ARTICLE

The Role of Leadership in Communities of Learning | Kāhui Ako: A Systematic Literature Review

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Abstract

This article is a systematic literature review aimed at providing a comprehensive overview of the implementation of the Kāhui Ako | Communities of Learning policy in Aotearoa New Zealand. This policy seeks to improve student outcomes through collaborative networks of schools emphasising the importance of network leadership in initiating and co-ordinating systemic change. This review examines the available evidence on the ways in which these school networks operate and how network leadership responds to local needs and environments. Review data included a total of 16 studies from the empirical literature resulting in four main organisational processes and patterns of interaction: (1) relationships building focusing on trust; (2) press for system-wide coherence; (3) knowledge exchange; and (4) collaborative work. Our findings suggest that achieving high levels of alignment and coherence within the Kāhui Ako policy is a key factor for meaningful implementation, challenging to achieve, and requires ongoing attention.

Keywords Community of learning · Kāhui Ako · Collaboration · Leadership · Educational reform · Systematic review

Introduction

In the context of Aotearoa New Zealand, the "Investing in Educational Success" (IES) policy announced by the Government in 2014 had put forward a NZ$359 million budget to help improve student achievement by emphasising Indigenous Māori students' attainment. According to the Ministry of Education (2016, p. 2), the IES

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was designed to provide "targeted tools and resources to build teaching capability and improve learning (ako) and achievement for all students" through three main initiatives: first, Kāhui Ako | Communities of Learning (CoL)[1]; second, a teacher-led innovation fund and third, a principal recruitment allowance which would enable struggling schools to attract highly effective principals who could significantly increase student achievement. The Education Review Office (ERO) (2016) argued that one of the primary purposes of the Kāhui Ako | CoL initiative was to improve educational outcomes for Māori implementing the aspirations of Te Tiriti o Waitangi (The Treaty of Waitangi).[2] This policy aimed at geographically coherent networks of schools, releasing funding support and sharing professional expertise that led to the creation of several new positions of teacher and principal leadership.

CoLs operate as a voluntary cluster of schools that come together to agree on shared "achievement challenges" in their efforts to establish collaborative opportunities for learning within and across the network. Achievement challenges are often focused on specific targets for student achievement related to reading, writing and mathematics but also student well-being. A Memorandum of Agreement is signed by the board of trustees and principals from each school outlining how they will work together. There are currently 220 Kāhui Ako operating in New Zealand consisting of more than two thirds of the total number of schools (n = 1868), 1551 early learning services, 11 tertiary providers, educating 700,000 children and young people (Ministry of Education, n.d). Such networks involve a number of individuals from multiple schools who are expected to work collaboratively on agreed objectives. Three main roles have been created to lead this collaborative work on two-year appointments: a CoL leader (usually a principal), across-school teacher and within-school teacher. Release time of up to two days per week as well as travel grants and networking allowances are provided through the Ministry.

Thrupp (2018) argues that the implementation of the IES policy highlights political pressures on the education sector with the process being understood and interpreted differently within and across schools and education organisations. He further stresses the importance of critical understanding of educational leadership grounded in the principles of social justice. Early reports on the success of this initiative suggest that the variability in the system and the levels of across school collaboration envisioned by the policy are far from successful despite the aspiration for and effort toward greater coherence (Sinnema et al., 2020; Wiley, 2016).

The professional and social challenges faced by leaders through these organisational structures are becoming increasingly complex. At the same time, their role features high levels of ambiguity and uncertainty in achieving desired outcomes for all. To shed more light into the ways in which these leaders work and how these school networks operate, this study systematically reviews the existing literature to identify and examine the characteristics of Kāhui Ako | CoL and the strategies used

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[1] Throughout this article, we use interchangeably the terms Kāhui Ako and Communities of Learning (CoL). One or the other may be more connotative depending upon the audience.

[2] Founding document of the country written and signed in 1840 as a means of partnership between Māori and the government (represented by the Crown) of New Zealand.

by individuals who hold a formal leadership role in these networks. To our knowledge, this is the first review to synthesise the empirical literature on CoLs contributing to a more holistic picture for networked systems and leadership practices in Aotearoa New Zealand.

Taking the reality and current research into consideration, this study posed the following questions: How school networks operate in Aotearoa New Zealand and what accounts do network leaders and other educators give of their work? How do these accounts help us (re)consider the need for lateral school to school collaborations in ways which knowledge, leadership expertise and capacity are transferred between schools? To answer these questions, we identify and analyse relevant publications in the scholarly and grey literature about Kāhui Ako | CoL and, in so doing, seek to address the challenges that must be confronted if networked improvement in New Zealand schools is to occur. In looking at networks in education, this study is informed by the international literature on across-school organisational forms characterised by meaningful collaboration, distributed knowledge across participants and coordination of networked action (Azorín et al., 2020; Kools & Stoll, 2016; Rincón-Gallardo & Fullan, 2016). In this sense, this study maps the ways in which collaborative activity between schools in New Zealand is intrinsically linked to the broader policy context.

In what follows, the systematic review methodology adopted here is described. Then, the results section presents descriptive summaries of the publications and the main themes of organisational processes and patterns of interaction. The article concludes by discussing how the findings are connected to the realities of leading change in complex educational organisations and offers implications for policy research and practice.

Methodology

Systematic reviews are increasingly being used to comprehensively assess in a rigorous and transparent manner the current state of knowledge around diverse areas and identify gaps and future research directions to reach conclusions from a wide body of scientific literature (Petticrew & Roberts, 2006). This review followed the guiding steps proposed by Petticrew and Roberts (2006) including: carrying out a literature search, screening based on inclusion criteria, extracting information and synthesising.

Literature Search

A systematic search in three scholarly databases (i.e., Scopus, Web of Science, ProQuest) offering extensive coverage of the social sciences was first conducted to capture relevant literature. We searched the aforementioned databases in the title, abstract, and keywords using the following keywords: "Community/ies of learning" or "Kāhui Ako", and "New Zealand" or "Aotearoa". The search was conducted in June 2022. Google Scholar was also searched using the same keywords to identify

potentially relevant studies, not indexed in the above databases, and therefore omitted from our initial search.

In addition to the database search, a targeted search was conducted to ensure that relevant research has not been missed. This included manual searches in relevant journals known to us as publishing studies from the New Zealand context and consultations with the reference lists of studies resulted from our initial database search to identify additional relevant studies.

A set of inclusion criteria was employed to screen the publications located through our search. Specifically, we included studies written in English and published after 2014, which was the date of the CoL policy announcement. We selected studies that follow academic research standards and present empirical evidence since we were interested in the ways leaders engage in networked approaches. To keep our search inclusive, we searched for different types of outputs (e.g., journal articles, book chapters, policy reports).[3] By doing that, we expect that a variety of viewpoints would be included. Although the concepts, language, and tools behind the policy narrative around networked communities derive from several iterations within the broader literature such as "communities of practice" and "professional learning communities" and several countries have experimented with these terms, we did not include studies that used samples outside of New Zealand. This is because these contexts are significantly different. In this way, only publications with a focus on practices taking place in school networks Kahui Ako/CoL in the context of Aotearoa New Zealand were included in this review.

Screening Process

Following the removal of duplicates, the search yielded a total of 38 unique publications. Screening for inclusion in the review occurred in two stages. First, the inclusion criteria were applied to the titles and abstracts and second, to the full text of publications, to determine whether they are relevant to be included in the review.

Following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) method (Moher et al., 2009), Fig. 1 illustrates the screening and selection process. A total of 16 publications was retained for analysis described in the following section. A list of these publications is included in the references.

Data Extraction and Analysis

As a first step, study characteristics were extracted for descriptive coding using the following variables: authors, year of publication, publication type (e.g., journal articles, book chapter, policy report), main research aim, instruments of data collection, target population (e.g., leaders, teachers, parents, students), and sample size.

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[3] We have not included PhD thesis or Master's dissertations as part of this search. For those who are interested, please see Aim (2019) and Dibben (2019). We also acknowledge a small strand of evidence based on Principals' Sabbatical reports which were excluded from our final selection based on our criteria (e.g., Walsh, 2019).
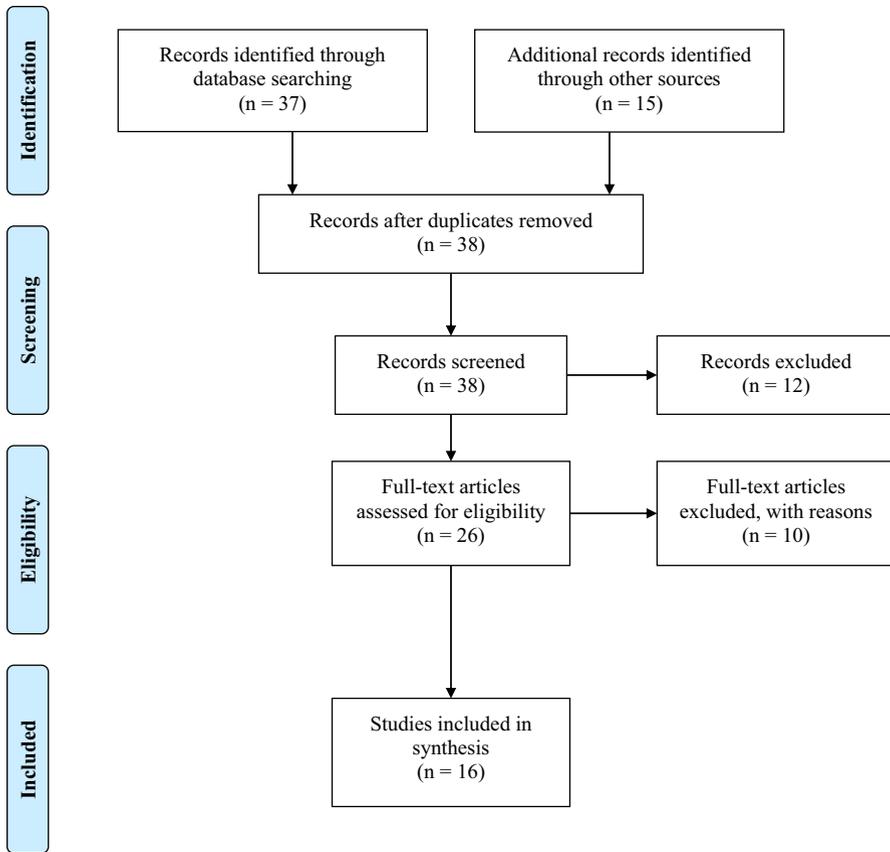
Fig. 1 Screening process and search results

As a second step, a more in-depth analysis was conducted following a thematic synthesis approach (Booth et al., 2021) to identify common patterns in the organisation and management of CoLs that could explain systemic improvement. We extracted small paragraphs from the results of the studies in which networked activities were presented. The extracted information was treated as raw data, which we initially coded focusing on determining cross-school trends and leadership patterns. These initial descriptive codes were refined through constant comparison to develop descriptive themes. Our analysis concluded with the development of four patterns of interaction and organisational processes in CoLs.

Results

In this section, an overview of the descriptive results from the studies included in this review is presented, followed by the four main organisational processes and patterns of interaction identified in the literature.

Overview

Table 1 details descriptive variables coded for a total of 16 studies. As can be seen, most studies (n = 10) are published as reports and were found to employ a variety of methods for data collection, i.e., interviews (n = 5), surveys (n = 8), with a small number employing a combination of methods (n = 2). A noticeable finding is that almost a third of the reviewed documents is written by Wylie or Wylie and colleagues.

Patterns of Interaction

The four main patterns identified are: (1) relationships building focusing on trust; (2) press for system-wide coherence; (3) knowledge exchange; and (4) collaborative work. Table 2 shows a brief explanation of what each of them entails.

Relationships Building and Trust

The significance of building relationships through a common set of values, beliefs, and expectations of members within the network has been a fundamental driver for Kāhui Ako initiatives across the literature that we reviewed (Greany & Kamp, 2022; PPTA, 2017; Sinnema et al., 2021). Most authors highlight the need to define shared objectives in cultivating trust and alignment of a wide range of stakeholders around those objectives. Highfield and Webber (2021), for example, explored Māori student engagement in one CoL led by a Māori deputy principal. Their findings suggest that culturally relevant approaches embraced by teachers and leaders in the CoL acknowledged the engagement of the wider community. In this way, they were able to deeply understand the students, families, and community they seek to serve and develop the cultural competence to operate in truly culturally responsive ways. Despite the encouragement by school leaders to engage teachers in holding high expectations for all Māori students, the authors identified a lack of consistent evidence-based monitoring and evaluation system for Māori academic progress.

Another example of relationships building was found in the study conducted by ERO (2016), which carried out multi-perspective case studies of three Kāhui Ako by exploring the purpose and performance of this organisational structure. This report outlined key common factors of "success" assumed to influence progress and achievement of learners through sharing common practices to build partnerships and relational trust by sharing data, resources, and strategies for learning needs and willingness to monitor and evaluate improvement efforts. The report suggested that

Table 1 Descriptive characteristics of studies in the review (presented in alphabetical order)

Authors	Year	Publication type	Main aim	Target population and sample size	Data collection
Bennet	2022	Journal article	Explore the implementation of a teacher coaching programme as a professional learning approach	Professional development leaders, coaching programme leaders, school internal and external (teacher) coaches, coachees in eight schools within one Kāhui Ako	Survey (n=94) Interviews (n=14)
Charteris and Smardon	2018	Journal article	Seeking principals' views on the CoL policy initiative during its first years of implementation	School principals (n=38)	Interviews
Education Review Office (ERO)	2019	Report	Explore the purpose and performance of CoL organisational structure	Range of stakeholders (including three Kāhui Ako leaders, across-school and within-school teachers, iwi representatives, schoolteachers etc.)	Multi-perspective case study Interviews
Greany and Kamp	2022	Book	Analyse the formation, organisation, and leadership of multi-school networks in England and New Zealand	Kāhui Ako leaders, principals, and Ministry staff	Interviews
Highfield and Webber	2021	Journal article	Explore Māori student engagement in one col	Principals and teachers (n=11), Māori medium teachers (n=22), students (n=2438), family members (n=694), and teachers/principals (n=226)	Interviews, focus groups, surveys
New Appointments National Panel	2021	Report	Provide insights into the emerging practices across Kāhui Ako l CoLs	Kāhui Ako Leaders and Across School Teachers reassessments	Documentary Analysis

Table 1 (continued)

Authors	Year	Publication type	Main aim	Target population and sample size	Data collection
New Appointments National Panel	2022	Report	Seek voices on achievements and challenges emerging from collaborative initiatives across the network	Reappointed Kāhui Ako Leaders (n=69), Across School Teachers (n=144)	Survey
New Zealand Educational Institute (NZEI) Te Riu Roa	2017	Report	Understand perceptions of principals in CoLs	Principals working in CoLs nationwide (n=93)	Interviews
Post Primary Teachers' Association (PPTA)	2017	Report	Review the extent to which the intended principles and broader implementation of the Kāhui Ako l CoL model reflected expectations and experiences	Range of school staff (including school leaders) members of the PPTA in secondary and composite schools (n=1412)	Survey
Sinnema et al	2021	Journal article	Investigate the impact of the CoL network in their practice	Educators (including principals, members of the senior leadership team and teachers (n=78)	Cross-school survey
Sinnema et al	2020	Journal article	Explore collaborative initiatives and advice-seeking in one CoL	Educators from five schools in the CoL (including principals, members of the senior leadership team and teachers) (n=78)	Social network survey
Wylie	2016	Report	Provide a national picture of the CoLs first step in the CoLs journey	Principals (n=200), teachers (n=771), school trustees (n=176), parents and whānau (n=504)	Survey
Wylie and Hodgen	2020	Report	Understand more about teaching, school, and principal leadership practices in New Zealand schools	School principals (n=249) and teachers (n=3198)	Survey

Table 1 (continued)

Authors	Year	Publication type	Main aim	Target population and sample size	Data collection
Wylie and Johnston	2021	Report	Investigate principals' use of the Teaching and School Practices tool over the 3-year period this was available for use	Principals (n = 10)	Interviews
Wylie and MacDonald	2020	Report	Provide a national viewpoint on teaching and learning in English-medium primary schools and Kāhui Ako involvement	School Principals (n = 145), teachers (n = 620), school trustees (n = 126), parents (n = 395)	Survey
Wylie et al	2017	Report	Provide a national viewpoint on teaching and learning in English-medium primary and intermediate schools, interactions between schools and Kāhui Ako involvement	School Principals (n = 353) and teachers (n = 4355)	Survey

Table 2 Description of network patterns

Patterns	Distinguishing characteristics
Relationships building and trust	Social connections among network members and the emergence of relational trust, intentional roles, relationships, norms, and identities
Press for system-wide coherence	Alignment of structures, roles, processes, and systems
Knowledge exchange	Transfer, receipt, and integration of knowledge across network participants
Collaborative work	Engaging in collaborative activities and working together to solve issues and address common challenges

among the roles that are critical to the success of Kāhui Ako such as the across-school teacher and the within-school teacher, the role of the Kāhui Ako leader is paramount in that they take a lead role in initiating, coordinating, and facilitating the work of the network as a whole by working with a range of stakeholders across multiple levels of the system.

Press for System-Wide Coherence

Although the Kāhui Ako policy may appear coordinated, our findings suggest that it may not be experienced as such by educators, especially when emphasising equity and the most disadvantaged schools and/or students (Highfield & Webber, 2021; NANP, 2022; Sinnema et al., 2020; Wylie & Hodgen, 2020). This presented a challenge as policy alignment was found to be difficult to make sense of, or interpret, as coherent. Sinnema et al. (2020) explored collaborative initiatives and advice-seeking in one CoL. Their social network analysis revealed misalignment around intended policy goals and patterns of practice on the ground, limited opportunities for sharing system-wide leadership expertise, though strong within-school collaborative ties were found. They concluded that social conditions across the CoL as a whole still remained at initial phases of development suggesting that the use of social network patterns is critical in our understanding of policy implementation. By doing so, central actors in networks (e.g., leaders) would play a significant role in creating better connections and opportunities for systemic alignment as a central ingredient to achieve networked improvement.

Evidence presented by the Post Primary Teachers' Association (PPTA) (2017) and the New Zealand Educational Institute (NZEI) (2017) suggest that the lack of a "community infrastructure" in the environment of these networks hinders the ability of practicing members to build some consistency across schools despite occurring in the context of a more decentralised structure. As these reports reveal, a pluralistic vision of infrastructure and design that are part of a coherent and integrated structure would be needed to lead to consistency of outcomes. These findings point to the need for building locally relevant educational infrastructures and addressing equity-related challenges, should this model be successful over time.

Knowledge Exchange

Our findings suggest that a key unresolved issue in CoLs is how to ensure the transfer, receipt, and integration of knowledge across network participants, pointing to the attention that is needed to the ways in which members are connected. There was some evidence to suggest that while CoLs often leverage existing social connections, in most cases network leaders would need to cultivate new connections and strengthen existing and emerging ones (NANP, 2021, 2022; PPTA, 2017; Sinnema et al., 2021).

There were opportunities to become connected with other schools and staff members at different levels of seniority through the sharing of expertise and problem solving which aimed to create leverage for resources and knowledge across school systems. Sinnema et al. (2021) found that perceptions of greater discussion utility are associated with higher levels of influence on improvements in professional practice. Educators seeking advice around teaching and learning from a group of peers perceived the CoL network to impact higher levels of improvement in their practice, whereas perceptions from resource providers were found to be related to lower levels of improvement in their own professional practice. Their findings suggest that teachers appeared to benefit more from network participation than those with formal leadership positions. This might be attributed to the structure of the network and the time and effort required from network leaders to transfer and receive knowledge or provide resources to the seeker.

The 3-year cycle reports from New Zealand Council for Educational Research provide a national viewpoint on teaching and learning in English-medium primary and intermediate schools through a survey of randomly selected principals, teachers, trustees, and parents (Wylie & MacDonald, 2020; Wylie et al., 2017). In the latest report, several items focused on interactions between schools and Kāhui Ako involvement. Overall, principals had a positive and empowering view of their engagement in collaborative work with other schools in terms of principals' mutual support, greater shared understanding of student needs in their local communities, network-wide teacher professional development opportunities to improve teaching in schools and changing school practices. However, more than half of the principals expressed concerns around the work on shared local curriculum while two thirds saw no useful student engagement with the wider community. These responses somewhat contradict one of the key drivers of the Kāhui Ako policy which is to foster connection and accountability to local communities and to localise the curriculum.

Similarly, a report by Wylie and Hodgen (2020) uses an aggregated data set based on data from a survey of school principals and teachers on the use of a voluntary tool designed for schools and Kāhui Ako to understand more about teaching, school, and principal leadership practices in New Zealand schools. The authors contend that views on higher Kāhui Ako participation may reflect the development of this model over time although the evidence shows a range of different experiences regarding its intended benefits. The key messages and the picture emerging from the aforementioned reports remain mixed as there seems to be significant variability in the stakeholders' experiences and levels of participation, which could make the overall model effects hard to measure and therefore struggle to provide the expected forms

of collaboration and networking as a lever for school improvement and equitable student outcomes for all. In addition, the study by Bennett (2022) in one Kāhui Ako found contextual variability and inconsistencies in several (teacher) coaching aspects within and between schools. This presented significant challenges in achieving wide-spread engagement across partner schools. Teacher release time and turnover were also found to be influenced by the principals' administrative support stressing the role of school leaders as important predictors in teachers' mobility and long-term retention. This finding demonstrates a need to consider to what degree across-school organisational mobility in a Kāhui Ako affects intra-school stability and performance.

Collaborative Work

A strong focus on collaboration within and between schools was widely reported in a number of studies we reviewed (ERO, 2016; NZEI, 2017, PPTA, 2017; Sinnema et al., 2020). The synthesis of the findings in the research conducted by NZEI (2017) showed that participating in this model provided additional opportunities for collaboration and collegiality whereas time management and increased pressure from the Ministry to amend or make changes to agreed achievement plan guides constituted some of the challenges faced by the participating leaders. The report concludes that such pressure can drive school leaders to impatience and anxiety over "missing out" on networking, resulting in a climate of tension and fear that interferes with the learning of both students and adults alike.

Similarly, the report by PPTA (2017) found that although consultation on collaborative initiatives was evident in the survey responses of different school staff members and leaders, it was mainly dominated by principals and therefore resulted to a lower sense of greater ownership of the process, especially by teachers. This highlights the importance of transferring "ownership" of processes of change from leaders to teachers recognising the role of teacher agency. Charteris and Smardon (2018) discussed the notion of principals' agency in the implementation of the CoL policy. The findings of this study reflect both current and evolving conceptions of school leaders as "change makers" while policy initiatives such as CoLs ultimately influence their professional positioning, leadership actions and agency.

The survey of reappointed Kāhui Ako leaders and across schoolteachers carried out by the New Appointments National Panel (NANP) (2022) found that reappointed leaders perceived their role as a "career bonus" but also as strategically oriented with an ability to see the "big picture" and understand the contribution that partnerships can make. They also acknowledged the need to strengthen culturally responsive practices, advancing STEM and reframe the curriculum to address local needs but felt they were being pigeonholed in a hierarchy that challenged their work across a range of different boundaries. A number of challenges were perceived to slow down collaborative efforts including lack of shared clarity about roles and responsibilities, inefficient systems and processes, mixed engagement and commitment and difficulties in ensuring coherent learning pathways for ākonga/students due to contextual differences between member schools. These challenges were complemented with a disappointment in the wider-system's lack of interest and appreciation of their work

referring to professional jealousy and the additional demands of time devotion due to the nature of the network roles as set by the Ministry. Suggestions by the NANP (2022) included increased flexibility, time, and tenure that would enable Kāhui Ako role holders understand and respond to growing organisational complexities and move leadership to a more adaptive model in their efforts to achieve system-wide reform. These findings suggest that as of yet, there is no systematic professional development in place to support growing these types of leadership roles. Perhaps, this is an opportunity for a new cadre of "system leaders" from the ground up.

Discussion

Based on the search conducted, it is evident that there is limited empirical work on Kāhui Ako | CoL despite the IES policy being in place since 2014. Our findings show that most of the studies appear to merge into a cohesive yet sparse literature base that shares relatively similar notions of the ways in which these networks operate and how formal leadership roles are enacted.

Our review demonstrates that trust in a network is founded on expectations of reciprocity and the quality of relationships between members and organisations. International studies that examined the process of relational trust in organisations suggest that the quality of relationships is a strong predictor of respect, personal regard, openness and integrity among others (Bryk et al., 2010; Notman & Henry, 2011; Tschannen-Moran, 2014; Wahlstrom & Louis, 2008). Examples of this relationship areas in the case of Kāhui Ako, include within teams working together to inform improvement efforts in their local context, among members in different teams and between network leaders and members. In addition, the importance of relationships may be seen as a key enabler of culturally responsive pedagogies (Berryman et al., 2015; Bishop et al., 2009; Hynds et al., 2011). Initiating and sustaining pedagogical approaches in ways that are just and responsive to the needs of Māori would essentially validate local Māori knowledge systems and sites of cultural significance as being rich learning contexts (Macfarlane et al., 2019).

As a foundational building block of a continuous improvement culture, across-school trust was found to be both a facilitator but also a barrier to network development. The ability to create and sustain relationships is a critical leadership and management responsibility for network leaders (Popp et al., 2014; Provan et al., 2007). Trust requires time and energy to become a social resource for systemic change and improvement. Fullan (2016) suggests that systems improvement should be based on three main principles: deep change in the culture of learning, local ownership of the learning agenda, and a system of continuous improvement and innovation that is simultaneously bottom-up, top-down, and sideways. This highlights the strategic importance of addressing the complexity of system-wide initiatives because they need to impact simultaneously on social, cultural, organisational, and technical dimensions of the education system.

Our findings are also in line with other studies that describe strong relationships and trust as a foundation for networks and collaborative leadership (Ainscow, 2016; Eckert, 2019; Jäppinen et al., 2016; Muijs, 2015). Purposeful actions especially

when taken by leaders drawn from the studies in this review may relate to the conceptual development of collaborative leadership as an emergent process when the stakeholders create powerful synergy using shared and collective endeavours aiming to co-create new leadership thinking and working practices. This emergence of interactional sensemaking process subsequently occurs within educational leadership understood here as a complex relational process.

Importantly, our review showed a notable lack of attention to a coherent system design with several misalignments across organisational and policy levels and schools that hindered buy-in and every member understanding how their work contributes toward the network's vision and goals. Successful policy implementation requires both reflecting a high level of alignment in the policy environment, shared expectations, and resources and creating a sense of coherence that policies are consistent and comprehensible to those who experience them (Dibben & Youngs, 2022; Elmore, 2004; Hatch, 2009; Robinson et al., 2011, 2017). In other words, educators "craft coherence" (Honig & Hatch, 2004) by actively engaging in a sensemaking process as they interpret how policies connect to their own knowledge and beliefs about school and network improvement efforts. Though difficult to achieve in practice, working toward coherence encourages the alignment of structures, roles, processes, and systems in ways that help meet educational improvement goals.

In addition, the value of collaborative networks also required intensive interactions in a trusted collegiate environment working towards creating the conditions for learning impact and continuous improvement. This is consistent with the construct of *learning communities* in which reflective professional inquiry takes place through practices such as participating in reflective dialogue, transforming tacit knowledge to shared knowledge through meaningful interaction and applying new ideas and information to problem solving (Azorín et al., 2020; Bryk et al., 2015; Gomez et al., 2016; Stoll et al., 2006). In a similar vein, Katz and Earl (2010, p. 28) argued that networked learning communities create conditions within and between schools which enable staff to "move outside of their typical contexts to engage with a broader scope of ideas and possibilities" whereby inter-organisational collaboration is praised as a productive mechanism that generates, and provides access to and distributes knowledge as a vehicle for continuous improvement.

The above principles were often present in policy texts and in the discourse of distributed leadership and collaborative professional learning communities of practice; but were rarely adopted into action. Although the structural and operational changes in the environment of CoLs hold the potential to function as learning organisations grounded in a knowledge management system, the role and involvement of organisational members in the establishment and ongoing support of such a system was unclear. Kamp (2019) calls for political leadership that provides a context in which direction and policies are structurally able to sustain system-wide change via authentic forms of collaborative ethos. We argue that systemic investment in networked improvement infrastructures must align with organisational vision and strategies that enable knowledge sharing, effective communication, and collaboration across the communities about what is being learned and embrace the need to collectively learn how to improve to advance the vision of success for all students in the system.

Future Research Agenda

Future studies might probe further into the (re)building of educational infrastructures to explore whether systemic investment can unpack the nature of systems leadership in networked improvement communities, complement our work and make a significant contribution to the field of organisational change. Attention to equity challenges as well as to sets of tools and structures that both policymakers and practitioners use to shape leadership and teaching practice in their particular local contexts would provide a better understanding of school improvement networks as a strategy for large-scale reform.

Moreover, future theorising and empirical work needs to highlight the strategic importance of addressing complexity. Research is needed to examine how educators understand and respond to complexity, systemic connections, and multiple systems of interdependent problems in the context of CoLs. For these problems to be solved, systems of coordinated and interdependent solutions are required.

A future research agenda also deserves attention to the process by which educators individually and collectively make sense of the Kāhui Ako policy and how this is influenced by their values, beliefs, social context, knowledge, and experience.

In this respect, inter-organisational interactions would be seen as a coherent cross-boundary activity system where work would break down traditional organisational silos and encourage collaboration across system levels. Because network leaders span these different levels of the education system, they are well positioned to ensure ideas, knowledge, and practices from one level to another and influence other educators' access to and understanding of those ideas.

Implications and Conclusion

This study can serve as a valuable overview of the Kāhui Ako policy and the set of processes that are in place in these school networks. The review may be of interest to educators and policymakers working to coordinate and support the successful implementation of CoLs. Our findings suggest that developing and sustaining high-quality and highly aligned systems and professional learning experiences across schools represent a major challenge for those who are involved. Achieving coherence is an important component for meaningful implementation and needs ongoing attention to policy alignment and coordination by educators and policymakers.

These networks need to solve puzzles of design, implementation, improvement, and sustainability, each of which needs substantial efforts from change makers to work with others to develop the kind of community infrastructure and organisational support for that infrastructure that will create the conditions for it to work in practice. Our findings suggest there is promising evidence that network leaders can advance collaborative communities of professional practice through adopting

specific ways of thinking and acting in their daily work. A sense of shared coherence-making across multiple voices may help network members embrace uncertainty through a complex systems mindset, see the big picture and understand their role in driving change and innovation at system-wide levels. The Teaching Council of Aotearoa New Zealand | Matatū Aotearoa (2022) which is the professional body representing teachers across all levels of schooling, has recently published a 5-year strategic plan refresh (2022–2027) setting out its strategic direction and priority actions aiming to maximise the success of every learner through highly effective leadership and teaching. Among their priority areas, new approaches are sought to support a high-performing and coherent education system calling for the establishment and strengthening of partnerships, communities, and networks of schools. In this way, cultures, and conditions to foster change might be established that would enable leaders to better understand the bigger picture and engage with systems leadership and thinking (Constantinides, 2022; Gurr et al., 2020; Shaked & Schechter, 2017). This can be attained through professional development activities and constant consultation with local communities and government officials. What remains to be seen, is to what extent the strengthening of collaborative networks across New Zealand's education system can be scaled-up in order to encapsulate the complexity and variation of contexts.

Declarations

Conflict of interest No potential conflict of interest was reported by the authors.

References

Ainscow, M. (2016). Collaboration as a strategy for promoting equity in education: Possibilities and barriers. *Journal of Professional Capital and Community, 1*(2), 159–172. https://doi.org/10.1108/JPCC-12-2015-0013

Azorín, C., Harris, A., & Jones, M. (2020). Taking a distributed perspective on leading professional learning networks. *School Leadership & Management, 40*(2–3), 111–127. https://doi.org/10.1080/13632434.2019.1647418

Bennett, P. N. (2022). The implementation of teacher coaching across eight New Zealand schools in a Kāhui Ako/Community of learning: A multiple case study. *International Journal of Mentoring and Coaching in Education*. https://doi.org/10.1108/IJMCE-09-2021-0090

Berryman, M., Ford, T., Nevin, A., & SooHoo, S. (2015). Culturally-responsive contexts: Establishing relationships for inclusion. *International Journal of Special Education, 30*(3), 39–51.

Bishop, R., Berryman, M., Cavanagh, T., & Teddy, L. (2009). Te Kotahitanga: Addressing educational disparities facing Māori students in New Zealand. *Teaching and Teacher Education, 25*(5), 734–742. https://doi.org/10.1016/j.tate.2009.01.009

Booth, A., Sutton, A., Clowes, M., & Martyn-St James, M. (2021). *Systematic approaches to a successful literature review* (3rd ed.). SAGE.

Bryk, A. S., Gomez, L. M., Grunow, A., & LeMahieu, P. G. (2015). *Learning to improve: How America's schools can get better at getting better*. Harvard Education Press.

Bryk, A. S., Sebring, P. B., Allensworth, E., Luppescu, S., & Easton, J. Q. (2010). *Organizing schools for improvement: Lessons from Chicago*. University of Chicago Press.

Charteris, J., & Smardon, D. (2018). Policy enactment and leader agency. *Teachers' Work, 15*(1), 28–45. https://doi.org/10.24135/teacherswork.v15i1.237

Constantinides, M. (2022). Systemically oriented leadership: Leading multi-school organisations in England. *Journal of Educational Change*. https://doi.org/10.1007/s10833-022-09456-4

Dibben, M., & Youngs, H. (2022). New Zealand cases of collaboration within and between schools: The coexistence of cohesion and regulation. *School-to-school collaboration: Learning across international contexts* (pp. 11–25). Emerald Publishing Limited.

Eckert, J. (2019). Collective leadership development: Emerging themes from urban, suburban, and rural high schools. *Educational Administration Quarterly, 55*(3), 477–509. https://doi.org/10.1177/0013161X18799435

Education Review Office. (2016). *Collaboration to improve learner outcomes: What does the evidence tell us about what works*. New Zealand Government.

Elmore, R. F. (2004). *School reform from the inside out: Policy, practice, and performance*. Harvard Education Press.

Fullan, M. (2016). The elusive nature of whole system improvement in education. *Journal of Educational Change, 17*(4), 539–544. https://doi.org/10.1007/s10833-016-9289-1

Gomez, L. M., Russell, J. L., Bryk, A. S., LeMahieu, P. G., & Mejia, E. M. (2016). The right network for the right problem. *Phi Delta Kappan, 98*(3), 8–15. https://doi.org/10.1177/0031721716677256

Greany, T., & Kamp, A. (2022). *Leading educational networks: Theory, policy and practice*. Bloomsbury Publishing.

Gurr, D., Longmuir, F., & Reed, C. (2020). Creating successful and unique schools: Leadership, context and systems thinking perspectives. *Journal of Educational Administration, 59*(1), 59–76. https://doi.org/10.1108/JEA-02-2020-0045

Hatch, T. C. (2009). *Managing to change: How schools can survive (and sometimes thrive) in turbulent times*. Teachers College Press.

Highfield, C., & Webber, M. (2021). Mana Ūkaipō: Māori student connection, belonging and engagement at school. *New Zealand Journal of Educational Studies, 56*(2), 145–164. https://doi.org/10.1007/s40841-021-00226-z

Honig, M. I., & Hatch, T. C. (2004). Crafting coherence: How schools strategically manage multiple, external demands. *Educational Researcher, 33*(8), 16–30. https://doi.org/10.3102/0013189X033008016

Hynds, A., Sleeter, C., Hindle, R., Savage, C., Penetito, W., & Meyer, L. H. (2011). Te Kotahitanga: A case study of a repositioning approach to teacher professional development for culturally responsive pedagogies. *Asia-Pacific Journal of Teacher Education, 39*(4), 339–351. https://doi.org/10.1080/1359866X.2011.614684

Jäppinen, A.-K., Leclerc, M., & Tubin, D. (2016). Collaborativeness as the core of professional learning communities beyond culture and context: Evidence from Canada, Finland, and Israel. *School Effectiveness and School Improvement, 27*(3), 315–332. https://doi.org/10.1080/09243453.2015.1067235

Kamp, A. (2019). Kāhui Ako and the collaborative turn in education: Emergent evidence and leadership implications. *New Zealand Annual Review of Education, 24*, 177–191. https://doi.org/10.26686/nzaroe.v24i0.6493

Katz, S., & Earl, L. (2010). Learning about networked learning communities. *School Effectiveness and School Improvement, 21*(1), 27–51. https://doi.org/10.1080/09243450903569718

Kools, M., & Stoll, L. (2016). *What makes a school a learning organisation?* OECD.

Macfarlane, A., Manning, R., Ataria, J., Macfarlane, S., Derby, M., & Clarke, T. H. (2019). Wetekia kia rere: The potential for place-conscious education approaches to reassure the indigenization of science education in New Zealand settings. *Cultural Studies of Science Education, 14*(2), 449–464. https://doi.org/10.1007/s11422-019-09923-0

Moher, D., Liberati, A., Tetzlaff, J., & Altman, D. G. (2009). Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. *Annals of Internal Medicine, 151*(4), 264–269. https://doi.org/10.7326/0003-4819-151-4-200908180-00135

Ministry of Education. (2016). *Communities of learning guide for schools and Kura*. Ministry of Education.

Ministry of Education. (n.d). *Communities of Learning | Kāhui Ako*. Wellington: Ministry of Education. https://www.education.govt.nz/communities-of-learning/

Muijs, D. (2015). Collaboration and networking among rural schools: Can it work and when? Evidence from England. *Peabody Journal of Education, 90*(2), 294–305. https://doi.org/10.1080/0161956X.2015.1022386

New Appointments National Panel (NANP). (2021). *Collaborative practice emerging across Kāhui Ako: Ten trends*. Retrieved June 3, 2022 from https://www.educationcounts.govt.nz/__data/assets/pdf_file/0006/209868/Collaborative-practice-emerging-across-Kahui-Ako-Ten-Trends.pdf

New Appointments National Panel (NANP). (2022). *Accomplishments, challenges, and reflections: The voices of Kāhui Ako practitioners*. Retrieved June 3, 2022 from https://www.ppta.org.nz/publication-library/document/1636

New Zealand Educational Institute (NZEI) Te Riu Roa. (2017). *Survey of principals in communities of learning*. Wellington, New Zealand. Retrieved June 3, 2022 from https://nzei.org.nz/documents/CoL/COL%20Principal%20Survey%20FINAL%202020170426.pdf

Notman, R., & Henry, D. A. (2011). Building and sustaining successful school leadership in New Zealand. *Leadership and Policy in Schools, 10*(4), 375–394. https://doi.org/10.1080/15700763.2011.610555

Petticrew, M., & Roberts, H. (2006). *Systematic reviews in the social sciences: A practical guide*. Blackwell Publishing.

Popp, J., MacKean, G. L., Casebeer, A., Milward, H. B., & Lindstrom, R. R. (2014). *Inter-organizational networks: A critical review of the literature to inform practice*. Alberta Centre for Child, Family and Community Research.

Post Primary Teachers' Association. (2017). *Implementation of Communities of Learning – practitioners' experiences*. Post Primary Teachers' Association. Retrieved June 3, 2022 from https://www.ppta.org.nz/publication-library/document/568

Provan, K. G., Fish, A., & Sydow, J. (2007). Interorganizational networks at the network level: A review of the empirical literature on whole networks. *Journal of Management, 33*(3), 479–516. https://doi.org/10.1177/0149206307302554

Rincón-Gallardo, S., & Fullan, M. (2016). Essential features of effective networks in education. *Journal of Professional Capital and Community, 1*(1), 5–22. https://doi.org/10.1108/JPCC-09-2015-0007

Robinson, V., Bendikson, L., Mcnaughton, S., Wilson, A., & Zhu, T. (2017). Joining the dots: The challenge of creating coherent school improvement. *Teachers College Record, 119*(8), 1–44. https://doi.org/10.1177/016146811711900803

Robinson, V. M. J., McNaughton, S., & Timperley, H. (2011). Building capacity in a self-managing schooling system: The New Zealand experience. *Journal of Educational Administration, 49*(6), 720–738. https://doi.org/10.1108/09578231111174848

Shaked, H., & Schechter, C. (2017). *Systems thinking for school leaders: Holistic leadership for excellence in education*. Springer.

Sinnema, C., Daly, A. J., Liou, Y.-H., & Rodway, J. (2020). Exploring the communities of learning policy in New Zealand using social network analysis: A case study of leadership, expertise, and networks. *International Journal of Educational Research, 99*, 101492. https://doi.org/10.1016/j.ijer.2019.10.002

Sinnema, C., Liou, Y.-H., Daly, A., Cann, R., & Rodway, J. (2021). When seekers reap rewards and providers pay a price: The role of relationships and discussion in improving practice in a community of learning. *Teaching and Teacher Education, 107*, 103474. https://doi.org/10.1016/j.tate.2021.103474

Stoll, L., Bolam, R., McMahon, A., Wallace, M., & Thomas, S. (2006). Professional learning communities: A review of the literature. *Journal of Educational Change, 7*(4), 221–258. https://doi.org/10.1007/s10833-006-0001-8

Teaching Council of Aotearoa, New Zealand. (2022). *Our path to the future: Strategic Plan 2022–2027*. Retrieved June 3, 2022 from https://teachingcouncil.nz/assets/Files/Publications/Path-to-the-Future-2019-.pdf

Thrupp, M. (2018). To be "In the Tent" or abandon it? A school clusters policy and the responses of New Zealand educational leaders. In J. Wilkinson, R. Niesche, & S. Eacott (Eds.), *Challenges for*

public education: Reconceptualising educational leadership, policy and social justice as resources for hope (pp. 132–144). Routledge.

Tschannen-Moran, M. (2014). *Trust matters: Leadership for successful schools* (2nd ed.). Jossey-Bass.

Wahlstrom, K. L., & Louis, K. S. (2008). How teachers experience principal leadership: The roles of professional community, trust, efficacy, and shared responsibility. *Educational Administration Quarterly, 44*(4), 458–495. https://doi.org/10.1177/0013161X08321502

Wylie, C. (2016). *Communities of learning. Kāhui Ako: The emergent stage: Findings from the NZCER national survey of primary and intermediate schools*. New Zealand Council for Educational Research. Retrieved June 3, 2022 from https://www.nzcer.org.nz/system/files/NZCER%20COL%20Report%20final.pdf

Wylie, C., & Hodgen, E. (2020). *Teaching, school, and principal leadership practices survey 2019*. New Zealand Council for Educational Research. Retrieved June 3, 2022 from https://www.nzcer.org.nz/system/files/TSP%20aggregate%20report%202019%20FINAL.pdf

Wylie, C., & MacDonald, J. (2020). *What's happening in our English-medium primary schools: Findings from the NZCER national survey 2019*. New Zealand Council for Educational Research. Retrieved June 3, 2022 from https://www.nzcer.org.nz/system/files/NZCER%20National%20Survey%20Primary%202019.pdf

Wylie, C., McDowall, S., Ferral, H., Felgate, R., & Visser, H. (2017). *Teaching practices, school practices, and principal leadership: The first national picture*. New Zealand Council for Educational Research. Retrieved June 3, 2022 from https://www.tspsurveys.org.nz/images/TSP_National_Report_2017.pdf

Further Reading

Aim, D. (2019). *A critical investigation into the challenges and benefits in developing a culturally responsive framework in a mainstream Kāhui Ako | Community of Learning.* Master of Education thesis, Massey University. Retrieved from http://hdl.handle.net/10179/15765

Dibben, M. (2019). *(Re)locating New Zealand school principals as leaders in school networks: Leadership in communities of learning.* Master of Educational Leadership thesis, Auckland University of Technology, Auckland, New Zealand. Retrieved from http://hdl.handle.net/10292/12981

Walsh, P. (2019). *A qualitative investigation on "Kahui AKo" from a leadership perspective*. Sabbatical Report. Educational Leaders.