<u>Collaborative inquiry: A process for positive change at Flaxmere</u> <u>College</u>

Jim Hay-Mackenzie

Sabbatical Report 2018

Acknowledgements

Firstly, I would like to thank the Flaxmere College Board of Trustees for supporting my application for the Study Award. Secondly, I would like to thank Louise Anaru-Tangira and Shelley Arnold for their professional advice and leadership over the past six years. Third, I would like to thank Michele Morrison from the University of Waikato for supervising my Directed Study report which this report is based on. Last, arohanui to my marvellous whanau – Natalie, Joseph, Tommy and Rosa – for supporting me in my professional endeavours.

<u>Abstract</u>

This report examines the literature on collaborative inquiry and its effectiveness at Flaxmere College. Collaborative inquiry occurs when a community of teachers who come together to improve teacher practice, student learning and achievement outcomes. Inquiry is the process that groups use for educational improvement. Hord (1997), in her study of Professional Learning Communities (PLCs), identified five attributes of collaborative inquiry – supportive leadership, shared values and vision, collective learning and application of learning, shared personal practice and supportive conditions. These attributes have been supported by other writers and researchers of collaborative inquiry. Research has shown that collaborative inquiry improves teacher efficacy, practice and student achievement outcomes. For Flaxmere College, collaborative inquiry has been successfully implemented, helping to improve teacher efficacy, and teaching and learning of literacy. The next step for the school is to focus on how teacher actions improve student outcomes; to re-establish external partnerships with educational providers; to continue to encourage teacher leadership in the school; and to include the wider community in the inquiry process.

Tables of Content

Acknowledgements

Abstract

- 1. Introduction
- 2. Literature review
 - 2.1 What is collaborative inquiry?
 - 2.2 What makes effective collaborative inquiry in schools?
 - 2.3 What are the barriers to effective collaborative inquiry?
 - 2.4 How effective is collaborative inquiry?
- 3. Flaxmere College collaborative inquiry
 - 3.1 How does collaborative inquiry work at Flaxmere College?
 - 3.2 What are the positive effects of collaborative inquiry at Flaxmere College?
 - 3.3 What are the next steps for collaborative inquiry at Flaxmere College?
- 4. Conclusion
- 5. References
- 6. Appendices

1.Introduction

Collaborative inquiry has been described as the "dominant structure for educator professional learning in the twenty-first century" (DeLuca, Shulha, Luhanga, Shulha, Christou and Klinger, 2015, p.640). Collaborative inquiry is a teacher professional learning development (PLD) approach to improve teacher practice and student outcomes. Groups involved in collaborative inquiry have various names, such as Professional Learning Communities (PLCs) and Professional Learning Groups (PLGs). As noted by DuFour (2004), PLCs have been used to describe a variety of groupings of educators. For the purpose of this report, I will use Jackson and Street's (2005) definition. They define collaborative inquiry as "individual practitioners in a school choosing to come together to investigate and learn more about an aspect of their practice in order to enhance the learning of the children they teach or the school as an educational community" (p.10).

As a deputy principal (DP) at Flaxmere College, I believe collaborative inquiry is integral to pedagogical change in the school. Collaborative inquiry is a way to challenge teacher beliefs about teaching and their students. I believe it improves teacher efficacy, practice and student outcomes.

The first section of the report reviews the literature on collaborative inquiry. I firstly look at what defines collaborative inquiry. Using Hord's (1997) five attributes of PLCs – supportive learning leadership, shared values and vision, collective learning and supportive conditions – I discuss the literature and research that supports these attributes. I also look at barriers to effective collaborative inquiry. Finally, I examine the research on the effects of collaborative inquiry on teacher efficacy, teacher practice and student achievement outcomes.

The second section focuses on Flaxmere College's experience of collaborative inquiry. I discuss how the school carries out collaborative inquiry to improve literacy and how it follows Hord's (1997) five attributes. I examine how collaborative inquiry has improved teacher efficacy, teacher practice and student literacy outcomes. I also examine the next steps for inquiry in the school.

<u>2. Literature review</u>

2.1 What is collaborative inquiry?

<u>Community</u>

Community is an important aspect of collaborative inquiry. As previously stated, Jackson and Street (2005) believe that collaborative inquiry is an "educational community", (p.10), where teachers come together to improve teacher practice and student learning. This view is shared by other writers and researchers. Collaborative inquiry needs to be school based and have active involvement of teachers. For Stoll, Bolam, McMahon, Wallace and Thomas (2006), the group is a "community of learners" (p.225) and collective learning is the focus for the teachers. As mentioned by Jackson and Street (2005), the goal is to improve teaching and learning. This is supported by Hipp and Huffman (2010), who believe teachers need to be in collegial groups, where they learn in their communities, with a focus on student outcomes. For the authors, a PLC's inquiry is based on student data "and [is] defined in terms of what the professionals need to learn and change for students to learn more successfully" (p.x). Collaborative inquiry groups need to be learning orientated and socially independent with shared goals and practices (Westheimer, 1998, as cited by Wiseman, Arroyo and Richter, 2012). Communities of teachers, with a focus on improved teaching and student outcomes, is essential for collaborative inquiry.

<u>Inquiry</u>

Inquiry is seen as a way of improving teacher practice and student outcomes. All inquiry models for professional communities involve identifying an educational goal or problem, providing a plan of action, acting on the plan and reflecting on the action. According to

DeLuca et al. (2015), the key features of collaborative inquiry are dialogical sharing, taking action and reflecting. Dewey (1929) believed that inquiry was integral to teaching and perceived teaching as a science: "In its very process it sets more problems to be further studied, which then react into the educative process to change it still further, and thus demand more thought, more science, and so on, in everlasting sequence" (p.77). Stenhouse (1975) also believed that teachers should follow a scientific approach to teaching, where "each classroom is a laboratory, each teacher a member of the scientific community" (p.142). School inquiry, according to Jackson and Street (2005), is not academic research where teachers have to justify the validity of their findings. Teachers need to design research that is "valid and reliable in relation to the [school's] purpose and their... context" (p.12). Teachers use inquiry to improve their personal teaching practice and their students' learning and achievement.

In New Zealand, inquiry is an integral part of the teaching profession. The Standards for the Teaching Profession require teachers to "use inquiry, collaborative problem solving and professional learning to improve professional capability to impact on the learning and achievement of all learners" (Education Council of New Zealand, 2017, p.18). On the New Zealand Ministry of Education website (Ministry of Education, 2009), the approach is described as teaching as inquiry (TAI). There are four parts to the inquiry cycle – focussing inquiry, teaching inquiry, teaching and learning, and learning inquiry. With TAI, teachers devise a focus for their inquiry, research the needs of the students and implement a plan of action. Through the learning inquiry stage, teachers evaluate the effectiveness of their actions and from this a new focus is developed. Another inquiry model based on TAI is Timperley, Kaser and Halbert's (2014) spiral of inquiry. With the spiral of inquiry, teachers

need to also focus on new learning, their "hunches" of the students' learning and their own teaching practice. The model involves teachers continually checking the effectiveness of their practice. Spiral of inquiry makes teachers "adopt a curiosity mindset to identify what is going on for learners and to develop some hunches about what is leading to the current situation, before deciding what to do about it" (Timperley et al., 2014, p.6). In New Zealand, TAI and spiral of inquiry are important teacher tools for improvement.

Organisation of collaborative inquiry

The ways in which collaborative inquiry are established and grouped vary. Some collaborative inquiries are part of national educational initiatives, with support and guidance provided from national or local educational ministries. These groups – formal, top-down communities (Vangrieken, Meredith, Packer and Kyndt, 2017) – have a set timeframe for change, with the aim of shifting student achievement toward an educational priority. Other communities are started by school leaders or teachers – member orientated communities (Vangrieken et al., 2017) – using collaborative inquiries to help improve teaching or achievement in their school. Collaborative inquiry groups can be organised in different ways. In schools, collaborative inquiries can be formed within school departments or syndicates as a way in which teachers can look at improving outcomes for students in their subject levels or year groups. For example, a Year 6 syndicate group in a primary school might investigate how to improve numeracy achievement; in a secondary school a Science department might look at improved writing strategies for senior students. Writers and researchers have noted the effectiveness of communities made of pre-existing groups, such as departments and syndicates, where trust between teachers already exists (DeLuca et al. 2015; Vangrieken et al., 2017). Other communities include specialised groups formed within

the school to look at specific areas of improvement. For example, a secondary school could set up a cross-curricular community to investigate improved vocabulary strategies across departments. It is also common for collaborative inquiries to be established between teachers of different schools as a way of meeting common educational issues facing students regionally or nationally. For example, a subject association could set up a group to investigate strategies required for that subject. With all types of collaborative inquiry, groups need to have shared goals and there is a focus on improving teacher learning and outcomes for students.

2.2 What makes effective collaborative inquiry in schools?

Hord's five attributes of PLCs

In Hord's (1997) analysis of PLCs, she identified five attributes needed for successful communities. Hord's attributes are also supported by other writers, such as Kruse, Louis and Bryk (1994), Stoll et al. (2006) and Vangrieken et al. (2017). Hord's (1997) attributes form the focus of my analysis of collaborative inquiry and its effectiveness in schools. Collaborative inquiry requires supportive and shared leadership. For Hord, school leaders need to become participants in the communities, allowing and supporting teachers to make decisions in their groups. Hord believes principals should not believe they are omnicompetent and do not need to participate in collaborative inquiry. Principals should not be a "top-down agents of change or seen as the visionaries of the corporation", but "must be envisioned as democratic teacher[s]" (p.17). The leaders must participate in communities and encourage learning amongst teachers. Shared values and vision provide the focus for collaborative inquiry. Hord believes a shared vision "(p.19). Students are the

main focus for inquiry and they should be viewed by teachers as "academically capable" (p.19). Staff are responsible for actions they take and "the common good is placed on par with personal ambition" (p.20). Collective learning and application of learning is important. With teachers working together, this helps to facilitate conversation and leads to participants learning "to apply new ideas and information to problem solving" (p.19). Teachers also need to be willing to share their personal practice with other teachers. For Hord, this involves teachers visiting other teachers' classes and providing feedback. This creates "mutual respect and understanding [which are] the fundamental requirements for this kind of workplace culture" (p.23). Supportive conditions are needed for PLCs, such as time and a venue to meet. Schools need to allow meeting times for teachers to discuss their inquiry. There also must be respect and trust in these groups. Each attribute of PLCs is intertwined and is important to the success of the inquiry.

Other writers and researchers have identified other attributes for collaborative inquiry. Stoll et al. (2006) believes that PLCs should be school-wide projects, including support staff and the extended school community. The authors also believe in partnerships and networks outside the school are required for the communities. Vangrieken et al. (2017) believe that PLCs should be coherent with the values of the school, sustainable and integrated into teacher's daily work. Inclusivity, partnerships, coherence, sustainability and integration are important attributes that should also be considered for collaborative inquiry.

Supportive and shared leadership

Literature on collaborative inquiry supports Hord's (1997) assertion that leadership determines the effectiveness of PLD. For Vangrieken et al. (2017), leaders in schools have an overview of the collaborative inquiry process. Principals usually initiate inquiries, provide

financial support, are actively involved in the design and implementation, and provide time for staff to complete the inquiry. Leaders can also set the vision, learning culture and conditions for the inquiry. They are co-leaders, where they learn about the collaborative process and share the process with staff (DeLuca et al., 2015). According to Tschannen-Moran, Uline, Woolfolk Hoy and Mackle (2009), the principal "can share their problemsolving knowledge and create a culture in which a common set of values drives the decisions that are made" (p.257) so that "habits of practice and mind become imbedded" (p.258). Trust, an important part of Hord's (1997) supportive conditions for PLCs, is an important element that Nelson (2009) believes leaders need to develop in their group. Within collaborative inquiry groups, writers and researchers have noted the importance of group facilitators, who need to have the ability to communicate with teachers, deal with group conflict and keep communities on track (Andrews and Lewis, 2007; Smith, Wilson and Corbett, 2009; Vangrieken et al., 2017). Leadership provides the direction and conditions for collective learning to take place.

There is debate on the type of leadership that is needed for collaborative inquiry. Much literature supports Hord's (1997) view that leaders need to take a shared leadership approach to collaborative inquiry. Strike (1999) states that PLCs should follow democratic principles of inclusivity. Harris (2003) believes that teacher leadership is a "collective action, empowerment and shared agency" (p.317) and is an important component of PLCs. Andrews and Lewis (2007) believe that leadership needs to be dynamic, "with teachers taking on pedagogical leadership roles within the professional community" (p.144). On the other hand, some literature suggests that school leaders should have a direct influence on the communities. Wiley's (2001) research showed that transformative leadership has the

greatest effect on the PLC, with leaders providing the direction and inspiration for change in the communities. As noted by Vangrieken et al. (2017), principals and leaders can set the focus, also the structural conditions – time and venue – for the inquiry. Bryk, Camburn and Louis (1999) believe a principal needs to be both managerial, such as providing time and resources for the inquiry, and also supportive "by nurturing a normative climate in which innovative professional activity is supported and encouraged" (p.757). A balance is needed whereby leaders give teachers in groups the freedom to adapt their inquiry for their students, while also providing direction and advice for the communities.

Shared values and vision

Literature on collaborative inquiry has identified shared values and vision as an essential attribute. A shared vision provides an important focus for participants in the inquiry. It is also important that the group has a shared understanding on the processes in the group and similar educational values. Louis, Kruse and Bryk (1994) believe that the other elements of PLCs can not exist "without a core of shared beliefs about institutional purposes, practices and desired behaviour" (p.7). DuFour (2004) believes that student learning and achievement needs to be at the centre of the inquiry. For DuFour, teachers should not be asking what they need to teach but "how will we know when each student has learned?" (p.10). For this to happen, teachers need to have the belief that students are capable of improvement, an important assertion made by Hord (1997). For Louis et al. (1994), teachers need to have a positive view of their students' capability "and provide learning environments responsive to and supportive of student achievement" (pp.42-43). According to Timperley et al. (2014), a teacher inquiry involves teachers "getting [their] deeply held beliefs out on the table about their own practices" (p.14). According to the authors, it is not

the point of the inquiry to blame "the students, the parents, the governing board, the teachers, the community, [or] the elementary school" but "to take direct responsibility for the areas over which [teachers] do have influence and control" (pp12). For collaborative inquiry, not only do teachers need to have shared goals and practices, participants need to have a positive view of their students' abilities and take responsibility for their own practice.

Collection learning and application of learning

Collaborative inquiry needs a collective approach to PLD. For Stenhouse (1975), "new strategies must be worked out by groups of teachers collaborating within a research and development framework" (p.25). Teachers need to be working together to identify an inquiry goal, plan, analyse student data, and reflect on how teacher practice helps students and the learning culture of the school. Inquiry requires a socio-constructivist perspective, where staff use dialogue to negotiate the knowledge required for the inquiry (De Luca et al., 2015). According to DeLuca et al. (2015), knowledge in collaborative inquiry is not to gained through transmission, but "rather as something that is co-constructed through discussion (dialogic interaction)" (p.645). For teachers to work together, norms of interactions are required for the groups, which establishes the structure of dialogue and develops habits of practice (Tschannen-Moran et al., 2000; Little, 2002). Organisations that learn together increase their capacity for positive change and creativity (Senge, 1992). For Tschannen-Moran et al. (2009), teacher collaboration makes organisations smarter, by "enhancing cognitive processes of organisational participants as they act on behalf of the school" (p.255). Collaborative inquiry also helps to counter the isolation of teachers working in separate classrooms - or "excessive individual autonomy" as described by Louis et al. (1994,

p.48) – by making teachers work together for their students. A collective response to inquiry helps to improve the learning culture in a school.

An important part of collective learning is how groups use student data for change. The way in which the group use this data can determine how successful teachers are in meeting their goals. Collaborative inquiry can use diagnostic or formative achievement data for current student progress and summative data to check the effectiveness of their strategies. Timperley et al. (2014) suggest that teachers should not just rely on student achievement data. Teachers should "get underneath the data to understand what these numbers are actually telling us" (p.7). To properly understand achievement, teachers should include student surveys or classroom observation in their inquiry. The collective understanding of data by teachers is important for collaborative inquiry. Visscher and Witziers' (2004) research showed that use of data to improve practice was the main influence on improved teaching practice and student achievement. For Takahashi (2011), this understanding of data not only improves student outcomes but also teacher efficacy, because they become "responsible for and capable of bringing about improved student learning" (p.739)". The ability to interpret student data and provide interventions is an important skill for teachers involved in collaborative inquiry.

Sharing personal practice

Part of the collective learning is the ability of teachers to share their practice in a group. As mentioned by Hord (1997), this also involves teachers visiting other teachers' classes and providing feedback. Timperley et al. (2014) believes that taking action in class based on collective planning in groups is "a team sport" (p.18), with teachers observing classes an essential part of the process. While sharing ideas is essential for collaborative inquiry, to

improve student achievement teachers need to critically reflect on their practice (McNaughton and Lai, 2009). Louis et al. (1994) believe reflective dialogue helps to promote "high standards of practice" and helps bridge "educational values and improved practice in schools" (p.41). Sharing personal practice and reflection in a teacher community helps to improve teaching practice.

Supportive conditions

Conditions in the school and groups need to support collaborative inquiry. These conditions influence the effectiveness of inquiry. Conditions can be viewed as physical, structural or social. For physical conditions, teachers need a venue to meet. Structurally, teachers need to have time to meet, preferably outside teacher contact time (Louis et al., 1994). Time allowances are also needed for other parts of the inquiry, such as observing a colleague. For Louis et al. (1994), physical and structural supports to "foster interdependence in other parts of the school, creating connections between different aspects of teachers' academic work" (p.45). As mentioned, partnership with experts outside the school is essential in the support of teachers (Stoll et al., 2006). While internal organisational factors determine success of an inquiry, support from the local and national ministry can help (Hairon, Goh, Chua and Wang, 2017). The social conditions in the group and school helps the collaborative inquiry. Developing a culture of trust and respect is important. Conner (2015) believes that successful inquiry depends "on people at each level of influence feeling comfortable and confident enough to seek solutions that...work for them" (p.110). Norms of interaction determine how participants interact and open up, or close down, about their own teaching practice (Little, 2002). The group environment needs to be non-threatening for teachers to share their practice (Andrews and Lewis, 2007). Favourable physical and

structural conditions, and trust and respect are important factors for successful collaborative inquiries.

2.3 What are the barriers to effective collaborative inquiry?

<u>Leadership</u>

Barriers to collaborative inquiry occur when groups fail to follow the attributes described by Hord (2004). Leaders in collaborative inquiries – principals, facilitators or experts – require the skill to lead discussion and respectfully challenge teacher practice. In Le Fevre, Robinson and Sinnema's (2015) study of conversations between leaders and teachers, the leaders they observed who lacked communication skills were unable to hold challenging conversations in their group. As noted by Tschannen-Moran et al. (2009), leaders' avoidance of conflict in their groups and open conflict in groups has a negative effect on the inquiries. Open conflict creates animosity amongst the participants. A leader's avoidance of conflict "can leave a persistent undercurrent of tension that, like a low-grade fever, saps the organisation's energy and enthusiasm for the tasks" (p.266). Top-down, authoritarian leadership can have a negative effect on the participants. This type of leadership can disempower teachers, as they have little say in the planning or direction of the inquiry. Topdown, formal communities tend to have short-term goals, and gains are rarely sustained after the programme ends (Vangrieken et al., 2017). Leadership that fails to deal with conflict or is too overbearing can have a negative effect on collaborative inquiry.

Shared values and vision

A positive, shared vision of the students' academic capabilities is required for collaborative inquiry. Negative views and assumptions of the teachers' students in the inquiry has been identified as a major barrier to effective inquiry. Stenhouse (1975) believed that negative views of middle-class teachers of their working-class students was a major hindrance of academic progress of those students. Nelson (2009) observed that the critical reflection of teaching practice was hampered when teachers believed that student ability, rather than teacher practices, affects student outcome. Gray (2010) also noted in his study of PLCs that teachers who did not believe that PLCs could help their students had fixed views of their student abilities. These findings also match Dweck's (2014) research that teachers with a fixed mindset – believing that their students have low intelligence and where unlikely to improve the student achievement outcomes of their students. Negative attitudes towards students can have a detrimental effect on collaborative inquiry.

Collection learning and application of learning

Teacher autonomy and the inability of teachers to collectively learn have been identified as barriers to successful inquiry. The "ideology of non-inference" (Ashton and Webb, 1986, as cited in Tschannen-Moran et al., 2000, p. 262) – a belief that teachers should not interfere with other teachers' classroom practice – means challenging other staff members can be difficult and can hinder collective learning and the sharing of practice. Some researchers have identified types of teacher membership that can have negative effect on collective learning. The study of PLCs by Vangrieken et al. (2017) has shown that groups made of teachers from different teaching levels and subject areas can hamper effective teacher communities, a judgment that was supported by the research of Nelson (2009) and DeLuca

et al. (2015). The lack of cohesion and shared values makes collective learning and sharing practice difficult. Group dynamics can also influence the effectiveness of communities. Groups can be influenced by individuals, who overpower views of others (Tschannen-Moran et al., 2009). When student data is misused or misunderstood, teacher interventions do not help the targeted students (McNaughton, Lai, MacDonald and Farry, 2004). Individual autonomy, poor group dynamics and misuse of data can have a negative effect on collaborative inquiry.

Conditions

Poor structural and social conditions also impact negatively on collaborative inquiry. Structurally, when PLCs meet irregularly and infrequently – as Nelson (2009) identified in her case study of a PLC – teachers are unable to fully meet the requirements of their inquiry. Some researchers have noticed the size and year level of school influences the effectiveness of collaborative inquiry. Bryk et al.'s (1999) research into factors that influenced PLCs found that collaborative inquiry was less effective in larger schools compared to smaller schools. They also found elements of PLC less prevalent in high schools compared to elementary schools. The authors believe elementary schools were less complex than secondary schools, while elementary teachers were more open to change and innovation compared to their high school colleagues. A lack of trust towards leaders and facilitators also hinders effective inquiry. Formal, top-down communities, as described above, can make teachers feel disempowered and suspicious of their leaders (Vangrieken et al., 2017). On the other hand, an environment that is safe and friendly might not be an environment that is conducive to challenging teacher practice (Smylie and Hart, 1999, as cited in Stoll et al., 2006). Groups

that lack trust or that are too friendly can stunt the learning of those involved in a collaborative inquiry.

2.4 How effective is collaborative inquiry?

Collaborative inquiry research

To understand the effectiveness of collaborative inquiry, it is important to understand research methodologies that are used and how researchers reached their findings. Researchers use both quantitative and qualitative methods when studying the effectiveness of collaborative inquiries. Researchers who have focussed on the impact of collaborative inquiry on student achievement have used scientific approaches to their research, such as experimental or quasi-experimental designs, to test the effectiveness of classroom practices. As Boroko, Liston and Whitcomb (2007) observed, educators and teachers want to know factors that improve student achievement. Scientific approaches to research support this knowledge by seeking "to describe phenomena of teaching practice, [and] isolate variables correlated with student achievement scores" (Boroko et al., p.4). When using qualitative approaches to research, many researchers have provided case studies on collaborative inquiry. Louis and Marks' (1998) research, which uses quantitative and qualitative methods, has provided researchers a template for the study of collaborative inquiry. Their study of 24 schools in the United States from 1991 to 1994 used a quasiexperimental design to test the effectiveness of PLCs on teaching and learning. To test the effectiveness of the PLCs, the authors used a range of quantitative tools, such as classroom tests, and teacher and student surveys. There was also qualitative part to the research, with an analysis of case studies of three schools.

Other studies into collaborative inquiry have used research methodologies similar to Louis and Marks' (1998) research. A collaborative partnership took place between educational researchers, schools and the Ministry of Education to improve reading comprehension in decile 1 south Auckland schools. The research used a quasi-experimental design, with a focus on how research-practice collaboration can improve literacy and teaching. The researchers used Progressive Achievement Tests (PAT) and Supplementary Tests of Achievement in Reading (STAR) to monitor the progress of students throughout the collaborative inquiry. The researcher also observed classes, noting acts of literacy in the class (McNaughton, Lai, Amituanai-Toloa and Farry, 2008a). Takahashi's (2011) study on the effect of PLC on teacher efficacy, used a qualitative approach, by interviewing four teachers in schools in a low socio-economic areas. Another qualitative approach was the research of Andrews and Lewis (2007). They provided two case studies on the effectiveness of the Innovative Designs for Enhancing Achieving in Schools (IDEAS) programme on the teaching practices and student outcomes. Conner's (2015) study on TAI in New Zealand provides case studies on schools that have implemented school-wide inquiry. These research methods not only help to understand how researchers reach their findings, but also how schools, such as Flaxmere College, can evaluate the effectiveness of their collaborative inquiry.

Some literature has questioned the validity of research on professional communities. Vescio, Ross and Adams (2008) note in their literature review of the research on 11 PLCs that seven studies lacked evidence of how teacher practice changed. The authors singled out Andrews and Lewis' (2007) research for lacking evidence on how teachers changed their practice. Hairon et al. (2017) also identify gaps in the research on collaborative inquiry. The authors believe that researchers need a greater examination of the effect of context has on

PLCs. They also believe that greater research is needed on factors outside PLCs – such as school-home relations, school culture and classroom learning environment – that affect teacher practice and student outcomes. Despite this criticism of the research on collaborative inquiry, much research does clearly show the factors that lead to successful or unsuccessful learning communities. Despite the short-comings described above, the research, both quantitative and qualitative, provides good examples of collaborative inquiry and its effects on teaching and learning.

Teacher efficacy

To evaluate the effectiveness of collaborative inquiry, it is important to focus on the effects these communities have on teacher efficacy, teacher practice and student achievement outcomes. Research has shown that collaborative inquiry has a positive impact on teacher efficacy. Louis and Marks' (1998) 1990s survey of teacher perceptions showed that teachers in PLCs had a greater belief that their teaching had impact on student achievement. Later research has supported Louis and Mark's findings. Andrews and Lewis' (2007) study of two schools showed that professional communities improved teacher motivation. As one teacher mentioned in their study, teachers felt "more comfortable in taking risks to actually try it", and "they are actually getting better results and feeling more and more comfortable in doing it" (p.137). Gray's (2010) survey of teachers in two schools found the majority of teachers were confident that PLCs helped improve their efforts to implement literacy strategies. Takahashi's (2011) research showed that communities of practice increased the efficacy of teachers. The teachers met and discussed achievement data and used a framework to analyse data. According to Takahashi, collective learning helped individual efficacy. As the author notes, "the practice of examining student data was understood as a

tool for the improvement in teaching and learning, and that these understandings implicitly carried conceptions of teachers as responsible for and capable of bringing about improved student learning" (p.739). In a New Zealand context, Conner's (2015) study of two PLGs in schools found teachers enjoyed learning ideas from other teachers and this improved collaboration. The studies show that collective learning, with clear goals, helps teacher motivation.

Teacher practice

Studies also show collaborative inquiry influences teacher practice. Effectiveness depends on the extent to which collaborative inquiries demonstrate the characteristics described by Hord (1997). Louis and Marks' (1998) research showed that there was link between PLCs and authentic pedagogy in classrooms. The authors describe features of authentic pedagogy as the "construction of meaning, disciplined inquiry, and value beyond the classroom" (p.538). Where PLCs were present, the higher the quality of classroom pedagogy. This finding has been reinforced by other studies. In Andrew and Lewis's (2007) case studies, they found that professional communities facilitated changes in teacher efficacy and practice. As one teacher who was involved in the programme commented, "I do believe that kids need to take responsibility for their own learning but I hadn't gone that next step to actually implement it into the classroom . . . I'm doing that now" (p.137). Nelson's (2009) qualitative research focussed on the effectiveness of a Science and Mathematics project that used a PLC model for change. Nelson interviewed nine teachers involved in the project and observed the participants PLCs meetings. In one school, the PLC had a shared focus on scientific writing. In that school there was evident change in practice. The group collectively developed a shared vision, used evidence to inform their classroom practice and

were able to reflect on their practice. Gray's (2010) study of PLCs in two schools used a mixed-method model, surveying and interviewing the teachers of PLCs on their practice. The study found most teachers did change their practice to improve literacy in their school. Shared leadership and a good understanding of student data are factors that helped teachers.

Student achievement outcomes

Studies into the effects of collaborative inquiry on student outcomes have been largely positive. Louis and Marks's (1998) research showed that there were higher achievement levels at schools with strong professional communities. The authors note that the PLCs not only had a direct effect on student achievement but also improved the school and classroom conditions for learning. Later research has supported the positive effects of collaborative inquiry. Andrews and Lewis (2007) showed how a professional community improved writing in an Australian school. State tests showed significant improvements for writing for Year 3 and 5 students. Developing a clear vision for improvement in the school, and facilitators skilfully leading learning discussion in groups, were identified as factors that improved teaching and student outcomes in the school. External support was also seen as essential for this success. Galligan's (2011) action research on an elementary school in Arizona, United States, showed the effectiveness of a two year collaborative inquiry on writing. The mean post-writing score for students involved in the inquiry was 80.84%, compared to the pre-writing score of 57.87% (p.54). According to the author, the increased achievement was due to "building the collective knowledge base of teachers through goal setting, planning and implementing similar pedagogical practices, and ongoing dialogue centred on writing" (p.66). New Zealand studies have also been positive. In the south

Auckland reading programme, student literacy progress accelerated (McNaughton et al., 2008a). The baseline stanine data for students involved in the project was 3.02, which was two years below the expected level. By the end of the project, the students' stanine average was 4.01, a 0.64 increase. Māori and boys – whose achievement levels were historical below other groups – achieved at the same rates as other groups by the end of the project (McNaughton et al., 2008b, p.2). The schools' external partnership – which Stoll et al. (2006) identified as an attribute of collaborative inquiry – with the researchers and Ministry of Education was the main reason the authors believed the programme was successful. Conner (2015) studied the effect of PLGs on a girls' school in New Zealand. The focus of the school was improving NCEA results. For Māori students, their results were better than the predictive results. According to the school, the support staff received from each other in the PLG was a contributing factor for this improvement. For the examples provided above, a shared vision was important for the success of the collaborative inquiries. Collective learning, skilled leaders and supportive group conditions help to improve the teaching and consequently the outcomes for students.

<u>Issues</u>

In some studies, collaborative inquiry has brought little or no change to teacher practice and, therefore, to student outcomes. Gray (2010) found that resistance to change meant some teachers struggled to implement new ideas. In another PLC that Nelson (2009) studied, there was robust debate in the group, but little evidence the discussion was influencing teachers' beliefs or "explicitly influencing their collective activities throughout the year" (p.566). The main issue for that group was lack of a shared vision and collective learning. For example, the group could not decide what constituted formative or

summative assessment, or how the assessment could be used. In Marsh, Betrand and Huguet's (2015) study of the effectiveness of PLCs on teacher practice, only 19% of the 294 teachers involved in the study changed their practice. According to the authors, the ability of the facilitator to monitor their groups and ability of groups to interpret data and change practices determined the effectiveness of the inquiry on teacher practice. The studies above show the importance of leadership in creating the conditions for collective learning.

3. Flaxmere College – collaborative inquiry

3.1 How does collaborative inquiry work at Flaxmere College?

History of collaborative inquiry at Flaxmere College

In 2010, the new principal, Louise Anaru, developed aspirational goals and strategies to counter the low student achievement and staff expectations of their students. She changed the school motto to "Student Success is the Only Option". The school continued with the Te Kotahitanga programme, which started at the college in 2009, to improve the cultural responsiveness of the teaching. Collaborative inquiry through PLGs became a feature of PLD at Flaxmere College. Using the *Teacher professional learning and development: Best evidence synthesis iteration (BES)* (Timperley, Wilson, Barrar and Fung, 2007), the principal co-constructed a collaborative inquiry model for the school. PLGs were established to inquire into an area of improvement needed in the school and each group used an action research process for change. From 2010 to 2014, a range of areas were looked at – New Zealand curriculum, course outlines, E-learning, careers, differentiation. The staff at the school chose their own group and venue. At the end of each year, the PLGs presented their findings to the staff.

In 2015, the Senior Leadership Team (SLT) decided to change the format of the PLGs. At the start of 2015 it was decided by the SLT that the school should follow a whole school inquiry. Literacy teaching and learning became the focus of the inquiry. In 2015, seven PLGs were established. Staff requested the groups they wanted to be in and SLT finalised the groups. The groups all met in the library at 8.15 a.m. on Fridays. In 2018, after a survey of staff, the meetings moved to Tuesday morning. In 2015, three groups were cross-curricular, while

four groups were based on Learning Areas. By 2018, five of the PLGs were based on Learning Areas. Each PLG has a facilitator, with five being Leaders of Learning (LOL), one a deputy principal and another the Specialist Classroom Teacher (SCT). In 2015, staff used TAI as their inquiry process. From 2016, staff started to use spiral of inquiry of Timperley et al. (2014). In 2017, I developed a spiral of inquiry tool (Flaxmere College, 2017a), which staff use for their meetings and final report. This year, the LOL of Arts designed spiral of inquiry cards (Flaxmere College, 2018a) for each stage, to help conversations in the groups. Since 2015, collaborative inquiry has had a more refined focus with a consistent inquiry process for each group.

<u>Literacy</u>

Since 2015, the whole school focus has been literacy. The teaching of literacy is a priority for New Zealand schools. In 2010, the New Zealand government announced that a key educational priority was improving the literacy and numeracy achievement of school students. For the announcement, government budgeted \$25.2 million on literacy and numeracy PLD for teachers (Ministry of Education, 2010, p.17). The teaching of literacy has been traditionally focussed on reading and writing, with some focus on listening, oral skills and understanding visual texts. According to the New Zealand curriculum (Ministry of Education, 2007), the teaching of English involves students "understanding, using, and creating oral, written, and visual texts of increasing complexity " (p.18). Timperley et al. (2007), in their meta-analysis of PLD, found certain conditions that helped teacher training in literacy. PLD that focussed on improving teacher practice and outcomes, providing adequate time to discuss student learning and progress, supportive leadership and literacy expertise, and infrastructural support were conditions that helped improve student literacy.

Timperley et al. also acknowledge that PLCs can help improve student literacy. According to the authors, for PLCs to be effective, the groups need to have "an expert leader, establish common goals, and be concerned with the learning of students who had similar needs" (p.154). In New Zealand, there are examples of successful literacy collaborative inquiry, such as the south Auckland reading programme (McNaughton, Lai, Amituanai-Toloa and Farry, 2008a). Collaborative inquiry provides the school with a useful tool to improve the teaching of literacy.

<u>Leadership</u>

School leaders play an important role in directing the collaborative inquiry. Vangrieken et al. (2017) note the important role the principal has in setting the inquiry goal and resourcing the programme. At Flaxmere College the principal and SLT set the literacy goal for the PLGs and sets aside time for the meetings. School leaders are actively involved in the PLGs. I have been a facilitator of a group; this year the other DP is facilitating a group and the principal is a member of another. This involvement shows that the leaders are "co-leaders" (De Luca et al., 2015), working alongside their colleagues in the collaborative inquiry process. Smith et al. (2009), DeLuca et al. (2015) and Vangrieken et al. (2017) also note the importance of facilitators on the success of collaborative inquiry, which is evident at Flaxmere College. The PLG leaders organise agendas, facilitate meetings, keep their groups focussed and make sure their group are meeting deadlines. While the facilitator has a direct influence on other teachers, teacher leadership is encouraged in the group. The literacy focus was coconstructed and the teachers in the group have actively supported each other. This is an example of teacher leadership in a PLC where teachers "have a shared sense of purpose, engage in collaborative work and accept joint responsibilities of the outcomes of their work"

(Harris, 2003, p.321). While the SLT directs the PLGs, shared and supportive leadership are important components for inquiry at Flaxmere College.

Shared vision and values

A shared vision and values are important attributes of collaborative inquiry at Flaxmere College, with the school leadership setting the vision and values for the school. An agentic view of students is encouraged by SLT and facilitators, an important point emphasised by Hord (1997). High expectation of our students is an important value in the school, which aligns with the spiral of inquiry process. Vangrieken et al. (2017) identify the coherence of collaborative inquiry with school values as an attribute of the process. Self-improvement is another important value. As Timperley et al. (2014) points out, the spiral of inquiry process involves teachers taking responsibility of "areas over which [they] do have influence and control" (p.12). As part of the hunch and taking action stages, teachers are expected to show at PLG meetings what changes they want to make to their practice and how these changes will improve literacy instruction in their class. At a school level, the focus since 2015 has been on been improved literacy instruction in class and outcomes for students. This shared goal was set by the SLT and has been followed by staff. In 2015 and 2016 there was focus on improving the instruction and achievement for Year 7 to 10 writing; in 2017 and 2018 there was a shift to reading. The SLT has led this focus and presented reading data to teachers at staff meetings, helping staff to identify target students for their inquiry. In 2017, as the head of PLGs in the school, I directed that staff have a reading focus for their inquiry. In PLGs, staff co-constructed the specific reading focus for their group. Leaders play an important role in setting the vision, values and goals for inquiry in the school.

Collective learning and shared practice

Collective learning and shared practice are central to the inquiry process at the college. At Flaxmere College there is a culture of collaboration since 2010 through PLGs. Stenhouse (1975) described the importance of using a research framework, which Flaxmere College uses. The spiral of inquiry tool and cards have helped to focus staff on a common language of inquiry and embed the norms of interaction. The scanning stage of inquiry requires staff to interpret data. As noted by Visscher and Witziers (2004), the interpretation and use of data determines the success of the inquiry. Staff have been provided support around interpreting e-asTTle data. During Term 1 this year, staff used e-asTTle data to identify their target students. Teachers have also used student voice to gain a student perspective on teaching and learning. PLGs have been able to take action based on areas of literacy that need improvement. At the end of Term 2 and 4, PLGs present their learning to the rest of the staff. Collaborative inquiry has helped to improve the collective knowledge of the staff and has also increased the capacity of the staff for further change.

Supportive conditions

Supportive conditions have been important to collaborative inquiry at Flaxmere College. The research of Bryk et al. (1999) has found that collaborative inquiry is more effective in smaller schools. With a smaller number of staff at Flaxmere College, it has been easier to monitor and focus staff on a common goal. Leadership has also played an important role in creating the environment for inquiry. As Louis et al. (1994) note, resourcing and time is required for PLCs. Since 2015, all PLGs have met in the school library, which staff have found a calm, learning area. In 2018, the PLG time was moved to Tuesday morning after a request from staff. Trust is an important element for groups. The groups were set after I

surveyed staff individually seeking their preference for a group. Most staff have aligned themselves with their main Learning Area, which has made staff feel more comfortable. Research has shown that there is greater success in collaborative inquiry when members of the group come from the same discipline (DeLuca et al., 2015). Stoll et al. (2006) identify external partnership as an attribute of collaborative inquiry. In 2015 and 2016, the school had the services of a literacy expert from the University of Auckland, who provided whole school, PLG and Learning Area support with writing. This expert provided support to teachers with their literacy inquiry. A trusting learning environment, created and maintained by supportive leadership, has helped to sustain inquiry at the school.

3.2 What are the positive effects of collaborative inquiry at Flaxmere College?

Teacher efficacy

Collaborative inquiry at Flaxmere College has had a positive effect on teacher efficacy. The positive effects on teacher motivation mirror the findings of Andrew and Lewis (2007) and Takahashi (2011). Staff have been involved in collaborative inquiry since 2015 and they believe it does make a difference to their teaching. In a perception survey of staff in Term 4 2017, 85% of the staff that responded believed that the spiral of learning had a positive impact on their teaching and student learning (Flaxmere College, 2017b). The individual teacher inquiry reports have shown how collaborative inquiry has improved teacher efficacy. Collaborative inquiry at Flaxmere College has helped the motivation of staff at the school.

Teacher practice

There is evidence that collaborative inquiry has improved teacher practice. High quality, authentic pedagogy identified in Louis and Marks' (1998) research is also seen at Flaxmere College. Observations carried out by the school's Professional Development Team in Term 1 2018 shows that 85.7% of teachers were using literacy strategies in their class (Flaxmere College, 2018b). It is evident in PLGs that Learning Areas have changed teacher practices. PLG presentations to staff in Term 4 2017 provided the actions taken by staff to improve literacy. Also, there is clear evidence in teacher inquiries that teachers have changed their practice to meet the literacy needs of their students. Collaborative inquiry has helped teachers to change their practice.

Student achievement

There is evidence collaborative inquiry has enhanced student achievement. The improved writing instruction and achievement can be seen by the accelerated progress by Year 9 and 10 students in 2015. For Year 9 the effect size for writing progress was 0.544; for Year 10 writing the effect size was 0.696, showing a significant, medium and large educational impact (Flaxmere College, 2016, pp.48-49). The work of teachers in PLGs was seen as a major reason for the improved achievement.

PLGs have demonstrated how their actions have impacted on student outcomes. In one group, the teachers have had a shared literacy goal for the last two years. Teachers use e-asTTle data to scan the achievement of their students. They use best practice strategies for their students based on literacy areas that need improvement. As a group they trialled a range of reading strategies, such as guided reading and talking to the text. Teachers can

show how their interventions have impacted on student outcomes, by comparing beginning of year and end of year e-asTTle data. Skilled facilitation, as noted by Andrew and Lewis (2007), has a direct impact on improved student outcomes. Collaborative inquiry, when well led, has a positive effect on student outcomes.

3.3 What are the next steps for collaborative inquiry at Flaxmere College?

I believe that collaborative inquiry has had a positive effect on teacher motivation, collaboration, practice, and student achievement outcomes. I believe that collaborative inquiry is embedded into the learning culture of the school. As with all collaborative inquiry, the process needs to be sustained and developed further.

Shared goal

With the collaborative inquiry, all teachers need to follow a shared goal. A greater focus is needed on improved reading strategies and outcomes for our students. In 2017, most staff steered away from the reading focus. As Vangrieken et al. (2017) note, leadership plays an important role in setting the agenda for inquiry. There also needs to be coherence with other PLD and programmes in the school. Forward planning by SLT can help this alignment. Teachers should be encouraged to attend external reading PLD courses, Learning Areas should make reading a strategic goal in their annual plans, and staff meetings should focus on reading strategies and achievement. SLT planning can help to organise the alignment of personal and school PLD and other programmes with collaborative inquiry. A shared goal across the school and community will help to support the collaborative inquiry.

Teacher leadership

While SLT plays an important role in setting the agenda for the collaborative inquiry, a teacher leadership model needs to be continued in the school. As Harris (2003) states, teacher leadership is "the exercise of leadership by teachers, regardless of position or designation" (p.316). Continued support is required for facilitators and teachers. As I have explained above, the success of the PLGs has depended on the leadership skills of the facilitator. Facilitators should meet to discuss and share their leadership practice. Successful facilitators should mentor leaders who are struggling. These mentors could observe PLG meetings and provide feedback and feedforward to the leaders. This year, some LOLs who are facilitators are using their experience as leaders of PLGs for their leadership inquiry, an appraisal requirement for all LOLs. Also, there needs to be continual work to make sure all teachers feel agentic and believe they are making a difference in the classroom. Teacher leadership, where teacher show "collective action, empowerment and shared agency" (Harris, 2003, p.317), needs to be encouraged in all groups. Creating trust, especially in the cross-curricular PLGs, is important. For example, all teachers should be given the opportunity to facilitate meetings, allowing them formal leadership opportunities. Success stories and learning should be shared with all staff, providing valuable knowledge to teachers. This will help groups develop "collective action, empowerment and shared agency" (Harris, 2003, p.317). Teacher leadership is important to develop the leadership capacity of staff and to improve teacher agency.

The impact of teacher actions

All teachers need to explicitly show how their new actions have impacted on student outcomes. Visscher and Witziers (2004) believes high quality PLCs were groups that

obtained "data on student performance, which in turn serves as a feedback mechanism for improving teaching and learning" (p.798). One solution is to add a template to the inquiry process where teachers show how the interventions have made a difference to the learner. There needs to be more teacher conversations on how their actions make a difference to students. The questions "how has your actions made a difference to your students?" needs to be added to the Flaxmere College spiral of inquiry tool. The impact of teacher actions needs to be emphasised in the inquiry process.

<u>Inclusivity</u>

Stoll et al. (2006) believe that PLCs should be inclusive, involving the input of the wider school community. Whānau voice is an important value for Flaxmere College, and ERO (2012) notes that making connections with parents and whānau improves students outcomes. Not only should collaborative inquiry include the feedback of teachers and students, but also whānau. Whānau voice should be included in the inquiry process, where teachers work with parents and caregivers on strategies that work for students in class and at home. Teachers could also gain whānau perspective of the impact of reading strategies on students. Students and whānau could become part of the decision-making process of the inquiry. Strong connection with whānau can help to strengthen the collaborative inquiry at the school. Also, external partnerships with literacy experts need to be re-established. This will provide the expertise for teachers to examine the literature, and to interpret the data and use the right strategies with their students. This support will provide staff with the confidence to use reading strategies in the school.
4. Conclusion

Jackson and Street (2005) define collaborative inquiry as when teachers come together to learn to improve the learning of their students. Hord's (1997) attributes for PLCs – supportive leadership, shared values and vision, collective learning and application of learning, shared personal practice and supportive conditions – provides schools with a framework for collaborative inquiry. Research on collaborative inquiry has shown that it improves teaching agency, teaching practice and student outcomes.

For Flaxmere College, collaborative inquiry has successfully improved teacher agency and teaching in the school. Since 2015, there has been a whole school focus on improved literacy teaching and results in the school. Collective learning and shared practice are important, with all teachers using spiral of inquiry templates for their inquiry. Leadership has played a vital role in the success of collaborative inquiry in the school. The SLT has set the shared vision for the inquiry and provided time for the teachers to meet. The leaders of the PLGs have played an important role in the groups by facilitating the groups and making sure they follow the spiral of inquiry process. There is evidence that collaborative inquiry has improved teacher agency, practice and outcomes for students. The next step for the school is to continue to focus on improving leadership in all groups, provide all teachers with leadership opportunities and focus on the agency of all teachers. All teachers also need to show how changes in their teaching practice have made a difference to their learners. The school needs to re-establish external partnerships with education providers so that teachers receive expertise in reading. A more inclusive approach to inquiry is also required, in which staff use whanau voice in their inquiry. This inclusive approach aligns with the values of Flaxmere College.

37

5. References

- Andrews, D. & Lewis, M. (2007). Transforming practice from within: The power of the professional learning community. In L. Stoll & K.S. Louis (Eds.), *Professional learning communities: Divergence, depth and dilemmas* (pp.132-147). Retrieved from ebookcentral.proquest.com.
- Boroko, H., Liston, D., & Whitcomb, J. (2007). Genres of empirical research in teacher education. *Journal of Teacher Education, 58*(1), 3-11. doi: 10.1177/0022487106296220
- Bryk, A., Camburn, E., & Louis, K.S. (1999). Professional community in Chicago elementary schools: Facilitating factors and organizational consequences. *Educational Administration Quarterly*, 35, 751-781. <u>https://doi-</u>
 - org.ezproxy.waikato.ac.nz/10.1177/0013161X99355004
- Conner, L. (2015). *Teaching as inquiry, with a focus on priority learners*. Wellington, New Zealand: NZCER.
- DeLuca, C., Shulha, J., Luhanga, U., Shulha, L.M., Christou. T.M., & Klinger, D.A. (2015).
 Collaborative inquiry as a professional learning structure for educators: A scoping review. *Professional Development in Education*, *41*(4), 640-670. doi: 10.1080/19415257.2014.933120

Dewey, J. (1929). The sources of a science of education. New York, NY: Horace Liveright.

DuFour, R. (2004). What is a professional learning community? *Educational Leadership*, *61*(8), 6-11.

- Dweck, C. (2014). Teachers' Mindsets: "Every Student has Something to Teach Me": Feeling overwhelmed? Where did your natural teaching talent go? Try pairing a growth mindset with reasonable goals, patience, and reflection instead. It's time to get gritty and be a better teacher. *Educational Horizons, 93*(2), 10-15.
- Education Council of Aotearoa New Zealand. (2017). *Our Code Our Standards: Code of Professional Responsibility and Standards for the Teaching Profession*. Wellington, New Zealand: author.
- Education Review Office. (2012). *Educationally powerful connections with parents and whānau*. Wellington, New Zealand: author.

Flaxmere College. (2016). Flaxmere College School Charter. Flaxmere, Hastings: author.

Flaxmere College. (2017a). [Appendix A of Flaxmere College Spiral of Inquiry Tool]. Unpublished teacher resource.

Flaxmere College. (2017b). [Appendix C of Flaxmere College Perception Survey 2017]. Unpublished raw data.

Flaxmere College. (2018a). [Appendix B of Spiral of Inquiry Cards]. Unpublished teacher resource.

Flaxmere College. (2018b). [Appendix D of Flaxmere College Walkthrough Observation Tally Term 4 2017 and Term 1 2018]. Unpublished raw data.

Flaxmere College. (2018c). Flaxmere College School Charter. Flaxmere, Hastings: author.

- Galligan, G., 2011. *Collaborative inquiry, teacher efficacy, and writing achievement at Lake Shore elementary school.* Doctoral Thesis, Arizona State University. Retrieved from <u>https://repository.asu.edu/attachments/56380/content/Galligan_asu_0010E_10340.p</u> <u>df</u>
- Gray, J.E. (2010). Establishing a culture of learning: A mixed methodology exploration regarding the phases of change for Professional Learning Communities and literacy strategies. Doctoral Thesis, University of Louisiana. Retrieved from <u>https://searchproquest-com.ezproxy.waikato.ac.nz/docview/857079218</u>
- Hairon, S., Goh, J.W.P., Chua, C.S.K., & Wang, L. (2017). A research agenda for Professional Learning Communities: Moving forward. *Professional Development in Education,* 43(1), 72-86. <u>https://doi.org/10.1080/19415257.2015.1055861</u>
- Harris, A. (2003). Teacher leadership as distributed leadership: Heresy, fantasy or possibility? *School Leadership & Management, 23*(3), 313-24. doi: 10.1080/1363243032000112801
- Hipp, K. & Huffman, J. (2010). *Demystifying Professional Learning Communities: School leadership at its best*. Lanham, USA: Rowman & Littlefield Publishers, Inc.
- Hord, S.M. (1997). *Professional learning communities: Communities of continuous inquiry and improvement.* Austin, United States: Southwest Educational Development Laboratory.

- Jackson, D. & Street, H. (2005). Collaborative enquiry: Why bother? In H. Street & J. Temperley (Eds.), *Improving Schools Through Collaborative Inquiry*. New York, USA: Continuum.
- Kruse, S.D., Louis, K.S., & Bryk, A.S. (1994). An emerging framework for analyzing schoolbased professional community. In Louis, K.S. & Kruse, S.D (Eds.), *Professionalism and community: Perspectives on reforming urban schools*. Manuscript submitted for publication.
- Le Fevre, D., Robinson, V., and Sinnema, C. (2015). Genuine inquiry: Widely espoused yet rarely enacted. *Educational Management Administration & Leadership* 2015, 43(6), 883–899. doi: 10.1177/1741143214543204.
- Little, J. (2002). Locating learning in teachers' communities of practice: opening up problems of analysis in records of everyday work. *Teaching and Teacher Education*, 18 (8), 917– 946.
- Louis, K.S., Kruse, S.D. & Bryk, A.S. (1994). Professionalism and community: What is it and why is it important in urban school. In Louis, K.S. & Kruse, S.D (Eds.), *Professionalism and community: Perspectives on reforming urban schools*. Manuscript submitted for publication.
- Louis, K. S., & Marks, H. M. (1998). Does professional community affect the classroom? Teachers' work and student experiences in restructuring schools. *American Journal of Education*, *106*(4), 532–575.

- Marsh, J., Bertrand, M. & Huguet, A. (2015). Using data to alter instructional practice: the mediating role of coaches and Professional Learning Communities. *Teachers College Record*, *117*(4), 1-40.
- McNaughton, S., Lai, M. K., MacDonald, S., & Farry, S. (2004). Designing more effective teaching of comprehension in culturally and linguistically diverse classrooms in New Zealand. *Australian Journal of Language and Literacy*, *27*(3), 184-197.
- McNaughton, S. & M. Lai, M. (2009). A model of school change for culturally and linguistically diverse students in New Zealand: a summary and evidence from systematic replication. *Teaching Education, 20*(1), 55-75. DOI: 10.1080/10476210802681733
- McNaughton, S., Lai, M., Amituanai-Toloa, M., & Farry, S. (2008a). *Enhanced teaching and learning of comprehension in Years 5–8: Otara Schools*. Wellington, NZ: Teaching and Learning Research Initiative.
- McNaughton, S., Lai, M., Amituanai-Toloa, M., & Farry, S. (2008b). *Enhanced teaching and learning of comprehension in Years 5–8: Otara Schools: a summary*. Wellington, NZ: Teaching and Learning Research Initiative.
- Ministry of Education. (2007). *The New Zealand Curriculum for English-medium teaching and learning in years 1–13.* Wellington: Learning Media Limited.
- Ministry of Education. (2009). *Teaching as inquiry*. Retrieved from
 <a href="http://nzcurriculum.tki.org.nz/Curriculum-stories/Case-studies/Teachers-as-learners-lea

Ministry of Education. (2010). Statement of Intent: 2010-2015. Wellington, NZ: author.

- Nelson, T. (2009). Teachers' collaborative inquiry and professional growth: Should we be optimistic? *Science Education, 93*(3), 548-580. DOI 10.1002/sce.20302
- Senge, P. (1992). *The Fifth Discipline: the Art of Practice of the Learning Organisation*. NSW, Australia: Random House.

Smith, D., Wilson, B., & Corbett, D. (2009). Moving beyond Talk. *Educational Leadership*. Retrieved from <u>http://www.ascd.org/publications/educational-</u> <u>leadership/feb09/vol66/num05/Moving-Beyond-Talk.aspx</u>

Stenhouse, L. (1975). *An Introduction to Curriculum Research and Development*. London, Great Britain: Heinemann Educational Books.

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

Strike, K. (1999). Can Schools be Communities? The Tension between Shared Values and Inclusion. *Educational Administration Quarterly*, *35*(1), 46-70. doi: 10.1177/00131619921968464

Takahashi, S. (2011). Co-constructing efficacy: A "communities of practice" perspective on teachers' efficacy beliefs. *Teaching and Teacher Education*, *27*(4), 732-741.

Timperley, H., Kaser, K. & Halbert, J. (2014). *A framework for transforming learning in schools: Innovation and the spiral of inquiry*. Melbourne, Australia: Centre for Strategic Education.

- Timperley, H., Wilson, A., Barrar, H. & Fung, I. (2007). *Teacher professional learning and development: Best evidence synthesis iteration (BES)*. Wellington, N.Z.: Ministry of Education.
- Tschannen-Moran, M., Uline, C., Woolfolk Hoy, M. & Mackley, T. (2000). Creating smarter schools through collaboration. *Journal of Educational Administration, 38*(3), 247-272. https:// doi.org/10.1108/09578230010342312
- Vangrieken K., Meredith C., Packer T., & Kyndt E. (2017). Teacher communities as a context for professional development: A systematic review. T*eaching and Teacher Education, 61*, 47-59.
- Visscher, A., & Witziers, B. (2004). Subject departments as professional communities? *British Educational Research Journal, 30*(6), 785-800. DOI: 10.1080/0141192042000279503
- Vescio, V., Ross, D., & Adams, A. (2008). A review of research on the impact of Professional Learning Communities on teaching practice and student learning. *Teaching and Teacher Education: An International Journal of Research and Studies, 24*(1), 80-91.
- Wiley, S. (2001). Contextual effects on student achievement: school leadership and professional community. *Journal of Educational Change*, *2*(1), 1-33.
- Wiseman, P., Arroyo, H., & Richter, N. (2012). Reviving Professional Learning Communities: Strength through Diversity, Conflict, Teamwork, and Structure. Retrieved from <u>https://ebookcentral.proquest.com</u>

6. Appendices

Appendix A: Flaxmere College Spiral of Inquiry Tool

Flaxmere College Spiral of Inquiry Tool



Class and Year group:

Student focus group (4-5 students):

- Student 1
- Student 2
- Student 3
- Student 4
- Student 5

Possible focus for the inquiry:

Timeframe:

Scanning

What's going on for our learners? How do we know?

Student 1:

Student 2:

Student 3:

Student 4:

Student 5:

Find out the experiences of the learner at school by drawing on a range of information, especially from the perspective of the learner.

What is the focus for our inquiry?

How will we check with learners that we are on the right track?

What changes would we like to see?

Teacher

Students

Set a focus that can be worked on collaboratively and is manageable

Developing a hunch about the focus

What are our assumptions about what is contributing to the situation?

How can we check our assumptions?

Keep the focus on what we can do something about.

New Learning

What research or theory is informing our learning? Why is an approach or principle important?

How can this learning be collaborative?

This is about professional learning and how ideas, theory and research can be used or adapted to make a difference in our environment

Taking action

Actions taken (provide description, evidence of action taken)

What opportunities are there for dialogue, observation and reflection with others?

What's going on for our learners?

How and when can I share my learning?

Actions are informed and we understand why we are using particular strategies or practices. It's a process of exploring a new strategy, trying it out, rewriting it with others and modifying it to try again. We need to get expertise to develop our own.

Checking

Have we made enough difference for each learner?

What's going on for our learners? How do we know?

Student 1:

Student 2:

Student 3:

Student 4:

Student 5:

Checking can occur throughout a spiral. The involvement of learners and families in the checking process is important to get a fuller picture on the difference being made.

Scanning

What's going on for our target students?

How do we know what's going on? Why does this matter?

Do learners have the opportunities to express themselves in a variety of ways?

Are learners able to describe in their own words what they are learning and why it is important?

Are learners confident in receiving and using feedback?

Focussing

WHAT'S GOING TO GIVE YOU THE BIGGEST IMPACT?

Focusing uses information from the scan to begin to clarify where energies need to be invested so that you can change the results and the experiences of your leaners

- What popped out at you during the scanning phase? What additional information do you need?
- How will you gather it?
- How could you build on these strengths? What can you do more of, more often?
- What is going to make the biggest difference for your learners?
- What can you most effectively tackle over the next few months?
- Where are you going to concentrate your energies so that you can change the results and experiences of your learners?

Developing a Hunch

- How are WE individually and collectively contributing to the situation?
- What is leading the situation that we won't to change?
- How will we test the hunches to see if they are really leading to the current situation?
- How can I reframe the issues to focus on things that educators can change?
- How can I be open to diverse thinking and different points of view when I am developing a hunch?
- How can we involve our learners' point of view when we are developing a hunch?

Taking Action

How will you ensure that everyone involved knows they are expected to DO something different?

How will you make sure they have the time and support to try out new actions?

How will you provide opportunities to learn from what is working – as well as from the challenges faced - when trying out new approaches?

How can you make risk-taking less risky?

How will you build in collegial support for new actions?

How will you ensure there are lots of opportunities for reflection?

How will you open up classroom doors as you try out new approaches?

What will you do to model new actions yourself?

Checking

What evidence will you be seeking to know you are making a difference?

How much difference?

When will you check and how often?

How can you do it in a way that allows for adjustment – right away?

How will you make is safe for teachers to share what they are learning in the checking phase?

How will you celebrate that learners can now provide in-depth answers to the four questions?

How will you celebrate the additional learning gains you have collectively made?

Teacher	The spiral of inquiry has a positive impact on my teaching and learning				
	Term 2	Term 4			
1	4	4			
2	4	4			
3	5	5			
4	4	5			
5	5	3			
6	4	5			
7	4	4			
8	4	5			
9	5	3			
10	4	4			
11	4	4			
12	3	5			
13	1	4			
14	3	4			
15	5	4			
16	3	3			
17	3	4			
18	4	5			
19	3	4			
20	3	5			
21	4				
22	4				
	3.772727	4.2			

Appendix C: Flaxmere College PLG Perception Survey 2017

Ratings – 1 - strongly disagree, 2 - disagree, 3 - neither agree or disagree, 4 - agree, 5 strongly agree

Appendix D: Flaxmere College Walkthrough Observation Tally Term 4 2017 and Term 1 2018

Evidence observed in class (ticked or highlighted)	Term 4 2017	Term 1 2018	
LEARNING INTENTION AND SUCCESS CRITERIA Visible, students can say LI and SC	9/23 39.1%	22/28 78.6%	
PB4L Focus on Learning Lead by example	16/23 69.6%	17/28 60.7%	
Act with respect eXcel in all we do			

RESTORATIVE PRACTISE Restorative chats - Maintaining positive Relationships		39.1%	17/28	60.7%
	21/23	91.3% (overall)	24/28	85.7% (overall)
LITERACY – principles, pedagogy and content guidelines				
 Provides students with extensive opportunities to engage with text 	14/23	60.9%	14/28	50.0%
Provides students with appropriate challenge	12/23	52.2%	17/28	60.7%
 Supports students to make effective use of how texts are organized 	6/23	26.1%	11/28	39.3%
 Develop skills in receptive and productive language use (reading and writing) 				
	10/23	43.5%	11/28	39.3%

 Develops vocabulary and vocabulary skills 				
 Develop students' skills to employ key comprehension and writing strategies 	12/23	52.2%	17/28	60.7%
	9/23	39.1%	6/28	21.4%