation processes across schools. A disciplined focus, shared instructional language, and sustained implementation coherence reduce fragmentation and improve instructional consistency over time.

2. Strengthen Distributed Instructional Leadership

Embedded, ongoing, classroom-connected professional learning experiences must be supported by distributed instructional leadership structures. Facilitators, instructional coaches, division principals, teacher leaders, and collaborative leadership teams are important contributors to support implementation, model instructional practice, and engage in collaborative inquiry. High-impact professional learning structures include peer observation, modeled lessons, collaborative planning, and instructional debriefing processes.

3. Enhance Organizational Data Literacy

Evidence-informed improvement depends not simply on data collection, but on organizational capacity to interpret, contextualize, and apply

evidence instructionally. Strengthen collaborative data interpretation structures, timely teacher-accessible evidence systems, and relationally supportive evidence-use cultures that balance accountability with psychological safety and professional judgment.

4. Strengthen Literacy and Numeracy Professional Responsibility

Literacy and numeracy improvement efforts are strengthened when collective professional responsibility extends across all grade levels, subject areas, and leadership roles within the K–12 system. Rather than viewing literacy and numeracy as the sole responsibility of elementary teachers or specific subject specialists, professionals must establish shared priorities that require coordinated leadership, instructional support, and educator engagement across the school authority. Creating intentional opportunities to strengthen numeracy instructional leadership, professional learning, curriculum understanding, and assessment will support more consistent literacy and numeracy improvement efforts across the school authority.

5. Design Sustainable Improvement Systems Responsive to Local Contexts

Implementation capacity is shaped by staffing realities, geographic conditions, substitute teacher availability, classroom complexity, leadership turnover, and funding sustainability. Evaluation of instructional initiatives through the lenses of scalability, sustainability, affordability, and long-term organizational coherence, in addition to instructional quality and innovation, must take place.

6. Prioritize Relational Leadership

Relational trust, psychological safety, leadership visibility, collaborative engagement, and communication clarity were identified as foundational conditions supporting instructional improvement. Sustained literacy and numeracy improvement efforts are strengthened through relational leadership practices that support instructional vulnerability, collaborative ownership, responsive communication, and non-punitive approaches to evidence-informed improvement processes.

7. Leverage Curriculum Implementation

Curriculum implementation is an opportunity to strengthen instructional alignment, collaborative inquiry, evidence-informed practice, and shared instructional language across the school authority. Strategically leveraging curriculum implementation processes can create broader opportunities for instructional reform and organizational coherence-building.

8. Strengthen Tier 1 Instructional Support Structures

Current-day classroom complexity and inclusive education priorities are reshaping intervention systems and instructional support models across school authorities. Leaders should emphasize the importance of strengthening Tier 1 instruction, classroom-embedded interventions, collaborative support structures, and inclusive instructional practices responsive to increasingly diverse student learning needs.

9. Strengthen Early-Years Literacy and Numeracy Foundations

Strong literacy and numeracy instruction in Kindergarten to Grade 3 is foundational to long-term student achievement. Early intervention, foundational skill development, high-quality Tier 1 instruction, and coordinated early-years assessment practices are critical conditions to support later academic success. Prioritize coherent early-years instructional frameworks, targeted intervention supports, collaborative early learning structures, and sustained professional learning focused on foundational literacy and numeracy development.

10. Strengthen Instructional Supports for English as an Additional Language (EAL) Learners

Increasing English as an Additional Language (EAL) enrollment is a significant contextual condition influencing literacy and numeracy improvement efforts across several school authorities. EAL-responsive instructional practices, professional learning, collaborative intervention structures, and inclusive classroom supports that integrate language development within literacy and numeracy instruction across grade levels and subject areas must be strengthened.

Conclusion

This study examined the perceptions of system education leaders across Alberta regarding how to advance student achievement in literacy and numeracy across the education system. Drawing on the perspectives of 47 system education leaders in 24 interviews, the findings highlight the complex, intentional, and relational nature of system-level instructional improvement efforts.

The findings demonstrate that literacy and numeracy improvement is not driven by isolated initiatives or singular instructional programs, but through coherent and sustained system education leadership practices that intentionally align organizational structures, professional learning, instructional supports, assessment systems, and collaborative cultures over time. Across the study, participants consistently emphasized the importance of disciplined focus, relational trust, distributed leadership, and instructional coherence as foundational conditions supporting meaningful and sustainable improvement. The findings also highlight the growing importance of embedded professional learning, organizational data literacy, inclusive instructional supports, and responsive leadership approaches that can navigate rapidly evolving educational contexts.

At the same time, the study revealed that system education leaders are operating within increasingly complex implementation environments characterized by staffing pressures, substitute shortages, curriculum reform, resource sustainability concerns, geographic realities, and rising classroom complexity. Despite these challenges, participants consistently demonstrated optimism, adaptability, and deep commitment to improving learning outcomes for students. Across interviews, leaders described systems that continue to evolve through collaborative inquiry, reflective practice, evidence-informed decision-making, and sustained investment in instructional improvement.

An important contribution of this study is the recognition that literacy and numeracy improvement is fundamentally relational and systemic in nature. The findings suggest that improvement efforts are strengthened when educators experience psychological safety, collaborative ownership, instructional clarity, and coherent organizational support structures. Similarly, the findings indicate that sustainable system improvement depends not only on technical implementation capacity but also on system education leaders' ability to cultivate trust, navigate competing tensions, and maintain organizational coherence amidst changing educational conditions.

The study also highlights important emerging areas for continued system development across Alberta, including strengthening numeracy leadership, expanding cross-curricular literacy and numeracy responsibility, enhancing supports for early learners and English as an additional language (EAL) students, and designing sustainable instructional systems responsive to local contexts. These findings suggest that future literacy and numeracy improvement efforts may increasingly require adaptive, context-responsive leadership approaches that balance coherence with flexibility, accountability with relational trust, and innovation with sustainability.

Ultimately, the findings from this study reinforce the critical role system education leaders play in shaping the instructional conditions that support student success. Although the challenges facing educational systems are significant, the findings also provide considerable hope. Across Alberta, system education leaders are engaging in thoughtful, collaborative, and evidence-informed work to strengthen instructional practice, support educators, and improve student learning outcomes. The collective experiences shared throughout this study illustrate not only the complexity of system leadership but also the strong professional commitment, resilience, and collaborative capacity that continue to drive literacy and numeracy improvement efforts across the province.

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Appendix A – Informed Consent Form

Informed Consent Form

Study Title: *Advancing Student Achievement in Literacy and Numeracy: Perspectives of Alberta’s System Education Leaders*

Principal Investigator: Dr. Gloria Antifaiff, Principal Leadership Consultant, CASS gloria.antifaiff@cass.ab.ca

Purpose of the Study

The purpose of this study is to examine system education leadership practices, system conditions, and evidence-informed approaches that support effective literacy and numeracy instruction and improve student achievement. The study aims to deepen understanding of how system-level leadership fosters coherence, capacity-building, and continuous improvement.

What Participation Involves

If you agree to take part in this study, you will be asked to participate in a 60-minute virtual interview conducted via Zoom. The interview will follow a semi-structured question guide aligned with five research questions related to system-level leadership, coherence, capacity-building, collaboration, and evidence-informed decision-making.

The interview questions will be shared with you in advance, but due to the nature of a semi-structured interview, you may add additional information during the interview. With your permission, the interview will be recorded on Zoom to ensure accuracy. You may choose not to answer any question and may stop the interview at any time.

Voluntary Participation

Your participation in this research is completely voluntary. You may withdraw at any time, without explanation or consequence. If you choose to withdraw, any data collected up to that point will be destroyed and will not be used in the study.

Risks and Benefits

There are no anticipated risks associated with participating in this study. While you may not receive direct personal benefits, your insights may contribute to a deeper understanding of system-level education leadership practices that support literacy and numeracy improvement and student achievement across Alberta.

Confidentiality and Data Security

All information you share will remain confidential. Your name, position, and school authority will not be identified in any reports, publications, or presentations. Findings will be presented in aggregate or through anonymized quotations. You may be asked to share your story of practice at a CASS professional learning event or conference, or in the development of a CASS resource, and if permission is granted by you, this would negate your anonymity.

Audio recordings and transcripts will be stored in encrypted digital files accessible only to the researcher. Data will be retained for two years and then permanently destroyed.

Use of Findings

The findings of this study will be summarized into a CASS report. Findings may be used in academic publications, CASS conference presentations, and/or CASS reports.

Questions or Concerns

If you have any questions about the study or your participation, please contact Dr. Gloria Antifaiff, Principal Leadership Consultant, CASS, at gloria.antifaiff@cass.ab.ca

Consent Statement

Please read the statements below and indicate your agreement:

- I have read and understood the information provided above.
- I understand that my participation is voluntary and that I may withdraw at any time without consequence.
- I consent to participate in a semi-structured interview for this study.

I consent to the interview being recorded on Zoom.

Name of Participant: _____

(Please Print)

Signature: _____ Date: _____

Appendix B – Semi-structured Interview Questions

Interview Questions

Advancing Student Achievement in Literacy and Numeracy: Perspectives of Alberta’s System Education Leaders

-
- Interview Length: 60 minutes
 - Interview Format: Virtual (Zoom)
 - Data Collection Method: Semi-structured interview
-

1. How has your school authority established a shared system-wide direction and strategic focus for improving student achievement in literacy and numeracy?
2. How do you promote collaboration and shared ownership to improve student achievement in literacy and numeracy across your school authority?
3. How does your school authority align professional learning, instructional practices, policies, and resources to strengthen literacy and numeracy instruction?
4. How does your system use evidence to monitor literacy and numeracy improvement and inform system-level decisions?
5. Looking ahead, what emerging needs, opportunities, or concerns do you see related to improving student achievement in literacy and numeracy in your school authority?
6. Is there anything else you would like to share that would help deepen understanding of system education leadership in improving student achievement in literacy and numeracy?


Note: See Appendix A on page 2 for suggested considerations for each question.

Appendix A: Suggested Considerations for Each Question

Please note the suggested considerations are intended to provide additional reflection for responding to the questions, only as you see appropriate. There is no expectation of responding to each suggested consideration.

1. How has your school authority established a shared system-wide direction and strategic focus for improving student achievement in literacy and numeracy?
 - a. What processes were used to develop this shared direction (e.g., consultations, data analysis, strategic planning)?
 - b. How is this direction communicated and reinforced across schools and departments?
 - c. How do you ensure that literacy and numeracy priorities remain focused amid competing system initiatives?
 - d. Can you describe a time when your system had to recalibrate or refine its direction for literacy or numeracy?
 - e. What challenges have you encountered in sustaining shared focus over time?

2. How do you promote collaboration and shared ownership to improve student achievement in literacy and numeracy across your school authority?
 - a. What structures or routines support collaboration among school leaders, teachers, and system staff?
 - b. How do you cultivate trust and collective responsibility for literacy and numeracy outcomes?
 - c. In what ways do you engage education stakeholders (e.g., parents, post-secondary, community agencies, Alberta Education)?
 - d. How does collaboration look different across various schools or contexts in your school authority?
 - e. What barriers to collaboration have you encountered, and how have you addressed them?

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3. How does your school authority align professional learning, instructional practices, policies, and resources to strengthen literacy and numeracy instruction?
 - a. What instructional frameworks or evidence-based approaches guide literacy and numeracy teaching in your school authority?
 - b. How is professional learning designed to build instructional coherence across schools?
 - c. How are policies, staffing, and resource allocation aligned with literacy and numeracy priorities?
 - d. How do you ensure that professional learning translates into improved classroom practice?
 - e. Can you provide an example of a system-level change that led to improved instructional practice?

 4. How does your system use evidence to monitor literacy and numeracy improvement and inform system-level decisions?
 - a. What data or evidence do you rely on to monitor literacy and numeracy student achievement across your school authority?
 - b. How is data used formatively to adjust instruction and system strategies?
 - c. How do you balance accountability with professional trust and learning?
 - d. How is evidence used to monitor coherence across leadership, instruction, and professional learning?
 - e. What challenges exist in using data effectively at the system level?
 - f. How do you know whether your school authority's approaches are impacting student achievement?

 5. Looking ahead, what emerging needs, opportunities, or concerns do you see related to improved student achievement in literacy and numeracy in

your school authority?

No suggested considerations.

6. Is there anything else you would like to share that would help deepen the understanding of system education leadership in improving student achievement in literacy and numeracy?

No suggested considerations.