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Collective Leader Efficacy: Developing a Systems Construct to Strengthen Instructional Leadership Teams

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Abstract

Collective efficacy is a well-established explanatory construct in education, yet research has focused primarily on teachers, leaving the collective efficacy of leadership teams less well-defined and empirically specified. Drawing on social cognitive theory and leadership scholarship, this article conceptualizes collective leader efficacy (CLE)—defined as leadership teams' shared belief in their collective capability to influence adult and student learning—through three interdependent dimensions: shared understanding (coherence around purpose and priorities), joint work (cross-role inquiry and collaborative problem-solving), and evidence of progress (routines for interpreting whether leadership work is improving system conditions). Findings clarify CLE as a bounded leadership-team construct and foreground testable propositions regarding consistency routines, inquiry structures, and evidence cadence that can guide future measurement development and outcome-linked research.

Résumé

L'efficacité collective est un concept explicatif bien établi dans le domaine de l'éducation; pourtant, la recherche s'est principalement concentrée sur les enseignants, laissant l'efficacité collective des équipes de direction moins bien définie et moins étayée par des données empiriques. S'appuyant sur la théorie sociale cognitive et la littérature sur le leadership, cet article conceptualise l'efficacité collective des diri-

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geants (ECD)—définie comme la conviction partagée par les équipes de direction quant à leur capacité collective à influencer l'apprentissage des jeunes et des adultes—à travers trois dimensions interdépendantes : la compréhension partagée (cohérence autour des priorités et des objectifs), le travail en équipe (enquête interfonctionnelle et résolution collaborative de problèmes) et les indicateurs de progrès (routines permettant d'évaluer si le travail de direction améliore le système). Les résultats clarifient l'ECD en tant que concept délimité propre aux équipes de direction et mettent en évidence des propositions vérifiables—sur les rituels d'ancrage, les structures d'enquête et les processus de validation—qui peuvent orienter le développement de mesures et la recherche axée sur les résultats.

Keywords / Mots clés: collective leader efficacy, instructional leadership, leading and lagging indicators, systems improvement / efficacité collective des dirigeants, leadership pédagogique, indicateurs avancés et retardés, amélioration des systèmes

Introduction

Educational leadership research has consistently shown that leadership matters for student learning, largely through indirect pathways. Leaders influence organizational conditions that shape what teachers do by establishing priorities, allocating resources, building routines for collaboration and inquiry, and fostering cultures that support improvement (Hallinger & Heck, 2002; Robinson, Lloyd, & Rowe, 2008). While some scholarship has emphasized leadership's relative contribution to achievement compared with classroom instruction (e.g., Leithwood, Louis, Anderson, & Wahlstrom, 2004), the more important implication for this study is that leadership effects are typically mediated through the conditions leaders create rather than through direct, immediate influence on student outcomes.

Within this landscape, collective efficacy has emerged as a powerful lens for understanding how shared beliefs shape collective effort, persistence, and resilience. Collective teacher efficacy (CTE)—teachers' shared belief in their collective capability to positively influence student outcomes—has been associated with differences in student performance (Hattie, 2009). At the same time, educators often describe efficacy as unevenly distributed within systems, emerging strongly in some grade levels, departments, or schools but not consistently across an entire district or network. This observation does not diminish the importance of CTE; rather, it raises a related question: if collective efficacy matters, how might leadership teams develop the shared belief and routines needed to create coherent, systemwide conditions that support collaborative improvement?

Despite the prominence of CTE, the collective efficacy of leadership teams has received far less empirical attention. Leadership teams (e.g., district administrators, principals, instructional coaches, and system-level specialists) are positioned to influence coherence across initiatives, alignment between schools, and the organizational routines through which adults learn and evidence is interpreted. In that sense, leadership teams can shape the conditions under which teacher collective efficacy is more likely to take hold and spread. We therefore treat leadership-team efficacy as

a distinct but related construct: rather than substituting for CTE, leadership-team collective efficacy may operate upstream by influencing the coherence, collaboration structures, and evidence practices that teacher teams experience.

This study introduces collective leader efficacy (CLE), defined as leadership teams' shared belief that, through their collective actions and decisions, they can positively influence both adult and student learning (DeWitt & Nelson, 2025). CLE extends Bandura's (1997) theory of collective efficacy to leadership teams and is informed by research on contextualized principal efficacy (Dimmock & Hattie, 1996), instructional leadership (Robinson et al., 2008), and leadership-mediated outcomes in educational organizations (Leithwood & Jantzi, 2008). The following sections elaborate on CLE as a bounded leadership-team construct and examine how leaders describe it becoming visible through shared understanding, joint work, and evidence of progress.

Problem and purpose

Although many frameworks advocate for collective leadership, the concept often remains aspirational rather than operational. Edwards and Bolden (2022) describe collective leadership as an "empty signifier," a term widely endorsed but inconsistently defined, measured, or enacted. In school and district settings, leaders may share a common vocabulary about collaboration and shared leadership without consistent agreement about what collective leadership requires in practice, who participates in it, and how it is evidenced over time.

Recent behavioural research further suggests that collective leadership is not self-executing; it depends on interaction patterns and leader orientations that either enable or constrain collective functioning. For example, Boira Lopez and Connelly (2024) distinguish "socialized" orientations that distribute influence and support joint sensemaking from "personalized" orientations that centralize control and inhibit collaboration. These perspectives underscore the need for constructs that are both theoretically grounded and observable in practice.

The purpose of this study is to introduce and empirically elaborate collective leader efficacy (CLE) as a bounded leadership-team construct. CLE offers a structured way to make collective leadership more observable by examining how leadership teams describe shared belief becoming visible through three interdependent dimensions: shared understanding, joint work, and evidence of progress. This exploratory qualitative study does not estimate causal effects on teacher practice or student outcomes. Instead, it examines leaders' accounts of how CLE is experienced across contexts and surfaces practice-linked propositions about how leadership teams may shape conditions associated with improvement, including the design of evidence routines that balance leading and lagging indicators.

Research questions

This qualitative inquiry is guided by three questions designed to surface and refine CLE as a construct:

1. How can CLE be surfaced and examined through leadership teams' accounts of shared understanding, joint work, and evidence of progress?

2. What benefits and challenges of CLE do leadership teams report as they engage in these dimensions across diverse contexts?
3. How do leadership teams describe the ways CLE connects to improvement processes, such as teacher collaboration, and what kinds of leading and lagging indicators do they view as credible evidence of progress?

These questions are exploratory. The study does not test a causal model; rather, it aims to build conceptual and empirical clarity around a construct that is theoretically grounded but has received limited systematic examination at the leadership team level.

Context of the study

Data were collected across multiple jurisdictions in the United States and Canada in professional learning contexts facilitated by the authors and centred on instructional leadership and the development of leadership-team collective efficacy. Participants included leadership teams from Arkansas, Illinois, Washington, and Alabama, along with system leaders from New Brunswick, Canada. These contexts represent varied governance structures and improvement pressures, supporting cross-context construct elaboration rather than statistical generalization.

Significance

This study is significant for educational leadership research and practice because it advances CLE as a bounded leadership-team construct that makes "collective leadership" more observable and researchable. Rather than positioning CLE as a replacement for collective teacher efficacy (CTE), the study treats leadership-team collective efficacy as a distinct but related belief system that may operate upstream by shaping coherence routines, collaboration structures, and evidence practices that teacher teams experience. In leaders' accounts, CLE is strengthened when leadership teams share priorities and meaning, engage in inquiry-oriented joint work, and develop evidence routines that provide timely feedback for course correction.

Conceptually, CLE offers a bridge between established efficacy research and contemporary understandings of leadership as distributed, relational, and system-anchored. By clarifying how leadership teams describe collective belief becoming visible in practice, the study supports future measurement development and provides testable propositions about how leadership-team routines may shape conditions associated with improvement.

Author positionality

The authors served as both facilitators and researchers in professional learning contexts with school and district leadership teams. This dual role provided access to authentic leadership-team sensemaking while introducing potential risks related to demand characteristics and interpretive bias. To address these risks, the authors applied confidentiality protections and analytic safeguards, including de-identification of materials, cross-context comparison, reflexive memoing, peer debriefing, and active searches for disconfirming evidence. These strategies support trustworthiness while acknowledging that the findings represent leaders' accounts and meaning-making rather than independently verified outcome effects (Lincoln & Guba, 1985).

Theoretical framework

Collective leader efficacy (CLE) is grounded in longstanding theories of efficacy and in leadership scholarship emphasizing that leadership influence is largely indirect and mediated through organizational conditions and routines. The construct builds on Bandura's (1997) social-cognitive theory of collective efficacy, contextualized work on principal efficacy (Dimmock & Hattie, 1996), leadership frameworks differentiating instructional and transformational leadership (Robinson et al., 2008), and research on leadership-mediated outcomes and collective efficacy in educational organizations (Leithwood & Jantzi, 2008). Recent work by Edwards and Bolden (2022) and Boira Lopez and Connelly (2024) adds critical and behavioural perspectives that help explain why collective leadership is widely valued yet difficult to enact consistently. Together, these traditions frame CLE as a leadership-team belief construct whose enactment depends on interaction patterns and organizational design.

Social-cognitive roots of efficacy

Bandura's (1997) theory of self- and collective efficacy emphasizes that beliefs about capability shape the amount of effort people invest, how long they persist, and how resilient they remain when facing obstacles. Collective efficacy is not simply an average of individual confidence; it is a shared belief system shaped through four sources: mastery experiences, vicarious experiences, social persuasion, and affective states.

Applied to leadership teams, these sources can be understood systemically. Mastery experiences occur when teams experience successful collective action (e.g., achieving coherent alignment across schools or implementing an improvement routine with fidelity). Vicarious experiences arise when leaders observe peer teams solving problems collectively and adapt those approaches to their own context. Social persuasion develops through feedback, encouragement, and professional validation that occurs during joint work. Affective states reflect the emotional tone of teamwork, whether interactions foster trust, psychological safety, and learning, or whether they produce tension, compliance, and withdrawal. In this framing, CLE is strengthened when leadership teams accumulate experiences of collective competence that are interpreted as attributable to their shared work, and weakened when overload, isolation, or compliance pressures reduce opportunities for collective learning and reinforcement.

Contextual and situational leader efficacy

Dimmock and Hattie (1996) highlight the situational nature of leader efficacy, demonstrating that principals' confidence can fluctuate in response to context, relationships, and organizational support. Their use of vignettes to capture situational confidence underscores a key implication for efficacy research: efficacy judgments are dynamic, relational, and shaped by the conditions in which leadership is enacted.

CLE extends this logic from the individual to the collective level. In this study's framing, leadership-team efficacy is co-constructed through team processes and influenced by system conditions such as shared structures, communication routines, role clarity, and trust. This extension matters because leadership teams often work in complex environments where improvement demands change over time; therefore, the durability of collective efficacy is likely to depend on whether teams have routines

that stabilize shared understanding, support inquiry-oriented joint work, and provide timely evidence for course correction.

Instructional and transformational leadership

Robinson, Lloyd, and Rowe (2008) distinguish transformational leadership, which emphasizes vision, relationships, and motivation, from instructional leadership, which focuses more directly on teaching and learning. Their synthesis suggests that leadership approaches more closely connected to the instructional core tend to show stronger associations with student outcomes, supporting the broader claim that leadership influence is often realized through instructional improvement processes rather than through generic organizational activity.

CLE is not proposed as a replacement for these leadership frameworks; rather, it provides a complementary lens for understanding how leadership teams sustain the shared belief and routines needed to enact improvement work. In this study's framework, shared understanding aligns with coherence-building and collective meaning-making often emphasized in transformational leadership, while joint work and evidence of progress align with routines that keep leaders engaged with instructional improvement. This positioning is intended to motivate a theory of leadership-team efficacy and practice, not to claim causal effects or precise effect magnitudes.

Collective efficacy as a mediator

Leithwood and Jantzi (2008) argue that leadership influences student learning largely through indirect pathways and that collective efficacy can function as a mediating mechanism within that process. Their work supports the premise that shared beliefs can help explain how leadership conditions translate into sustained effort and improvement-oriented practice.

CLE builds on this mediational logic while shifting the focal unit from teachers to leadership teams. Specifically, CLE emphasizes leaders' shared belief in their collective capability to influence adult and student learning and examines how that belief becomes visible through coherence routines, inquiry-oriented collaboration, and evidence practices. This study does not test mediation or outcome effects; instead, it clarifies construct meaning and surfaces propositions that future outcome-linked research can examine.

A critical perspective on collective leadership

Edwards and Bolden (2022) caution that "collective leadership" can function as an "empty signifier" when collective rhetoric obscures hierarchy—particularly when participation, legitimacy, and evidence interpretation remain controlled by those with formal authority. In response, we treat collectivity as a design problem rather than an assumption: CLE is specified as a leadership-team belief construct, and we examine the routines through which collective work becomes visible (shared understanding, joint work, evidence of progress). Importantly, several study contexts intentionally structured cross-role participation (including teacher leaders within leadership collectives) and emphasized norms intended to protect inquiry and dissent. However, because the data are drawn from facilitated learning artifacts and leaders' accounts,

we cannot claim that power asymmetries were eliminated or that equity of voice was enacted consistently in everyday leadership practice. Future research should directly examine participation patterns and decision authority in routine leadership-team interactions, especially for members with less formal positional power.

In some contexts, leadership teams included both formal administrators and teacher leaders as members of the leadership collective (e.g., the Arkansas cohort). Professional learning structures emphasized participation routines intended to reduce role-based dominance and support equitable contributions during collective sensemaking (e.g., structured opportunities to surface dissent, written reflection prior to whole-group discussion). These design features describe the learning context in which data were generated; they do not constitute independent evidence that voice equity was consistently enacted in participants' everyday leadership meetings.

Behavioral evidence for collective functioning

Complementing critical perspectives on collective leadership, Boira Lopez and Connelly (2024) examine how focal-leader orientation shapes collective leadership behaviour. They distinguish between socialized orientations that distribute influence, support information exchange, and encourage joint sensemaking, and personalized orientations that centralize control and constrain collaboration. Their findings underscore a key implication for CLE: collective efficacy is not purely cognitive. Shared belief is enacted through interaction patterns that either support or undermine collective learning.

Applied to CLE, this perspective highlights that leadership-team efficacy is reinforced when leaders model openness, share authority, and normalize productive dissent as part of improvement work. Conversely, interaction patterns that concentrate voice and decision-making can reduce psychological safety, limit inquiry, and weaken the conditions under which collective efficacy develops. This study draws on that behavioural lens to interpret joint work as more than coordination; it is a set of observable practices through which collective capacity becomes visible and sustainable over time.

The CLE framework: A three-dimensional model

Building on these theoretical traditions, this study conceptualizes CLE as an interdependent three-dimensional framework. Each dimension reflects a necessary component of how leaders described collective belief becoming visible in practice:

- Shared understanding refers to collective clarity and coherence around purpose, priorities, and decision rules.
- Joint work refers to inquiry-oriented collaboration in which leaders engage in shared problem solving and cross-role learning.
- Evidence of progress refers to the routines through which leadership teams select, interpret, and act on information to judge whether their work is improving system conditions, including the use of leading and lagging indicators to guide timely adjustment.

Although the three dimensions are interdependent, leaders' accounts suggest they do not always function with equal stability. Evidence of progress was described

most often as fragile and was frequently treated as the sustaining mechanism that determines whether shared understanding and joint work can be maintained over time. In this framing, weakness in any dimension can destabilize collective confidence, coherence can fragment, collaboration can revert to compliance routines, or progress can become difficult to interpret, thereby reducing a team's ability to learn and adapt collectively.

Positioning CLE as a systems construct

Integrating these theoretical perspectives positions CLE as a leadership-team construct operating at the level of system routines and sensemaking. CLE is defined as a shared belief system enacted by leadership teams and described by leaders as influencing coherence routines, collaborative practice, and evidence use within their organizations. In this sense, CLE extends Bandura's collective efficacy framework to leadership teams; incorporates Dimmock and Hattie's emphasis on contextual and relational variability in efficacy judgments; responds to Edwards and Bolden's critique by specifying observable anchors for "collective leadership"; and aligns with behavioural work suggesting that interaction patterns and distributed influence support collective functioning (Boira Lopez & Connelly, 2024).

For analytic clarity, CLE can be described across three interrelated layers. The psychological layer refers to leaders' shared belief in collective capability. The behavioural layer refers to the interaction patterns and routines through which leaders enact that belief (e.g., inquiry-oriented joint work). The organizational layer refers to the structures that sustain collective practice over time (e.g., coherence routines, meeting protocols, and evidence cadences). Taken together, this integration provides a framework for examining how leadership teams describe collective belief becoming observable through practice, without assuming direct causal effects on student outcomes.

Methods

Research design

This study employed an exploratory qualitative design to examine CLE as an emerging construct within leadership teams. The purpose was to surface and refine how leadership teams describe CLE becoming visible through three interdependent dimensions: shared understanding, joint work, and evidence of progress. A constructivist paradigm guided the inquiry, emphasizing meaning-making grounded in participants' accounts and artifacts generated in authentic professional learning contexts (Creswell & Poth, 2018). The analytic goal was conceptual elaboration: clarifying attributes, boundaries, and plausible relationships for a construct that has been discussed in practice but remains less systematically examined in research.

Research contexts and participants

Participants were drawn from professional learning contexts facilitated by the authors and focused on instructional clarity, coherence-building, and leadership-team collaboration. Contexts included Arkansas, Washington, Alabama, New Brunswick (Canada), and one Illinois district. Participants included district and school leaders (e.g., superintendents, assistant superintendents, principals, instructional coaches,

and central-office leaders), reflecting the cross-role nature of leadership teams and leadership collectives engaged in improvement work. In some settings (e.g., Arkansas school-team contexts), leadership teams included teacher leaders as part of the leadership collective.

Participants were recruited through their systems' professional learning participation (i.e., an opportunity/purposive sample rather than a statistically representative sample). The study's purpose is cross-context construct elaboration rather than population generalization.

Participation, voluntariness, and anonymity

Reflections were collected electronically using Google Surveys and, in some settings, Mentimeter, an anonymous engagement tool. Participants were invited to complete end-of-session reflections/surveys at the conclusion of learning sessions. Responding was optional and anonymous; no identifying information was collected, and the authors had no way to link responses to individuals, track who responded, or follow up with non-respondents.

In Arkansas, reflections and feedback responses were collected through third-party evaluation systems (external evaluation). For example, the University of Oklahoma's E-TEAM served as the external evaluator for the Arkansas Leadership Academy and administered post-session surveys as part of formative evaluation. This third-party collection further reduced the authors' access to identifiable respondent information.

Defining "participants" for reporting

Because responses were anonymous and collected through electronic systems, the authors distinguish between session attendance and analyzable responses (submitted reflections/survey entries). Where both attendance and response counts were available, response rates were as follows: New Brunswick, 31 responses of 52 attendees (~60%); Illinois, 19 of 23 (~83%); and Arkansas, 19 of 25 (76%). These counts represent response submissions rather than verified unique individuals across sessions.

Dual role and demand characteristics

Because data were generated in professional learning contexts facilitated by the authors, participants may have perceived the authors as authority figures, which could shape the tone and content of their responses. We therefore interpret reflections and artifacts as leaders' reported meaning-making rather than as independent verification of organizational effects. This risk was mitigated (but not eliminated) by anonymous/optional responding, de-identification at collection, third-party survey administration in Arkansas, cross-context comparison, and active searches for disconfirming evidence (see Researcher Reflexivity).

Data sources

Four types of data informed the analysis. First, participants completed end-of-session written reflections ("exit tickets") that captured how leadership teams interpreted shared understanding, joint work, and evidence of progress, including what they

viewed as enabling or constraining collective work. These reflections were collected electronically (Google Surveys, Mentimeter). In Arkansas, post-session reflections/feedback were collected through a third-party evaluation system as part of an external formative evaluation.

Second, facilitated discussion notes and team artifacts (e.g., planning templates, inquiry-cycle products, and team-generated materials) provided insight into how leadership teams described enacting CLE in practice. Third, a published field survey summarizing challenges identified by education leaders was used as a contextual reference to situate participants' reported challenges within broader leadership discourse; this source was not treated as primary empirical evidence and did not function as a validation instrument. Fourth, a survey of local Illinois district leadership teams examined perceptions of coherence, collaboration, and evidence-based practices during strategic plan implementation.

Consistent with the exploratory qualitative purpose of the study, survey results were used descriptively (e.g., percent agreement) to contextualize qualitative themes rather than to test relationships or estimate effects. Together, these sources capture leaders' accounts of CLE as it was discussed, reflected upon, and documented through artifacts across multiple professional learning contexts.

Data analysis

Analysis followed an inductive thematic approach informed by Naeem, Ozuem, Howell, and Ranfagni's (2023) six-step model, supporting both transparency and flexibility in developing conceptual categories from qualitative data.

First, written reflections, discussion notes, artifacts with open-text components, and open-ended survey responses were reviewed iteratively to develop familiarity with the corpus. Second, initial keywording attended to language that leaders used to describe coherence, collaboration, evidence, confidence, overload, silos, trust, and decision-making. Third, data were coded line-by-line into descriptive codes and then organized into the three CLE dimensions. Codes related to coherence (e.g., clarity of purpose, role alignment, priority discipline) were grouped within shared understanding; codes related to inquiry-oriented collaboration (e.g., cross-role learning, collective problem framing, breaking silos) were grouped within joint work; and codes related to evidence routines (e.g., measures of progress, interpretation practices, leading and lagging indicators, accountability pressures) were grouped within evidence of progress.

Fourth, through constant comparison within and across contexts, themes were refined and consolidated into three overarching claims: clarity and coherence stabilize collective confidence; inquiry-oriented joint work strengthens collective capability and trust; and the search for meaningful evidence reveals system fragility, particularly when evidence routines rely primarily on lagging indicators. Fifth, themes were interpreted in relation to CLE's theoretical foundations, linking leaders' accounts to literature on efficacy, collective leadership, and organizational learning. Sixth, findings were synthesized into a refined conceptual representation of CLE as a leadership-team belief construct enacted through shared understanding, joint work, and evidence of progress. This step clarified the three-dimensional framework as an

organizing model for how leaders described collective belief becoming visible and sustainable in practice, rather than as proof of causal impacts.

Trustworthiness

To strengthen rigour and credibility, we applied strategies aligned with Lincoln and Guba's (1985) criteria for trustworthiness. Credibility was supported through triangulation across reflections, artifacts, and descriptive survey results, along with iterative analytic memoing and peer debriefing to test emerging interpretations. Transferability was addressed by providing a contextual description of settings and participants and by clarifying that the study's purpose is cross-context construct elaboration rather than statistical generalization. Dependability was supported by documenting codebook development, coding decisions, and theme refinements in analytic memos, and by using a structured process to discuss and resolve interpretive differences during analysis meetings. Confirmability was supported through reflexive journaling and explicit attention to disconfirming evidence, ensuring that claims were grounded in participants' language rather than researcher preference.

Researcher reflexivity

Because data were generated in professional learning contexts facilitated by the authors, reflexivity was treated as an ethical and analytic practice rather than a procedural add-on. In several contexts, reflections were optional and anonymous (and, in Arkansas, collected via a third-party evaluation system), which limited our ability to link responses to individuals and reduced pressure to respond favourably, though socially desirable responding remains possible.

The authors maintained reflexive journals and analytic memos to document assumptions, emotional responses, and interpretive decisions during data collection, analysis, and writing. Particular attention was given to the dual facilitator–researcher role and the possibility that participants' responses could be shaped by demand characteristics or social desirability.

Reflexive memos were revisited during coding and theme development to check whether interpretations were supported by participants' accounts and artifacts, and to avoid overrepresenting "success narratives." In addition, we actively searched for disconfirming evidence (e.g., descriptions of compliance-driven collaboration, persistent misalignment, or weak evidence routines) and used cross-context comparison to test whether themes held across settings. These practices support transparency and integrity while acknowledging that findings represent leaders' meaning-making rather than independently verified outcome effects.

Findings

Analysis of workshop reflections, discussion artifacts, and survey responses indicated that CLE was most visible when leadership teams described engaging intentionally in three interdependent dimensions: shared understanding, joint work, and evidence of progress. Across contexts, leaders described these dimensions as mutually reinforcing shared understanding created coherence for action, joint work made collective capability visible, and evidence routines shaped whether teams could sustain

confidence over time. Leaders also described persistent tensions, particularly evidence latency, when decision-making relied primarily on lagging indicators (e.g., end-of-year outcomes), limiting timely course correction.

Research question 1: How can CLE be surfaced through shared understanding, joint work, and evidence of progress?

Shared understanding: Clarity as the foundation of collective belief

Leaders described shared understanding as more than agreement; it functioned as coherence around priorities and shared meaning about what those priorities require in day-to-day decisions. Leaders frequently framed clarity as a prerequisite for collective confidence. For example, an Arkansas participant wrote, "We left today feeling more unified than we have all year. We finally understand why this initiative matters." In New Brunswick, leaders described coherence as a stabilizing feature of system work: "Our shared provincial goals keep us aligned even when policies shift." Survey results from the Illinois district leadership team aligned with this pattern: 87 percent of respondents agreed that the district's strategic plan was well aligned with school improvement plans. One leader explained, "This alignment process helped us stop competing for priorities. We can finally see how our work fits together." Across contexts, leaders described stronger collective confidence when priorities and purpose were coherent, and weaker confidence when competing initiatives or unclear direction fragmented shared understanding.

Joint work: Collaboration that makes collective capability visible

Leaders distinguished joint work from coordination. Joint work was described as cross-role problem solving in which leaders jointly define problems, learn together, and commit to shared actions rather than merely exchanging updates or dividing tasks. In Alabama, one leader reflected, "We realized we're stronger when we stop working in silos and start solving problems together." A participant from Washington described how cross-role collaboration deepened learning: "Having principals and coaches at the same table changed the conversation—it became about teaching, not titles." In the Illinois district, 81 percent of leaders agreed that the strategic-plan process increased collaboration; one leader wrote, "It forced us to sit together, district and school leaders, and talk about how our goals connect." Leaders also described conditions that weakened joint work, including compliance-driven meeting structures. As one Arkansas leader noted, "We meet often, but we rarely learn together." These accounts suggest that joint work strengthens CLE when collaboration is inquiry-oriented and reciprocal, but weakens when it becomes procedural.

Evidence of progress: The most fragile dimension

Leaders described evidence of progress as essential to sustaining collective confidence and, simultaneously, the most challenging dimension to enact. A recurring issue was the disconnect between documenting activity and generating credible signals that leadership routines are improving system conditions. A Washington leader wrote, "We're good at checking boxes but not at proving that what we do matters." An Arkansas leader similarly reflected, "We rarely ask if our leadership actions are im-

proving teacher practice. We just track completion." The Illinois survey supported this fragility: only 56 percent of leaders agreed their team had clear measures of progress. One respondent summarized the tension: "We have alignment, but not proof. We can't yet show how our coherence translates to impact." Leaders described a temporal challenge in evidence use, as reliance on lagging indicators delayed feedback and constrained timely adjustment. Leaders also described the value of leading indicators (short-cycle signals such as patterns from walkthroughs, implementation indicators, adult-learning indicators, or student-experience data) in reducing evidence latency and supporting course correction. Overall, leaders described evidence routines as the most fragile "leg" of the framework, and as a key determinant of whether shared understanding and joint work could be sustained over time.

Research question 2: What benefits and challenges do leadership teams report as they engage these dimensions across contexts?

Leaders described benefits that aligned closely with the three dimensions. First, leaders described renewed clarity and coherence when priorities were clarified and aligned (e.g., "We finally understand our why, and that makes every decision easier."). Second, leaders described strengthened collaboration when joint work shifted from individual action to collective problem solving (e.g., "When we lead together, it feels like we can actually move the system."). Third, leaders described expanded conceptions of evidence, including efforts to broaden "progress" beyond compliance metrics toward indicators of adult learning, collaboration quality, and student experience.

Leaders also described challenges that weakened CLE. Initiative overload diluted focus and contributed to "initiative fatigue." Compliance-driven structures limited inquiry and reduced opportunities for collective learning (e.g., "Our meetings are still about updates, not learning."). Finally, leaders described underdeveloped evidence practices and uncertainty about what counts as credible evidence, particularly when evidence routines relied primarily on lagging indicators. These challenges were described as interacting: overload and compliance reduced time and attention for joint work; weak evidence routines made progress difficult to interpret; and diminished interpretability weakened sustained collective confidence.

Research question 3: How do leadership teams describe CLE connecting to improvement processes, and what evidence do they view as credible?

Leaders described CLE as shaping improvement processes indirectly through leadership-team routines that influence coherence, collaboration, and evidence interpretation. In particular, leaders described that coherent priorities can reduce fragmentation, inquiry-oriented joint work can strengthen learning across roles, and evidence routines can support timely course correction. These are leaders' described pathways rather than verified causal relationships. A consistent implication across leaders' accounts was that credible evidence requires both timeliness and legitimacy: leading indicators were described as necessary for formative learning cycles, while lagging indicators were described as necessary for summative validation.

Interplay of the three dimensions

Across contexts, leaders described CLE as most durable when shared understanding, joint work, and evidence of progress co-occurred and reinforced one another. Shared understanding provided clarity and coherence (e.g., aligned priorities, role clarity, and common success criteria), which leaders described as stabilizing collective confidence and reducing fragmentation. When purpose was unclear or initiatives competed, leaders described erosion of confidence and inconsistent decision-making.

Joint work functioned as the mechanism through which shared belief became visible in practice. Leaders distinguished authentic joint work (collective inquiry, cross-role problem solving, and shared commitments) from coordination or compliance routines. Where collaboration was structured primarily as updates or task completion, leaders described limited learning and weaker collective capability.

Evidence of progress was consistently described as the most fragile dimension. Leaders emphasized that when evidence systems relied mainly on lagging indicators or compliance metrics, teams struggled to interpret whether leadership routines were making a difference in time to adjust course. In contrast, leaders described the value of leading indicators that shortened feedback loops and supported formative course correction. Leaders who described stronger CLE often depicted a reinforcing cycle: clarity supported inquiry-oriented collaboration, collaboration produced interpretable evidence, and timely evidence stabilized collective confidence.

Summary of findings

Across contexts, leaders described CLE as a belief construct that is sustained through practice. CLE was described as stronger when teams built shared understanding, engaged in inquiry-oriented joint work, and reduced evidence latency by using leading indicators alongside lagging indicators. Leaders also described vulnerabilities that weakened sustained collective confidence, including initiative overload, compliance-driven structures, and underdeveloped evidence routines.

Discussion

This study contributes to leadership research by clarifying CLE as a bounded leadership-team construct and by identifying observable anchors through which leaders described collective belief becoming durable or fragile. Leaders' accounts suggest that CLE functions as a practice-linked belief system: shared belief is strengthened through coherence routines and authentic joint work and is sustained when teams have timely, credible evidence to support course correction. This framing is consistent with efficacy theory, which emphasizes that efficacy judgments are shaped through experience and feedback rather than aspiration alone.

A central contribution is the emphasis on evidence routines and evidence latency. Leaders described evidence of progress as the most fragile dimension, often because evidence systems privileged compliance metrics or lagging outcomes, delaying learning cycles and limiting timely adjustment. Leaders' accounts suggest that leading indicators can shorten feedback loops and support more responsive collective learning. This does not establish effects on student outcomes; rather, it identifies a plausible mechanism that can be tested in longitudinal and outcome-linked research.

Implications for practice and system design

Coherence routines. Leaders' accounts suggest that leadership teams benefit from coherence routines that clarify priorities, decision rules, and success criteria before launching actions. These routines appear to reduce fragmentation and provide the interpretive clarity that leaders associate with stronger collective confidence.

Inquiry-oriented joint work. Leaders described stronger CLE when meetings and collaboration structures were designed for inquiry rather than updates. Protocols that support shared problem definition, collective interpretation of evidence, and joint commitments may help teams move from coordination toward genuine cross-role learning.

Evidence cadence and feedback loops. Leaders emphasized that sustaining collective confidence requires an evidence cadence that balances leading indicators for formative adjustment with lagging indicators for summative validation. This implication is not an effectiveness claim; rather, it reflects leaders' descriptions of how timely evidence supports course correction and makes progress visible enough to sustain collective belief over time.

Implications for research

Future research should a) develop and validate measures of CLE that preserve its definitional core as a leadership-team belief construct while differentiating it from adjacent constructs; b) conduct longitudinal studies examining whether evidence cadence and reductions in evidence latency are associated with more stable CLE and stronger inquiry routines; and c) test outcome-linked pathway models that examine whether CLE-related routines predict changes in organizational conditions (e.g., coherence, teacher collaboration) and, over time, student outcomes.

Conclusion

This exploratory qualitative study introduced and elaborated Collective Leader Efficacy (CLE) as a leadership-team belief construct made visible through shared understanding, joint work, and evidence of progress. Leaders described evidence routines as particularly fragile and highlighted the challenge of evidence latency when systems rely primarily on lagging indicators. By clarifying CLE and its observable anchors, the study moves "collective leadership" toward a more definable and researchable construct and identifies testable propositions regarding coherence routines, inquiry structures, and evidence cadence that can inform future measurement and outcome-linked research.

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