

The Effects of Focused Collaboration on Instructional and Assessment Practices

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## Abstract

There are many long-held, traditional views of what the teaching profession looks like: isolated individuals creating and delivering lessons, then collecting a myriad of samples of student work to assess. Presently, however, opportunities for teachers to work together and to expand their instruction and assessment repertoires are becoming more commonplace. There is significant research that not only supports the benefits of teacher collaboration, but also the impact that certain instructional and assessment practices can have on student learning. This study describes how combining opportunities for teacher collaboration with conversations focused on instructional and assessment strategies can lead to improvements in teaching practices. Eight middle-school teachers volunteered to meet together for an hour, after school, every two weeks for five months. At each meeting, teachers discussed a new instructional or assessment strategy, and reflected on the new strategies they had implemented in previous weeks. Together, teachers shared ideas, supported each other, and discussed ways in which each of them could implement the new strategies in their respective teaching areas. At the conclusion of the collaboration sessions, teachers reported on any changes in their practices through two surveys: a questionnaire consisting of ten close-ended questions, and one containing six open-ended questions. Results of the questionnaires revealed a positive connection between the frequency a specific strategy was discussed, and positive changes in that area, as reported by participants. For example, Learning Intentions was discussed at all ten meetings, and teachers reported they had made the most significant changes in this area of instruction or assessment. Analysis of the data raises questions about how the motivation of teachers may impact their reportings, and how teachers or researchers can sustain, over longer periods of time or teaching assignments, the positive changes that teachers reported.

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## Chapter One: Problem to be Investigated

Can teacher collaboration affect instructional and assessment practices? Teachers are, more recently than ever before, expected to make significant changes to their instructional and assessment practices. For example, providing students with opportunities to participate in Collaborative Learning opportunities, and implementing formative assessments, or Assessment For Learning, are two such changes (BCMed, 2009). The change process can be a slow one, and in regards to formative assessments, it is particularly slow. Many teachers face apprehension in making changes to the practices that they have been using for years (Hayward & Hedges, 2005). While teachers are being encouraged and supported by District- and Provincial- level authorities to make some significant changes to their teaching repertoire, they must avoid making these changes in isolation, as teachers “cannot accomplish their fundamental purpose of high levels of learning for all students unless they work together collaboratively” (Dufour, DuFour, Eaker, Karhanek, 2004, pg. 89).

### *Purpose of the Study*

The purpose of this study was to explore the ways that focused collaboration opportunities impacted a teacher’s instructional and assessment practices, as reported by those teachers. It is assumed that, if the collaboration opportunities were found to be effective, the procedure could be adopted by any other group of teachers interested in improving their practices.

### *Justification of the Study*

Within a school district that is encouraging and supporting teachers in trying out more effective instructional and assessment practices (Boudreault, 2008), and a province where the

Ministry of Education is encouraging and supporting teachers to make changes to their assessment practices (BCMed, 2009), questions of how to implement these practices in more classrooms arise. Teachers working alone, without a critical friend or colleague, will likely see little to no significant changes in their practice (Dufour, et al, 2004).

While changing teaching practice can be the most significant catalyst in changing student learning (Marzano, 2001), oftentimes teachers are reluctant to make changes to practices they have become comfortable with (Hayward & Hedges, 2005; Sutton, 2008). If local districts and the Ministry of Education are calling for changes to be made to classroom instructional and assessment practices, and there is ample research to support the benefits of improved instructional and assessment practice, then it is the responsibility of classroom teachers to find ways to implement these changes.

This study offers a possible strategy that District and School level administrators can encourage classroom teachers to not only employ, but also sustain, for “people who engage in collaborative team learning are able to learn from one another and thus create momentum to fuel continued improvement” (Dufour et al, 2004, pg. 6). Working with data about one’s own classrooms and students is far more compelling to educators than hearing an outside expert, or reading an article or book (White, S. Personal Communication, March 6, 2009). Therefore, it is important to explore the degree to which local teachers report that working together and focusing on specific skills can impact instructional or assessment practices.

### *Research Question and Hypotheses*

In what ways do teachers report that participation in focused collaboration opportunities contributes to improved instructional and assessment practices?

The researcher in this study hypothesized that teachers would report that the focused collaboration opportunities contributed positively to improved instructional and assessment practices.

### *Definition of Terms*

For the purpose of this study, “focused collaboration” is defined as a group of teachers working together, in a purposeful manner, with a very specific objective in mind. “Instructional practices” are the activities and strategies that teachers use in delivering the content of their course to their students. “Assessment practices” are the ways in which teachers provide feedback and grades to students and parents.

### *Brief Overview of Study*

The focused collaboration group consisted of eight classroom teachers from a rural middle school in British Columbia. In order to avoid any undue time or energy on the part of the participants, the collaboration sessions were held on a schedule that met the needs of all participants. This group met together every two weeks: each meeting took place after school, in the school library. During the collaboration sessions, participants engaged in discussions about their own classroom instruction and assessment practices. Participants were encouraged to support each other as they shared their experiences with new instructional and assessment strategies. Outside of the sessions, participants were encouraged, but not required, to keep a record of the instances where they tried a new instructional or assessment practice. These records were for participants’ own reflections; they were not included as part of the study. At the final meeting, participants reported on their experiences through a questionnaire. Quantitatively, the surveys revealed the degree which teachers felt the collaboration sessions

contributed to their employment of different Assessment For Learning opportunities in their classrooms, as well as the degree to which they felt the sessions contributed to their use of specific instructional strategies. Qualitatively, the surveys revealed personal viewpoints, such as some of the specific benefits or drawbacks they felt the collaboration sessions provided.

This study was ethical because it did no harm to participants physically. Psychologically, participants may have experienced some minor level of discomfort when discussing instructional or assessment practices that were new or different from what they were used to. If participants began to employ new instructional or assessment practices within their classrooms, they may have felt they were taking a risk. This, too, may have contributed to possible levels of discomfort. However, since participation was voluntary and all participants provided their free and informed consent, and they were not required to engage in any activity that was uncomfortable for them, the level of psychological harm was, if at all, minimal. Additionally, participants may have reflected on their teaching and assessment practices during these focused collaboration times; this metacognition should not have disrupted or harmed their teaching environment.

This Action Research study resulted in information that can inform local practice. Teachers and administrators now have evidence that demonstrates the degree to which teachers report that purposeful collaboration opportunities result in positive changes to instructional and assessment practices. This information from local colleagues will do far more to promote the idea of collaboration to other teachers at the middle school and in the school district than any outside expert or research article (White, S. Personal Communication, March 6, 2009). And, since people who participate in effective collaboration opportunities can “create momentum to

fuel continued improvement” (Dufour et al, 2004, pg. 3), this research will provide district- and school- level administration the evidence they need to support educators in sustaining effective and important instructional and assessment changes in classrooms.

## Chapter Two: Background and Review of Related Literature

### *Theory*

As noted in the introductory chapter, there has been significant research supporting the idea that changes made to instructional and assessment practices can improve student learning. Additionally, much research has been conducted on the effectiveness of teacher collaboration. Can the effectiveness of teacher collaboration contribute to improved instructional and assessment practices? This review of the literature contains research that may offer some insight to the relationship between teacher collaboration and teacher change in instructional and assessment practices. In addition, it includes studies that focus solely on either teacher collaboration, or specific instructional and assessment practices (such as Cooperative Learning and Assessment For Learning).

The review begins with an examination of studies that are directly related to this study's research question ("In what ways do teachers report that participation in focused collaborative opportunities improves instructional and assessment practices?"). Focused collaboration *can* impact teachers' improvements in the area of instructional and assessment practices (Graham, 2007). What is not so clear though is the degree to which this impact is made, or the circumstances that will yield the best results. A number of studies have attempted to narrow down the best collaboration circumstances in which to make improvements to instructional and assessment practices.

### *Studies Directly Related*

In 2007 Parry Graham focused on uncovering connections between Professional Learning Community (PLC) activities and teacher improvement in his study, *Improving Teacher*

*Effectiveness through Structured Collaboration: A Case Study of a Professional Learning Community.* Graham looked at which features of PLCs resulted in changing teachers' instructional practices; the degree to which results varied, based on specific teacher characteristics (subject taught, years of teaching experience, etc); and the role of the organizational and personnel factors in influencing teacher efficacy of PLCs.

The subject of Graham's study is a brand new middle school (grades 6-8) in a large, semi-urban district in the Southeast United States. Researchers gathered both quantitative and qualitative data from 20 teachers of core subject areas (English, Social Studies, Math, and Science). Results indicated that, while all groups of teachers reported some degree of improvement due to their participation in the PLCs, Grade 6 and 7 teachers attributed much more of their successes to the PLCs than did the Grade 8 teachers. Additionally, all teachers reported that support from their administrator and the structure of the teaching timetable were pivotal factors in the success of the PLCs.

Graham did identify some limitations of his study. For example, he is clear that his work would not likely yield similar results in another context, as the study contained a number of factors unique to Central Middle School. For example, the school was brand new and the principal, who was already interested in developing a PLC, made many of his hiring decisions based on the interest and commitment to PLC principles demonstrated by applicants. These two factors alone could have significantly altered the results of Graham's research.

While Graham was very clear in his study's purpose, he did leave a few factors undefined, which again, limits the capacity to replicate the results in a different setting. For example, the core academic teachers who participated in the study met for their PLC discussions

“on a regular basis”, but the researchers did not define “regular basis”. Finally, the study contained a number of uncontrolled variables that would have impacted the results of the research. For instance, some teachers involved reported personal clashes with other teachers, which may have impacted their views of the value of the PLCs.

In another 2007 study, Alisa Hindin reported on the connection between teacher collaboration and teacher learning. Her study, *More Than Just a Group: Teacher Collaboration and Learning in the Workplace*, supplemented transcripts of interviews and meetings with in-depth observations of the classrooms of participating teachers. The goals of this research were to determine the degree to which teachers participated in collaboration sessions, to uncover the extent of transferring information from the meetings to classroom practice, and to reveal the differences in each teacher’s experience in the process.

The findings of this study focused on three of ten participating teachers. All 10 teachers worked in an urban middle school in the Northeast part of the United States and volunteered to be a part of the study. While the collaboration process spanned over two years, this study focused on the final year, after the participants had set up and maintained a routine of meeting together after school every few weeks. Hindin observed and transcribed the 12 collaboration sessions that took place after school between October and May of the second year of the process. Meetings, interviews, and student-led discussions in classrooms were recorded and transcribed verbatim. The content of these transcripts were analyzed for speaking turns, conversation topics, and references to teaching strategies. The results of the research were varied: of the three focal participants, only one attended all 12 meetings, two made significant changes to their classroom practices, and all three refrained, at times, from sharing all of their expertise at meetings. Hindin

suggests that differences in fundamental beliefs about teaching and classroom expectations may have contributed to the differing results of the participating teachers.

Hindin identified that further research is needed surrounding the factors that encourage extensive sharing between professionals, in order to build a stronger connection between teacher collaboration and improved teaching practice. While this information will help in promoting collaboration between teachers, there were a few areas of Hindin's study that were not defined effectively enough to recreate similar results in a different setting. For example, Hindin did not clarify the circumstances in which teachers volunteered to be a part of the collaborative group. Nor did she reveal the teaching experience of the three focal teachers. It is unclear whether the teacher who did not make significant changes to her teaching practice was at the beginning, middle, or end of her career.

In 2009, David Strahan led a three-year research study that followed a team of middle school teachers collaborating together to experience professional growth, and in turn, develop practices that would result in improved student achievement. His research, *Teaching and Teaming More Responsively: Case Studies in Professional Growth at the Middle Level* outlines the collaborative work the participating teachers undertook during the three year time frame, as well as the benefits, both for themselves and their students, that two of these teachers reported as a result of the collaboration and professional development opportunities.

The participants of Strahan's study were 10 teachers working in a middle school of just over 600 students. Nearly half of these students were racial minorities and/or were eligible for free or reduced-priced meal plans. The 10 teachers in the study volunteered to participate after the school had received a grant to encourage and promote collaboration between teachers.

These teacher volunteers participated in a number of collaborative opportunities with each other. For example, all participants attended summer institutes focused on improving students' literacy skills. In addition to such professional development opportunities, teams of teachers also met with the researcher at least twice a month. The researcher gathered qualitative data from all participants through conversations and observations at bi-monthly team meetings, classroom visits, and small group discussions with students. In addition, the researcher held a structured interview with each participant at the end of each school semester. Quantitative data was collected in the form of student performance on state wide achievement tests. Data from the entire study indicated that professional growth and student achievement improved through teacher collaboration and discussions of both teacher practices and student performances.

In another 2009 study, the Educational Testing Service (ETS), a non-profit organization designed to advance quality in education (Wylie, Lyon, & Goe, 2009), published their findings after facilitating a number of collaboration teams of teachers in the hopes of improving their assessment practices. This document, *Teacher Professional Development Focused on Formative Assessment: Changing Teachers, Changing Schools*, outlines a number of different cases where the ETS researchers worked to support groups of teachers in becoming more comfortable with formative assessment. In one case, teachers from different districts attended a series of workshops, held through the year, and then led informal collaboration groups within their own schools; in another case, teachers from the same school attended three-day summer workshops and continued to meet together, along with an ETS researcher, at least once a month throughout the school year.

The participants of the study worked in a variety of environments. One participant the research focused on worked in a K-8 school in a suburban district. Another group of teachers who were studied all taught math in a secondary school. The research team gathered qualitative data in a number of ways: reflection journals, interviews, meeting observations, and classroom observations. Conversations in interviews and meetings were transcribed by a note-taking researcher. Data was analyzed through N6, a data analysis software program, and coded for the retrieval of specific information. Results indicated that, while different cases yielded varying degrees of success in making changes to assessment practices, all cases did experience positive change.

While the overall effectiveness of the teacher collaboration opportunities in this study was positive, the ETS research team did identify some areas in which results may have been impacted by uncontrolled variables. For example, in one study following a teacher who attended a series of workshops throughout the school year and facilitated collaboration between a group of teachers in her own school, the researchers noted that the particular school was led by an administrative team who supported and encouraged professional growth among teachers. Additionally, the school had a long history of collaboration and teamwork. In fact, grade-level planning time was provided in the teaching timetable. In the case of the secondary school math teachers who worked and planned together at their monthly collaboration meetings, all participants were male and most had previously established positive relationships with one another.

In addition to the uncontrolled variables that the researchers outlined in their study, they omitted some information which may have been insightful in gaining a more complete

understanding of the relationship between teacher collaboration and changing teaching practices. For example, in the case of the secondary school math teachers, the researchers stated that one participant did not progress as much as the other participants in “a number of areas” (Wylie, Lyon, Goe, 2009, pg. 17) of assessment. Knowing content of the areas in which this participant lagged behind might be insightful to understanding why he was not as successful as his colleagues.

The results of this study were, overall, very positive. There were, however, a number of variables to the study that may limit the ability to duplicate the results in a different setting. For example, an important factor in the ability to carry out this research was the grant money that the school received. While the research did not outline exactly how this grant was used, it is difficult to assess whether or not such a broad study could take place without it. In addition, the participating teachers were able to work in the same subject areas over the entire course of the two year study. In the reality of timetabling and scheduling in many middle schools, this continuity in teaching assignment would be difficult to replicate.

### *Studies Tangentially Related*

In 2005, Truus Dekker and Els Feijs attempted to uncover how participating in CATCH (Classroom Assessment as a basis for Teacher Change) would change Math and Science teachers’ assessment practices. Their study, *Scaling up Strategies for Change: Change in Formative Assessment Practices*, does not explore the benefits of teacher collaboration, but is especially relevant to the issue of teacher hesitancy with instructional change because often it is Math and Science teachers who are the most reluctant to make changes to their instructional and assessment practices (Hayward & Hedges, 2005). Dekker and Feijs focused on 12 teachers from

two different school districts in the United States, who, over a span of 2.5 years, were involved in the multi-district CATCH program. Teachers were provided learning opportunities, such as professional development time, in-service, and workshops, to explore the benefits of formative assessment on student learning. Data regarding participants' attitudes toward formative assessment was collected with pre- and post- surveys, interviews, and observations. Interview data was coded and analyzed through the program MEPA, which counts the frequency "in which each of the codes was attributed to episodes of interview transcripts" (Dekker & Feijs, pg. 241). Results showed that, after 2.5 years, all participants reported that they had not only changed their attitude toward formative assessment, but had also improved assessment practices in their classrooms.

Dekker and Feijs's research was very extensive, spanning a two and half year time period, but with only 12 participants, the sample size was limited. Since participation in CATCH is voluntary, it is likely that those involved in this study were already looking for ways to improve their assessment practices. It would be unlikely that educators who were not interested in improving their practices would volunteer to be a part of the Dekker and Feijs's research. Without a control group of teachers who were involved in CATCH, but not looking to improve their assessment practices, it is difficult to conclude if improved attitudes and practices were the result of participation in CATCH, or the result of teachers' own desires for professional growth. Additionally, the 12 teachers involved in Dekker and Feiji's research group changed slightly from the beginning of the study to the end, as a few dropped out and were replaced. This would impact the results of the findings, as the new additions to the study would not necessarily have the same experiences as those who dropped out. While the results of Dekker and Feijs's study of CATCH are very positive, with all participants reporting successful changes in both

their attitudes and implementations of formative assessment, it cannot be stated for certain that participation in the CATCH project would yield the same results to a different or larger group of teachers.

Another study related to formative assessment is David Gijbels and Filip Dochy's 2004 research, *Students' Assessment Preferences and Approaches to Learning: Can Formative Assessment Make a Difference?* Gijbels and Dochy's work focused uncovering the relationship between students' assessment preferences and the way they approach their learning before and after having been exposed to formative assessment. Additionally, Gijbels and Dochy also sought to find out if students' assessment preferences changed and if they adapted a deeper approach to learning after having experienced a formative mode of assessment. This study is relevant in the issue of teachers changing their assessment practices because its results could help support the need for improved assessment practices. Gijbels and Dochy carried out their study using a sample of 108 first-year university students studying criminology. Data was collected using questionnaires and inventories. Gijbels and Dochy's findings revealed that students with higher order thinking "prefer assessment procedures that allow them to demonstrate their understanding" (Gijbels & Dochy, 2004, pg. 405). However, when looking to discover if *all* students' (those with higher order thinking, and those with surface thinking) approaches to learning changed after having been exposed to formative assessment, Gijbels and Dochy found that students began to favor more surface approaches to learning, moving away from deeper level thinking, after exposure to a formative mode of assessment.

The data collection and analysis tools used in Gijbels and Dochy's research were described in detail with a number of references to their use in other, similar studies. This detail,

coupled with the inclusion of the data collection tables and p-values make this study appear to be more rigorous than the previous studies. It is interesting to note that the analysis of the data for the two non-directional questions yielded results that were contrary to what Gijbels and Dochy anticipated. Regardless of these surprising results, Gijbels and Dochy continued their study, including possible explanations for the unexpected findings. This research by Gijbels and Dochy is particularly relevant to this field because, not only does it make excellent connections to previous research, such as the work done by Black and Wiliam (1998), its results indicate that more research is necessary. Gijbels and Dochy even include some possible ideas for what that future research might look like. For example, they suggest further studies that look into students' perceptions of workload, assignment difficulty, and descriptive feedback.

The studies outlined in this chapter provide support for the notion that strong collaborative teams can make a difference when attempting to implement lasting educational change. Additionally, they lend credence to the idea that improved instructional and assessment strategies can lead to both improved student learning and improved professional attitudes toward new ideas.

## Chapter Three: Procedures and Methods

### *Description of the Research Design*

This research study gathered both qualitative and quantitative data regarding teachers' perceptions of the role that focused collaboration opportunities have in improving instructional and assessment practices. Data was collected through Survey Research. A survey was used to collect information from participants at the end of the study. Before responding to the questionnaire, participants took part in 10 focused collaborative sessions. In these sessions, participants engaged in discussions regarding the effects of particular instructional strategies (such as cooperative learning), and formative assessment strategies (such as sharing criteria with learners). Participants were also asked to identify, during the collaboration sessions, ways in which they would like to be supported in overcoming any obstacles that they perceived to making such changes in their practices. Participants were encouraged to try, and keep record of, specific strategies in their own classrooms and share those experiences with other members of the study. At the conclusion of the study, a two-part questionnaire was administered to the group of 8 participants. The first part consisted of 10 closed-ended questions (see appendix A). This portion of the questionnaire was directly delivered to the participants at the end of the last collaboration session. The second portion of the questionnaire consisted of 6 open-ended questions (see appendix B) and was emailed to participants the day after the last collaboration session. Responses to the closed-ended questions were analyzed on a likert scale, while responses to the open ended questions were explored for common themes.

### *Description of the Sample*

Members of the teaching staff were invited to volunteer to participate in this study. Initially, nine teachers volunteered. One teacher dropped out before the 5 month period was up, leaving eight teachers, which represented 38% of the entire staff, in the research study. These teachers all work as classroom teachers and have all been teaching for 5 years or more. All teachers in the study taught one or more core academic classes (Math, Science, Social Studies, or English), or a practical arts class, and all expressed an interest in making changes to their instructional and assessment practices. The sample of eight participants included three male teachers and five female teachers. Two teachers were within five years of retirement, two teachers were in their fifth year teaching, and four teachers had been teaching for over 10 years.

#### *Description of the Instruments used*

All participants provided, through a consent form (see appendix C), their free and informed consent to participate in the study. Because the intent of the study was to determine the ways, if any, that teachers reported the focused collaboration sessions contributed to improved instructional and assessment practices, it was not necessary to gather baseline data before the study began. All data was collected from participants through a questionnaire (see appendix A and B) distributed at the end of the study. The researcher administered the questionnaire after the final collaboration session that consisted of 10 closed-ended questions and 6 open-ended questions. Responses to the closed-ended were analyzed on a likert scale, while responses to the open ended questions were explored for common themes.

The close-ended questions measured the degree of change, on a scale of 1-10, to which participants felt the collaboration sessions contributed to changing their use of instructional or formative assessment strategies. Results of the close-ended questions were calculated by the

researcher through a simple frequency polygon. Responses to the open ended questions were explored, by the researcher, for common themes. Any theme that was revealed by three or more participants in each of the open ended questions is considered to be significant.

### *Explanation of the Procedures Followed*

After obtaining free and informed consent from all participants, the researcher set up a schedule of collaboration opportunities that worked for everyone involved in the study. Focused collaboration opportunities were scheduled over a period of 5 months. Participants met together, with the researcher, every two weeks, between the months of September 2009 and January 2010. All sessions took place at the school after the day had ended (2:45pm-3:45pm). These sessions took place in the school library, which was closed to students during these sessions.

During these focused collaboration opportunities, participants engaged in discussions about instructional and assessment practices. During the first session, participants were asked to, individually, and as a collective, respond to four key questions: What is our purpose for volunteering to be a part of this study? What are the goals we would like to meet by the end of this process? What would we like to do to achieve our goals? How will we assess ourselves to see if we have met our goals?

The responses to these questions were discussed, verbally, among the group of participants. While no formal collection of this data was taken, the researcher observed that most participants volunteered to be a part of the study to improve their teaching strategies. The goals they wanted to meet were all related to specific instructional or assessment strategies. Participants were most interested in practicing strategies in their classroom as the method of achieving their goals. Finally, participants were interested in self-assessment and personal reflection to assess whether

or not they had met their goals. The outcomes of the discussion were used to structure the remainder of the sessions, but were not used in the results of the research. It was important to use participant input when determining the focus, goals, and schedule of the collaborative sessions, because people, including educators, are more likely to transform themselves or their practices, when credit for ideas is given to them (Reeves, 2008). After the participants responded to the questions, a schedule of discussion topics was created (Table 3.1).

Table 3.1

Focused Collaboration Schedule of Topics

<i>Meeting #</i>	<i>Topic</i>
<b>1</b>	Introductions, Waiver forms, Expectations
<b>2</b>	Learning Intentions
<b>3</b>	A/B Partner Talk
<b>4</b>	A/B Partner Talk – <i>continued</i> . Descriptive Feedback
<b>5</b>	Criteria
<b>6</b>	Criteria – <i>continued</i> . Peer Assessment
<b>7</b>	Cooperative Group Work
<b>8</b>	Cooperative Group Work – <i>continued</i> . Ownership
<b>9</b>	Mind Maps, Graphic Organizers (Instruction)
<b>10</b>	Conclusions and Data Gathering

After the purpose for the meetings was agreed on, and the schedule was set, participants committed to getting together after work every two weeks for five months. Each meeting was led by the researcher and followed a simple routine from week to week. All participants (including the researcher) sat together at a large table and were supplied with snacks, a binder to

hold articles or readings pertaining to the main topic of the meeting, and paper and pencils. At the beginning of each meeting, participants took turns sharing stories of successes or struggles they had while trying out the different strategies that had been discussed at previous meetings. For example, at the beginning of the second meeting, participants shared their experiences with Learning Intentions. At the beginning of the third meeting, participants first took a turn sharing their latest experiences with Learning Intentions, and then took a turn sharing their new experiences with Criteria. At each meeting, these sharing opportunities took up an increased amount of time, as all participants shared their reflections about more and more strategies. If a participant did not have success with a particular strategy, other members of the study offered suggestions for improvement and encouragement to try again.

After sharing the successes and struggles that each participant had with each topic, the researcher provided each person a reading excerpt that pertained to the next strategy. Due to the extra time that was taken to thoroughly learn and discuss some strategies, a few strategies were not explored as deeply as others and, as a result, participants were not provided readings for those strategies.

<b><u>Readings Provided for each Instructional or Assessment Strategy</u></b>	
<b><i>Strategy:</i></b>	<b><i>Reading:</i></b>
<b>Learning Intentions</b>	<i>Leading the Way</i> (Davies, pg. 33-39,2008)
<b>Criteria</b>	<i>Involving Students in Classroom Assessment</i> (Davies, pg. 55-59, 2008)
<b>A/B Partner Talk</b>	<i>Talk Partners: A Guidance Booklet for Schools</i> (Lancashire County Council, 2006).
<b>Cooperative Learning</b>	<i>Beyond Monet</i> (Bennett, pg. 140- 157, 2006)
<b>Mind Maps, etc</b>	<i>Beyond Monet</i> (Bennett, pg. 289-291, 2006)

After taking a few minutes to quietly read each piece independently, participants were then asked to share thoughts about the reading with a partner. Each set of partners then reported the highlights of their discussion to the larger group. At the end of the large group discussion, participants then selected a specific aspect of the new strategy to try in their own classroom. Participants were then paired up with a partner who they would try to check-in with during the two weeks before the next meeting; all participants were paired up with someone new twice per month. If a participant missed a meeting, they were still assigned a partner; their partner filled them in on the strategy that was discussed and the researcher provided them with a copy of the reading. The researcher participated in all parts of each meeting, except pairing up with a partner between meetings.

At the end of the 5 month study period, participants were asked to complete a questionnaire, reporting on the ways they felt the sessions contributed to improved instructional or assessment practices.

### *Discussion of the Validity*

As there can be with many research studies, this study contains a few threats to its validity that must be explored. For example, the participants of this study are all volunteers of their own free will. It is possible that their interest in participating in this study may have stemmed from their previous, cordial relationship with the researcher. While there is no hierarchy of influence between the participants and the researcher (all participants and the researcher are classroom teachers), there is an existing relationship between them that must be acknowledged. The researcher and many of the participants have been colleagues for 5 or more years. Additionally, due to provincial and district initiatives surrounding improved instructional and assessment strategies, participants may have had a pre-existing desire to make changes to their classroom practices, regardless of their participation in the study. These two factors could have impacted the results of the study.

In order to minimize threats to the validity of the questionnaire, it was distributed anonymously. Participants answered the closed-ended questions without revealing their identity; they simply circled a number in response to each question. Questionnaires were not returned directly to the researcher. They were returned in sealed envelopes to a third party (the school principal). The third party then passed all eight of the completed questionnaires to researcher. Participants were emailed an electronic copy of the open-ended questions and were asked to fill out their responses electronically. Participants printed their responses anonymously and handed

them, in sealed envelopes, to a third party (the school principal), who then passed all responses to the researcher.

### *Description and Justification of the Statistical Techniques*

Quantitative data, collected through ten close-ended questions, were reported in terms of scores. Higher scores indicated that teachers felt that the focused collaborative sessions contributed positively to changes in instructional and assessment practices. Lower scores indicated that teachers felt that the focused collaborative sessions did not contribute to changes in classroom practices. Due to the small number of participants, a simple frequency polygon was used to uncover the mode, median and mean scores for each close-ended question. Any question that yielded a mode, median, or mean score of 6 (out of 10) or more, is considered to be evidence of a positive relationship between the collaborative sessions and improved instructional and assessment practices.

The qualitative data, collected through six open-ended questions, was explored, using content analysis, for common themes. These themes or categories were not determined or discussed before the analysis began; they emerged as the analysis took place. Any theme that was common among three or more participant responses for each question was considered to be significant.

## Chapter Four: Data Analysis

Chapter 4 contains the report of the results, employing the statistical methods described in Chapter 3. Nine teachers volunteered, in September 2009, to participate in the study; one teacher dropped out part way through the study and the remaining eight teachers stayed on for the entire five month period. Due to the difficulty in scheduling a meeting every two weeks that all eight teachers were able to attend, there was, with the exception of the first meeting and 10<sup>th</sup> meeting, always one or two participants who were not in attendance at each meeting. 100% of the surveys that were distributed at the final meeting were completed and returned to the researcher. This analysis is, therefore, based on responses from eight close-ended questionnaires and eight open-ended questionnaires.

The research question of this study seeks to determine the ways in which teachers report that focused collaboration opportunities contribute to improvement in their instructional and assessment practices. The close-ended questionnaire consisted of 10 questions that required participants to rate the impact of the collaboration sessions on a specific instructional or assessment practices on a scale of 1-10. Table 4.1 displays a summary of the mean, median, and mode results of the close-ended questionnaire; potential response scores could range from 1.0 to 10.0.

Mean data was calculated by averaging the scores given to each question by the participants. All participants selected from a range of whole numbers (one to ten), but the mean response for each question is shown below as a decimal to the nearest 10<sup>th</sup>. The mean scores for each question can be used to determine what the average response was for each question from a pool of eight respondents. This score does not reveal whether any participants felt as though the

collaboration sessions had a more extreme effect (positive or negative) on their implementation of new instructional or formative assessment practices than other participants. However, the mean score can be impacted by any outlying scores. An extremely positive or negative score from one participant will affect the mean score. The average of all the responses provided by participants was 7.4/10; this indicates that they felt the collaboration sessions improved their teaching practices in both instruction and assessment.

Median data was calculated by determining the score that fell in the middle of the spread of all response scores for each question. Scoring options were whole numbers between one and ten. Since an even number of values was produced for each question (all eight participants answered each question), the median score was calculated as the mean of the two scores that fell in the middle of the spread. In contrast to the mean scores for each question, the median score is not impacted by any participants who responded very differently (either positively or negatively) from other participants. Overall, the median score of the combination of all participants' scores for all ten of the questions was 8.0/10. This shows that the participating teachers felt that the collaboration sessions had a positive impact on making changes in instructional and formative assessment practices.

Mode data was determined by noting the score that was selected the most often for each question. In cases where two scores occurred most frequently, a bimodal score is shown. In cases where there was not a score that occurred most frequently, no mode score is shown. Mode data is significant because it reveals the score that the most number of participants selected for each question. Similar to median data, the mode scores are not affected by any outlying scores.

Table 4.1

Results of Close-ended Questionnaire

<i>“Due to my participation in the focused collaboration sessions, I have improved my practice of...”</i>	<b>Mean</b>	<b>Median</b>	<b>Mode</b>
1. <b>...sharing Learning Intentions with students</b>	9.1	9.0	9/10.0
2. <b>...providing students with opportunities for A/B Talk</b>	8.4	8	8.0
3. <b>...sharing assessment criteria with students</b>	7.7	7.5	--
4. <b>...involving students in the process of creating criteria</b>	8.0	7.5	--
5. <b>...providing descriptive feedback to students on formative assessments</b>	6.7	7.0	7.0
6. <b>...offering students opportunities to participate in self-assessments of their learning.</b>	6.0	6.5	7.0
7. <b>...offering students opportunities to participate in peer-assessments</b>	5.0	3.5	7.0
8. <b>...putting more ownership of learning on my students.</b>	7.8	8.0	8.0
9. <b>...incorporating cooperative learning opportunities for my students.</b>	7.9	8.0	8.0
10. <b>... allowing my students to show what they know in different ways.</b>	7.1	7.5	10

With the exception of Question #7 (“Due to my participation in the focused collaboration sessions, I have improved my practice of offering students opportunities to participate in peer-assessments”), all mean, median, and mode results were at least 6.0 or higher, indicating that all teachers found the collaboration sessions to be at least somewhat beneficial to most of their instructional or assessment practices. Questions #1 and #2 yielded mean, median, and mode scores that were significantly higher (8.0 or higher) than those of the remaining questions.

Possible reasons for these higher scores, as well as the low score of Question #7 will be discussed in Chapter 5.

The open-ended questionnaire consisted of 6 questions pertaining to participants' opinions of the actual collaboration sessions and their opinions of specific changes they may have made in their own instructional and assessment practices. The responses to the open-ended questionnaire were analyzed by the researcher and explored for common themes. The researcher inferred common themes regarding the participants' opinions of the collaboration sessions by noting responses that occurred in three or more participant answers for each question. Table 4.2 summarizes the questions in the open-ended questionnaire as well as any common themes each question revealed.

Table 4.2

Questions & Common Themes of the Open-ended Questionnaire

<b>Question:</b>	<b>Common Theme Responses:</b>
1. What specific aspects of the focused collaboration sessions did you find to be the most beneficial to your instructional practices?	<ul style="list-style-type: none"> <li>- Talking with other teachers</li> <li>- Discussion about Learning Intentions</li> </ul>
2. What specific aspects of the focused collaboration sessions did you find to be the most beneficial to your assessment practices?	<ul style="list-style-type: none"> <li>- Discussion about Criteria</li> </ul>
3. What specific aspects of the focused collaboration sessions did you find to be the least beneficial to your instructional practices?	<ul style="list-style-type: none"> <li>- Discussion about Cooperative Groups for Students</li> <li>- Discussion about Mind Maps</li> </ul>
4. What specific aspects of the focused collaboration sessions did you find to be the least beneficial to your assessment practices?	<ul style="list-style-type: none"> <li>- No common themes revealed</li> </ul>
5. Describe some specific changes, if any, that you have made in your usual instructional practices that you believe resulted from your participation in the focused collaboration opportunities.	<ul style="list-style-type: none"> <li>- Learning Intentions</li> <li>- A/B Partner Talk</li> <li>- Criteria</li> </ul>
6. Describe some specific changes, if any, that you have made in your usual assessment practices that you believe resulted from your participation in the focused collaboration opportunities.	<ul style="list-style-type: none"> <li>- Criteria</li> </ul>

With the exception of Question #4 (“What specific aspects of the focused collaboration sessions did you find to be the least beneficial to your assessment practices?”), all questions yielded at least one response that was similar between three or more participants. The areas in which teachers most often reported a positive correlation between the collaborative sessions and their instructional or assessment practices were that of Learning Intentions and Criteria. For example, one participant noted on Part B of the Questionnaire (Appendix B) that Learning Intentions “kept me focused on the main purposes of my lesson each day and confirmed for me why I was teaching what I was teaching.” Another participant mentioned that “discussing [criteria] during our sessions helped me to realize the importance of student developed criteria, and as a result, I make it a regular practice to develop criteria with my students for assignments.” In addition to the results that demonstrate a connection between the collaboration sessions and classroom teaching practice, many participants realized the impact that their changing practice had on the students in their classes. One participant noticed that “having students be involved in creating the criteria results in more students being happier with their marks.” Another participant observed that “having students have a clear understanding of [criteria and] what is going to be assessed...has made a huge impact on marks in the course.” The researcher determines these results to indicate that participating teachers believe that taking part in focused collaboration opportunities contributes to specific improvements in their instructional or assessment practices.

The results of both the quantitative and qualitative data indicate that teachers believe that their participation in focused collaboration opportunities contribute to improved instructional and assessment practices in their own classrooms. The most common areas, both quantitatively and qualitatively, in which teachers reported growth were in the practice of sharing Learning

Intentions with students, and providing students with opportunities to participate in A/B Partner-talk.. The findings reported within this chapter will be further explored in Chapter Five of this study. Additionally, recommendations and conclusions arising from the findings will be discussed.

## Chapter Five: Summaries and Conclusions

This final chapter reports the summaries and conclusions that have emerged from this action research study. The chapter begins with a summary of the research question, as well as the procedures that were employed and the results that were obtained. A discussion of the implication of the findings, limitations to the study, and suggestions for further research will follow.

### *Overview of the Study*

This research study sought to uncover the ways in which teachers reported that participating in focused collaboration sessions would lead to improvements in instructional and assessment practices.

In September of 2009, members of the teaching staff at a middle school in a rural district in British Columbia were invited to volunteer to participate in this study. Eight teachers, representing 38% of the school population, participated in the five month study. These teachers all work as classroom teachers at the same middle school and have all been teaching for 5 years or more. All teachers in the study taught one or more core academic classes (Math, Science, Social Studies, or English), or a practical arts class, and all expressed an interest in making changes to their instructional and assessment practices. The sample of participants included three male teachers and five female teachers.

After obtaining free and informed consent from all participants, the researcher set up a schedule of collaboration opportunities that worked for everyone involved in the study. Focused collaboration opportunities were scheduled over a period of 5 months. Participants met together, with the researcher, every two weeks, between the months of September 2009 and January 2010.

All sessions took place at the middle school after the school day had ended (2:45pm-3:45pm). These sessions took place in the school library, which was closed to students during these sessions for the purpose of uninterrupted collaboration time.

During these focused collaboration opportunities, participants engaged in discussions about instructional and assessment practices. At the end of each session, participants were encouraged to try out the instructional or assessment strategy that was the focus of the discussion in their own classroom sometime in the following two weeks. At the beginning of the following session, participants were encouraged to share their experiences and reflections about a strategy that they tried. If the strategy did not go as smoothly as the participant would have liked, the other members of the study offered suggestions for improvement and encouragement to try again.

At the end of the five month study period, participants were asked to complete a 2-part questionnaire, reporting on the ways they felt the sessions contributed to improved instructional or assessment practices. Part One of the questionnaire revealed quantitative data through ten likert-scale questions; Part Two uncovered qualitative data through six open-ended questions.

Analysis of both the quantitative and qualitative data revealed that teachers reported that the collaboration sessions did lead to improvements in their instructional and assessment practices. The most significant areas in which teachers attributed the collaboration sessions to greater improvements in their practice was in sharing Learning Intentions with students, and offering students opportunities to participate in A/B Partner-talk activities. The area in which teachers attributed the collaborative sessions to be least impactful was that of offering students opportunities to engage in peer-assessments.

### *Discussion of Implications of the Findings*

The results of this study are, for the most part, very positive. With the exception of one area (peer-assessment), teachers reported that the collaboration sessions were at least somewhat beneficial to improving their own instructional or assessment practices. One benefit of the sessions that many participants noted was “talking with other teachers about what they were doing and being encouraged by them.” This finding is similar to the finding of previous studies. For example, in *Teacher Professional Development Focused on Formative Assessment: Changing Teachers, Changing Schools*, Wylie, Lyon, & Goe discovered that professional growth and student achievement improved through discussions of both teacher practices and student performances (Wylie, Lyon, & Goe, 2009). The researcher was pleased to note that the work in the collaboration sessions not only followed in line with previous research, but also that it resulted in positive experiences for both teachers and students.

The area in which teachers reported that the collaboration sessions had the greatest impact on their practice was in Learning Intentions. This area scored the highest mean, median, and mode scores on the likert-scale surveys, and was revealed as a common theme in six of the eight open-ended response questionnaires. One participant noted, on Part B of the questionnaire, that “the practice of sharing learning intentions helped me remain focused on the lesson and helped the students understand the purpose of the lesson, which gave them a clearer understanding and enabled them to internalize the learning.” A likely reason for these strong results can be found in the schedule and nature of the collaboration sessions: Learning Intentions was the most frequently discussed concept of all of the scheduled topics. The frequency of this discussion topic was the result of the practice of reviewing previous topics at the beginning of

each meeting. As a result, Learning Intentions were discussed at all ten collaboration sessions. As time went by, and teachers became more comfortable with sharing Learning Intentions with their students, these discussions often became longer and more in depth. This often resulted in limited time remaining at each meeting to discuss other topics. The frequency and the depth of conversations about sharing Learning Intentions with students is likely the reason teachers reported it to be the area in which they felt the collaboration sessions were the most effective.

Further evidence of this explanation can be found in the topic that yielded the second highest results: A/B Partner talk. A/B Partner talk was the main topic of the second collaboration session, and, as a result, ended up being discussed at nine out of the ten sessions. The frequency of this discussion topic likely contributed to its favorable results in data collection. For example, one participant responded that, “I use it much more often than I ever did before, and the more I use it, the better the students are at participating in it. It almost seems like second nature now.” In addition to the high instance of A/B Partner Talk discussions at the collaboration sessions, this strategy was also a topic that participants expressed desire to take more time exploring. Because the topic schedule was more flexible than the duration of the research, the researcher felt comfortable adjusting the schedule of topics to better suit the needs of the participants. This adjustment resulted in extra time being devoted to A/B Partner talk, and less time available to discuss Descriptive Feedback. These positive results regarding A/B Partner Talk, as well as results pertaining to Learning Intentions, are further support for the idea that continued exposure to a given topic will result in deeper learning (Timperley, 2008).

The impact of increased use of Learning Intentions and A/B Partner talk by participants has reached not only students, but also other teachers. During the study, many teachers who

were not participating in the collaboration sessions asked participating teachers about what they were doing differently. Not only did the researcher witness many of these conversations in the staffroom or hallways, but many participants casually remarked about how often they were fielding questions from their colleagues or teaching partners. As a result of these informal conversations, many participating teachers have begun to incorporate the practice of sharing Learning Intentions with students and providing students time to exchange their ideas with others through A/B Partner talk. This unexpected result of the study supports the research that professional development does not have to happen on a specific day, or at a specific place, or with a specialist or expert (Timperley, 2008). Teachers who participated in this research study were able to share their experiences with their colleagues and support the changing practices of others. Professional development that comes from within a school or district is often more powerful than “workshop” experiences outside a district or traveling “experts” brought into a district for a few hours (Timperley, 2008).

Because the purpose of the collaboration sessions was to improve the instructional and assessment practices of the teacher participants, the researcher was flexible to the needs of the participants in these areas. Twice, teachers voiced concerns about moving through the topics too quickly; they wanted more time to become comfortable with each topic before moving on. It was important for the researcher to acknowledge and adjust for these requests, as evidence is clear that when teachers’ ideas are valued and acted upon, their interest in the matter is more sustainable and will likely result in deeper learning (Reeves, 2008). While the timeline for the study could not be changed, the topics for each week were able to be moved around or altered. As a result, some topics, like A/B partner talk, were the focus of almost two full sessions, while other topics, like peer-assessments, were fit in where there was time. These adjustments to the

topics were made to allow participants more time to process and practice the strategies they were most interested in. In addition to extra time for processing and practicing certain strategies, the flexible schedule also allowed for more teachers to learn about and discuss more strategies. Often, if a teacher missed a meeting, they were able to receive at least some exposure to the same topic if it was addressed the following week. This unexpected advantage resulted in most teachers reporting at least some improvement in the areas that were discussed the most often.

The only area of the study that was revealed as not statistically relevant was that of Peer Assessments. Teachers reported that the collaboration sessions did not contribute to improvements in allowing students opportunities to assess their peers' learning. For example, one participant commented that he or she "hasn't done much in this area." One possible reason for this outlying result is that the session that was scheduled to be devoted to learning about and discussing the benefits of Peer Assessments was significantly reduced in time, to allow for further discussion and exploration of creating and sharing criteria with students. Because teachers were left with less than 60 minutes over the entire five month research period to explore peer assessments collaboratively, it is not surprising that participants reported that the collaboration sessions did not lead to improvements in providing students with opportunities to assess their peers.

#### *Limitations to the Study*

While this study yielded very positive results for the case of teacher collaboration and the benefits to instructional and assessment practices that can come from it, the limitations of the study must be addressed. Most notably, this study consisted of only eight volunteer participants. Eight sources of data is not a very powerful data set, even though the results were significant.

Additionally, all eight teachers *volunteered* to be a part of the study. It is possible that they did so because they were already interested in making improvements to their instructional or assessment practices. This possibility is likely, as all eight participants work in a school where such improvements are encouraged and supported by the administration. There is a culture of learning at the school, for both students and staff. This possible interest in changing their own classroom practices may indicate that the teachers who volunteered to participate in the study were pre-conditioned to want to make improvements in their teaching. As a result, it is difficult to determine if the positive changes that the participating teachers reported were due solely to the collaboration sessions, or to their personal drive for change, or a combination of the two.

In addition to any personal motivation for change that may have impacted the results of the study, it must also be noted that many of the participating teachers were, at the same time as this study took place, engaged in other professional learning in the areas of instructional and assessment practices. Two of the eight participants were participating in another, larger-scale, collaboration team focused on assessment. Two other participants were team-teaching one or more of their classes with the researcher, who is not only the teacher-librarian, but also experienced in many of the strategies that this research study explored. It is possible that some of the reported improvements in instruction and assessment practices could be attributed to these additional activities, as well as, or even instead of, the collaboration sessions offered in this research study.

### *Suggestions for Further Research*

The implications of this study's findings, as well as the limitations to the study, leave the researcher with suggestions for further research. For example, since half of the study's

participants were engaged in similar professional learning outside of the context of this study, it is difficult to say whether or not the collaboration sessions of this research study were as impactful as the data reveals. Further research in this field, with participants committed to only one professional learning group, would help clarify these questions. Additionally, it must be noted that all of the participants of this study were volunteers; it would be interesting, and potentially significant to districts around the province, if similar results could be yielded with participants who were not volunteers, but rather educators who were directed to engaged in similar collaborative discussions. One possible method of organizing such a group would be by School Districts providing collaboration time built into teaching assignments. Presently, the local school district does provide such time to its educators, in the form of six PLC meetings per year. However, with only six opportunities for collaborative discussion per year, and no method of collecting data, it is difficult to ascertain how impactful these meetings truly are on teachers' practices. More research into the effect that mandated participation in collaborative discussions may yield more influential data than the data revealed in this research study.

In addition to further research into the connection between participating in the discussions, and volunteering to a part of the discussions, it would also be interesting to explore the significance of the short-term time-frame of this research project. This project had a clear start and end date; all participants knew that, after five months, they were relieved of their obligations to the collaborative discussions. Since the data for this study was gathered at the completion of the collaboration sessions, it is impossible to report whether or not the significant changes in instructional and assessment practices that teachers described were sustainable through the remainder of the school year. Research into the idea of a full school year of bi-weekly collaborative discussions may reveal more significant and impactful data.

Additionally, research into the long-term sustainability of positive changes in teachers' instructional or assessment practices that stem from collaborative conversations should be explored. A two month break over the summer, or a change in teaching assignment or school, could have an impact on the professional growth that teachers reported. The positive results that this research project yielded could be more influential in changing policy or timetabling, if it could be demonstrated that similar results could be sustained over long periods of time, regardless of any changes in a teacher's assignment or location.

Finally, a similar research study with more time for deeper learning of the strategies could be explored. Many participants voiced their disappointment in not having enough time to discuss different methods of using some of the strategies. For example, one participant responded on Part B of the questionnaire (Appendix B) that, "Group Work evaluation is an area that I was very interested in know more about and excited about." With more than just sixty minutes each session, interests like this one may be able to be addressed.

### *Recommendations for Policy*

The results of this study, which demonstrate that more sustained conversations about a particular topic can result in positive changes to practice, can be used to support the continuation of the school district's current provision of six opportunities per year for 80 minutes of focused collaboration time (PLC meetings) for each school. The district is encouraging educators to bring more Assessment For Learning strategies into classroom practices (Boudreault, 2008); the results of this research study not only show that collaboration opportunities for schools should continue, but they also reveal that, if school staffs followed discussion topics that continued to be revisited over the course of the school year, significant professional growth would likely occur.

Additionally, the positive impact that these collaboration sessions had on non-participating teachers suggests that the district utilize, in a purposeful way, the group of teachers who have experienced positive changes in their practices. Rather than bringing in “experts” from other districts for in-service opportunities, Implementation Days, or Professional Development, the district could call upon its local teachers to share their experiences and knowledge in these professional learning opportunities.

Finally, the positive results of this research can be used to shape union policy surrounding professional development. The results clearly show that focused collaboration time leads to improved professional practices. Funding for professional development could be expanded to include access to Teacher-On-Call costs to cover time for focused collaboration sessions between colleagues.

### *Conclusion*

This research project, which aimed to explore the ways that focused collaboration opportunities impacted teachers’ instructional and assessment practices, was successful in that it uncovered a number of specific ways in which teachers found benefit in collaborating with others. For example, teachers reported that “sharing ideas with colleagues” and “talking about how to create criteria with students” helped them improve their own classroom practices. Teachers were exposed to ten new instructional and assessment strategies, and reported that the collaboration sessions led to improvements in eight out of the ten strategies. Through meeting together at regular intervals, teachers discovered new strategies, set goals pertaining to those strategies, and shared experiences with those strategies.

In addition to the recommendations for policy that this research supports, the researcher herself will use the positive outcomes of the study to continue the practice of facilitating groups of colleagues in exploring new instructional and assessment practices. In addition to any new participants who may want to join, a number of participants from this study have indicated that they would be interested in continuing to participate in collaboration sessions. The results of this study can be used to support professional learning opportunities in schools and districts around the province, for local, teacher-led professional learning results in positive changes in both teacher practices and student achievement (Timperley, 2008).

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## Appendix A

Focused Collaboration Opportunities – Follow-up Questionnaire A

Rate the following statements, based on your experiences in the focused collaboration sessions. Please seal your questionnaire in the envelope provided and submit the envelope to the large folder in Mr. Coleman's office

1= not at all; 5 = somewhat; 10 = significantly

1. Due to my participation in the focused collaboration sessions, I have improved my practice of sharing learning intentions with my students.

1      2      3      4      5      6      7      8      9      10

2. Due to my participation in the focused collaboration sessions, I have improved my practice of allowing students to use the A/B Partner Talk strategy to talk about their learning.

1      2      3      4      5      6      7      8      9      10

3. Due to my participation in the focused collaboration sessions, I have improved my practice of sharing assessment criteria with my students.

1      2      3      4      5      6      7      8      9      10

4. Due to my participation in the focused collaboration sessions, I have improved my practice of involving students in the process of creating criteria.

1      2      3      4      5      6      7      8      9      10

5. Due to my participation in the focused collaboration sessions, I have improved my practice of providing descriptive feedback, rather than numerical scores, to students on formative assessments.

1      2      3      4      5      6      7      8      9      10

6. Due to my participation in the focused collaboration sessions, I have increased my students' opportunities to participate in self-assessment of their learning.

1      2      3      4      5      6      7      8      9      10

7. Due to my participation in the focused collaboration sessions, I have increased my students' opportunities to participate in peer-assessments.

1      2      3      4      5      6      7      8      9      10

8. Due to my participation in the focused collaboration sessions, I have improved my practice of putting more ownership of learning on my students.

1      2      3      4      5      6      7      8      9      10

9. Due to my participation in the focused collaboration sessions, I have improved my practice of incorporating cooperative learning opportunities for my students.

1      2      3      4      5      6      7      8      9      10

10. Due to my participation in the focused collaboration sessions, I have improved my practice of allowing my students to show what they know in different ways (Mind Maps, Concept Maps, Fishbones, etc).

1      2      3      4      5      6      7      8      9      10

## Appendix B

Focused Collaboration Opportunities – Follow-up Questionnaire B

Please answer the following questions. Take as much space as you need. Print this page and submit it to the folder in Mr. Coleman's office.

1. What specific aspects of the focused collaboration sessions did you find to be the most beneficial to your *instructional* practices?
2. What specific aspects of the focused collaboration sessions did you find to be the most beneficial to your *assessment* practices?
3. What specific aspects of the focused collaboration sessions did you find to be the least beneficial to your *instructional* practices?



## Appendix C



VANCOUVER ISLAND  
UNIVERSITY

**RESEARCH CONSENT FORM**

“EFFECTS OF TEACHER COLLABORATION ON INSTRUCTIONAL AND ASSESSMENT PRACTICES”

September, 2009

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I am currently enrolled in the Masters in Educational Leadership Program at Vancouver Island University (VIU). As partial fulfillments of program requirements, I have designed a research project to study the effects of teacher collaboration on instructional and assessment practices. I would like to invite you to participate in this research.

During this study, you will be asked to participate in ten focused collaboration sessions with other participants. In these sessions, you will be asked to engage in discussion regarding instructional and assessment practices. One session per month will take place during the school lunch hour. This session will take place on the school site. One additional session per month will take place outside of the school day. This session will take place on the school site. Outside of the sessions, you will be encouraged to try out some new instructional and assessment strategies. Your participation will require approximately 12.5 hours of your time, over a period of five months.

There are no known harms associated with your participation in this research. The potential benefits include improving your instructional and assessment practices, and possibly increasing your students' achievement rates.

All records of participation will be kept strictly confidential, such that only I and my supervisor will have access to the information. Data will be stored in a locked filing cabinet within the office of the

school Principal. Data will be destroyed approximately two years after the completion of the project. The results from this study will be presented in a written research report and an oral presentation. Identities of individual participants will remain anonymous.

Participation is completely voluntary. It may be discontinued at any time for any reason without explanation and without penalty. If you have questions at any point during the research, you may contact me, or my supervisor, at the contact information provided above.

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### CONSENT

I have read the above form, understand the information read, understand that I can ask questions or withdraw from the study at any time. I consent to participate in this research study.

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Participant's Signature

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Date

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Investigator's Signature

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Date

