

**TEACHER COLLABORATIVE INQUIRY IN ONTARIO ELEMENTARY SCHOOLS:
AN ANALYSIS OF PROVINCIAL AND SCHOOL BOARD
POLICIES AND SUPPORT DOCUMENTS**

[Benjamin Kutsyuruba](#), Theodore Christou, Lindsay Heggie,

James Murray, and Christopher Deluca, *Queen's University*

Collaborative inquiry (CI) has emerged as a dominant structure for educators' professional learning in the 21st century. The purpose of this paper is to analyze publicly available documents and policies related to CI in Ontario in order to better understand the documentary scope and spread of this professional learning model in the province. We begin by defining the parameters of CI as a dominant professional learning model before detailing our methodology for selecting and analyzing CI policies and documents at both ministry and school board levels. In our subsequent analysis, we enumerate emergent themes and findings and offer three sample case studies that illustrate how school boards in the province are documenting their experiences with CI. Finally, we conclude with a discussion of potential tensions within current CI policies as a basis for future research and policy development.

Introduction

Collaborative inquiry (CI) has emerged as a dominant structure for educators' professional learning in the 21st century (Donohoo, 2013; Halbert & Kaser, 2013; Nelson & Slavit, 2008). CI draws on the strengths and assets of educators by involving teachers, principals, school district leaders, and external partners in shared learning about a common question or topic (Cordingley, Bell, Thomason, & Firth, 2005; Donohoo, 2013; Nelson & Slavit, 2008). The focus of CI is usually on developing teacher pedagogy and practice with the ultimate aim of improving educational experiences and outcomes for students. By engaging in the process of CI, teachers

gain professional knowledge and expertise to promote educational improvement and change at student, school, and district levels (Byrne-Jimenez & Orr, 2007).

In Ontario elementary schools, CI represents a series of diverse, ongoing policy and curriculum efforts initiated or supported by the Literacy and Numeracy Secretariat (LNS) and developed in collaboration with Ontario educators to promote professional learning cultures (Ontario Ministry of Education, 2007, 2010a, 2010b). The intended impact of CI is to build capacity and improve educational practice within schools and school boards. Through CI initiatives, educators collaboratively investigate focused aspects of their professional practice with the aim of exploring student responses to instruction and developing new understandings and responsive actions (Lee, 2009). As described by the Ontario Ministry of Education (2014), CI allows educators to work together to improve their understanding of what learning is (or could be), generate evidence of what's working (and what's not), make decisions about next steps, and take action to introduce improvements and innovations—and then start again on emerging new issues and challenges.

The introduction of CI as an emerging learning structure for educators in the province over the past decade has resulted in changes in policies and documents at provincial, ministerial, and local administrative levels. Although CI is increasingly present in professional learning discourses in Ontario (e.g., Bruce & Flynn, 2013), there remains a need to analyze its policy foundation and the developing supports for CI across public education systems. With the recent emphasis on CI within the province of Ontario and elsewhere, there continues to be a need to lessen the gap between what is known from the theory of professional learning communities and how meaningful professional learning communities are implemented, facilitated, and sustained in schools and across districts (Kelly & Cherkowski, 2015). Moreover, documenting the process

and the learning is a critical component of collaborative inquiry, as it allows participants to capture the work and articulate findings, to illustrate how and why the learning was generated, and to let other colleagues learn from what was done (Ontario Ministry of Education, 2014). By examining public policies and school board support documents in this paper we aim to shed light on the evolving nature of CI within the Ontario context. These documents not only provide the basis for restructuring and reforms of teacher professional learning, but also serve as the material or documentary culture that influences teachers' growth and development. These artifacts are also of interest to qualitative researchers who wish to explore multiple and conflicting voices or differing and interacting interpretations (Hodder, 2000) within the policy landscape supporting teachers' CI practices. A document analysis methodology allows researchers to gain a deeper understanding of the nature of documents related to the perceived policy problems and the espoused intentions to resolve them at the governmental and administrative levels, as well as interactions between various institutions and stakeholders in the educational system.

The purpose of this paper is to analyze the documentary scope and spread of CI in Ontario elementary schools as evident from the policies, directives, and reports of educational authorities (i.e., Ministry of Education and school boards). Two questions guided our analysis:

- (a) What is the policy foundation and documentary basis that is used to promote and guide teacher learning in collaborative inquiry in Ontario elementary schools?
- (b) What is the evolving discourse that shapes teacher collaborative inquiry in Ontario elementary schools as evident from provincial and school board documentation?

In this paper, we first define the parameters of CI as a dominant professional learning model. We then detail our methodology for selecting and analyzing documents and policies related to CI at both government and school board levels. In our subsequent analysis, we

enumerate emergent themes and findings offering three sample case studies in order to illustrate how some school boards in the province are documenting their experiences with CI. Finally, we conclude with a discussion of persistent questions, unknowns, challenges, and tensions that have emerged around CI as a teacher professional learning model in Ontario.

Conceptual Framework

In our examination of CI, we discovered that it is equally understood as a broad ranging educational policy and as a system-wide curriculum for professional learning. We acknowledge that CI in Ontario is not termed as a policy but rather a set of related initiatives to support professional learning and enhanced teacher practice. Nonetheless, it can be said that CI possesses the characteristics of policy, due to its systemic restructuring nature and implicit or explicit specification of courses of purposive action followed or to be followed in dealing with a recognised problem or matter of concern directed towards accomplishment of some intended or desired set of goals (Harman, 1984). The field of public policy helps to make sense of the complexity around the creation, translation, and diffusion of policies and initiatives in an educational context, whereas the curriculum frameworks are helpful in understanding the logic of how CI is intended to influence the educational system and its key stakeholders (Christou, 2012; Cuban, 1992; Labaree, 2007a, 2007b). Both perspectives contributed to the conceptualization of CI in our research as operating at various policy and curriculum levels that are briefly discussed below.

In relation to the public policy perspective, Howlett, Ramesh, and Perl (2009) differentiated the broadest space of policymaking that houses all policy actors as *the policy universe*, and any subset that is involved in discussing options to resolve a specific policy issue

as a *policy subsystem*. An important distinction policymakers use in framing their work is between *policy as stated* and *policy in use* (Sergiovanni, Kelleher, McCarthy, & Fowler, 2009). *Policy as stated* is the policy that is created and mandated by policymakers, whereas *policy in use* refers to policy that is created where guidelines are interpreted, mandated characteristics are weighed, differential priorities are assigned, action theories are applied, and ideas come to life in the form of implementing decisions and professional practices. Moreover, the policy effect tends to lose its strength as policy guidelines move deeper into the institutional structures. Although institutional factors, contextualized by local board and school realities and circumstances, may hinder coherent implementation of CI, they also inarguably contribute to purposeful adaptation of the policy and the authentic learning, understanding, and internalization of the practices.

Within the curriculum literature, historians and sociologists of education also acknowledge that curriculum operates at various levels. The success or failure of curriculum is often framed in light of its ability to migrate across the various educational structures, especially when considering educational reform initiatives and efforts to effect widespread change in schooling. Elmore and McLaughlin (1988) identified three interconnected levels of curriculum practice: policy developers, school administrators, and practitioners. Labaree (2007) refined these categories, identifying four levels of school reform and developing a nested model to conceptualize educational reform. Each space has its own stakeholders, purposes, and discursive community. Labaree referred to the place where most reform efforts begin (and typically end) as the level of rhetoric or conceptual discussion. The curriculum is formalized through the use of policy documents and protocols, while the methods and means of instruction serve to define the curriculum in use. At its core, Labaree described the curriculum as it is received (i.e., how it is learned and interpreted by students). Labaree (2007b) argued that the activities at play at any one

level, or space of curriculum, of the nested model typically tells us little about curriculum reform, implementation, or focus at other levels. Cuban (1992) presented a similar framework of curriculum reform, drawing attention to the rhetorical, intended, taught, and learned aspects of curricula.

Synthesizing policy and curriculum perspectives for the document analysis study, we envisioned two distinct, yet interrelated areas: *CI as intended* and *CI as enacted*. The former is concerned with the explicit discourse surrounding collaborative inquiry; the latter implicates the practices supported within school boards and schools, as evidenced in the publicly available documents and policies. By positioning this exploratory document analysis within this analytical framework, we were able to glimpse the intended and enacted documentary foundation, scope, and spread of CI activities at various stakeholder levels in the province of Ontario.

Methodology

A document analysis method was used to conduct this policy review (Atkinson & Coffey, 1997; Berg, 2007; Bowen, 2009; Hodder, 2000; Prior, 2003). Document analysis is increasingly recognized as a particularly interesting and innovative strategy for collecting and assessing data (Berg, 2007). Document analysis is defined as a systematic procedure for reviewing and evaluating documents that entails finding, selecting, appraising (making sense of), and synthesizing data contained within them (Bowen, 2009). Like other qualitative research methods, document analysis requires data to be examined and interpreted in order to elicit meaning, gain understanding, and develop empirical knowledge. In addition, documents can be publicly available, cost effective to collect, and suitable for multiple reviews (Bowen, 2009). Based on classic and recent methodological sources on content analysis of documents

(Krippendorff, 1980; Lombard, Snyder-Duch, & Bracken, 2010; Mayring, 2000; Neuendorf, 2002; Salminen, Kauppinen, & Lehtovaara, 1997), a rigorous set of steps (domain definition, category construction, sampling, data collection, data analysis, and interpretation) was developed for conducting the analysis.

Data Collection and Analysis

Documents used for analysis often fall within two broader categories: informal and formal (McMillan & Schumacher, 2010). Informal documents (e.g., memos, drafts, or proposals) provide an internal perspective of the institution or organization by describing its functions, norms, values, and understandings. Documents of external communication (e.g., newsletters, publications, and public statements) represent the official perspective on a topic, issue, or process. Policy documents typically involve external communications, while responses to formal policies by various stakeholders are characterized as informal documents. The publicly available formal and informal documents were collected and analyzed in a complementary fashion in this study.

Considering the methodological advantages and limitations of document analysis (Bowen, 2009; Caulley, 1983), data analysis was determined by both the research objectives (deductive) and multiple readings and interpretations of the data from the documents (inductive). Given the multitude and variety of documents, thorough reviews were the first step in the analysis. Some documents, although originally selected given their content, title, or possible link to the topic, were not appropriate to the inquiry. As a team of individuals analyzing the content of a large number of documents, we followed the guidelines for assessing and reporting intercoder reliability in content analysis studies (Lombard et al., 2010).

Document Sample

The process undertaken to collect a representative sample of documents on collaborative inquiry was done as systematically as possible in an attempt to accurately portray the types of documents available as well as the ways that CI was discussed across them. The sample focused solely on the English sources of data, and thus does not include French language documents. Our initial search focused on documents that are available to the public and that are readily available online. The initial inclusion criteria for documents were fairly broad; to be included, documents must either mention CI specifically or be on the subject of CI. We expected that documents involving professional learning (e.g., PLCs), teachers examining student work/data, and the professional/teacher aspects of CI were all likely candidates for inclusion.

The initial document search focused on high-level documents. Two searches for relevant documents were undertaken simultaneously; the first examined the website of the Ontario Ministry of Education, whilst the latter explored the websites of all anglophone district school boards in Ontario. The latter search concentrated on the various Board Improvement Plans for Student Achievement (BIPSAs) published by each district. Before we began the respective searches, a list comprising seven specific search terms was developed. These terms served as heuristics to uncover all relevant documents from these two sources. The search terms were as follows: “collaborative inquiry,” collaborative inquiry, CI, C.I., inquiry, “collaborative learning,” and “inquiry learning.”

Ontario Ministry of Education Documents

The searches were completed in the following order: “collaborative inquiry,” collaborative inquiry, CI, C.I., “collaborative learning,” and “inquiry learning.” The details of each search are found in Table 1.

Table 1
Search Results Based on the Various Search Strings

Search String	Total Results	Discrete Results
collaborative inquiry	50	50
“collaborative inquiry”	50	0
CI	50	1
C.I.	45	1
inquiry	50	16
“collaborative learning”	50	0
“inquiry learning”	50	10

Note. The maximum number of hits for a search on the ministry’s website is 50. Based on the hits from the first two searches, there appeared to be no difference between search strings that used quotations and those that did not (i.e., between “collaborative inquiry” and collaborative inquiry); thus, the final two search strings (“collaborative learning” and “inquiry learning”) were only included as search terms with quotations.

The initial search results created a basis by which to compare every subsequent search string’s hits; duplicates were discarded (see “discrete results” column in Table 1 for the number of additional sites found by each search string). Some of the searches brought up a number of irrelevant sites (e.g., searching for “CI” triggered references to collegiate institute and community involvement; “inquiry learning” raised many references to full-day kindergarten documents), while others made productive additions to our document list. These searches, however, were not sufficient to determine the documents that would be included in the analysis phase; further examination of their content was necessary.

The full list of potentially appropriate documents from the ministry website (n = 76) was entered into an Excel spreadsheet and organized into tiers based on relevance to our guiding questions (see Table 2 for definitions of tiers). Documents’ categorization into one of the three tiers (22 Tier 1, 28 Tier 2, and 26 Tier 3) determined the degree to which it would be read and analyzed as the document analysis moved forward. This initial categorization was made without focused attention to the content of the documents. Next, we skimmed all documents in Tiers 1, 2, and 3 to confirm their categorization and inclusion. Following this step, 18 Tier 1 documents and 20 Tier 2 documents remained, while 12 documents were downgraded to Tier 3 for a total of 38 documents.

Table 2
Description of Tiers Into Which Documents (n=76) Were Organized

Tier	Number	Definition	Next Steps
1	n = 18	Explicitly mentions collaborative inquiry or is on the subject of CI. Explicit in its dealings with CI, and contributes directly to our research questions.	Entire document has been read and thoroughly analyzed.
2	n = 20	Does not deal directly with CI as its main focus, but makes mention of it. Supporting documents to Tier 1.	Only the portion that mentions CI, as well as a brief context, has been read and thoroughly analyzed.
3	n = 38	Surfaced in search but are not actually about collaborative inquiry; instead, may simply mention it in passing.	Skimmed for content; has not been thoroughly read and/or analyzed.

Informally, Tier 2 was amended to include an “upper Tier 2” categorization for those Tier 2 documents that felt especially relevant as supporting documents (n = 5). Thus 38

documents from the online search of the Ministry of Education’s website were slated for analysis, 18 of which would be included in the more detailed analysis.

Board Improvement Plans for Student Achievement (BIPSAs)

BIPSAs provide important information about the degree to which CI is discussed in Ontario school boards and included in official school board documents, and thus were initially considered Tier 1 documents, even though they did not meet our criteria for this tier (e.g., they may or may not mention CI, and are not strictly on the subject of CI). In the province of Ontario, there are 63 anglophone boards: 35 public and 28 Catholic. Our searches did not include documents from francophone boards; the resources available delimited our search to English documents. In addition, we did not include hospital-based school authorities. Our search for readily available BIPSAs (i.e., available on the school board’s website, searchable using one of three terms: “Board Improvement Plan,” “Board Improvement Plan for Student Achievement,” or “BIPSA”) found 49 documents. If the BIPSA itself was available, it was used for the analysis; if not, a supporting document (e.g., strategic plan) was selected instead.

An Excel spreadsheet was used to organize and code the BIPSAs along several quantitative factors: 1) availability of BIPSA online; 2) length (number of pages); 3) date of publication; 4) relevance; 5) specific mention of CI and frequency of mention; and 6) any other pertinent details. A selected subset of these results is summarized in Appendix A.

To communicate *how* CI was included in BIPSAs, we selected three BIPSAs semi-randomly: one from a large or medium board, one from a public board, and one from a Catholic board. We examined these three in more detail, noting the types of mentions CI received and the

context around these mentions. We examined BIPSA's from Upper Grand District School Board, Huron-Perth Catholic District School Board, and the Toronto District School Board.

Upper Grand DSB's BIPSA was two pages long, spanning 2011–2014. UGDSB mentioned CI only once; on page two, they listed collaborative inquiry under "System Foci (Instruction—Assessment For, As, and Of Learning)" thusly: "Professional development will support and encourage Capacity Building, Collaborative Inquiry/Planning/Teaching."

Huron-Perth CDSB's BIPSA was five pages long, dated December 2012. CI was mentioned 21 times over the five page document: twice under Strategies and Actions, four times under Professional Learning, eight times under Monitoring Implementation, and three times under Monitoring Impact; it was not mentioned in their final category, Evaluation. In addition, at the top of each page, a general Goals/Targets section contained broad if/then statements that were often tied to EQAO targets and board benchmarks; CI was mentioned in these statements four times, once per page/statement. Mentions of CI referred to the creation of a team (teachers, board coordinator, the SWST, and administrators) and to allocation of resources in order to "create a collaborative inquiry community" with "opportunities for co-planning and co-teaching" across subjects. The team's CI process "support[ed] reflection and analysis of the impact of [their] strategies" on student learning.

The Toronto District School Board's BIPSA is dated 2013–2014 and is five pages long. CI was mentioned three times: once under Implementation Strategies ("Professional Learning Teams (PLTs)" are doing "collaborative inquiry in every elementary school and professional learning cycle in every secondary schools [*sic*]") and twice under Monitoring and Tracking, where the board cites the importance of "evidence of consistency of practices and pedagogy related to Collaborative Inquiry/foci/questions/theory of action" at the school level.

Related Documents on Collaborative Inquiry

In addition to BIPSAs, online searches of district school board websites produced a variety of relevant board and school documents on collaborative inquiry (n = 84). For a complete list of these documents, see Appendix B. (Note: the initial search produced 88 entries; however, four of the documents did not meet the criteria and were removed). These included board newsletters, news releases, minutes from board and committee meetings, board curriculum or teacher support documents and resources, school newsletters, School Improvement Plans for Student Achievement (SIPSAs), and research papers. The documents were organized into an Excel spreadsheet and categorized as Tier 1 (n = 21), Tier 2 (n = 40), and Tier 3 (n = 23) according to the definitions listed in Table 2. The Tier 1 documents were included for further analysis. Three of the documents from Tier 1 that contained the most detailed description of the CI process were selected as sample case studies for a deeper analysis (see Documentary Case Studies section below).

It is important to note that not all boards in Ontario have websites, let alone publish documents related to collaborative inquiry. There is also a great deal of variance between boards in terms of what is posted publicly and how that information is organized. We have based our analyses on what was readily available online, through our original search criteria and parameters. We did not undertake any extensive follow-up efforts to contact boards directly to obtain additional documents or information.

Document Analysis Findings

Tier 1 documents from the ministry website search and from the district school board website searches were combined (n = 39) for content and thematic analysis. After reviewing a

large proportion of these documents, themes began to emerge. In order to organize the work in progress, we decided on a set of six provisional thematic categories: *goals*, *logistics*, *evidence*, *research*, *mindset*, and *miscellaneous*. After completing our analysis of the Tier 1 documents, these six categories were further refined into five categories; see Table 3 for a listing of the five, including key questions and illustrative examples.

Table 3
Categories for Thematic Analysis of Tier 1 Documents

Category	Key Question	Examples
Goals of Collaborative Inquiry	<i>Why CI? What do we expect?</i>	STUDENTS Outcomes (academic and engagement); active participant; development of student knowledge, skills, attitudes, behaviours. EDUCATORS (<i>teachers, administrators, ECEs</i>) Teacher as learner; flexible, adaptive teaching; effective questioning; mentorship role; collaboration with colleagues; “deprivatization” of education.
Theoretical and Philosophical Underpinnings of CI	<i>What is it?</i>	Inquiry as a way of thinking and doing; iterative, cyclical, reflective; permeates the curriculum; a way of looking at teaching and learning; a mindset; all are co-learners.
Inquiry as Research and Hypothesis Testing	<i>What does it mean?</i>	Teacher as action researcher in the classroom, using the inquiry model; going deeper; questions that beget more questions; strength of combined expertise through collaboration.
Logistical, Organizational, Structural Issues, and Securing Resources	<i>How will it work?</i>	People (formation of PLC/inquiry teams; administrative support; membership and representation within/across divisions, schools, and boards) and resources (release time, technology, support).
Evidence and Use of Data	<i>How do you know it’s working?</i>	Process, not product; need for a wide variety of evidence; “what student work is telling us,” focus on documentation and formative assessment; impact on goals (teaching, learning) and next steps.

Goals of Collaborative Inquiry

First and foremost, a majority of the documents were found to refer to the Goals of CI, both for educators and for students. The main focus for educators was their changing role, with “teacher as learner.” Documents appeared to emphasize *collaboration* over *inquiry*, encouraging teachers to “becom[e] collaborators and co-learners,” sharing in the benefit that comes from the “collective wisdom of the group.” Collaboration was touted as improving not only individual teachers’ practice, but also that of the team of colleagues, and ultimately of the profession. Collaboration “provokes reflection.” The use of “expert knowledge” was also encouraged, whether it came from the team members, the literature, or resources. When teachers looked at student work, they were meant to focus on student thinking; and when they were examining their work and their thinking, they did so collaboratively.

In the documents, we observed a strong connection between educators’ and students’ learning: “both educators and students share the responsibility for learning” and as such are “co-authors of the learning experience.” This shared responsibility promised to allow educators/students to “go deeper” or to “take the learning deeper,” a concept that was never sufficiently defined or explained.

For students, the primary goal of collaborative inquiry began as a goal that was very similar to that of professional learning communities—to “engage in processes of inquiry and learning focused on improving student achievement” with a focus on student data. Collaborative inquiry’s goal was to increase student engagement, motivation, and achievement. Emphasis was placed on “21st century learning” in an attempt to give students the necessary skills of active learning, creative problem solving, critical thinking and metacognition, communication, collaboration, and the use of technology as a tool. The goal of increasing engagement and

achievement quickly expanded—more so as inquiry moved to the student level—to include the “co-construction of knowledge” wherein students were to “construct a shared understanding” as a class in a “personalized, collaborative, inquiry-based learning environment.” The collaborative inquiry model of education was presented as one in which both educators and students are focused on a cycle of continuous, incremental improvement.

Theoretical and Philosophical Underpinnings of Collaborative Inquiry

The common thread across the documents surveyed with respect to the second theme, Theoretical and Philosophical Underpinnings of CI, was that of “the cycle of inquiry” (also referred to as “professional learning cycles”). A number of key terms were used again and again to illustrate this: iterative, reciprocal, never finished, reflective, ever-evolving, open-ended, responsive, etc. Establishing a question for inquiry based on a “challenge of practice” (ideally one that has “no easy solution”) was part of the cycle: one document described it as “problem finding and problem solving.” The continuous nature of CI meant that the importance of being “flexible and responsive” was frequently included in CI documents; inquiry required a great deal of flexibility and reflection on the part of the teacher. To support this flexible structure, educators were encouraged to have a “deep knowledge” of the “big ideas” of the curriculum, so that the curriculum could be integrated to support inquiry in the classroom.

Inquiry as Research and Hypothesis Testing

Just as the first emergent category focused on “teacher as learner,” this category involved the “teacher as researcher” component of CI and how the documents described CI being put into practice. “Education is, in and of itself, inquiry,” states one ministry document.

“Explorations and experiments are a form of research, rooted in the learning experience.” The cycle of inquiry was repeatedly referred to in this way: as research; as purposeful, thoughtful hypothesis testing. An inquiry cycle begins with a problem or question, planned strategies, action, measurement, reflection, and then a return to the beginning with a new or modified question. There was also emphasis on effective questioning practices across the documents, noting that good questions lead to more and better questions (e.g., higher order questions, deeper and more focused questions).

Logistics and Organization

A concern that was raised in board-level documentation, yet not a major focus at a ministry level, was the organization and logistics of the people involved in CI: for example, *how* PLCs and inquiry teams were to be formed (e.g., within a grade, within a division, within a family of schools); *how* CI participants were to be grouped (e.g., in hubs, networks, families of schools); and, aside from teachers, *who* would be part of the team (e.g., LRTs, administrators, board personnel, SAOs, ECEs, outside experts/critical friends). Structural and procedural organization was also a component of the documents. Consistent reminders to be flexible, dynamic, and process-oriented were at odds with concerns over technological support and resource allotment: inquiry benefits from equipment, infrastructure, and release time. Further, the importance of and need for research resources (e.g., ministry documents, board resources, input from colleagues) were evident across the reviewed documents.

Evidence and Use of Data

Our overwhelming sense was that for CI, the focus is on *process*, not *product*. This was revealed in several ways. First, both “documentation of student learning” and “pedagogical documentation” described the importance of broadening the types of measures and methods used to collect evidence about students’ learning, especially when paired with ongoing, specific, and descriptive feedback. The Early Primary Collaborative Inquiry (EPCI) appeared to have been particularly influential: use of purposeful and intentional listening, observation, and description replacing the predominance of more traditional paper-and-pencil assessments. Second, the centrality of the if/then statements as a foundation for CI again highlighted the cyclical nature of the inquiry process (i.e., what was planned, whether it was measurable, the outcome, the refinement of the if/then question). Third, mentions of “assessment *for* learning” and “formative assessment” are sprinkled throughout CI documents. The collaborative and reflective aspects of CI were revisited in the examination of evidence and student work as a group with guiding phrases such as *What is the student work telling us?* and *What do we need to do next/differently?* Some boards formalized the teacher reflection component of CI with online surveys that they then chose to make available online. The data were collected throughout the inquiry process and focused on teacher perceptions of CI. One board concluded that participants, at the end of an inquiry, only felt that they were at an “awareness” stage—however, they were quick to identify next steps. Another board made the realization that they really needed to build teacher efficacy in mathematics.

Documentary Case Studies of CI in Action

The online searches of district school board websites uncovered a number of relevant board and school documents on collaborative inquiry. Of the 21 that were included as Tier 1 documents, three were set aside to present descriptive cases of CI in action within Ontario. The three documents were 1) an EPCI project on Assessment for Learning in Full Day Early Learning Kindergarten Classrooms by Kawartha Pine Ridge District School Board (KPRDSB) (Parsons, 2013); 2) an EPCI project in the Rainy River District School Board (RRDSB, 2013); and 3) an EPCI project by the Thames Valley District School Board (TVDSB, 2013) that focused on documentation's influence on student engagement and achievement. All three documents focused on the early years through EPCI projects. Most probably, these documents were among the most detailed and thorough documents available online because EPCI was one of the first collaborative inquiry initiatives in the province and was implemented across all boards. While there are other types of CI initiatives (e.g., CIL-M), our inclusion criteria necessarily limited the documents that surfaced. In the sections below, we detail program components, providing direct quotations where appropriate, from each of the documents.

KPRDSB: Assessment for Learning in Full-Day Kindergarten

This report (Parsons, 2013) details a CI process undertaken by three teachers and three early childhood educators (ECEs) from two elementary schools, and two board instructional leadership consultants. They began with an inquiry question: "How does assessment information help us to foster independent and collaborative learners who use feedback to self-assess and set goals?" Following a reflection and planning meeting, the team refined their theory of action and distilled it into three foci of learning:

1. How can sharing learning goals and success criteria help students to recognize where they are in their learning?
2. How can we design a learning culture that engages educators and students in collaboration while supporting learning and independence?
3. How can we document learning to support student reflection and goal-setting? (pp. 1–2)

The team’s observations, reflections, and impact on practice were summarized under these three foci.

Sharing learning goals and success criteria. This theme was identified as the team undertook a purposeful approach to documenting the learning of the students as they focused on “process goals,” “knowing the learner,” and the “collection of assessment information” (p. 3). Developing and collecting success criteria over time allowed teachers to provide “intentional differentiation of student responses,” to “increas[e] entry points for students,” and to “increas[e] engagement and opportunities for success,” and it “allowed for deeper conversations [with students] about their learning” (p. 3). Learning goals “honoured students’ interests and program expectations” but remained “married to the big ideas of the document.” The team found that “modeling by reflecting on what the [learning] goals meant helped students build a deeper understanding of what learning was occurring” (p. 4). When “adults and children are all learners,” and when collaboration showed that “other people [were] learning resources,” students better understood “where they were in their learning” and developed as “independent and collaborative learners” (p. 5). The educators created “a culture of learning” by setting up the classroom to “foster conversations” wherein feedback was “descriptive rather than evaluative” and students used their “environment as a tool to foster their learning” (p. 5).

Designing a learning culture. While the team was gathering evidence, they noted that “it was the process of learning and not the product that they were making the focus of [their]

assessment.” Instead of focusing “on the end product,” they saw that “much of the learning happened during the process of its creation” and that it was during the process that “assessment information [was] most impactful in decision-making” (p. 6). The team also employed the “intentional practice of observation” and reflected on “what they noticed and how they might further connect it to children’s interest[s] to provoke . . . [their] thinking” (p. 6). The environment was used as a tool to foster learning: learning materials provided opportunities for students to demonstrate where they were in their learning; pictures and writing in the classroom and on learning walls showed learning goals and success criteria; and, artifacts reflected what students were learning. The team felt that the most critical thing they had done was “schemul[e] time to listen, observe and wonder each week” (p. 6). It was coupled with the use of ongoing, descriptive feedback, focused on learning rather than the end product. The educators continued to model their own thinking (e.g., through “think alouds,” by intentionally making errors and questioning them), and asking their students for their strategies and suggestions. The learning environment was built on risk-taking and trusting relationships. Students effectively played the role of both teacher and learner as they turned to their peers “for guidance and support to enhance their own learning”; this relationship “supported, shared and solidified” students’ learning (p. 8).

Documenting learning. Educators asked themselves a number of questions related to the purposes and processes of gathering evidence, as well as its triangulation, validity, and reliability. In their focus on documentation, the team felt that “naming the learning” and the timing of the documentation were both important. “Capturing the moment in a descriptive observation” would best illustrate students’ progress; further, they felt it was important to collaborate with students to have them name the learning and outline its significance. This type

of feedback loop began a conversation in which educators could “possibly gain further insight into the child’s interpretation of their learning process,” serving “as a guide for next steps, for the students and educators” as well as providing encouragement to keep trying (p. 9). The report concluded with the reflections from team members on CI processes, emphasizing their increased capacity for reflective observation and the necessity of preparing for and making time to wonder, question, and reflect.

RRDSB: Early Primary Collaborative Inquiry

In this document (RRDSB, 2013), there is a brief description of EPCI and its intention within the RRDSB (i.e., to highlight evidence-informed teaching and learning practices that support young learners; to build connections to programming decisions for Early Learning, Grades 1 and 2, and explore the common context between these years; and to provide support for teachers to “inquire” about their teaching and learning practice so that others may learn from their experience). RRDSB became involved with EPCI in 2010 and had expanded from three to six elementary schools (including 16 teachers, 3 early childhood educators, and 4 principals). The project’s focus was captured in the main inquiry question (written as an if/then statement): “If students are provided with authentic, meaningful learning opportunities, then student engagement will increase.” To support alignment with the Board Improvement Plan for Student Achievement, each individual school inquiry team determined its own inquiry focus within this broader, board-wide inquiry question. Some examples of the if/then statements include:

- “If we provide and share authentic meaningful math learning opportunities (and collaborate with CIL-M teachers), our students and teachers will be more engaged.” (Robert Moore P.S.)

- “If students are provided with authentic math experiences, tools and discussion (teacher-student) within play-based centres, then children’s mathematical thinking will improve.” (J. W. Walker P.S.)

Although there was a substantial amount of information available from each of the participating inquiry schools, one was selected at random for closer examination: Sturgeon Creek (and associated schools). The Sturgeon Creek documents are comprised of six parts:

1. *The School Inquiry Teams* [Presented in video format.]
2. *The Planning Map* – Each CI team used a planning template that began with the board’s overarching inquiry question. Looking at assessment data for their school, they collaboratively developed a “School Direction/Focus of Inquiry” that aligned with the School Improvement Plan. They then developed a number of if/then suppositions that led them to their specific inquiry question. Strategies for achieving their learning were identified. A marker student approach appeared evident in this CI project.
3. *Sample Lesson Plan*—A generic Valentine’s Day Inquiry Lesson Plan for K–2.
4. *Analyzing Student Learning*— This form appears to be an educator reflection/summary of their experiences in the EPCI project. It provides a number of questions and “look-fors,” such as these: “Describe what the students are doing and learning?” “How do we know what we know?” “What are the possible reasons that the students responded in the way they did?”
5. *Survey Questions for Grade One Teachers*—A blank survey is included, although no data is presented. The focus of the survey is on transitioning from kindergarten to Grade 1 from the perspective of Grade 1 teachers.
6. *EPCI Project Overview Chart*—A very detailed graphic representation of the board’s EPCI project, depicting the composition of inquiry teams, the overarching board inquiry question, the specific inquiry question for each participating school. Also included were sections on (a) key learnings, (b) shifts in practice, and (c) commitment of actions.

TVDSB: Documentation’s Influence on Student Engagement and Achievement (EPCI)

The board (TVDSB, 2013c) described the EPCI project for 2012–2013 as “a multidisciplinary team of professionals from the TVDSB engaged in action research related to

student oral response.” The inquiry team consisted of 46 members from 6 elementary schools, including early years to Grade 2 teachers, ECEs, a speech and language pathologist, reading support teachers, learning support teachers, a child care program coordinator, administrators (principals and vice-principals), a research and assessment associate, a learning coordinator, a learning supervisor, and a superintendent. The team developed an inquiry question “that propelled [their] investigation, focused [their] learning and nudged [their] educators to honestly and openly reflect on their practices to determine the impact on student oral language skills.”

The EPCI site also included many links to supporting documents, such as reports and monographs from previous EPCI projects, slideshows and videos, collaborative inquiry references and web links, teacher surveys, and related items. The EPCI Project Report monographs from 2010–2011 and 2011–2012 provided a detailed summary of each project.

The EPCI Project Report 2010–11 (TVDSB, 2013a, p. 1) begins with the inquiry question for 2010–2011: “What is the influence of documentation on student engagement and achievement?” Their focus was on “the use of documentation as a tool for engagement leading to improved student achievement” in kindergarten, Grade 1, and Grade 2. Team members embraced this opportunity because “the close examination of documented student work made them aware of their own teaching” (TVDSB, 2013a, p. 1). The project began with a detailed “literature review” on the use of “pedagogical documentation” in early learning classrooms (e.g., Buldu, 2010; Caldwell, 1997; Dahlberg, Moss, & Pence, 2006). The review also referenced the ministry’s monograph on teacher collaborative inquiry (Ontario Ministry of Education, 2010a) and the Reggio Emilia style of pedagogical documentation (Kocher, 2004). Under the Analyses and Interpretation section, the team discusses some of its key findings (“How do we know if this intervention process worked?”) followed by implications for educator practice, administrator

practice, and children's practice, as well as the challenges that the team identified during implementation (TVDSB, 2013a, pp. 3–5).

Building on the previous year's work, in the EPCI Project Report 2011–12, the team developed the following inquiry question: “What is the impact of intentional provocations (effective questioning and authentic documentation) on student oral response?” (TVDSB, 2013b, p. 1). This report also begins with an extensive summary of the research, referencing the ministry's monographs on teacher collaborative inquiry, effective questioning, and student inquiry. The cycle of inquiry and the need to promote higher levels of thinking and inquiry are then explored. A step-by-step description of the inquiry process is then summarized, based on *Collaborative Inquiry: A Facilitator's Guide* (Donohoo, 2013). Under Analysis and Interpretation, the team describes its findings and the practical implications for early educators in terms of improving their teaching practice (TVDSB, 2013b, pp. 5-7). Some next steps are then provided for those who had participated directly in the EPCI project, as well as for administrators and others who had not had the opportunity. Other related resources were also included in this project. For example, an EPCI Educator Survey, a reference list, and a “forms of documentation” chart.

Summary of Case Study Documents

Based on our scan of the available documents relating to collaborative inquiry, we have come to the conclusion that publicly funded school boards in Ontario have taken very different approaches to implementing collaborative inquiry in elementary schools. The range spans from (a) virtually nothing; to (b) a few lines referencing the term “collaborative inquiry” or mentioning specific ministry documents or projects (e.g., EPCI, CIL-M) in a BIPSA; to (c) a

very well thought-out, comprehensive, research-based approach that also documents the goals, strategies, steps taken, observations and findings, challenges that arose, implications for educators, and next steps for all stakeholders. This significant differentiation and spread between boards does not appear to be related to their size or geographical location. Based on the evidence available, it appears that teacher learning teams are developing resources to guide their data collection and learning representations. Missing from the evidence is a clear methodological description of how data were analyzed and persistent gaps in teachers' learning. The results of CI projects appear to have positive learning gains for teachers, but are limited in their articulation of "what didn't work" and what remained as enduring questions.

Discussion

With its rapidly growing emphasis throughout Ontario and across many other Canadian educational systems, there is an expressed need to examine the policy foundation and emerging discourse of CI as a professional learning model for Canadian educators (Cordingley et al., 2005; Donohoo, 2013; Kelly & Cherkowski, 2015; Nelson & Slavit, 2008). The introduction of CI within policies and supporting documents over the past decade suggests an evolution in the nature of this professional learning model with shifts in the intentions behind the CI model and its enactment in schools. To date, research on CI has shown it to be effective as a form of professional learning and a means of enhancing student learning (Hannay, Wideman, & Seller, 2010; Timperley & Lee, 2008). In Ontario, research evidence suggests that CI—a practice of engaging educators as researchers—holds great promise as a provincial approach (Ontario Ministry of Education, 2014).

Our document analysis of the publicly available documents on CI was framed by two purposes. First, we aimed to understand the policy foundation and documents used to promote and guide teacher learning through collaborative inquiry. Second, we sought to analyze these documents to determine how they were used to guide teacher learning in Ontario. Despite the limitations of our data (e.g., the analyzed documents only included those that were publicly available, that were in English, and focused primarily on the early elementary years), this paper offers a unique contribution to the literature by providing an analysis of the existing scope and spread of documents shaping teacher CI learning.

Our thematic and content analysis of the Tier 1 documents provided an overall sense of how collaborative inquiry was being promoted and discussed in the province. However, due to the formal nature of the majority of documents we reviewed, we are not confident that they necessarily provided a complete description of the challenges affiliated with enacting CI policies at local levels. Coupling Tier 1 analysis with our case study data helped present a more thorough depiction of the CI policy landscape operating at multiple levels within Ontario's educational system. Based on our analysis, we observed areas of potential tensions within current CI policies, which we present with the stimulus for future research and policy development, both within Ontario and beyond.

First, we observed in the documents that the teacher's role has clearly evolved as a result of CI policies. "Teacher as learner" and "teacher as co-learner" potentially changes the relationship not only between teachers, but also between teachers and students. As we found in the documents, student interest and choice drive instructional decision making by the teacher within current CI models. To this end, teachers are charged with remaining flexible and adaptive in learning environments that are not entirely teacher-directed. This responsibility is not

insignificant; rather, it is likely to be difficult for some teachers, who may be asked to change their teaching attitude, philosophy, and approach.

A second area for consideration relates to the evolving focus in the documents on CI “as process, not product.” A process orientation emphasizes ongoing conversations and sharing between teachers and between teacher and students and emphasizes formative assessment and ongoing descriptive feedback. There is a focus on documenting learning and on collaborative examination of documentation to determine “what the student work is telling” the team.

Observation (e.g., deep observation, reflective observation, pedagogical observation) is a key component, especially in the early grades. As observed in the case studies, EPCI appears to have had an especially strong influence on these documentation and data collection processes.

However, a potential tension related to a process orientation is that teachers need to know how to use the collected data and to reconcile them with existing accountability and summative assessment measures (e.g., report cards, provincial testing). The policies and documents reviewed here provide teachers with limited guidance on how to reduce large amounts of student achievement data into useful evidence to support their ongoing learning processes. Furthermore, teachers may have difficulty determining what evidence is of most worth, given the perceived value of accountability and summative assessment data in Ontario’s educational system. The challenge of teacher data literacy specifically within CI projects has been articulated in other contexts as well (see Kennedy, Deuel, Nelson, & Slavit, 2011; Nelson, Slavit, Perkins, & Hathorn, 2008; Vineyard, 2010).

A third tension is associated with assessment practices, particularly as they relate to high stakes examinations. This tension becomes evident as educators aim to prepare students for summative assessments whilst implementing novel pedagogical practices and “new learnings”

from CI. As a result, educators may feel a tension between maintaining efficient pedagogies that directly relate to summative assessment expectations and implementing alternative pedagogies that might serve other learning ends (e.g., student engagement, cooperative learning strategies, learning skills development). While these two ends can meet (i.e., learning towards curricular expectations and using diverse pedagogies), there may be a perceived tension when new pedagogies do not yield higher test scores. We argue that there is a need to re-think what constitutes “evidence” of impact on student learning, to move beyond summative assessment scores as the primary benchmark for determining the success of new pedagogies. This tension remains an area for continued examination and a source for future research. Additional perspectives on this tension (i.e., ministry, school board administrators, students, and parents) might yield alternative indicators of evidence and re-prioritize summative achievement within the learning landscape.

A fourth tension concerns a discrepancy in the language of CI, which exists in the interesting interplay of terms that emphasizes teachers “broadening” their practice through CI, even as they work on “refining” said practice. Teachers are asked to engage with each other to “broaden their perspectives,” consider the “big ideas” related to the curriculum, “expand their definition of what they consider documentation/evidence” and “remain open to possibilities.” At the same time, educators are told to use expert knowledge in a “strategic and purposeful” way, to narrow the focus of their inquiry questions and if/then statements to a particular “problem of practice,” and to focus on specific student needs. This simultaneous broadening and refining presents teachers with opposing orientations in their CI work; while both may be valuable and accurate, depending upon the inquiry’s focus, the documents we reviewed applied these two orientations inconsistently. As policymakers and researchers move forward in describing the

purpose of CI, we would suggest greater intentionality and clarity of terminology be used to describe the potential purposes, processes, and outcomes of CI work.

Similarly, a language-related tension was observed in the terminology related to collaboration, inquiry, teacher collaborative inquiry, student collaborative inquiry, inquiry-based learning, collaborative inquiry for both teachers *and* students, and “the inquiry model.” The meaning and application of these terms were muddled: in some instances the terms were used interchangeably and in others, the terms were differentiated. Compounding this tension is the simultaneous development of the classroom-based *student* inquiry approach to teaching and learning; not only are teachers participating in collaborative inquiries with their colleagues, but students are now asked to stimulate *their* learning through inquiry. The current use of “inquiry” refers to both teacher and student learning, and is at times undifferentiated. Frequently, there is little articulation as to the difference in how inquiry is understood, structured, and applied across these two sets of learners.

Across the documents, the importance of collaboration and a team approach was emphasized: “deprivatizing teacher practice” was a particularly loaded phrasing for this, and was used to describe CIL-M as a program that had “laid the foundation for deprivatizing teacher practice and establishing a culture of collaboration.” (This term was used in a promotional/motivational video on the ministry’s website that touts the benefits of co-teaching/CIL-M and encourages teachers to “stick with” it.) With CI, teachers are required to have more of an “open door” approach, with people coming and going all the time and many people coming together to examine student work. This is reflected in the CI documents in many ways, such as through the use of “educators” instead of “teachers” to signal that many other

people are involved: the classroom teacher, his or her colleagues, ECEs, EAs, special education teachers, administrators, and so on.

Finally, evidence from the case study documents suggests that teachers do face challenges with the implementation of CI policies. Such challenges can be associated with any new program implementation; if teachers do not fully understand CI, its rationale and how to implement it, they may become frustrated and lose confidence, and these can become significant obstacles to implementing effective CI. If there is any lingering frustration among educators about too much change too quickly, or if they think that it may be a passing fad, teachers could be reluctant to invest time and energy in a CI project. A quote from one district's forum on technology was illustrative of this point: "Nothing kills ideas faster than frustration." As Huffman and Kalnin (2003) found, the critical feature of a collaborative inquiry is participants' ability to make the inquiry process their own and take ownership of the learning outcomes.

Limited resources were another issue, as these concern human resources (support personnel), time, and money (e.g., staff release time to meet and collaborate, the purchase of learning technologies). A section of the TVDSB's EPCI project on documenting student learning contained a useful summary of what their CI team identified as challenges, a list that is likely to be echoed by other board and school teams conducting inquiries. These challenges included the following:

- time to document is necessary and time is needed for collaborative analysis of documented work;
- lack of resources—cameras/printers/audio recorders;
- confines of long range plans;
- trust that what you are observing is valid—moving beyond standardized assessment;

- letting go of the control of the direction of the curriculum; and,
- documentation is easier in classrooms with two staff [members]—more challenging in older grades. (TVDSB, 2013b, p. 5)

Finally, the documents analyzed here included target-specific language that consistently used terms such as “we all know that . . .” or “all good teachers . . .” rather than “you should . . .” The ministry has encouraged teachers to embrace CI because, as they have sought to demonstrate, it is a sound and effective pedagogical practice. They have carefully avoided “thou shalt” language, which might have had a deleterious effect on teachers’ ethic and perceptions of CI. Instead, teachers are addressed as a collective, presupposing that they may be at similar points in their professional development. Teachers may, however, be at very different stages in their career progression and professional learning.

The tensions and challenges enumerated here have been documented in other case study research throughout Canada and the United States (Bray, 2000; Burley & Pomphrey, 2011; Clauset & Murphy, 2012; David, 2008; Forey, Firkins, & Sengupta, 2012; Hord, Roussin, & Sommers, 2010; Langer, Colton, & Goff, 2003; Nelson & Slavit, 2007). Similarly, the most recent publication of the Ontario Ministry of Education on CI (2014) noted inherent tensions of CI, referring to them as priorities and processes that may appear contradictory or competing, yet are important to respond to in order to understand how educators navigate the roles, responsibilities, and purposes of CI in their work. As research continues on CI policies and implementation, there is a need to further investigate how these challenges can be mitigated and addressed. Such investigations will help to ensure that teachers are able to effectively and efficiently use CI for their professional learning.

Concluding Remarks

Despite the tensions and challenges that we have identified, the documents reviewed herein suggest that in a relatively short time period, the province of Ontario has established CI as a new discourse for teacher professional learning, which appears to be taking hold at local levels. Again, this conclusion is tempered by the fact that we have only reviewed a subset of the available documents and have not empirically examined the systemic impact of CI on teachers' professional learning. Further, we acknowledge that the documents we examined most closely, as case studies, were limited to the early years. We recommend that future research seek to refine our identified tensions and explore their reality in practice, especially in upper elementary years and into secondary. Data on the implementation of these policies and educational stakeholders' responses to CI as a dominant professional learning model throughout Ontario are also needed. As evident from this review, CI is quickly being (or becoming?) established as an effective mode for educator learning; as such, understanding its policy foundation and evolution, the reality of enactment, and the impact of CI at various system levels must be an ongoing area of research and development.

References

- Atkinson, P., & Coffey, A. (1997). Analyzing documentary realities. In D. Silverman (Ed.), *Qualitative research: Theory, method and practice* (pp. 45–62). Thousand Oaks, CA: Sage.
- Berg, B. L. (2007). *Qualitative research methods for social sciences*. London: Allyn and Bacon.
- Bowen, G. A. (2009). Document analysis as a qualitative research method. *Qualitative Research Journal*, 9(2), 27–40.
- Bray, J. N. (2000). *Collaborative inquiry in practice: Action, reflection, and making meaning*. Thousand Oaks, CA: Sage.
- Bruce, C. D., & Flynn, T. (2013). Assessing the effects of collaborative professional learning: efficacy shifts in a three-year mathematics study. *Alberta Journal of Educational Research*, 58, 691–709.
- Buldu, M. (2010). Making learning visible in kindergarten classrooms: Pedagogical documentation as a formative assessment technique. *Teaching and Teacher Education*, 26, 1439–1449.
- Burley, S., & Pomphrey, C. (2011). *Mentoring and coaching in schools: Professional learning through collaborative inquiry*. New York: Routledge, Taylor and Francis.
- Byrne-Jimenez, M., & Orr, M. T. (2007). *Developing effective principals through collaborative inquiry*. New York: Teachers College Press.
- Caldwell, L. B. (1997). *Bringing Reggio Emilia home. An innovative approach to early childhood education*. New York: Teachers College Press.
- Caulley, D. N. (1983). Document analysis in program evaluation. *Evaluation and Program Planning*, 6, 19–29.
- Christou, T. (2012). *Progressive education: Revisioning and reframing Ontario's public schools, 1919–1942*. Toronto: University of Toronto Press.
- Clauset, K. H., & Murphy, C. U. (2012). Creating synergy: Cycle of inquiry shifts learning teams into high gear. *Journal of Staff Development*, 33(5), 30–33.
- Cordingley, P., Bell, M., Thomason, S., & Firth, A. (2005). *The impact of collaborative continuing professional development (CPD) on classroom teaching and learning—Review: How do collaborative and sustained CPD and sustained but not collaborative CPD affect teaching and learning?* London: EPPI-Centre, Social Science Research Unit, Institute of Education, University of London.

- Cuban, L. (1992). Curriculum stability and change. In P. Jackson (Ed.), *Handbook of research on curriculum*. New York: Macmillan.
- Dahlberg, G., Moss, P., & Pence, A. R. (2006). *Beyond quality in early childhood education and care: Postmodern perspectives*. London: RoutledgeFalmer.
- David, J. L. (2009). Collaborative inquiry. *Educational Leadership*, 66(4), 87–88.
- Donohoo, J. (2013). *Collaborative Inquiry for educators: A facilitator's guide to school improvement*. Thousand Oaks, CA: Corwin.
- Elmore, R. F., & McLaughlin, M. W. (1988). *Steady work*. Santa Monica, CA: Rand.
- Forey, G., Firkins, A. S., & Sengupta, S. (2012). Full circle: Stakeholders' evaluation of a collaborative enquiry action research literacy project. *English Teaching*, 11(4), 70–87.
- Halbert, J., & Kaser, L. (2013). *Spirals of inquiry: For equity and quality*. Vancouver: British Columbia Principals' and Vice-Principals' Association.
- Hannay, L., Wideman, R., & Seller, W. (2010). *Professional learning to reshape teaching*. Toronto: Elementary Teachers' Federation of Ontario.
- Harman, G. (1984). Conceptual and theoretical issues. In J. R. Hough (Ed.), *Educational policy: An international survey* (pp. 13–29). London: Croom Helm.
- Hodder, I. (2000). The interpretation of documents and material culture. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (2nd ed., pp. 703–715). Thousand Oaks, CA: Sage.
- Hord, S. M., Roussin, J. L., & Sommers, W. A. (2010). *Guiding professional learning communities: Inspiration, challenge, surprise, and meaning*. Thousand Oaks, CA: Corwin.
- Howlett, M., Ramesh, M., & Perl, A. (2009). *Studying public policy: Policy cycles and policy subsystems*. Don Mills, ON: Oxford University Press.
- Huffman, D., & Kalnin, J. (2003). Collaborative inquiry to make data-based decisions in schools. *Teaching and Teacher Education*, 19, 569–580.
- Kelly, J., & Cherkowski, S. (2015). Collaboration, collegiality, and collective reflection: A case study of professional development for teachers. *Canadian Journal of Educational Administration and Policy*, 169, 1–27.
- Kennedy, A., Deuel, A., Nelson, T. H., & Slavit, D. (2011). Requiring collaboration or distributing leadership? *Phi Delta Kappan*, 92(8), 20–24.

- Kocher, L. (2004). The disposition to document: Portraits of practice. *Canadian Children*, 29(1), 23–31.
- Krippendorff, K. (1980). *Content analysis: An introduction to its methodology*. Beverly Hills, CA: Sage.
- Labaree, D. (2007a, September). *Limits on the impact of educational reform: The case of progressivism and U.S. schools, 1900–1950*. Paper presented at Monte Verità conference, Ascona, Switzerland. Retrieved from http://web.stanford.edu/~dlabaree/publications/Monte_Verita_Paper.pdf.
- Labaree, D. (2007b). *Education, markets, and the public good*. London: Routledge.
- Langer, G. M., Colton, A. B., & Goff, L. S. (2003). *Collaborative analysis of student work: Improving teaching and learning*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Lee, T. (2009, May–June). *Educational leadership for the 21st century: leading school improvement through collaborative enquiry*. Paper presented at the Canadian Association for Studies in Educational Administration, Ottawa.
- Lombard, M., Snyder-Duch, J., & Bracken, C. C. (2010). *Practical resources for assessing and reporting intercoder reliability in content analysis research projects*. Retrieved from http://matthewlombard.com/reliability/index_print.html
- Mayring, P. (2000). Qualitative content analysis. *Forum: Qualitative social research*, 1(2). Retrieved from <http://www.qualitative-research.net/index.php/fqs/article/viewArticle/1089/2385>
- McMillan, J. H., & Schumacher, S. (2010). *Research in education: Evidence-based inquiry* (7th ed.). New York: Pearson.
- Nelson, T. H., & Slavit, D. (2007). Collaborative inquiry among science and mathematics teachers in the USA: Professional learning experiences through cross-grade, cross-discipline dialogue. *Journal of In-Service Education*, 33, 23–39.
- Nelson, T. H., & Slavit, D. (2008). Supported teacher collaborative inquiry. *Teacher Education Quarterly*, 35(1), 99–116.
- Nelson, T. H., Slavit, D., Perkins, M., & Hathorn, T. (2008). A culture of collaborative inquiry: Learning to develop and support professional learning communities. *Teachers College Record*, 110, 1269–1303.
- Neuendorf, K. A. (2002). *The content analysis guidebook*. Thousand Oaks, CA: Sage.

- Ontario Ministry of Education. (2007). *Professional learning communities: A model for Ontario schools* (Capacity Building Series, Secretariat Special Edition Number 3). Toronto: Literacy and Numeracy Secretariat.
- Ontario Ministry of Education. (2010a). *Collaborative teacher inquiry* (Capacity Building Series, Secretariat Special Edition Number 6). Toronto: Literacy and Numeracy Secretariat.
- Ontario Ministry of Education. (2010b). *Exploring five core leadership capacities: Promoting collaborative learning cultures: Putting the promise into practice* (Ontario Leadership Strategy, Ideas Into Action Bulletin Number 3). Toronto: Queen's Printer for Ontario.
- Ontario Ministry of Education. (2014). *Collaborative inquiry in Ontario* (Capacity Building Series, Special Edition Number 39). Toronto: Student Achievement Division.
- Prior, L. (2003). *Using documents in social research*. Thousand Oaks, CA: Sage.
- Parsons, J. M. (2013). *Collaborative inquiry 2012-2013: Assessment for learning in full day early learning kindergarten classrooms*. Peterborough, ON: Kawartha Pine Ridge District School Board. Retrieved from <http://kprcontentlibrary.kprdsb.ca:8080/docushare/dsweb/Get/Document-7210/KFCSL130722.pdf>
- Rainy River District School Board (RRDSB). (2013). *Early primary collaborative inquiry 2012–2013*. Fort Frances, ON: Rainy River District School Board. Retrieved from <https://www.rrdsb.com/departments/school-support-services/epci>
- Salminen, A., Kauppinen, K., & Lehtovaara, M. (1997). Towards a methodology for document analysis. *Journal of the American Society for Information Science*, 48, 644–655.
- Sergiovanni, T. J., Kelleher, P., McCarthy, M., & Fowler, P. (2009). *Educational governance and administration*. Boston: Pearson Education.
- Timperley, H., & Lee, A. (2008). Reframing teacher professional learning: An alternative policy approach to strengthening valued outcomes for diverse learners. *Review of Research in Education*, 32(1), 328–369.
- Thames Valley District School Board (TVDSB). (2013a). *EPCI project report 2010–2011*. London, ON: Thames Valley District School Board. Retrieved from <http://www.tvdsb.ca/programs.cfm>
- Thames Valley District School Board (TVDSB). (2013b). *EPCI project report 2011–2012*. London, ON: Thames Valley District School Board. Retrieved from <http://www.tvdsb.ca/programs.cfm>
- Thames Valley District School Board (TVDSB). (2013c). *Documentation's influence on student engagement and achievement (EPCI 2012–2013)*. London, ON: Thames Valley District School Board. Retrieved from <http://www.tvdsb.ca/programs.cfm>

Vineyard, L. (2010). *Collaborative inquiry: A strategy for assessing Response to Instruction and Intervention (RtI²) for English learner students* (Doctoral dissertation). University of California, Los Angeles.

Appendix A

Summary of English Provincial BIPSA Documents

School Board	BIPSA Date	Number of Pages	Number of CI Mentions
Algoma DSB	2012–2013	16	6
Algonquin and Lakeshore Catholic DSB	June 2011	3	6
<i>Avon Maitland DSB</i>	-	-	-
Bluewater DSB	June 2013	1	2
Brant-Haldimand-Norfolk Catholic DSB	2012–2015	11	6
Bruce-Grey Catholic District School Board	2011–2012	5	8
Catholic DSB of Eastern Ontario	2010–2013	16	3
District School Board of Niagara	2012–2013	17	15
District School Board Ontario North East	2013–2018	17	9
<i>Dufferin-Peel Catholic DSB</i>	-	-	-
<i>Durham Catholic DSB</i>	-	-	-
Durham DSB	2013–2014	9	17
Grand Erie DSB	2013–2014	10	21
Greater Essex County DSB	2012–2013	8	0
Halton Catholic DSB	August 2013	6	4
Halton DSB	2013–2014	18	19
Hamilton-Wentworth Catholic DSB	October 2013	30	5
<i>Hamilton-Wentworth DSB</i>	-	-	-
Hastings & Prince Edward DSB	2012	1	1
Huron-Perth Catholic DSB	December 2012	5	21
<i>Huron-Superior Catholic DSB</i>	-	-	-
<i>James Bay Lowlands Secondary SB</i>	-	-	-
Kawartha Pine Ridge DSB	2013–2014	5	7
Keewatin-Patricia DSB	2013–2018	2	0
Kenora Catholic DSB	2013–2014	4	3
Lakehead DSB	2013–2014	8	0
Lambton Kent DSB	2011–2012	8	1
Limestone DSB	August 2013	30	18
London District Catholic School Board	2013–2014	2	4
<i>Moose Factory Island DSAB</i>	-	-	-
<i>Moononee District School Area Board</i>	-	-	-
<i>Near North DSB</i>	<i>BIPSA was password-protected.</i>		
Niagara Catholic DSB	2013–2014	6	12
Nippissing-Parry Sound Catholic DSB	2012–2015	21	9
Northeastern Catholic DSB	No date.	4	2
Northwest Catholic DSB	January 2013	9	4
<i>Ottawa Catholic DSB</i>	-	-	-
Ottawa-Carleton DSB	2010–2011	19	26
<i>Peel DSB</i>	-	-	-
Peterborough Victoria Northumberland & Clarington Catholic DSB	December 2010	14	4

Teacher Collaborative Inquiry in Ontario Elementary Schools

<i>Rainbow DSB</i>	-	-	-
Rainy River DSB	2012–2013	5	2
Renfrew County Catholic DSB	2013–2014	2	5
Renfrew County DSB	2013–2014	13	12
Simcoe County DSB	No date.	1	1
Simcoe Muskoka Catholic DSB	2012–2017	20	0
St. Clair Catholic DSB	2012–2013	2	8
Sudbury Catholic DSB	2012–2013	8	6
<i>Superior North Catholic DSB</i>	-	-	-
Superior-Greenstone DSB	2013–2014	7	28
Thames Valley DSB	2013–2014	6	0
<i>Thunder Bay Catholic DSB</i>	-	-	-
Toronto Catholic DSB	2011–2014	21	6
Toronto DSB	2013–2014	6	3
Trillium Lakelands DSB	2013–2014	1	9
Upper Canada DSB	2013–2016	54	8
Upper Grand DSB	2011–2014	2	1
Waterloo Catholic DSB	2013–2016	12	4
Waterloo Region DSB	2013–2014	1	0
Wellington Catholic DSB	2013–2014	24	28
Windsor-Essex Catholic DSB	2013–2014	13	0
York Catholic DSB	November 2013	20	10
York Region DSB	2013–2014	13	14

Note: For school boards in italics BIPSA's were not readily available online.

Appendix B

Summary of Related Documents on Collaborative Inquiry From BIPSA Search

Board	Document Title	Date	Document Description
Algoma DSB	Literacy K–3, Our Commitment to the Development of Literacy		Outlines board's comprehensive literacy program
Algonquin & Lakeshore Catholic DSB	Board Highlights	October 2010	Highlights system Kindergarten Capacity Building Inquiry Project
Avon Maitland DSB	Board Highlights	November 13, 2012	Avon Maitland Student Achievement Plan - C.I. as board priority
Bluewater DSB	Learning From Each Other - a Tri-Board Approach Multi-Year Str. Plan Priority - Quality Instr. & Learning Experiences Elementary School Organization & Instructional Framework		Brief ref. to Katz and Earl, 2007, on importance of C.I. Board EQAO targets and board initiatives re C.I. Comprehensive board Standards of Practice based on S.E.F. - Oct. 2010
Dufferin-Peel Catholic DSB	News Release re Catholic Global Learning Centre	January 7, 2013	Re opening of new elementary school - to use inquiry-based learning
Durham Catholic DSB	News Release - St. Thomas Aquinas Cath. Sch. Greening Project News Release - Numeracy		No reference to C.I. Ref. Continuum Based Math tool and use of CIL-M project with Durham DSB
ETFO	Paper: Capacity Building in Collaborative Action Research	2011	from: <i>Canadian Journal of Action Research</i> , 12(3), 1-5
Halton Catholic DSB	Outcome Monitoring Report - 21st Century Learning Environ. Holy Family Elementary School School Improvement Plan St. Ignatius of Loyola Catholic S.S. EQAO Assessment Report	2013–14 2013	Stats. re: board's C.I. Innovation Projects as part of 21st Century Learning
Hamilton-Wentworth Catholic DSB	Student Work Study Teacher Inquiry Report	2012–13	Comprehensive report of SWS teachers' work in the schools
Hamilton-Wentworth DSB	Allan A. Greenleaf School - Snapshots Release - School Libraries Evolving 21st Century Learning Spaces Education for the 21st Century: Here, Now and Into		Excerpt from Schools on the Move Lighthouse Program Learning Commons approach: technology, emphasis on collaborative learning Secondary focus

	the Future Changing the Learning Environment in HWDSB		Broad visioning plan - 21st Century Learning, tech. and collaboration
	Implementing our Annual Operating Plan		"Our Lead. & Learn. Dept. will support C.I. happening in each school..."
	Parent and Community Engagement Early Learning Strategy		Information Session for Parents, April 22, 2013.
	Self-Directed Learning, February	2009	BLAM (Bottom Line Actionable Message)
	Student Achievement Report	November 18, 2013	Report and Info. Session - overview of stud. achieve. and initiatives
	Consultation of Good to Great Staff Engage. Report	October 2013	Information Session; focus on staff engagement at HWDSB
Hastings & Prince Edward DSB	Summarizing Ministry Resources - Curriculum Services Team		Listing by subject and title of Ministry resources - linked to SEF
Huron Superior Catholic DSB	News: Collaborative Problem Solving		Presentation on collaborative problem solving
Kawartha Pine Ridge DSB	CI 2012-2013: Assessment for Learning FDK Programs by Lead. & Staff Dev. supporting 'instructional leadership'	July 2013	Comprehensive report of inquiry team on assessment in FDK Focused on leadership
	Leadership & Staff Development Program Calendar	2011–2012	Board leadership development program and upcoming P.D. events
	Leadership & Staff Development Program Calendar	2013–2014	Board leadership development program and upcoming P.D. events
	Living, Learning & Leading... Areas of Emphasis Update	March 2013	Part of board Strategic Directions
	KPR Self-Assessment Tool for Leaders		Self-evaluation, checklists for school leaders
Keewatin-Patricia DSB	Priority Areas - Board Strategic Improvement Plan Cycles of Inquiry and Professional Learning Cycle of Inquiry Common Acronyms and Terminology	2013–2014	"CI focused on student and 'adult' thinking"; 21st Century Link under Board Strategic Improvement Plan
Kenora Catholic DSB	Curriculum News	November 30, 2010	Lists board curriculum initiatives incl. CIL-M, CIL-L & Pri. C.I. Action Research
Limestone DSB	Strategic Plan: Year 5 of 6 Year Plan - Key Initiatives For 2013-14 Success For All: Limestone		Broad board strategic plan - CI referred to Broad board strategic plan - CI

Teacher Collaborative Inquiry in Ontario Elementary Schools

	DSB Strategic Plan: Year 2 of 5 Year Plan		referred to
London District Catholic S.B.	P.D. Session at Holy Cross Catholic Secondary School		Produced document on C.I. - student needs, strategies, etc.
Near North DSB	Mapleridge Public School - Mapleridge Collaborative Inquiry	2013	"What is Collaborative Inquiry?" video link
Northeastern Catholic DSB	News Release - Students Learning to Express Themselves... Critical Thinking		Re outcomes of EPCI at two elementary schools, incl. French Immersion
Northwest Catholic DSB	Recognizing Learning Styles of Students & Teachers...21st Century		The need for 21st C. skills and knowledge, especially technology and collaboration
Ottawa Carleton DSB	Nurturing Thinking in Our Children	May 2012	PowerPoint Presentation
Ottawa Carleton DSB	The Kindergarten Program	2013	Not particularly directed to C.I.
Ottawa Catholic S.B.	Achieving Student Success (from "Spotlight")	January 2013	Brief description of board's SIM Team and implementation of BIPSA
	Learning in Field - Thinking Made Visible (from "Spotlight")	March 2013	
Peel DSB	Minutes of Meeting of Instruct. Progr. / Curric. Comm	November 28, 2012	Refers to "4 Cs", including collaborative inquiry
	Vision for Learning and Instructional Technology Plan	March 2012	Board plan for integrating instruction and technology; 21st C. learning
Peterborough, Victoria, N & C Catholic DSB	"Miracles"	2011–12	Celebrates board's programs, initiatives and successes
Rainbow District School Board	Overview - Action Research Projects Focused on Assessment For Learning	2009–2010	Board research related to Assessment for Learning (AFL)
	An Early Learning Journey: A Social Constructivist Approach	2010	Relates to EPCI project, grades one and Kindergarten in 2009
	School Profile for Redwood Acres Public School		
Rainy River DSB	Early Primary Collaborative Inquiry	2012–2013	Account of board's experience with EPCI at four schools - with links
	Overview - Early Primary Collaborative Inquiry	2012–2013	Detailed summary chart of results of EPCI projects
	RMS Analyzing Student Learning		
	Early Primary Collaborative Inquiry Thinking Map	2012–2013	
	Grade One Teacher Survey		
	Teachers - Continued		Website links for teachers;

	Learning		teacher resources, LNS documents, etc.
Simcoe County DSB	Program Dept. Teaching and Learning Multi-Year Plan, 2012-15	2012–2015	Very detailed outline of professional learning and teaching, including CI
Thames Valley DSB	EPCI: Early Primary Collab. Inquiry - Main Page & Links	2012–2013	Board Action Research Collaborative Inquiry Project on children's art creations
	EPCI: Early Primary Collab. Inquiry – Monograph	2010–2011	Very detailed description of board EPCI project.
	EPCI: Early Primary Collab. Inquiry – Monograph	2011–2012	Very detailed description of board EPCI project.
	EPCI Final Team Reflections	2012–2013	
	EPCI Teacher Survey	November 2012	
	EPCI Teacher Survey	February 2013	
	EPCI Teacher Survey	April 2013	
	EPCI Reference List		
	EPCI Survey on Documentation		
	EPCI Survey on Effective Questioning		
	EPCI Survey - general Educator's Perceptions and Experiences re Documentation		
	Documentation Task		
	EPCI Overview Chart	2010–2011	
Toronto Catholic DSB	Inquiry Based Learning - An Annotated Bibliography	December 2011	Bibliography
	Precious Blood Catholic School - Leading Student Achievement (LSA)		Outlines LSA: Networks for Learning Project, including CI
	St. Henry Catholic School - A Self-Directed Learning Journey		School's experience with inquiry and self-directed learning
	Teacher Professional Learning from the 'Inside Out': Studying...	July 26, 2011	Research paper
Upper Canada DSB	Board Posting for Student Engagement Teachers (K-12)	February 2013	ref. to "collaborative inquiry networks (hubs)"
York Region DSB	Early Years Strategy: Birth to Grade 3		Board vision/information sheet
	Implementation of Ontario First Nation, Métis & Inuit Policy Frame.		Ref. to "Early Years & First Nation, Métis & Inuit Lit. Through C.I." Project
	Refreshed Literacy Framework	April 2012	Report to Board - detailed plan for 21st Century learning, including inquiry
	Profess. Learning vs. Profess. Practice: Bridging Gap... Math Ed.		Research paper

Teacher Leadership in Prof. Learning Communities... Networks	Research paper
A Road of Reform Well Traveled	Research paper
Action Research... Collaborative School Improvement	Research paper
