School leadership and Aboriginal student outcomes: Systematic Review

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Abstract

This paper reports one part of a broader Aboriginal Voices Project that has been undertaken by 13 Australian researchers bringing together 10 systematic reviews on Aboriginal School Education. The extent of collaboration and engagement between school and community leaders is important to influence joint decision-making and required to attain lasting change. This review investigates how leadership in both the school and community can contribute to effecting a sustained change in Aboriginal student learning and social outcomes. It also examined the impacts of school policy, governance and decision-making. Findings from the systematic review have highlighted six themes that exemplify the importance of leadership in establishing successful collaborations in Indigenous educational settings to impact positively on student social and academic outcomes.

Key Words: Educational Leadership; Schools; Aboriginal, Indigenous, school leadership, systematic review

1. Introduction

Since the 1960's the political climate and demands for increased participation in education have focussed attention by educators and policy makers on the outcomes, social and academic, for Aboriginal students. National policy focused on "Closing the Gap" (Australian Government, 2017, 2018) has resulted in significant funding and strategic action by government and education systems to improve a wide range of social and academic outcome indicators, including literacy and numeracy standards through NAPLAN (2017), attendance and graduation rates. While many words have been written, policies implemented and studies undertaken (Bourke, Dow, Lucas & Budby, 1993; Perso, 2012) there has been limited demonstrable improvement against these indicators over the past decade (SCRGSP, 2014, 2016). It is therefore timely that a thorough review of the current evidence is conducted to evaluate what policy, educational innovations and strategies can be demonstrated to have had impact given the systemic lack of improvement on Indigenous education outcomes in Australia over the last 10 years.

While there has been an increase in accountability mechanisms in the form of national testing, standards and curriculum, there has also been a rise in school-based decision-making and management as an administrative strategy in Australian schools (Caldwell, 1990; Eacott, 2009). Governance in education has moved towards decentralization and deregulation to allow schools to respond more flexibly to local or regional needs and circumstances (Trimmer 2013). The importance of governance models that recognise that policies and procedures cannot be applied universally to all schools and circumstances, and leadership approaches that incorporate increased participation of community in governance and decision-making for otherwise disenfranchised communities, is reflected in the educational literature internationally for a range of disadvantaged minority groups (Battiste & Henderson, 2018; Guenther, Bat & Osborne, 2014; Trimmer, 2012). These approaches

are based on an understanding that having a shared vision and goals for a school has the potential to unite a school and its community.

The issue of leadership is central to the outcomes of the series of systematic reviews investigated within this special issue. School leadership is paramount in fostering student engagement and improving educational outcomes as it impacts upon curriculum and pedagogic practices within the school, teachers' professional learning, cultural safely and respect for cultural identity and knowledges through language and cultural programs and engagement with community. When considered holistically, leadership influences development of genuine understanding and acknowledgement of Indigenous ways of knowing within the school that engages with and facilitates innovative ways to address cultural safety and provide support for teaching and learning. This is consistent with the premise of working collaboratively at the cultural interface (Nakata, 2002; 2007). In this context it is more than trying to "close the gap" from a Western viewpoint as this may not account for understandings and priorities of Aboriginal people and communities. Student achievement is a complex problem that requires complex, multi-layered responses over time that consider broader issues around the complexity of student's lives that go beyond individual circumstances and are embedded in historical inequities and colonialism. Such issues require broader focus at national policy level, however acknowledgement and engagement with these issues by school leaders provides opportunities for positive connections and innovative practice to emerge at the cultural interface (Martin, Nakata, Nakata & Day, 2017; Nakata 2002, 2007; Yunkaporta & McGinty, 2009). Roberts (2009) identifies educational, strategic and interpersonal leadership as the key capabilities of school leaders impacting on outcomes for Indigenous students.

This review therefore seeks evidence of the impact of the role of school leadership in fostering student engagement and improving educational outcomes for Aboriginal students. Evidence was also sought on whether the involvement of stakeholders, such as community members, is associated with higher achieving schools and positive long term impacts on child development and educational achievement for Aboriginal students in Australia. However, much of the extant literature is not empirically based and many initiatives discussed have not been subject to rigorous review or evaluation. As a consequence Guenther (2020) reports that there is a dearth of empirical evidence in the literature regarding the influence of school leadership on the outcomes for Aboriginal students. Therefore, much of the literature did not meet the systematic review criteria. Findings in the grey literature and unpublished theses were included.
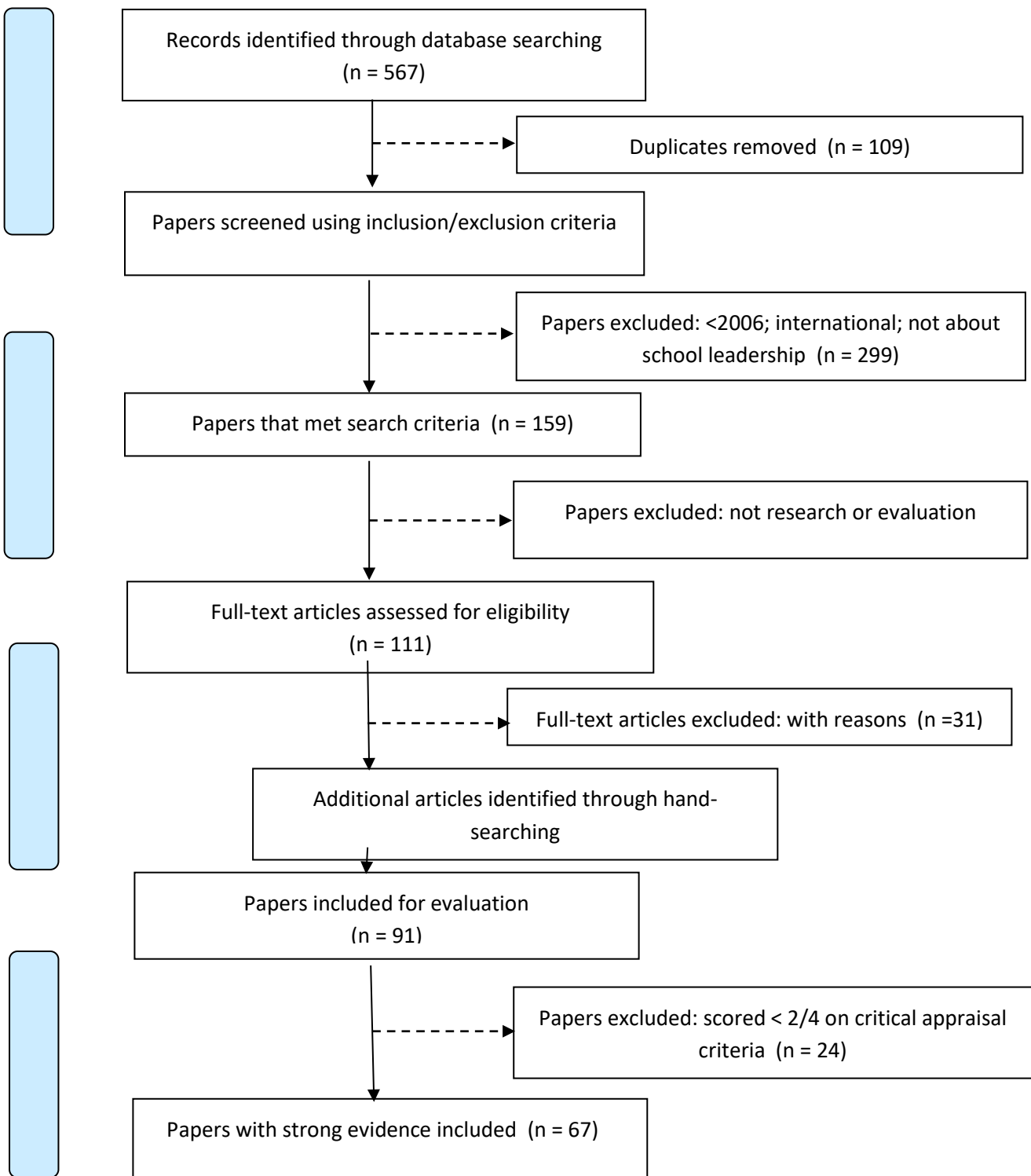
2. Methodology

This review is part of a larger a cross institutional collaboration 'Aboriginal Voices' project to gain greater clarity on the effective engagement of Indigenous students in Australian schools. The methodology reported in detail by Tennant and Lowe (2018) limited the review to Australian based empirical studies relevant to Aboriginal school students over the past 10 years. This methodology was based on the Cochrane Review guidelines (Cochrane Collaboration, 2011; Hannes, 2011) that requires location and analysis of diverse studies to identify findings specific to the identified research question. Each of the reviews focuses on a research question designed to investigate an aspect of schooling structure or practice that impacts the sustained improvement of educational outcomes for Aboriginal students. The PICo mnemonic (Cochrane Collaboration, 2011) was used to ensure that central elements were identified in developing the research question; namely the research population, the phenomenon of interest being investigated and the specific context to which the research was relevant (Stern et al., 2014).

In conjunction with these elements, all researchers within the Aboriginal Voices project adopted critical Indigenous methodology that applied the critical principles of relationality; the construct of

knowledge; and supporting substantive change to Indigenous students' experiences of schooling (Lowe & Tennant, 2018; Wilson, 2001). To this end the systematic review questions were developed to be relevant and meaningful to Indigenous communities. These guiding principles are reflected in the research question below that guided this systematic review to investigate the Australian research evidence of the role of school leadership in supporting sustained change in Aboriginal student learning and social outcomes. Implicit in this research question are the impacts of school policy, governance and decision-making on local communities and students histories and current experience, their agency and the "need to transform both policies and practices used to subjugate Indigenous peoples (Smith, 2000)". For this review the research question identified was: What is the role of school leadership, and its relationship with community, in developing an environment to support sustained change in Aboriginal student learning and social outcomes?

The phases of the systematic review are described in detail by Lowe and Tennant (2018) and the number of papers included and excluded at each phase for this study are shown in Figure 1.

FIGURE 1: Prisma flow diagram

Records identified through database searching (n = 567)

⟶ Duplicates removed (n = 109)

Papers screened using inclusion/exclusion criteria

⟶ Papers excluded: <2006; international; not about school leadership (n = 299)

Papers that met search criteria (n = 159)

⟶ Papers excluded: not research or evaluation

Full-text articles assessed for eligibility (n = 111)

⟶ Full-text articles excluded: with reasons (n =31)

Additional articles identified through hand-searching

Papers included for evaluation (n = 91)

⟶ Papers excluded: scored < 2/4 on critical appraisal criteria (n = 24)

Papers with strong evidence included (n = 67)

For this research question on the role of school leadership three focus concepts were identified: Educational Leadership; Schools; Aboriginal. Before undertaking initial database searches it was necessary to identify other key words that may be used in paper titles and abstracts as an equivalent to these concepts. Use of database thesaurus capacity identified terms that were subsequently used in the searches. In the search for 'credible evidence' the review did not restrict literature to academic research literature alone. The searches described above found reports, peer-reviewed conference papers, journal articles and book chapters and theses. Both authors conducted screening of titles and abstracts to independently apply the agreed inclusion and exclusion criteria for all reviews in Table 1.

Current research literature 2006 – 2016
Australian based relevant to Aboriginal and Torres Strait Islander
Peer-reviewed and published articles, books and chapters
Reporting evidence empirical and effects focused studies about practices/interventions or other demonstrated programs in Aboriginal education [primary/secondary education] that have made claims of effectiveness based on primary research
NGO and government reports – if significant and evaluative and are considered primary sources of data

Table 1: Critical review criteria

Papers that did not meet all of these criteria were excluded. To assess the quality of the remaining papers, a filtering and selection process was used to rank the papers according to relevance to the question based on review of full text. Each paper was reviewed and ranked, from 1 to 4, according to commonly accepted quality in research studies (Long & Godfrey, 2004) using the criteria in Table 2.

Issues addressed
Methodology
Participant type
Research methods
Factors for success/failure
Key findings
Themes
Significance
Reason for exclusion

Table 2: Critical appraisal criteria

Where papers did not mention or describe a methodology or did not respond directly to the research question for the review, they were filtered out of the included studies (Hannes, 2011; Snijder et al., 2015). Hand searching was then undertaken for any additional items missed by the review.

It should be noted that strict application of the systematic review criteria resulted in significant papers focusing on policy process, procedures and accountability requirements on leadership and decision-making being excluded as not being empirically based they did not meet the required systematic review criteria. This was considered by the research team as a significant limitation to the research given the specified importance of the impacts of school policy, governance and decision-making in the research question. As a consequence, seminal papers that discussed policy, governance or decision making and their impact on leadership were reinstated as being relevant and significant for the purpose of this review.

As the majority of the included study methodologies were qualitative (over 85%) it was decided that an interpretive analysis framework (Evans, 2002; Thomas & Harden, 2008) would be more appropriate than tabular presentation of the data followed by narrative description that is more commonly used for Systematic Review findings. The Thomas and Harden (2008) strategy was used to develop the themes derived from the findings and a list of major findings for each study was entered into Endnote as part of the critical analysis. Studies were compared to determine relationships, similar themes and key explanatory phrases. To check for accuracy, themes were described independently by two researchers. Findings were then presented describing all agreed themes with supporting exemplars from the original studies as evidence.

3. Emerging Themes

The emerging six themes were consistent across the literature and showed significant alignment with findings from other systematic reviews in the Aboriginal Voices project. The six key emerging themes are identified as: relationship to and collaboration between principals and community; complexity of principal role; models and styles of leadership; leadership of curriculum and pedagogy; participation and assessment; and finally impacts of governance, policy, procedures and accountability requirements on leadership and decision-making.

Relationship to & collaboration between principals and community

Studies within this theme identified actions where the principal and/or community took the initiative to lead or co-lead the development a school and community engagement project. They provided evidence of the effect of relational leadership in initiating authentic school and community projects and in doing so advance our understanding of what motivated parents to exercise their agency to affect school action. It is imperative for school leaders to be aware of contextual factors and differences in expectations and values of communities as only through engagement with community can differences in what is valued systemically and by family and community can be identified. While encouraging promotion of partnerships AESOC (2006) identified the importance of the distinction between 'leadership in Indigenous schools' and 'Indigenous leadership in schools' both of which are critical to this theme. While the majority of studies relate to the former, a small number focussed on the latter and difficulties that can arise when Indigenous leaders are off country.

Difficulties related to the conflict of cross-cultural expectations of central administration and the expectations of the community were identified by Kamara (2009, 2017) who clearly demonstrated this complexity of the leadership role for Indigenous leaders, in addition to the importance of community links. Using rich biographic narratives of five Indigenous female principals, the study revealed the daily complex roles and challenges of being a female Indigenous principal in communities that are grounded in broader Indigenous epistemologies, beliefs, and value systems yet

to be fully embraced by mainstream educational leadership perspectives. The key message from these principals was that leadership must extend 'beyond the school gate' and principals have to act as advocates for the school and the community.

Successful leadership in Indigenous schools requires a collective effort that needs to be co-constructed to empower community leaders, serve individuals and the community. One positive approach identified was for principals to be open to intercultural space and both-ways leadership. This was found to be a necessary precursor to culturally relevant conversations. Leadership undertaken by Indigenous community was found to have positive impacts in situations where the community was empowered through a school initiated project and also where family and community took the lead role. The strength of effective partnerships between parents, teachers and the community was illustrated in remote pre-school literacy project reported by Fluckiger, Diamond and Jones (2012). Mothers said they felt empowered when equal value and respect were accorded to them as key participants in what was described as a 'yarning space'. Similarly Riley and Webster (2016) reported on the Principals as Literacy Leaders with Indigenous Communities (PALLIC) project undertaken in 48 schools in the Northern Territory, South Australia and Queensland. Central to this project was the establishment of positive working relationships and shared leadership between school principals and Indigenous community leaders to improve literacy rates. Establishing shared leadership power and responsibility (partnerships) between schools and communities was found to provide opportunity to maximise attendance, engagement and achievement.

Osborne (2013) indicates that cultural competency is critical and lack of engagement by community should not necessarily be interpreted as lack of support for children's learning or the school. Shay and Heck (2016) surveyed 19 flexi school leaders located in low socioeconomic areas where relationships between young people and staff were a focus of the school and created a sense of belonging within the school and wider community. This approach worked positively to improve participation and demographic data collected showed high numbers of Indigenous staff employed and of Indigenous young people participating in these schools.

The importance of trust, respect, reciprocity and cultural understanding was identified by Lowe (2017) in a multi-site ethnography that found failure reported by participants was related to limited knowledge of teachers about culture. While social and cultural dissonance is very strong, engagement was possible and the benefits went both ways for school and community. Relational attributes of authentic engagement were needed for such two way relationships.

Complexity of principal role

The role of principals has become increasingly complex including responsibility for system accountability, curriculum leadership, community liaison, financial and human resource management; through to cleaning and fixing broken toilets if based in a small community school. Impacts of this overload in regards to time that can be allocated to any given component of the role are significant.

Complexities faced by principals in day-to-day management of schools were found to inhibit capacity for leadership. Niesche and Keddie (2014) looked closely at the complexities of school leadership through case studies of the actual day-to-day work of two school principals. The importance of context was highlighted in the numerous difficulties principals tackle daily in realising their roles and how they are often required to re-think and re-work their role and daily tasks due to a range of contextual factors. These factors included remoteness and its associated lack of access to resources, inexperienced teaching staff and high turnover of both principals and teaching staff. It is clear, given the complexity of the role, that remote appointments should not be given to new principals (Gurr, Drysdale, Clarke, & Wildy, 2014). Gurr, et al. conducted case studies identifying issues with endless demands for bureaucratic accountability that created difficulties in managing complexity and

balancing of tasks. They emphasised the need for effective professional learning and leadership experience prior to principals being placed in 'high need' schools.

Johnson, Dempster and McKenzie (2013) also discuss complexity within the PALLIC program where principals' role in leading curriculum change required them to build home-school-community partnerships, including visiting families in their homes to build capacity of families. Lovett, Dempster and Fluckiger (2014) found that full partnerships between homes and schools was necessary to enhance children's learning. They discuss the impact on the participants and their work to establish a two-way leadership partnership around literacy learning, specifically in the teaching of reading. This significant role that principals have, and need to have in communities, adds to the complexity and leaves little time for curriculum leadership.

Models and styles of leadership

Styles of leadership were overtly reported in few studies but implied in many others focussing on relationships with community and complexity of the principal role. In each case collaborative models, distributive leadership, servant leaders and transformative leaders are recurring as those that enable empowerment of community and engagement of community, teachers and students in innovative approaches and programs that positively impact on achievement.

The impact of cultural context on leadership practices for principals and teachers working in Indigenous education contexts is critical to ensure that social exclusion in education is addressed. It was clear that a key role of principals was leadership for equity and diversity. Using secondary data from an ARC project for a cluster of three small remote Indigenous community schools in Western Australia, Jorgenson and Niesche (2011) found that distributed curriculum leadership for numeracy assisted reform through collaborative pooling of limited resources. In a case study of one principal Keddie and Niesche (2012) concluded that leaders need to engage in critical situational analysis of Indigenous politics, relations and experience. They found leadership style was shaped by assumptions about race and political dynamics of school community, critical situational analysis of Indigenous politics, relations and experience. Their analysis demonstrated that where leadership style is incompatible or tokenistic to Indigenous culture there was binary opposition in promotion of high expectations for academic outcomes and development of cultural pride.

Dempster, Lovett and Fluckiger (2016) demonstrate that 'Both Ways' leadership and yarning within the intercultural space is a necessary precursor for culturally relevant conversations and the development of collaborative trusting community relationships. Positive impacts were noted from increasing interaction between the Aboriginal community and schools and the establishment of two-way leadership partnerships around the teaching of reading and numeracy. Frawley and Fasoli (2012) came to the view that leadership needs to occur in the cross cultural space with identified mutual benefit. In addition to mutuality and reciprocity, valuing of diversity and authentic relationships were identified as critical to intercultural leadership.

Through an ethnographic case study Kameniar, Imtoual, and Bradley (2010) approach the discussion of leadership through framing problems as "wicked". Wicked problems are people focused and complex with innumerable causes, tough to describe, and have no simple right answer. Framing of all problems as educational and most as wicked was found to impact on how participants responded in decision-making. The study found that trait, situational and contingent approaches better suited leadership and decision-making in 'Third Space' as they involve commitment to dislodging cultural hegemony and social hierarchy. In contrast, command and management styles of leadership (Grint, 2005) tend to reproduce white race and middle-class dominance in determining solutions to problems. The approaches discussed under the first theme by Kamara (2017) who recommends "leading from the heart not the head" demonstrate servant leadership intended to empower the

community. While there was no one best method of leadership because all communities are unique, distributed and collective leadership styles were found to have positive results across the studies.

Leadership of pedagogy and curriculum

While leadership may become subservient to management in schools due to the many demands on principals' time, the role of leadership in curriculum change is very important, particularly for principals in small remote Indigenous schools. The complexity of the role (Theme 2) combined with inexperience and cultural unpreparedness can make it hard for school leaders to make an impact on learning (Jorgensen, 2012; Luke, et al., 2013). Jorgensen and Niesche (2011) outline unique challenges faced by principals of remote schools and argue that new approaches to curriculum leadership are required to effectively implement both curricular and pedagogical reforms in these schools. They propose the distribution of curriculum leadership to consultants who travel between schools as one option for ensuring that curriculum and pedagogy remain central for students and staff in remote schools where principals have limited resources and many competing priorities.

Other studies showed that principals can lead curriculum change where they build on home-school-community partnerships through collective leadership. Three early literacy and numeracy curriculum programs which included this style of leadership demonstrated improvements in curriculum implementation and academic results: Principals as leaders of Literacy in Indigenous Communities (PALLIC) (Johnson, Dempster, McKenzie, 2013; Lovett, Dempster & Fluckiger, 2014; Riley & Webster, 2016), Parents and Learning (PaL) (Fluckiger, Diamond & Jones, 2012; Klieve & Fluckiger, 2015) and Representations of Oral Language and Engagement in Mathematics (Role M) (Warren & Quine, 2013; Warren & Miller, 2013). All three studies highlighted that involvement of Indigenous personnel was essential to successful curriculum change. PALLIC emphasised the importance of 'two-way' leadership partnerships around the curriculum with community leaders; RoleM emphasised the involvement of Indigenous education officers; and the PaL progam emphasised the importance of parental involvement. They also found that curriculum materials had to be specifically designed so that they showed respect for parental and community voice.

Results from the PALLiC program (Johnson, Dempster, & McKenzie, 2013; Lovett, Dempster & Fluckiger, 2014; Riley & Webster, 2016) supported the need for principals to be supportive of professional learning and if possible to participate in curriculum based professional learning. Owens (2014) found that teachers changed when principals made funds available to assist schools and communities to implement appropriate and effective professional development, to establish partnerships between school and community, to revise teaching approaches and curriculum, and to value family and Aboriginal cultural heritage. However, principals are finding it increasingly difficult to be personally involved in professional learning because of the competing time demands of other roles (Theme 2). This is problematic as studies indicate it is a critical factor for increased learning outcomes (Principals Australia Institute, 2014).

Another finding related to Theme 1, was frequent changes in principals in Indigenous schools led to equally frequent changes in curriculum that was often seen as challenging for long-term Indigenous staff. This was a factor in the lack of implementation of new curriculum (Jorgensen & Niesche, 2011). Warren and Quine's (2013) in-depth case study provides evidence showing a way forward, and supports a growing body of research that shared school leadership, and its accompanying power and authority, is associated with improved learning outcomes for students. This claim is supported by schools students' significantly improved academic results after the first year of RoleM, when power and authority were a shared concern (Warren & Miller, 2013).

Participation and achievement

Studies that directly addressed the areas of lowered engagement, achievement and completion of Indigenous students in remote schools outlined the impact of specific leadership programs that had differing levels of success in increasing engagement and academic results. Luke et al. (2013) found in an extensive mixed-methods evaluation of the Stronger Smarter Institute program in Queensland schools that there was limited impact on engagement and academic outcomes as a result of implementation of the program. Although they did indicate that it would take three years to see any impact on academic results from a leadership program.

The results of the 'Whatever it Takes' strategy by the Queensland state schooling system to boost attainment of the Queensland Certificate of Education (QCE) by Year 12 students was reported by Button, Dungan, Nixon and Walton (2016). This was a purposeful reform program pursued by the Queensland Department of Education and Training (DET) during 2014–15 'Close the Gap' to boost certification for students exiting Year 12 in state schools. This state-wide program offering intensive case study management and individualised support achieved its objectives in increasing certification in all regions. These increases were achieved within two years in some regions of Queensland.

Lester (2016) in an extensive 4 year longitudinal Ph.D. study of one region in New South Wales challenged the overemphasis on attendance as one of the primary causes of poor Indigenous educational outcomes. He also criticised the emphasis on and interpretation of statistics that lead to Indigenous learners and families as being labelled as dysfunctional claiming that, in reality, 85% of Indigenous children in NSW attend school regularly at least until the middle of high school.

Other strategies proposed in this review that can be implemented by school leaders concerned the use of alternative and flexi Schools. Keddie (2014) in a study of an Independent K-12 Indigenous school in Queensland, found that emphasis on relationality offered significant potential for increasing positive outcomes. This finding was also supported by Rahman (2010) who found culturally respectful environments that promote positive cultural identity assist students and increase their potential for achievement. Shay and Heck (2016) supported the use of flexi schooling where there was support for changes in school timetables that suited Indigenous families' cultural responsibilities e.g. school timetables were changed to being in the wet season when families travel less. Other flexible schools adjusted assessment task schedules to meet the needs of individual students, made adjustments based on family situations and other legal concerns such as court attendance, and employed high numbers of Indigenous staff. In the Keddie (2014) study these measures also increased achievement and participation.

Impacts of governance, policy, procedures and accountability requirements on leadership and decision-making

Impacts of policy process

The focus on policy has been included as an important component within this review as competing discourses in top-down and bottom-up policy impact on both policy development and implementation. There are incongruities between local discourses that emphasise bi- and multilingualism, local identity and knowledge and community language maintenance and institutional discourses. The dominant discourse and power dichotomy impact representation and development of policy based in difference that is counter-productive for Aboriginal students. Guenther, et al. (2014) indicate that the "discourse of disadvantage leads to a deficit approach to the development of policy where Aboriginal children are considered as a special interest group and can become "objects of policy" (Moore, 2012). Moore points to a need for dynamism in the policy process that includes an intercultural approach to recognise and engage in complexity and context (ibid).

Purposeful reform is currently being undertaken in State education systems across Australia to respond to identified issues and impact on current practice in schools. A program to increase QCE attainment is being pursued by the Queensland Department of Education and Training to boost certification for students exiting Year 12 in Queensland state schools. Another example that has been reported is the review of governance and operational arrangements, engagement of the Aurukun community in Queensland (Dept of Education and Training, 2016).

Impacts of governance, procedures and accountability requirements on leadership and decision-making

One of the contributors to the complexity of the principal role discussed in the second theme above has been the result of moves towards decentralization and deregulation of governance in schools leading to a rise in school-based decision-making and management, which has occurred simultaneously with an increase in accountability mechanisms in the form of national standards, curriculum and testing. Principals therefore find themselves trying to balance these endless demands for bureaucratic accountability requirements and simultaneously meet the particular learning needs of their students and local community.

In particular, the emphasis on high stakes testing (NAPLAN) is seen to be crowding out Indigenous language and other culturally valued learning (Disbray, 2016). Related to this is the argument that the discourse of disadvantage is being applied to Aboriginal education statistics. Guenther, et al. (2014) suggests a need to reconceptualise what is assessed to include alternative measures of what is important to communities and culture. This can include spaciality, including residential patterns and how such choices impact on itinerancy, student learning & school functionality (Disbray, 2016; Prout, 2009, 2010).

While all principals face the dilemma of balancing governance requirements and local needs, Osborne (2013) indicates that remote school principals in particular find themselves caught in between governmental discourse and the voices and values that exist in the remote communities where they live. He questions whether Aboriginal students are learning from provided education and the relevance of the systemic measures of 'success' including measures of attendance, literacy and numeracy benchmark scores, student retention rates and transition from school to university, accredited training, or employment which compromise the Gap in a study of three Pitjantjatjara language oral narrative transcripts where Anangu reflect on their experiences of growing up and learning. Osborne (2013) concludes that collaboration and communication are required to establish flexible ways to work collaboratively with communities in regard to itinerant attendance, and lack of literacy and numeracy as measured by systemic testing. Similarly, Frawley & Fasoli (2012) suggest that measures of attainment through systemic testing are also less likely to be valued by individual students and their families as learning outcomes they have achieved.

Disbray (2016) draws on a model of ideological and implementational spaces to discuss competing policy discourses using data from an ethnographic study involving principals, teachers, and community members in remote locations in the Northern Territory. The study found that these stakeholders work together in some schools to develop vibrant programmes but also revealed incongruities between local discourses, local identity and knowledge and systemic institutional discourses which promote a uniform model of education where English literacy underpins the dominant measures of educational success.   Focusing on the issue of itinerant attendance Prout (2009) also highlights the dichotomy between the policy discourse that encourages sedentarism and the need for mobility for families for employment, housing, cultural practices and other reasons. Transience and turnover of teachers is also a significant issue for communities that does not receive as much attention in Closing the Gap policy discourse as transience of students but is argued by Prout to be a major issue for students and communities who recommends that practitioners and

policy makers leverage enrolment and attendance data to reconceptualise and adapt policy and practice to acknowledge transience and enhance Indigenous engagement with formal education systems.

4. Discussion and Conclusion

While traditional systematic review methodology has tended to focus on quantitative methodologies, this systematic review used quality criteria and critical interpretive analysis of evidence that was inclusive of qualitative results due to the predominance of qualitative studies included in the final critical analysis. Similar to Guenther's (2020) findings, this included studies based on post-graduate theses which were qualitative in methodology and ranked highly in terms of quality criteria. It should be noted that the evidence contained in these studies has taken a long time to be published or has not yet been published in the empirical literature. This is significant as these studies are based on and report empirical research evidence that address current gaps in the literature.

The results were largely consistent across researchers, states and different education systems, particularly for the need to "Both-ways" leadership styles, cultural competency and community involvement in decision-making and curriculum implementation. There was also agreement on the need for appointment of experienced and culturally competent leaders in Indigenous schools who are capable of implementing a shared model of leadership and will be committed to the community for a minimum of 5 years or more. Systemic financial incentives to retain principals and talented and experienced staff in 'high needs schools' so that relationships, curriculum and other initiatives can be sustained over time may be one solution. New models of professional development that include intercultural awareness, and identified leadership models are also required for new leadership patterns to become established and sustainable systemically. Worthwhile ways forward could include the Community of Practice model of professional learning (McLean, Dixon & Verenikina, 2014; Wenger, McDermott & Snyder, 2002) or shared and cluster use of consultants where principals share strategies and resources to build literacy, numeracy and cultural capacity as part of their leadership roles. Greater autonomy for principals in responding to community needs and mentoring for inexperienced principals would also assist.

Research is lacking about how to include Indigenist perspectives and support Aboriginal values and codes of behaviour within a National Curriculum and on ways of empowering Indigenous staff and communities to build capacity for voice, agency, self-efficacy and community leadership. This should include consideration of current assessment regimes and established measures of success which may not equate to achievement of valued learning outcomes from the perspective of individual students, their families or communities. The work of Indigenous scholars nationally and internationally on community leadership (Battiste & Henderson, 2018; Guenther, et al., 2014) and the intercultural space (Martin, Nakata, Nakata & Day, 2017; Nakata, 2002, 2007; Yunkaporta & McGinty, 2009) provides a theoretical base for ongoing initiatives and research. Each initiative or study has the potential to build capacity within a school and local community, to add to the level of cultural safety experienced by Aboriginal students and achievement potential.

The theme of leadership is overarching in that it has the potential to impact all of the focus areas in the broader Aboriginal Voices project. The major findings of this review highlight that the principal's role in Indigenous schools is complex and must extend beyond the school gate to include community as active partners in decision-making and problem solving. Collaborative or Both way models of leadership based on the knowledge of cultural context and tailored to meet the needs of individual communities are essential. This is critically important in rural and remote schools where the principal often has to act as curriculum leader with an active involvement in the professional development of themselves and all staff is needed if implementation of new curriculum is to be

optimised. At present there is also tension between the demands of the general curriculum and the need to embed Indigenous knowledge. Required changes can only be brought about by the recognition of community needs and the development of dynamic and flexible educational policy and organisational structures that work with community as partners to improve engagement, retention and academic and social outcomes.

The Aboriginal Voices project has brought together and highlighted key literature over the past decade on a range of aspects critical to the achievement of social and academic outcomes for Aboriginal school students. For this particular focus area on educational leadership it is anticipated that the empirical evidence collected can be utilised going forward to develop a collaborative leadership model that incorporates consultation and collaboration with Indigenous community leaders and scholars. The outcomes suggest that a fruitful path forward to implement positive change would be to work with school leaders to establish a framework for effective co-leadership of schools and Aboriginal communities through building a cohesive whole school project that has at its core the long-term educational improvement for Aboriginal students. This framework would take into account the need to develop strong Aboriginal identities around language and cultural knowledge and engagement. In conjunction with this it will be key for schools, education systems, Aboriginal community leaders and scholars, to work collaboratively with policy makers at State and National levels to ensure that government and systemic decision-making regarding policy development and implementation is based on critical Indigenous theory and solid empirically based research evidence.

5. References

AESOC (2006). *Australian directions in indigenous education 2005-2008*. P. Albert. Melbourne: MCEETYA.

Australian Government. (2017). *Closing the gap. Prime Minister's report 2017*. Canberra: Department of the Prime Minister and Cabinet. Retrieved on 17 July 2018 from: https://www.pmc.gov.au/sites/default/files/publications/ctg-report-2017.pdf

Australian Government. (2018). *Closing the gap: Prime Minister's report 2018.* Canberra: Department of the Prime Minister and Cabinet. Retrieved on 19 June 2018 from: https://closingthegap.pmc.gov.au/sites/default/files/ctg-report-2018.pdf

Battiste, M. & Henderson, J. [Sa'ke'j Youngblood]. (2018). Compulsory schooling and cognitive imperialism: A case for cognitive justice and reconciliation with Indigenous peoples in K. Trimmer, R. Dixon & Y.S. Findlay, (Eds.) *The Palgrave Handbook of Education Law for Schools* (pp. 567-583). Palgrave Macmillan: Cham, Switzerland.

Bourke, E., Dow, R., Lucas, B., & Budby, J. (1993). *Teacher education preservice: preparing teachers to work with Aboriginal and Torres Strait Islander students: A national reconciliation and schooling strategy.* Adelaide: University of South Australia, Aboriginal Research Unit.

Button, S., Dungan, J., Nixon, L., & Walton, P. (2016). Whatever it takes: Year 12 certification in Queensland. *Australian Educational Leader*. *38*(4), Dec 2016: 28-32.

Caldwell, B. (1990). School-based decision-making and management: International developments. In J. Chapman (Ed.), *School-based Decision-making and Management*. London:The Falmer Press.

Cochrane Collaboration. (2011). Cochrane handbook for systematic reviews of interventions. Cochrane. Retrieved from http://handbook-5-1.cochrane.org/ Dept of EducationTraining. (2016). *Review of school education in Aurukun*. School Improvement Unit, Dept. of Education and Training, Queensland. June 2016.

Dempster, N.,,Lovett, S., & Fluckiger, B. (2016). Leadership learning for unfamiliar cultural contexts. *Leading and Managing 22*(2), 34-46.

Disbray, S. (2016). Spaces for learning: policy and practice for indigenous languages in a remote context. *Language and Education. 30(*4), 317-336.

Eacott, S. (2009). *New look leaders or a new look at leadership*. Paper presented at the Australian Association for Research in Education, Canberra.

Evans, D. (2002). Systematic reviews of interpretive research: interpretive data synthesis of processed data [online]. *Australian Journal of Advanced Nursing. 20*(2), 78-34.

Fluckiger, B., Diamond, P., & Jones, W. (2012). Yarning space: Leading literacy learning through family–school partnerships. *Australasian Journal of Early Childhood*, *37*(3), 54-59.

Frawley, J., & Fasoli, L. (2012). Working together: Intercultural leadership capabilities for both-ways education. *School Leadership and Management. 32*(4), 309-320.

Grint, K. (2005). Problems, problems, problems: The social construction of "leadership." *Human Relations, 58,* 1467-1494.

Guenther, J., Bat, M., & Osborne, S. (2014). Red Dirt Thinking on Remote Educational Advantage. *Australian and International Journal of Rural Education, 24*(1).

Guenther, J., Miller, J., Trimmer, K., Dixon, R. & Lowe, K. (2020). Effective English as an Additional Language or Dialect (EALD) pedagogies for First Nations learners. *Asia-Pacific Journal of Teacher Education* (this issue).

Gurr, D., Drysdale, L., Clarke, S., & Wildy, H. (2014). High-need schools in Australia: The leadership of two principals. *Management in Education. 28*(3), 86-90.

Hannes, K. (2011). Critical appraisal of qualitative research. In J. Noyes, A. Booth, K. Hannes, A. Harden, J. Harris, Lewin S & C. Lockwood (Eds.), *Supplementary Guidance for Inclusion of Qualitative Research in Cochrane Systematic Reviews of Interventions* (Vol. Version 1): Cochrane Collaboration Qualitative Methods Group.

Hannes K. Chapter 4: Critical appraisal of qualitative research. In: Noyes J, Booth A, Hannes K, Harden A, Harris J, Lewin S, Lockwood C (editors), *Supplementary Guidance for Inclusion of Qualitative Research in Cochrane Systematic Reviews of Interventions.* Version 1 (updated August 2011). Cochrane Collaboration Qualitative Methods Group, 2011. Available from URL http://cqrmg.cochrane.org/supplemental-handbook-guidance

Johnson, G., Dempster, N., & McKenzie, L. (2013). The principals as literacy leaders with indigenous communities: professional learning and research. *Journal of Education for Teaching. 39*(4), 457-458.

Jorgensen, R. (2012). *Curriculum leadership: Reforming and reshaping successful practice in remote and regional Indigenous education.* Mathematics Education Research Group of Australasia. Paper presented at the Annual Meeting of the Mathematics Education Research Group of Australasia. (MERGA) (35th, Singapore, Jul 2-6, **2012**)

Jorgensen, R., & Niesche, R. (2011). Curriculum leadership in remote Indigenous communities. *Leading and Managing. 17*(1), 45-58.

Kamara, M.S. (2009). Indigenous female leaders speak 'we were breaking new ground': Biographic narratives as a way of exploring school and community partnerships in Northern Territory Indigenous remote community schools. *Journal of Australian Indigenous Issues. (12)*1-4, 162-176.

Kamara, M. (2017). Remote and invisible: The voices of female Indigenous educational leaders in Northern Territory remote community schools in Australia. *Journal of Educational Administration Hist.*

Kameniar, B.M., Imtoual, A., & Bradley, D. (2010). 'Mullin' the Yarndi' and other wicked problems at a multiracial early childhood education site in regional Australia. *Educational Policy. 24*(1), 9-27.

Keddie, A. (2014). Indigenous representation and alternative schooling: Prioritising an epistemology of relationality. *International Journal of Inclusive Education. 18*(1), 55-71.

Keddie, A., & Niesche, R. (2012). 'It's almost like a white school now': Racialised complexities, Indigenous representation and school leadership. *Critical Studies in Education. 53*(2), 169-182.

Klieve, H., & Fluckiger, B. (2015). Towards an evidence base : Exploring the impact of community-based literacy programs in remote Indigenous communities. *Australasian Journal of Early Childhood, 40*(2), 89-98.

Lester, J. (2016). *Why do Aboriginal kids switch off school?* Callaghan NSW: University of Newcastle thesis. http://hdl.handle.net/1959.13/1318450

Lovett, S., Dempster, N., & Fluckiger, B. (2014). Educational leadership with Indigenous partners. *Leading and Managing. 20*(1), 1-10.

Lowe, K. (2017). Walanbaa warramildanha: The impact of authentic Aboriginal community and school engagement on teachers' professional knowledge. *Australian Educational Researcher. 44*(1), 35-54.

Lowe, K., Tennant, C., Guenther, J., Harrison, N., Burgess, C., Moodie, N. & Vass, G. (2019). 'Aboriginal Voices': An overview of the methodology applied in the systematic review of recent research across ten key areas of Australian Indigenous education. *The Australian Educational Researcher, 46*(2), 213-229.

Luke, A., Cazden, C., & Coopes, R. (2013). A Summative Evaluation of the Stronger Smarter Learning Communities Project: Vol 1 and Vol 2. Brisbane, QLD: Queensland University of Technology.

McLean, F.M., Dixon, R.M. & Verenikina, I. (2014). Bringing it to the teachers: Building a professional network among teachers in isolated schools. Australian and International Journal of Rural Education, 24 (2), 15-22.

Moher, D., Liberati, A., Tetzlaff, J., & Altman, D.G. The PRISMA Group. (2009). *Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement.* PLoS Med 6(7): e1000097.

Moore, T. (2012). Policy dynamism: The case of Aboriginal Australian education. *Journal of Social Policy. 41*(1), 141–159.

Nakata, M. (2002). Indigenous knowledge and the cultural interface: underlying issues at the intersection of knowledge and information systems. *IFLA Journal*, *28*(5-6), 281-291.

Nakata, M. (2007). The cultural interface. *The Australian Journal of Indigenous Education, 36*(S1), 7-14.

Martin, G., Nakata, V., Nakata, M. & Day, A. (2017). Promoting the persistence of Indigenous students through teaching at the Cultural Interface. *Studies in Higher Education*, *42*(7), 1158-1173.

NAPLAN Report. (2017). Australian Government, Canberra. Retrieved on 17 July 2018 from: http://www.nap.edu.au/docs/default-source/default-document-library/naplan-national-report-2017_final_04dec2017.pdf?sfvrsn=0

Niesche, R. & Keddie, A. (2014). Issues of Indigenous representation: White advocacy and the complexities of ethical leadership. *International Journal of Qualitative Studies in Education. 27*(4), 509-526.

Osborne, S. (2013). Kulintja nganampa maa-kunpuntjaku (strengthening our thinking): Place-based approaches to mental health and wellbeing in Anangu schools. *Australian Journal of Indigenous Education, 42*(2), 182-193.

Owens, K. (2015). Changing the teaching of mathematics for improved Indigenous education in a rural Australian city. *Journal of Mathematics Teacher Education. 18*(1), 53-78.

Perso, T.F. (2012). *Cultural responsiveness and school education: With particular focus on Australia's first peoples; a review and synthesis of the literature.* Darwin Northern Territory: Menzies School of Health Research, Centre for Child Development and Education.

Principals Australia Institute. (2014). *Dare to Lead: Partnership Builds Success 2009-2013. An Overview*. Adelaide: Principals Australia Institute. http://www.yooyahcloud.com/DTL/6XxJn/DTL_Report09- 13_WEB.pdf

Prout, S. (2009). Policy, practice and the 'revolving classroom door': Examining the relationship between Aboriginal spatiality and the mainstream education system. *Australian Journal of Education. 53*(1), 39-53.

Prout, S. (2010). Developing measures of population mobility amongst Indigenous primary school students. Canberra: Centre for Aboriginal Economic Policy Research, Australian National University.

Rahman, K. (2010). Addressing the foundations for improved Indigenous secondary student outcomes: A South Australian qualitative study. *The Australian Journal of Indigenous Education 39*(1), 65-76.

Riley, T. & Webster, A. (2016). Principals as literacy leaders with Indigenous communities (PALLIC) building relationships: One school's quest to raise Indigenous learners' literacy. *Teaching Education, 27*(2), 136-155.

Roberts, K. (2009). *Leadership skills that promote successful outcomes for Aboriginal students: New England Region Leadership Fellowship 2008–2009 Laurie Murphy Award.* Inverell, NSW, DEC: 15.

SCRGSP (2014). Overcoming Indigenous disadvantage: Key indicators 2014 - report. Canberra, Productivity Commission: 3252.

SCRGSP (2016). Overcoming Indigenous disadvantage: Key indicators 2016, Productivity Commission for the Steering Committee for the Review of Government Service Provision: 3558.

Shay, M. & Heck, D. (2016). Alternative education engaging Indigenous young people: Flexi schooling in Queensland. *The Australian Journal of Indigenous Education 44*(1), 37-47.

Smith, L. T. (2000). Kaupapa Maori research. In M. Battiste (Ed.), Reclaiming Indigenous voice and vision (pp. 225-247). Vancouver, B.C: UBC Press.

Snijder, M., Shakeshaft, A., Wagemakers, A., Stephens, A., & Calabria, B. (2015). A systematic review of studies evaluating Australian indigenous community development projects: the extent of community participation, their methodological quality and their outcomes. *BMC Public Health* 15:1154.

Stern, C., Jordan, Z., & McArthur, A. (2014). Developing the review question and inclusion criteria. *American Journal of Nursing, 114*(4), 53-56.

Trimmer, K. (2012). *Policy for all? The impact of centrally developed, universally applied policy on decision-making in Western Australian public schools*. Innovative Research in a Changing and Challenging World International Conference Proceedings, Phuket, Thailand 16-18 May 2012.

Trimmer, K. (2013). Independent Public Schools: A move to increased autonomy and devolution of decision-making in Western Australian Public Schools. *Childhood Education, 89*(3), Washington: Routledge, 178-184.

Warren, E., & Quine, J. (2013). A Holistic Approach to Supporting the Learning of Young Indigenous Students: One Case Study. *The Australian Journal of Indigenous Education, 42*(1), 12-23. doi:10.1017/jie.2013.9

Warren, E., & Miller, J. (2013). Young Australian Indigenous students' effective engagement in mathematics: The role of language, patterns, and structure. *Mathematics Education Research Journal, 25*(1), 151-171.

Wenger, E., McDermott, R., & Snyder, W. (2002). *Cultivating communities of practice: A guide to managing knowledge.* Boston, MA:Harvard Business School Publishing.

Yunkaporta, T. & McGinty, S. (2009). Reclaiming Aboriginal knowledge at the cultural interface. *Australian Educational Researcher*, *36*(2), 55-72.