JOYFUL LEARNING: USING ACTIVE AND COLLABORATIVE STRATEGIES IN THE INCLUSIVE CLASSROOM

by

Louise Rompen

PDP, Simon Fraser University, 2000 BGS, Simon Fraser University, 2001

PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF EDUCATION IN MULTIDISCIPLINARY LEADERSHIP

UNIVERSITY OF NORTHERN BRITISH COLUMBIA

April 2012

©Louise Rompen 2012

UNIVERSITY of NORTHERN BRITISH COLUMBIA LIBRARY Prince George, B.C.

Abstract

In today's classroom, teachers are required to present curriculum in such a way as to ensure that all learners in the class meet the prescribed learning outcomes. As the range of diversity of the needs of students increase due to larger class sizes, class composition and lack of resource staff, the classroom teacher is faced with the challenge of meeting the needs of all learners. The purpose of this research was to plan, implement and evaluate active and collaborative learning strategies to engage all students within the classroom, with an emphasis on identified challenged students. The question is: Through implementation of a variety of active and collaborative strategies, will the participation and on-task behaviour of students increase? This research was completed in two phases. During Phase 1 in which active learning strategies were integrated into lesson planning for a four week period, indications of increased student engagement was observed. In Phase 2, both active learning strategies and cooperative learning strategies were integrated during planning for Social Studies and Science classes. Observations and test results during the three month term suggest that integration of these strategies did indeed increase on-task behaviour of learners during the activities. However, the main benefit of the strategies implemented was that the activities provided the teacher the opportunity to observe, assist and assess the learning of all students within the classroom.

TABLE OF CONTENTS

Abstract		ii
Table of Contents		iii
List of Figures		iv
Acknowledgements		vi
Chapter One	Introduction Background of Study Researcher Context Conceptual Lens Significance of Research Purpose of Study and Research Question	1 2 4 6 6 7
Chapter Two	Literature Review Differentiated Instruction Assessment Active Learning	8 8 10 11
Chapter Three	Method Research Procedures Recruitment of Participants Consent	13 18 18 19
Chapter Four	Phase 1 - Observations Phase 1 - Evaluation Phase 2 - Observations	20 27 29
Chapter Five	Evaluation: Conclusions and Recommendations Limitations of Study	38 39
References		41
Appendix 1	Ethics Approval UNBC	42
Appendix 2	School District # 91 Approval	43
Appendix 3	Parental Consent Forms - Phase 1 and Phase 2	44
Appendix 4	Research Assistant Confidentiality Agreement	49
Appendix 5	Student Response Form	50

Appendix 6

Student Tracking Form

Figure 1a			31
Figure 1b			31
Figure 1c			32
Figure 1d			32

Acknowledgements

The completion of this research project would not have been possible without the support and encouragement of many individuals.

I would like to thank my supervisor, Dr. Peter MacMillan, for his guidance and encouragement and my committee members, Greg Nixon and Vivian Fayowski, for their suggestions and editing. I also wish to thank Dr. Willow Brown and Jane Anderlini for their guidance and editing through the Inquiry Project that led to this research project.

I would like to thank the Nechako Lakes School District Superintendent, Charlene Seguin, Nechako Lakes School District Trustees, and Principal, Lisa Ketlo for permitting me to complete my project in the school at which I teach.

I would like to thank the Special Education resource teachers, Education Assistants, and my colleagues for their continued support of students and their contribution to this research project. I would like to make special mention of my classroom assistant, Judy Wiebe, who was instrumental in the data collection phase of this research project. I would also like to thank the parents of my students during the past two years who have kindly given their permission to allow me to work with their children and to the students in my classes who have willingly participated in the various activities in this study.

Finally, I would like to thank my friends and family for their patience and encouragement throughout the research process. Their suggestions, editing, humour and support have been instrumental in completing the report writing process. A special thank you to my fiancé, Flavio Cianflone, for his understanding, encouragement, and cooking that has carried me through the final stages of this project.

Chapter One

Introduction

Given the diverse ability level of students in our classrooms today, education in the 21st century will require teachers who can nurture, inspire, and foster the educational learning and teaching environment. The task will be to support the needs of students by developing a wide range of strategies and accommodations to implement differentiation of instruction. The challenge when working with mixed ability levels within the classroom is to engage all students during whole class activities. When planning for the inclusive classroom, active learning strategies could be utilized to allow for success for students of all ability levels in integrated collaborative groups. Active learning is defined as "putting students at the center of instruction and giving them opportunities to solve, explore, experiment, try, create and invent; anything that students do in a classroom other than merely passively listening to the teacher's instruction" (Udvari-Solner & Kluth, 2008, p. xx). Collaborative learning is "a process by which students interact in pairs or groups with intent to solicit and respect the abilities and contributions of individual members" (Udvari-Solner & Kluth, 2008, p. xx). A thoughtful combination of both active learning and collaborative activities is likely to improve the learning of students by giving students opportunities to speak and to engage with others (Freire, 1970 as cited by Udvari-Solner & Kluth, 2008).

Background of the Study

The mixed ability levels within the classroom present a challenge for the teacher to attempt to engage all students during whole class activities. Differentiated instruction strategies already in use include small group pull-out and within class instruction, partner work, peer assessments, differentiated content, and other accommodations adjusted as determined by student needs. Fifty four of the 256 students in our school are receiving inschool services in English as a Second Dialect (ESD) as a result of their low scores on tests of comprehension of the English language. Some of these students have grandparents whose first language is not English and the home environment experience limited vocabulary usage. Students are pulled out for small group work to improve their grasp of common vocabulary. Cognitive testing identifies students with a learning disability or with mild intellectual disabilities. These students receive services from a Special Education Teacher to support them in reading acquisition in small pull-out groups four days a week for 1 1/2 hours per day. Within the classroom, many of these students may have difficulty understanding basic instructions or vocabulary and are hesitant to contribute to group discussions. In addition, other learners have been identified as at-risk students with moderate or severe behavioural needs. I was looking for ways to make the learning environment safe and enjoyable and to motivate increased participation during whole class activities for these hesitant learners when support from specialist teachers was not available.

Udvari-Solner and Kluth (2008) organized 50 active learning strategies into five categories to aid teachers with planning for active learning for specific goals. Each activity includes a description, directions for use, an example of use in a particular subject area, methods to maximize engagement and participation and a space for writing ideas or note-taking for the teacher when using the activity in the classroom. A second resource that listed activities by topic was *Inspiring Active Learning* (Harmon & Toth, 2006). In each case, a teacher is able to choose strategies to compliment the learning outcome such as mastering new content or community building.

Many of the strategies included in *Joyful Learning* (Udvari-Solner & Kluth, 2008) and *Inspiring Active Learning* (Harmon & Toth, 2006) have been used successfully by teachers for years in various forms. These strategies are flexible and not grade or subject specific. Strategies can be used individually or stacked together for variety. Teacher work loads are demanding and teachers are hesitant to take on new initiatives that require extra preparation time and effort. The advantage of these strategies is that many require minimal preparation time and can take little class time but still be used very effectively. Once students are familiar with the structures of a particular strategy, the strategy can be integrated into the class structure with even less preparation or instruction time required. Learned strategies can then be effectively used by students in small groups to provide structure to enable students to lead discussions, present reports, or conduct research.

Students with significant disabilities can be included in these activities. When differentiating instruction, specific individual student needs should be the focus of planning. Often adapting strategies for one student benefits the larger group. For example, a student that has difficulty focusing while seated may become engaged with an activity such as the Snowball Toss. In this activity, information to be reviewed in the form of vocabulary or questions is are written on sheets of paper. The students scrunch the paper into a ball and, when the signal is given, throw the snowballs at the teacher. The students then run to find a snowball, open the paper and either give the definition of the vocabulary word or answer the question. This can be an individual activity or students can be required to read the question and answer to another student. Accommodations that benefit students with learning, cognitive, sensory or language difficulties can also aid students with different interests and learning modalities. Small group activities in which a variety of ability levels work together allow students to showcase their strengths rather than struggle with their weaknesses. For example, those with stronger writing skills can be assigned the task of record keeper, while others can be the readers or runners if the activity requires placing information on the board. Peer supports or adult supports can become a natural part of the learning environment rather than a stigma to the struggling student if an adult is assigned to each group or rotates between groups. Active learning strategies can be chosen to support and build on the strength of a particular student. Individual student needs, experiences and interests influence the design of learning experiences to achieve the learning goals. Students learn and retain more when they are actively involved in their learning (Udvari-Solner & Kluth, 2008).

One argument against the use of active and collaborative learning brought forward by teachers is that there is not enough time and too much content to cover to allow the students to engage in fun activities. It is precisely because there is so much content to cover that it seems even more important to involve students in their own learning to motivate them to learn the facts, figures, ideas and concepts expected. Use of active learning strategies allows the teacher the opportunity to observe and evaluate students, to teach mini-lessons to increase understanding and to ask or answer individual questions. In the traditional classroom, the teacher is often too busy teaching to listen to individual students and eff-task behaviour can result when the pace of lessons is too slow or too quick for some learners. Differentiation by integrating active learning allows teachers to adjust the pace of lessons to fit the needs of students and to allow for processing time and review.

Researcher Context

The setting for this study is a K-7 school in a small community in central British Columbia. It is a dual track school with French Immersion and English classes. The school population of 260 students is 60% Aboriginal students. The English classes have 80%-90% Aboriginal students since many of the French Immersion classes have few Aboriginal students enrolled. The number of intellectually challenged or intense behaviour students within the English classrooms has been increasing and teachers are frustrated with the learning environments in the classrooms. These identified students are placed on Individual Education Plans to provide a plan of support for each student. These IEPs are developed through a team meeting with the Special Education teacher and the classroom teacher. Since the support from ESD and Special Education resource teachers is limited, the classroom teacher is required to find ways to support these students when the learners are within the regular classroom. Phase 1 of this study was conducted in a Grade 4/5 classroom of 26 students with six identified students placed on Individual Education Plans. Phase 2 of this study was conducted in a Grade 3/4 classroom of 18 students with six identified students on Individual Education Plans. These mixed ability classrooms range in ability from early Grade 1 to exceeding Grade 5 levels. Due to the high number of IEP students in the classroom, a full time Education Assistant (EA) is assigned to the classroom to support specific students. Addition EAs are assigned as available to aid in supporting students during specific times of the day. Although not the focus of this research, it should be noted that a large majority of students in these classes are from Aboriginal ancestry and mainly belong to two local Carrier Nation bands. For many years, the largest of these local bands has offered a year of Kindergarten to their members. In the coming school year, the local band is expanding their on-reserve school to include both Kindergarten and Grade 1 and plans are to continue to expand the on-reserve school by adding a grade each year. Whether the desire to have an elementary program on the reserve is a reflection of the dissatisfaction with the public school

system or not is unclear but the fact is that the decreasing numbers will affect our elementary school. If the parents are unsatisfied with the education their children are receiving then we, as responsible educators, we must look for ways to meet the varied needs of all students within our classrooms.

Conceptual Lens

Within our classrooms, we find at-risk students. These students may have emotional, physical, or intellectual needs that the regular classroom setting does not embrace. A goal in this research project was to provide a nurturing environment for the students who often do not have a voice in the classroom and to enable them to achieve equity and success regardless of their ability level. This project could have taken the form of an ethnographic study where the culture and interactions among students were studied. However, since my role as a teacher requires me to use appropriate interventions that I feel best meet the needs of my students, the methodology of Action Research best fits the desired outcomes of this study. In Action Research, the onus is on the teacher to discover and implement changes in their professional practice that will enhance existing practices. By examining the incorporation of active and collaborative learning into term planning and observing the reaction of students to the activities, I hoped to discover a way to improve my own practice while meeting the social and educational needs of my students.

Significance of the Research

Students learn and retain more when they are actively involved in their learning (Udvari-Solner & Kluth, 2008). Active learning strategies can be chosen to support and build on the strength of a particular student. Individual student needs, experiences and interests influence the design of learning experiences to achieve the learning goals. The use of differentiation strategies and collaborative learning has been shown to create an environment that fosters success for all students (Gregory, 2003; Tomlinson, 1999) regardless of ability level. Teaching students to accept contributions from all participants is the goal of the inclusive classroom.

Purpose of the Study and Research Question

The purpose of this research was to plan, implement and evaluate active and collaborative learning strategies to engage all students within the classroom, with an emphasis on identified challenged students. The question is: *Through implementation of a variety of active and collaborative strategies, will the participation and on-task behaviour of students increase?* This study is an extension of an inquiry project of the same title that was completed in March 2011. Active learning strategies were integrated randomly during the course of the day or week and the response of the students noted. Students were also given the opportunity to self-evaluate the activity. The results were encouraging but the time frame of the inquiry was limited to a four week period. The Phase 2 research encompassed a full term of instruction from September to November 2011. During this reporting term, I implemented various strategies within the regular course of planning for Social Studies and Science classes only. Tracking of individual students was completed by an Education Assistant to assess the level of engagement of identified students.

Chapter Two

Literature Review

The investigation into strategies for motivation and inclusion of students of widelydiffering abilities led to a progression from that of the broad topic of differentiated instruction and assessment for learning, to individual strategies used to engage in active learning. Each of these topics has a wealth of available resources written within the past 10 years.

Differentiated Instruction

The question facing a teacher today is: where do we begin? There may be too many students, too little time, too much paper work, only one level of textbooks and a prescribed grade level curriculum with too few resources. We as teachers are not trained as social workers or psychologists and we may not understand the cultural differences of individuals within our classroom. Differentiation is a philosophy that enables teachers to plan strategically in order to reach the needs of diverse learners (Gregory, 2003). Teachers can differentiate the content, process, and product according to student readiness, interests, and learning profile. The strategies employed should be respectful, include flexible groupings and contain ongoing assessment and adjustments (Tomlinson, 1999).

Student readiness level should be determined by pre-assessment of key concepts and material to guide planning. Low readiness students may need direct instruction with structured, concrete activities. They may need fewer steps delivered at a deliberate pace. Advanced learners may be able to skip the practice of a skill and move on to more complex, open-ended activities that proceed at a brisk pace. It is no longer possible to look at a classroom of students and assume that they are at the same level (Tomlinson, 2001).

Heterogeneous classes fail when the expectations are too high without enough supports or when the advanced students are required to do a higher volume of work without more learning. Vygotsky (1962) identified the balance needed between mastery and frustration level to sustain student motivation. This is true for all levels of readiness.

Students learn best when information is organized around categories and ideas so that connections can be made for personal meaning. When content is relevant and activities are authentic students are more likely to understand the key concepts as they relate information to their own lives (Earl, 2003). Making connections passes responsibility to the student to take lessons home with them and apply the skills learned (Tomlinson, 2001). When learning occurs, students are able to give examples, compare and contrast, pose new problems, transfer the information to other subject areas or situations, and to create their own what-if questions.

In a differentiated classroom, the role of the teacher is to organize learning opportunities and to act as a mentor or coach. Students are given options or assignments to learn content in a variety of ways to ensure that their learning style is addressed. Robert Sternberg (1985) classified the intelligence into three styles: analytic, practical and creative. Assignments or projects could be designed to build on the strength of students in these areas to provide differentiation.

A differentiated classroom does not mean that a teacher must be all things to all students all of the time. Planning can involve whole class instruction, small group work and individual student work. However, planning must include clear goals: what are the big ideas or key concepts that every student must learn to achieve maximum growth in their learning? In this way, the underlying goal could be the same for all students although the amount of detail may be adjusted.

Every student should be challenged to use critical thinking skills; struggling students should not be given only low-level tasks (Tomlinson, 2001). Scaffolding should be built in to support all students, with advanced learners requiring a different type of scaffolding than struggling learners. All students should be respected as individuals and given opportunities for learning key concepts in context (Earl, 2003). Various strategies can be employed to allow students to learn through different processes, whether in small groups working at interest centres, partner work for idea exchange, or individual projects. The differentiated classroom uses active learning and student choice to motivate students to meet personal goals. Differentiated instruction is not a buffet of random activities, but a strategic learning environment developed to build positive interpersonal relationships and interactions where learners feel appreciated, respected and competent.

Assessment

Stiggins, Arter, Chappuis, & Chappuis, (2006) suggest that accurate assessment asks the four important questions, Why Assess? Assess What? Assess How? and Communicate How? Just as in planning of differentiated instruction strategies, the purpose of the assessment and the expected learning goals must be the starting point for assessment. When the goal is clear, methods of assessments and reporting of results can then be used as communication and motivation to students. Teachers use two types of assessments: assessment *for* learning and assessment *of* learning. Assessment for learning is used while learning is underway to provide formative feedback for the learner and teacher. Assessment of learning is used at the conclusion of a unit of study to determine if key concepts have been understood. In a differentiated classroom, assessment for learning can be used to make changes to an activity or assignment or to plan the next lessons. Assessment for learning can be completed by the students themselves and recorded in a way to provide immediate feedback to aid learners in their goal setting and motivation for achievement (Stiggins et al., 2006). When students participate in assessment, their learning can be focused on the learning targets. If the teacher is able to give descriptive feedback as assessment for learning, students can take risks without the penalty of grading of mistakes, understand what they have achieved and suggest a better way of doing things. Both individual and group work can be assessed for learning. Cooperation, personal connections and demonstration of understanding can be assessed during learning. Peer assessments can be used as a method of scaffolding learning (Earl, 2003). As students examine and compare their own work with that of others', they become aware of the difference between a Not Meeting and an Exceeding designation on a particular assignment. Providing exemplars at the beginning of an assignment also aids students in preparing their own work. Assessment for learning can help determine whether students know the key concepts or whether they understand and can apply the concepts learned.

Active Learning

An underlying premise in differentiated instruction and assessment for learning is motivation of students to become actively involved in their own learning. In a classroom that encourages active learning, students are moving, sharing with others, may be working in their seats or in other areas in the class, talking aloud, or using a variety of materials. Udvari-Solner and Kluth (2008) cite a number of research studies that demonstrate the increased understanding that occurs when students are actively involved and have time to process

information. Harmin (2006) describes the activity level of students in terms of an active learning ladder with work avoiders at the bottom of the ladder, followed by half-hearted workers, then responsible students with fully active students at the top of the ladder. The goal of active learning is to move students up the ladder by crafting activities to motivate students to become more involved. Similar to differentiation, active learning strategies are planned with student interests and clear learning goals as the guide posts for planning. Active learning is not chaos in the classroom: the goal is to see students apply their best potential to daily schoolwork (Harmin, 2006). The planning process for teachers involves six tasks: 1) preparing effective lessons, 2) motivating student participation, 3) motivating student cooperation, 4) structuring time efficiently, 5) taking advantage of small groups, and 6) preventing discipline problems by involving all students at their own level. When students are actively involved in learning, teachers have time for assessment by circulating the room and engaging students in conversation or by observing interactions. Differentiation is possible by adding scaffolding for struggling students, providing cue cards or previewed material, giving choice in activities, providing wait time, or providing adult support to allow inclusion of all students. Creating lessons that inspire learning have an active flow that teaches concepts in Jayers at a quick pace (that still allows dignity for struggling learners) and establishes efficient classroom structures to maintain respectful behaviour despite the movement and noise of active learning (Harmin, 2006). And, of course, activity inspires joyfilled learning!

Chapter Three

Method

This study was informed by action research cycles and by traditions of reflective practice. In action research, questions emerge from the authentic problems of practice as understood and identified by the educator themselves. The learning is conducted systematically, using the tools and decision-making processes readily available to teachers. In reflective practice, an educator examines student responses and needs through formative assessments and adjusts teaching strategies to aid students to achieve learning outcomes. Cited by Brown and Cherkowski (2011) in *Learning Landscapes*, Reason and Bradbury (2008) describe the cycle of action research and reflective practice as follows: "[I]n action phases co-researchers test practices and gather evidence; in reflection stages they make sense together and plan further actions" (p. 1).

While reflecting on the diverse needs within my classroom, the question of the impact of utilizing systematic active learning emerged from my investigation of strategies to engage all students in their own learning. In Phase 1 of the study, I was encouraged by the online community of the BC Special Education Provincial Specialists Association to join a reading club which participated in a blog once a week. The book studied was *Joyful Learning* (Udvari-Solner & Kluth, 2008) and although the purpose of the book was to encourage inclusion of special needs students, especially students on the autism spectrum, I found the concepts and activities in the book useful as possible strategies for engaging my challenged students. Each week, the online community encouraged each other to try out the strategies in various classroom or subject situations and report back via the blog as to the student responses to the activities. I was intrigued with the prospect of becoming part of a virtual professional learning community (PLC). I had attended workshops and read literature (eg.Kaser & Halbert, 2009) that demonstrated the benefits of educators working together to make positive improvements to teaching practices within the classroom and was looking for an opportunity to be part of such a community. As our school had not yet organized PLCs, I felt that the online community would be a viable option. During this Phase 1 of my inquiry, I recorded my observations of the student responses to various strategies as the online book club worked through the chapters of *Joyful Learning*. I also developed a student response form (Appendix 5) that each student completed as an activity was used in class. I attempted to utilize the same strategies in various subject areas. In this way, the students became familiar and comfortable with the process of each strategy and were able to meet the learning outcomes of the subject area without having to be concerned of the process of the activity. I noted responses to the activities, adapted them to meet the needs of the students and the learning outcomes. For example, the Hot Seat activity had an inner circle of students seated on the floor facing outwards and an outer circle of students sitting facing the inner circle. The outer circle students would answer a question and all move to the right to the next students. After completing the circuit, the students would switch from the inner to the outer circle and the activity would repeat. This activity was used many times for various subjects. In math, the activity was used to drill math facts; in Social Studies and Science class, the activity was used as a review of facts before a test. An adaptation of this activity was used in music class as we prepared to perform for the local festival. Students stood facing each other in the inner and outer circles and helped each other with words for the songs. The benefit to this strategy in all situations was that the students were all engaged so I had the opportunity to closely

observe all students and determine who would require intervention and support to meet the learning outcomes in each subject area.

During Phase 1, I attempted to utilize as many of the strategies in each of the five chapter categories: Building teams and classroom communities; Teaching and learning; Studying and reviewing; Creating active lectures; Assessing and celebrating. I collected the student responses, kept a reflective journal and then connected weekly with the online community blog. My objective during this phase was to implement as many activities as possible while maintaining a focus on the learning outcomes. I attempted to discover activities to meet the outcomes, but sometimes found myself selecting an activity and trying to fit it into the curriculum expectations in order to have something to report and discuss on the blog. At the conclusion of the Phase 1 inquiry, I was encouraged by the increased student participation during the four week time period, but felt that the condensed study was insufficient to draw substantiated conclusions. I began to plan Phase 2 of this inquiry to investigate the benefits of a longer study period.

The planning for Phase 2 of the inquiry took on a different emphasis and direction than Phase 1. Rather than concentrate solely on the one resource (Udvari-Solner & Kluth, 2008), I searched further in literature comparing the advantages of collaborative learning strategies where students are grouped heterogeneously to support weaker students and the benefits of active learning strategies for individual accountability for learning. I proposed combining or alternating both collaborative and active learning strategies in the two subject areas of Social Studies and Science. Collaborative and active learning activities were incorporated into the lesson delivery in Social Studies and Science classes in a Grade 4/5 classroom for the fall school term of September to November 2011. Activities chosen were student centered and rooted in assessment. Our Special Education Teacher was asked to observe and record on and off task behaviour at the beginning and end of the reporting term as pre and post data. Additional on/off task data was collected bi-weekly by the Education Assistant for those students on behaviour Individual Education Plans (IEPs) according to their behaviour plans and also on students with learning needs identified by their IEPs. This meant that data was collected on different students during different activities since the Education Assistant is only able to track two students in one time period. I continued to journal my observations of student participation during activities and to use these reflections as formative assessments and as information for planning. The collected on/off task data was compared with observations when active learning activities were not employed. When using strategies for reviewing information, a pre- and post- test was given to measure the effectiveness of the activity as a learning tool. The observational data was analyzed and the effectiveness of the strategies evaluated.

The nature and content of the Social Studies curriculum lent itself to intensive use of collaborative activities. Students were grouped in cooperative working groups with a mixture of strong and weak students. Adults supported the groups which included students who required intervention and supervision, and encouraged stronger students to take the lead in directing the projects. Although I had used collaborative activities in past years, this term I utilized them as the primary learning strategy to meet the learning outcomes. Assignments included developing a crest with the same characteristics of traditional Haida family crests for each group, a large scene depicting one season of the traditional Haida people, and constructing an Inuit village in a diorama. I was able to observe the working groups in action, direct small group discussions and use formative assessment to ensure that all students were

grasping the material. Education Assistants were able to give additional support to needy students. Working groups were then given the opportunity to report to the rest of the class on their discoveries and learning. Class notes were recorded on the SMART board and the notes printed up as study sheets in preparation for tests. I was able to add any important ideas that were omitted from the reports or to expand on ideas given by the students. Active learning strategies were utilized in the next class period to review material before tests. Interspersed with the collaborative activities were more traditional strategies of gaining information from textbooks, videos and worksheet activities. The on-task behaviour was tracked during all aspects of the Social Studies classes so that a comparison could be made between the activities.

Science time naturally lends itself to more hands-on activities that tend to engage more of the students. The intent of this inquiry was to determine if active learning strategies for learning and reviewing facts and big ideas would improve student engagement and learning beyond the hands on activities. For example, the snowball fight activity was enjoyed and used as both a learning activity and in preparation for testing. In this activity, information is written on sheets of paper. This could be vocabulary or questions or factual information. Students crumple the paper into a ball and then throw the snowball at the teacher. Students run and pick up a snowball and unfold the paper and read what is on the paper. If it is vocabulary or a question, they must read it or tell the answer to another student. I also used this activity for categorizing by having signs with categories posted around the room. Students would read their snowball and run to the sign with the category that their word fell under. Once everyone had mastered their word or definition, the students then crumpled the paper and repeated the process. Another activity for test preparation was to have the questions and answers for an upcoming test cut into strips and have the students work in pairs to match the answers. Through teacher observation of the process, I was able to assess who had mastered the material and who was struggling. I was able to ensure that all groups successfully matched the answers. The strips could then be mixed up and students change partners to repeat the process. This allowed time for observation and assessment of all the students in the room but also allowed for support to those students who for whatever reason find it impossible to study at home or on their own. The combination of fact finding from textbooks, video clips and hands-on experimentation were used as teaching strategies and coupled with the added component of active learning activities interspersed to reinforce vocabulary and definitions. Observational notes and test scores were kept as data. I held discussions with the Education Assistants to gain their observations and assess the progress with students as part of the formative assessment of the students.

Ethical Concerns

Confidentiality and Anonymity

All reporting is anonymous and confidentiality of students has been maintained. Specific students are never identified by name. Documentation for this research was kept in a locked cabinet during the course of the research project and destroyed upon completion of the masters requirements (Appendix 1).

Research Procedures

Recruitment of Participants

The participants in this study are the students currently enrolled in a Grade 3/4 classroom at William Konkin Elementary School. Specific documentation was collected for

identified students as a component of their Individual Education Plans but adapted to meet the needs of data collection for the purposes of this project.

Consent

Letters of Consent were sent home for parent or guardian signature (Appendix 3). Project approval was received from School District #91 (Appendix 2). Ethics approval was received from UNBC (Appendix 1). Letters of Confidentiality were completed by the Education Assistants and Special Education support teachers as required by UNBC (Appendix 4).

Chapter 4

Phase 1

During a four week period, a selected number of active learning strategies were included in lesson planning. Teacher observations were kept in a journal format and student self-reflection sheets were completed after each active learning activity. This four week period coincided with the first four weeks of the online discussion forum. The number of activities that could be implemented was limited by a number of factors during this four week period.

Within our community, a severe flu afflicted many students and adults in our school. Some students were absent for a week or two and as much as one third of the class was absent any particular day. In addition to the high number of absentees, the number of class days was decreased because of a winter fun day, a non-instructional day, and participation in our local performing arts festival. As a result, fewer opportunities for implementation of active learning strategies were available during this time period than originally expected. Despite the limited research period, the student responses and teacher observations were encouraging and worthy of further investigation. Each of the strategies used during this time frame are listed below and the observations and implementation described. Moving to the Music

On Monday after recess, our school has an assembly and then engages in school-wide character building instruction in individual classrooms. Since assembly time involves sitting on the floor for a long period of time, active strategies are needed during personal planning lessons to increase student involvement. Our topic for one day was making choices. The story about a student having to make choices between what he knew was right and what

would make his friends happy presented a number of options and consequences. The key concept for students was that choices have consequences and that we need to think of the results before following through on our choices. As an assessment tool to ascertain if students understood the process, the strategy of Moving to the Music was used. Students were told to move around the room as the music played and to stop and face a partner when the music stopped. As students faced their partner, a situation was read aloud and students had to discuss options and the consequences with their partner. For example, the first situation was: Your mother tells you to clean your room before you go out with your friend. What do you do? The teacher was able to circulate, listen to a number of discussions, ask questions of students, and supervise behaviour. As the buzz began to slow down, the music was played again and students moved until the music stopped. Another situation was presented and the process repeated. Time permitted three rounds of music breaks. Only one student refused to join in the activity. This student interacted during the question time with an adult. Some students needed to be encouraged to find a partner, but the movement through the classroom made this process easier. Students who would normally not choose to work together were willing to cooperate for the short discussion time since they knew they would have a new partner soon. By circulating, the teacher was able to encourage students who were hesitant to give their opinions. Students returned to their desks and were asked to complete a self-evaluation (Appendix 4). Since the instruction had been to move quietly during the music, this was added as an evaluation item. Out of the 22 students who were in attendance, 18 rated themselves in the 20-24 range on a scale with a minimum of 0 to a possible maximum of 28. Students assessed themselves lower in the categories of giving facts to support opinions or in asking for more information when they disagreed with

someone. Student feedback was positive: they appeared to enjoy the activity. Teacher observations noted that further instruction would be given next time this activity was used to remind students to move to the music around (not over) the desks. Another change would be to give the students the next situation before the music plays to allow them time to think of options to discuss when the music stopped.

Pass the Compliment

Our school teaches monthly virtues that we discuss and review each day in our class opening. The virtue for February was kindness. In our class discussion about kindness, we talked about giving and receiving compliments. We brainstormed types of compliments from appearance to skills to characteristics and wrote them on the board. Pass the compliment is a version of the telephone game. The student at the front of the line turned around and whispered a compliment to the second person (eg. I think you are creative). The second person turned to the third person and repeated the first compliment and added one more (eg. I think you are creative and funny). The third person turned to the fourth person and repeated all the compliments and added one more. When the compliments got to the end of the line, the person at the back of the row stood up and had a chance to repeat all of the compliments that were passed. After the first try, students brainstormed more ideas for compliments and then repeated the activity. On the evaluation sheet, we added "I listened to others speaking". All but one student rated themselves more than 20/24. They enjoyed having other students say kind words about them. Student comments included not being able to understand what the person was whispering and not knowing what to say as a compliment. Discussion on the SEA blog suggested that some students could be given cue cards to help guide them with ideas. Teacher observations resulted in making note that adjustments had to be made for

some very quiet students to suggest that they stand up and go to the next person to be able to whisper directly into the person's ear rather than lean over the desk. The activity was varied so that the compliments began at the beginning of the row in one instance and from the end of the row for the next round. Some students had difficulty remembering all the comments, so the rows needed to be short (no more than four students). The instruction could be given that compliments cannot include outward appearance and must focus on skills or characteristics. This was a quick, fun way to practice giving compliments. Walking Billboard and Paper Bag Interview (stacked activities)

The walking billboard activity was modified to fit the group and key concepts. The directions are to have each student wear a piece of paper as a billboard and collect information on a question. The grade five students were beginning a unit on geometry and the teacher wanted to pre-assess how much the students knew about solid geometry figures. Each student carried a picture and the name of a geometric solid on an index card. Students circulated among themselves and asked each other to describe the solid by naming the faces, shapes, vertices, angles, or any other characteristics. The time given was short enough to keep the action moving and to give the teacher an opportunity to assess the gaps in student understanding. The students then placed their index cards into a bag and sat in a circle. Each student pulled a card out of the bag and gave all the information they knew about that geometric solid. Other students were then invited to add any other thoughts. This was an opportunity for the teacher to give mini-lessons if important characteristics were omitted. On the evaluation sheet, students asked to add "moved quietly" and "spoke quietly" to the assessment. All rated themselves high in their participation. Student comments were that they didn't speak up if they were afraid to make a mistake when they were in the circle. Teacher

observation noted that students were more engaged when they were moving around the room and that a few students were more off-task when waiting for their turn in the circle for the paper bag interview. The two activities together provided much information for the teacher to plan subsequent lessons and to gauge the level of understanding of the material.

Fishbowl Tag

This activity was perceived as a game by the students. Six students were chosen to sit in an inner circle with six more students sitting in a circle around the inner circle. The rest of the class were scattered around the circles. Since this is a more complex activity, the first time this was used was for the purpose of learning the structure and not necessarily as an assessment tool. Questions are asked by the teacher and the inner circle members are the only ones able to answer the questions. As they answer a question, the student from the inner circle tags a student in the second circle to take his/her place. The student from the inner circle then tags someone from the remaining students to take the place of the second circle student. The action keeps moving as the questions continue without waiting for students to be chosen as replacements. Students are encouraged to choose those who have not been in the circles. For the first practice of this activity, questions were asked about the novel that the teacher had been reading aloud to the class. At another time, this activity was used to practice multiplication facts. Students added "moved quietly" to the assessment form. All students rated themselves at least 20/24. Student comments included not speaking up when they had an idea since some students were in the inner circle for some time before they were able to answer a question correctly. Teacher observation noted that students waiting outside the circles tended to lose interest and resulted in increased behaviours among some students. When fishbowl tag was used for the multiplication facts, fewer students were in the

classroom at the time, and the number in the circle was increased to six, so that students in the audience were chosen more quickly. This adaptation reduced behaviour issues. Hot Seat

This activity was also slightly altered to accommodate the available space in the classroom. Students sat in two circles. The inner circle sat with backs together and the out circle sat facing the person on the inner circle. To encourage movement, the girls were placed in the inner circle and the boys were placed in the outer circle. The first time this activity was used, students were given science magazines during silent reading time. Students were also given a sticky note and instructed to record at least four facts that they discovered from their reading. After silent reading, students were placed in the two circles on the floor. Students were instructed to take turns reading their facts to the person facing them. The teacher announced "next seat" and all the boys moved one person to the right. Students then read their facts again to their new partner. The time was kept short so that students did not have time to read all four facts and could read different facts as they moved around the circle. An interesting observation was that the teacher thought that students would tire of the activity and tried to stop when students were half-way around the circle. Students complained and asked to continue because they hadn't heard everyone's facts. The activity was continued until students had moved completely around the circle. Students added "moved quietly" and "liked the activity" to the assessment. All students gave "liked the activity" a rating of 4/4 points. Teacher observation noted that even the hesitant students were motivated to fully participate. This activity was used in two other subject areas.

Students who were finished early asked if they could do the activity with multiplication flash cards. As students finished their seat work, they joined in the game. If

there were an uneven number of students, two students moved together around the circle and had a competition answering the fact questions. The structure of this activity was also used to practice the class festival presentation. Students faced each other as they sang. The songs included hand actions and sign language. Students watched their partners and gave them an assessment after the practice. Students gave constructive criticism to other students and also commented on how good the singing sounded when they were facing each other. This activity appeared to be highly motivating and adaptable to a number of different configurations of students and subjects. It was encouraging that students asked to use this activity themselves.

Toss-a-question

This is another strategy that could be used in a variety of ways. Students are given a piece of paper and given instructions. In our situation, this activity was used as a practice for reading new spelling words. Students were told to write down a particular spelling word. Our class has three spelling lists so that some students were asked to write more than one word, each on a different piece of paper. Students stood in a circle around the outside of the desks, crushed their paper into a ball and told to toss the paper. On signal, students ran to grab a paper and returned to their spot in the circle. When they returned to the circle, they had to read the word aloud to students on either side of them. The process was repeated. The pace was kept quick so that students had to move quietly and quickly to grab a paper, crush it and throw it again. Students who were unable to read the words asked the person next to them what the word said and then repeated it. After a few throws, the instruction changed and students were asked to use the word in a sentence rather than only read the word. Students added "had fun" to the assessment sheets and all rated the activity very high. Teacher

observation noted that the quick pace of the activity kept students engaged but also allowed the teacher to circulate, ask questions and help students who were having difficulty reading other student's printing. An additional idea for use of this strategy could be to have different colour paper for the different word lists, so students would only retrieve their own spelling words. Students could be asked to write out a sentence that uses the word instead of saying the sentence aloud.

Evaluation of the Phase 1 Study

This inquiry project expanded my understanding of differentiated instruction in a mixed-ability classroom. Integrating an active flow to lesson planning by having a resource of strategies and activities at my fingertips makes planning manageable. The basic idea that differentiation is 'shaking up' what goes on in the classroom so that students have multiple options for taking in information, making sense of ideas and expressing what they learn. This can be a transformational point in a teaching career (Tomlinson, 2003). Students with learning needs and First Nations students do not perform well in traditional school settings and we must find ways to teach that are increasingly student centered and rooted in assessment. Students identified with diagnoses such as autism, FASD, ADD/ADHD as well as those with cognitive challenges require more active learning and authentic learning incorporated into the school day to maximize motivation and growth in each individual student (Udvari-Solner & Kluth, 2008). Individualized education plans record student readiness levels through academic testing, interests and strengths. This information is vital to planning instruction for these students. When accommodations for a specific student can be used to benefit the entire class, the teacher workload is decreased and the quality of the whole class instruction improves. Students learn and retain more when they are actively

involved in their own learning and can record their progress (Earl, 2003). Effective differentiation, focused assessment for learning and active learning combined should help teachers and students work together to achieve individual student goals.

As the teacher, I felt relaxed and enjoyed the experience of watching students interact with each other in a purposeful and positive manner. I had the opportunity to support students that can sometimes fall through the cracks with the high number of diverse needs present in one class. Each example of active learning created interest and participation in all students. During the first activity, one student refused to participate. By the second activity, he was fully participating. Students still required pre-teaching to ensure that they moved quietly and safely through the classroom but, with short time frames for movement, students tend to exhibit more on-task behaviour in order to contribute to the task.

The on-line community was an encouraging aspect of this inquiry project. Although most of the other participants were resource or special education teachers and not working with mixed-ability classrooms, they had interesting suggestions for varied uses of the strategies since they had seen examples in small and large group situations and over a wide range of grade and ability levels. One teacher thought they would try to implement some sort of self-assessment in her group after sharing that my Grade 4/5 students were recording their responses to the activities. I was encouraged to try to convince our resource staff to become more involved with our exceptional students within the classroom to support differentiation in a whole group situation rather than only in small pull-out groups. Discussion of strategies followed the chapter headings in *Joyful Learning* (Udvari-Solner & Kluth, 2008), but I found that during this time period I was only able to utilize strategies in the first three chapters as these were a better fit with the learning outcomes of the curriculum being taught during the

four week period. The Wiki response to the readings by other professionals has prompted my own personal professional growth. Since the completion of Phase 1 of this project, I have made changes in my lesson preparation to ensure that an active learning component is scheduled into the lesson planning.

Phase 1 of this study contained a number of limitations. The short time period of this inquiry and the absenteeism of particular students prevented the collection of behaviour data. Observational data during activities demonstrated an improvement of on-task behaviour during the activity, but I needed further investigation to determine whether continued integration of active learning would improve behaviour during other activities and class assignments.

Phase 2 Observations

The commencement of Phase 2 of the research was delayed due to a change of teaching assignment after the first week of classes in September 2012. The original design of the research was intended to be carried out in a Grade 4/5 classroom that included some of the same students involved in the Phase 1 inquiry project. In the second week of September, my teaching assignment was changed from the Grade 4/5 grouping to a Grade 3/4 combination. As a result, none of the students in Phase 2 were members of the classroom involved in the action research in Phase 1. I was initially concerned that the Grade 3 students may have difficulty responding to the expectations of the research plan but after working with the students for the remainder of September, I felt that with slight adaptations, the same strategies and activities could be successfully used with the younger students and so the data collection and research began with Social Studies and Science instruction in October 2012.

One of the adaptations included a shortening of the observational time to 80 minutes

from the original 95 minutes of instructional time. Three of the identified students on Individual Education Plans who were tracked for on-task behaviour (Students One, Two and Four) received added reading support outside of the classroom in a small group setting during the last portion of the scheduled Social Studies and Science instruction time. I was able to use the time after these students left the classroom as a time for a writing or reflection assignment for the remainder of the class. As a result, the data collection reflects only the portion of the lesson that included active learning strategies incorporated into the planned lesson and not the written response time in many instances. Each of the three students required adult support to complete written assignments.

As outlined in the research plan, the Special Education resource teacher observed a Science class on September 27, 2011. During this class, the class brainstormed what they knew about the water cycle and ideas were recorded on the white board, students watched a short video clip explaining the water cycle, and then students were given a water cycle worksheet to colour, cut and paste to match pictures of the water cycle to the terms. The resource teacher noted that five students in particular had difficulty listening to the instructions, following directions and maintaining focus on the task long enough to complete the relatively simple cut and paste assignment. All students were able to maintain focus during the short video clip but lost focus soon after. Two students required constant supervision and redirection by the Education Assistant and me, the teacher. This left little opportunity to ensure that other students within the class could demonstrate an understanding of the water cycle, the vocabulary, or were completing the assignment correctly. The resource teacher observed five students as "off task". Only one of the five off task students was on an Individual Education Plan. Clearly, traditional whole group tasks, even simple cut and paste activities, were a challenge for this Grade 3/4 group. Planning would need to include much more movement and activity to engage all the students in the class.

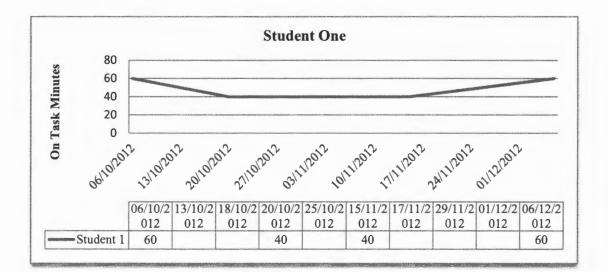


Figure 1a. On task minutes of Student One October 2012 to December 2012

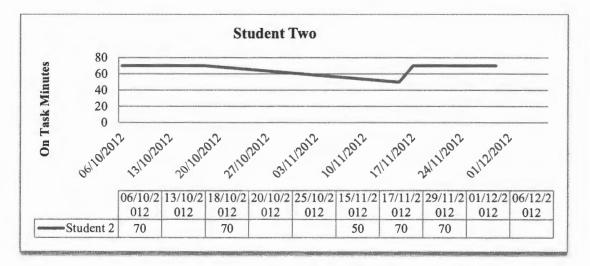


Figure 1b. On task minutes of Student Two October 2012 to December 2012

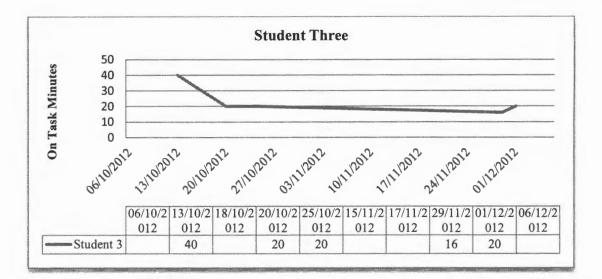


Figure 1c. On task minutes of Student Three October 2012 to December 2012

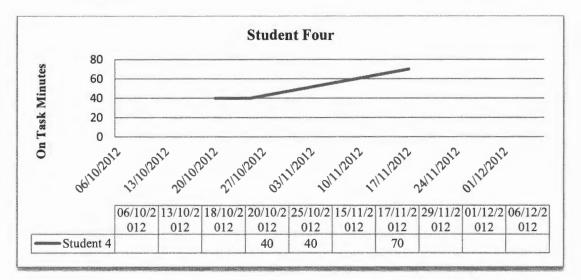


Figure 1d. On task minutes of Student Four October 2012 to December 2012

In response to the observations of the Special Education resource teacher, I began to include in my lesson plans a combination of activities for learning, demonstration of learning, and review of content for each 80 minute block. For example, in the following Science class, we began the class by having pairs of students match cards with names of the parts of the water cycle with the pictures as a review. While the students were matching the cards, each student had a phase of the water cycle pinned to his/her back. When the signal was given, the students had to ask questions to discover which word the students had taped on their backs giving only yes or no responses. As they correctly guessed the phase of the water cycle, they could go to the Education Assistant and she would pin another word on his/her back. I was able to observe and listen to see which students understood the vocabulary and were able to describe the phases of the water cycle. I was therefore also able to provide support to those students having difficulty understanding the concepts. As a further review of the vocabulary and phases, I used the snowball activity, where students had a description of a phase of the water cycle written on a piece of paper. Students then had to match the definition to the phase by finding the area of the room designated by a sign with the phase names. Students crushed the paper, threw it at the teacher at the front of the room, picked up a snowball, unfolded the paper and read the description and then moved to the corner of the room with the correct phase posted. Each group then chorused their definition of the phase with body actions to accompany the definition.

This progression of activities kept all the students engaged and on task since the pace was adjusted to match the interest level of the majority of students. For example, the activity with the phase names on their backs was changed once a couple of students began to show mastery of the material and I felt that students needing support were beginning to demonstrate understanding. Students were then given a study sheet to take home and a note was made in their agenda to study for a test on the water cycle for the following week. Each morning, students were reminded to study for the test, and the phases of the water cycle were briefly reviewed. During the next class period, students watched a second video clip explaining the water cycle, again reviewed the definitions and order of the phases with body actions and wrote a test on the water cycle. The grade four version of the test required slightly more writing of definitions from memory whereas the grade three version of the test was mainly matching questions. Two Grade four students received 9/10, three received 8/10 (one of these was a student on a behaviour IEP) and the last three received 6/10, two of whom were on IEPs and the third had missed the previous class. Among the Grade three students, one scored 9/10, one scored 8/10, two scored 7/10, two scored 6/10, one scored 3/10, one scored 2/10 (on an IEP) and one scored 0/10. It appeared that the Grade 3 students were not familiar with the concept of studying for a test and even though the material was presented in a variety of ways, the understanding was not solidified for all students in the class.

Through the remainder of the weather unit, I used a variety of strategies in each lesson time including a balance of book work using the science textbook, building of weather instruments with various materials and cloud posters with cotton balls, and incorporating review activities. Some of these activities were: the Walking Billboard, Hot Seat vocabulary review, Numbered heads (investigating four types of storms and sharing as "*the expert*"), the Whip activity in which each person had the opportunity to tell something they learned, Stand and Deliver to describe the effects of weather, and group vocabulary matching activities. Students were again given a study sheet one week ahead of the test, notes made in the agenda, and reminders with a short in-class review given daily.

At the conclusion of the weather unit, the Grade 4s received a slightly more difficult test than the Grade 3s. Of the Grade 4s, three received 14/14, two received 13/14 (one on an IEP), one received 11/14, and two received 8/14 (both on IEPs). Of the Grade 3s, four received 14/14, two received 13/14, two received 12/14, and one received 9/14 (on an IEP). In the Science class, it appeared that with continued application of active learning strategies,

all students were able to demonstrate mastery of the weather unit content and complete the test, even those students working under an IEP. The detailed, minute by minute, data revealed that the observed students remained on task during the activities, but still required support to complete written tasks or to follow along when looking for information in the text books.

As an example, on November 29th, students were required to create a weather web using information from their text books while working with a partner. Student Three (Figure 1c) was not able to remain on task for more than a few minutes at a time and required adult support to complete his work. Student Two (Figure 1b), however, was able to remain on task for most of the class. In my own observational notes, I recorded that many students required adult support to complete this new activity and that more students were off task than had been the case in the previous class that included more active learning strategies. When we moved into the group work of designing posters to demonstrate the concepts, the students were much more on task and worked cooperatively.

In Social Studies, I decided to plan the learning around collaborative group activities. Students worked in consistent groups for each project. Each class time consisted of short instruction or information review which sometimes included video clips or a story and then collaborative group time. The collaborative time allowed the adults in the class time opportunity to circulate among the groups, to support and assess the learning in each group. Strong students were grouped with weaker students and Education Assistants worked with IEP students. In some groups, leaders emerged to guide the activity whereas in other groups adults needed to direct or give suggestions for direction to the group. Students were assigned two main tasks during the Haida unit. The first task was to design a group crest such as a Haida family would display on shields or blankets. Each group looked at print resources and online resources for ideas and then created their own crests. As a class, we developed rubrics that we used after completion of the crests. Each group chose one person to present and explain their group crest and the remainder of the class marked each group according to the rubrics. For the second task, four collaborative groups were created allowing students to work with different class members. The second task required each group to represent the traditional Haida people in a particular season. The group could choose how to represent the season in any way they wished. All chose to create a scene of a village with textures added to depict homes, canoes, tools, etc.

I left instructions for two consecutive Social Studies classes for a substitute teacher to continue the assignment while I attended workshops. The notes left by the substitute indicated that students were not focused and had difficulty working together. In my own notes, I recorded that the groups with adult assistance remained on task and were more productive than the groups that worked on their own. As with the first task, the class developed the marking rubrics before beginning the assignment and prepared to present their projects upon completion. The students asked more questions and were more accurate with their marking on this second task. Information from the projects was recorded on a study sheet that was taken home to prepare for the test the following week. On the day of the test, students were given an opportunity to review in pairs and the *Stand and Deliver* activity was used a whole class review before writing the test. Since this test required more reading ability than the Science test, individual students were taken from the class so that the Education Assistant could help with the reading for those students who struggled with the reading. The

remainder of the students completed the test in the classroom and raised their hands when they had a question. Of the Grade 4 students, three scored 18/18, one scored 16/18, two scored 15/18, and one scored 8/18. In the Grade 3 group, three scored 18/18, one scored 15/18, one scored 14/18, one scored 13/18, two scored 12/18 and one scored 8/18. Students were settled and confident in their abilities and completed the tests with minimal adult assistance.

Chapter 5

Evaluation of Study: Conclusions and Recommendations

This group of Grade 3/4 students had many learning challenges, both behavioural and cognitive. Although only four of the students were tracked for the purposes of their IEPs, four other students are significantly below grade level and waiting for assessments. The reading ability of students ranged from early Grade 1 to Grade 5 level. It is a challenge to engage all students in learning when the ability level is so diverse. The active learning and collaborative groupings allowed the stronger students to develop some leadership skills while the students with reading challenges were able to contribute to the learning through hands-on participation during both the Science activities and the Social Studies projects. The collaborative groups were a challenge for the Grade 3 students, but the structure allowed for much more adult support and input to individuals who required support and to develop leadership in other students. Presentation skills were weak and more instruction is needed to develop competence in this area, but these were the first opportunities for many of the students to participate in a presentation.

In my notes, I compared the on task behaviour of students during times of reading the text book as a whole class, whole class discussions after reading or after a video, and on task behaviour during group work and active learning activities. The on task behaviour was highest during active learning activities. The group work required adult intervention to keep all students on task. However, all of the strategies allowed me the opportunity to provide individual support where needed and the opportunity to observe student learning in a manner that is not possible when students are completing worksheets or individual writing assignments. The test results in both Social Studies and Science were encouraging and I felt

that students generally had a grasp of the basic concepts and that the learning outcomes for the units of study were met. The final observation by the Special Education Teacher noted that the noise level was minimal during the active learning activity and that all but one of the students was engaged and on task. I felt that the combination of active learning strategies, collaborative group training, and Education Assistant support worked together to increase the achievement of the learning outcomes during this fall term of instruction.

Limitations of the Study

A limitation in the Phase 2 study was in the data collection of the Education Assistant. Since her assignment was to collect data on students with behaviour or academic plans in place, only those students who fell into that category had regular data collection throughout the study. Other struggling students only had pre- and post- observational data collected by the Special Education teacher and anecdotal observations by me. The Education Assistant is only able to chart effectively for two students in a class period, so that not all students were tracked during all activities, making the data difficult to compare. The other limitation was in the sporadic attendance of some of the students. This also limited the number of observations on some of the students.

I feel that this project is still a work in progress. The journey to make accommodations for my students through active participation is just beginning. It is difficult to break free of established routines and to focus on helping my students reach the full potential of their abilities. I hope to assist my students in becoming energetic members of a community, aware and respectful of others around them. My responsibility is to maintain clear standards, adjust my teaching to meet the needs of the learners, and to maintain balance within the class by creating efficient classroom structures so that students know what to do next.

The goal is to teach students self-management strategies and to remove the dependence on adult responses while maintaining high expectations within the class. As the composition of the students in each class is continually changing, so too the changing needs require the teacher to have available a variety of strategies aimed at engaging students in their learning. I felt that, overall, the strategies employed provided all students the opportunity to meet the learning outcomes at their own ability level and that the students were able to demonstrate confidence in their knowledge on the subjects studied.

References

- Butler-Kisber, L. (editor). Learning landscapes: Inquiry, perspectives, processes and responsibilities. Spring 2011 Vol. 4 No. 2; www.learnquebec.ca
- Earl, L. (2003). Assessment as learning: Using classroom assessment to maximize student learning. Thousand Oaks, CA: Corwin Press.
- Frey, N., Fisher, D., Everlove, S. (2009). Productive group work: How to engage students, build teamwork, and promote understanding. Alexandria, VA.: Association for Supervision and Curriculum Development.
- Gregory, G. (2003). Differentiated instructional strategies in practice: Training, implementation, and supervision. Thousand Oaks, CA. Corwin Press.
- Harmin, M. & Toth, M. (2006). Inspiring active learning: A complete handbook for today's teachers, 2nd Edition. Alexandria, VA.: Association for Supervision and Curriculum Development.
- Sternberg, R. (1985). *Beyond IQ: A triarchic theory of human intelligence*. Cambridge, MA: Cambridge University Press.
- Stiggins, R., Arter, J., Chappuis, J., Chappuis, S. (2006). Classroom assessment for student learning: Doing it right using it well. Portland, OR: Education Testing Service.
- Strickland, C. (2009). *Professional development for differentiating instruction*. Alexandria, VA.: Association for Supervision and Curriculum Development.
- Tomlinson, C. (2003). Fulfilling the promise of the differentiated classroom: Strategies and tools for responsive teaching. Alexandria, VA.: Association for Supervision and Curriculum Development.
- Tomlinson, C. (2001). *How to differentiate instruction in mixed-ability classrooms 2nd Edition.* Alexandria, VA.: Association for Supervision and Curriculum Development.
- Tomlinson, C. (1999). *The differentiated classroom: Responding to the needs of all learners.* Alexandria, VA.: Association for Supervision and Curriculum Development.
- Udvari-Solner, A. and Kluth, P. (2008). Joyful learning: Active and collaborative learning in inclusive classrooms. Thousand Oaks, CA: Corwin Press.

Vygotsky, L. (1962). Thought and language. Cambridge, MA: MIT Press.

UNIVERSITY OF NORTHERN BRITISH COLUMBIA

RESEARCH ETHICS BOARD

MEMORANDUM

Louise Rompen Peter MacMillan
Greg Halseth, Acting Chair Research Ethics Board
October 24, 2011
E2011.0912.094.00 Joyfull Learning: Using Active and Collaborative Learning Activities in the Inclusive Classroom

Thank you for submitting amendments to the above-noted proposal to the Research Ethics Board.

These amendments have been approved for a period of 12 months from the date of this letter. Continuation beyond that date will require further review and renewal of REB approval. Any changes or amendments to the protocol or consent form must be approved by the Research Ethics Board.

Good luck with your research.

Sincerely,

Dr. Greg Halseth Acting Chair, Research Ethics Board



School District No. 91 (Nechako Lakes) P.O. Box 129, Vanderhoof, B.C. VOJ 3A0 Telephone: (250) 567-2284 Fax: (250) 567-4639

April 12, 2011

Louise Rompen c/o William Konkin Elementary School Box 7000 Burns Lake, B.C. V0J 1E0

Dear Louise:

Your request for permission to conduct your research entitled "Collaborative Learning Activities in an Inclusive Classroom" was approved at the board meeting of the Board of Education, School District No. 91 (Nechako Lakes), on Monday, April 11, 2011. I have reviewed your inquiry project of using a variety of active and collaborative strategies to engage students in your classroom and to share your observations with other teachers through an online book club. I look forward to hearing about your results.

Please ensure that participation of students is voluntary and that confidentiality will be maintained in any online discussions. Good luck on your inquiry project, Louise.

Sincerely yours,

Charlene Seguin Acting Superintendent of Schools/ Assistant Superintendent

CS/cp cc:

Lisa Ketlo, Principal William Konkin Elementary School

Dr. Willow Brown UNBC School of Education

Appendix 3 Phase 1

LETTER OF CONSENT

February 2011

Dear Parents and Guardians:

I am currently working to complete a master's degree in education. As our assignment for this term, we are required to carry out an Inquiry Project. The project that I have chosen involves integrating active and collaborative learning strategies into various subject areas in our classroom during the next two months. Students will be asked to assess their own participation and the effectiveness of the group collaboration in each activity. I will also observe students for their interest in using the new learning strategies. The use of active and collaborative learning is intended to encourage all students in the class to participate in their own learning. Past research has shown that students become more engaged, are able to make meaning of the material and are able to demonstrate what they know when they feel actively involved. The strategies allow for differentiation and individualization of programs to meet the needs of students of all levels. The use of self and group assessment is a requirement in the Grade 4 and 5 curriculums.

The strategies to be implemented in the classroom are an extension to activities that have been employed throughout the year. The need for consent is a result of the data collection that will be shared as an assignment for the University of Northern British Columbia. All students will be completing the activities in the normal course of learning the prescribed BC curriculum. With your consent, my observations on your child's progress will become a part of my report and possible presentations to other teachers.

All reporting will be anonymous. No real student names will be used. Confidentiality will be maintained by not discussing specific student needs. General trends in student responses will be included. If you choose to have your child participate in the inquiry, you may also choose to withdraw at any time, and if you do so, none of your child's information will be used. The data and responses will be collected by myself (Ms. Rompen). These will be stored and locked in a school filing cabinet and the raw data will be shredded at the end of 2011. Electronic data will be stored on a password protected computer and deleted at the end of 2011. Copies of the report will be available at the School District No. 91 School Board Office in Burns Lake.

If you have questions regarding the reporting process, please contact me at school. You may also contact my instructor, Jane Anderlini at 250-960-5319 or my inquiry supervisor, Dr. Willow Brown at 250-960-6262.

Yours truly,

Louise Rompen, William Konkin Elementary School

February 2011

LETTER OF CONSENT

I ______ (parent/guardian) give my consent for information gathered in the classroom of Louise Rompen at William Konkin Elementary School involving _______ (student) be included in a published report and in presentations for other teachers. I understand that the data collected will be destroyed at the end of 2011 and reporting will be anonymous and confidentiality will be maintained.

Date _____ Signature _____

LETTER OF CONSENT

September 2011

Dear Parents and Guardians:

I am currently working to complete a master's degree in education. As our final assignment for this degree, we are required to carry out an Research Project. The project that I have chosen involves integrating active and collaborative learning strategies into Social Studies and Science classes in our classroom during this reporting term of September through to the end of November. Students will be asked to assess their own participation and the effectiveness of the group collaboration through the term. I will also observe students for their interest in using the new learning strategies.

The use of active and collaborative learning is intended to encourage all students in the class to participate in their own learning. Past research has shown that students become more engaged, are able to make meaning of the material and are able to demonstrate what they know when they feel actively involved. The strategies allow for differentiation and individualization of programs to meet the needs of students of all levels. The use of self and group assessment is a requirement in the Grade 3 and 4 curriculums.

The strategies to be implemented in the classroom are an extension to activities that have been employed in past years. The need for consent is a result of the data collection that will be shared as part of the research for the University of Northern British Columbia. All students will be completing the activities in the normal course of learning the prescribed BC curriculum. With your consent, my observations on your child's progress will become a part of my report and possible presentations to other teachers.

All reporting will be anonymous. No real student names will be used. Confidentiality will be maintained by not discussing specific student needs. General trends in student responses will be included. If you choose to have your child participate in the inquiry, you may also choose to withdraw at any time, and if you do so, none of your child's information will be used. The data and responses will be collected by Ms. Rompen. These will be stored and locked in a school filing cabinet and the raw data will be shredded at the end of 2012. Electronic data will be stored on a password protected computer and deleted at the end of 2012. Copies of the report will be available at the School District No. 91 School Board Office in Burns Lake.

If you have questions regarding the reporting process, please contact my supervisor:

Peter D. MacMillan, PhD, Associate Professor Chair, School of Education Cross Appointment: School of Health Sciences University of Northern British Columbia

TAL 10-4026, 3333 University Way Prince George BC V2N 4Z9 CANADA TEL 250.960.5828 FAX 250.960.5536. peterm@unbc.ca

or address concerns to:

University of Northern British Columbia Research Ethics Board 3333 University Way Prince George BC V2N 4Z9 CANADA reb@unbc.ca or 250.960.6735

Yours truly,

Louise Rompen, William Konkin Elementary School

September 2011

LETTER OF CONSENT

I ______ (parent/guardian) give my consent for information gathered in the classroom of Louise Rompen at William Konkin Elementary School involving _______ (student) be included in a published report and in presentations for other teachers. I understand that the data collected will be destroyed at the end of 2012 and reporting will be anonymous and confidentiality will be maintained.

Date _____ Signature _____

49

Research Assistant Confidentiality Agreement

This study, Joyful Learning: Using Active and Collaborative Learning Strategies in an Inclusive Classroom, is being undertaken by Louise Rompen at the University of Northern British Columbia.

The study has two objectives:

- 1. To plan, implement and evaluate active and collaborative learning strategies to engage all students within the classroom.
- To examine data collected during Social Studies and Science lessons to determine if active and collaborative strategies result in behavioural changes for students on Individual Education Plans.

Data from this study will be used to examine behaviour changes during the course of the study.

I, _____, agree to:

- Keep all the research information shared with me confidential by not discussing or sharing the research information in any form or format (e.g. disks, tapes, transcripts) with anyone other than the Principal Investigator(s);
- 2. Keep all research information in any form or format secure while it is in my possession;
- Return all research information in any form or format to the Principal Investigator(s) when I have completed the research tasks;
- 4. After consulting with the Principal Investigator(s), erase or destroy all research information in any form or format regarding this research project that is not returnable to the Principal Investigator(s) (e.g. information sorted on computer hard drive).

Research Assistant:

(print name)

(signature)

(date)

Principal Investigator:

(print name)

(signature)

(date)

If you have any questions or concerns about this study, please contact: Peter D. MacMillan, PhD, Associate Professor Chair, School of Education, University of Northern British Columbia TAL 10-4026, 3333 University Way Prince George BC V2N 4Z9 CANADA TEL 250.960.5828 FAX 250.960.5536

This study has been reviewed and approved by the Research Ethics Board at the University of Northern British Columbia. For questions regarding participants rights and ethical conduct of research, please contact the UNBC Office of Research at 250.960.6735

When I work with others

Points	Rating	When I work in a group
		I give others a chance to speak
		I try to understand the ideas of others
		I speak up when I have an idea
		I give facts and opinions to support my ideas
		I ask for more information if I disagree with someone
	Total points	

= EXCELLENT(4) = GOOD(3) = NEEDS IMPROVEMENT(2) = POOR(1)

••						-															T	T	Т	Т	—	T									
ă,															-																				
					v																														
								-																											
							_																												
Name		 _	-				-										_					_	+			-									
Student Name																																			

· ·																																			
		 - 9:10	- 9:20	1 - 9:30	9:30 - 9:40	10.00	- 10-10	- 10:20	1 - 10:30	1 - 10:45	- 10:55	- 11:05	- 11:15	- 11:25	- 11:35	- 11:45	- 11:55	- 12:05	- 12:15	- 12:25	- 12:35	- 12:45	5 - 1.05	1:05 - 1:15	- 1:25	- 1:35	- 1:45	- 1:55	- 2:05	- 2:15	- 2:25	- 2:35	- 2:45	- 2:55	- 3:05
DATE		 9:00	9:10	9:20	0:30	0. EQ	10.00	10:10	10:20	10:30	10:45	10:55	11:05	11:15	11:25	11:35	11:45	11:55	12:05	12:15	12.25	12.30	17.54	1:05	1:15	1:25	1:35	1:45	1:55	2:05	2:15	2:25	2:35	2:45	2:55