Passion in Professional Practice

Action Research in Grand Erie

Volume VI

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Edited by Jacqueline D. Delong and Heather Knill-Griesser

Every effort has been made to credit the work of other authors included in this publication. In the event that items have been missed, we ask that you contact the publisher.

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Part I

Action Research in Grand Erie

About This Book

Dr. Jacqueline Delong

Dr. Jacqueline Delong and Heather Knill-Griesser

We are pleased to present this sixth volume of the work of action researchers in the Grand Erie District School Board (GEDSB). It is a significant contribution to the professional knowledge base of teaching and learning as it builds on Professional Practice, Volumes One through Five.

The work in this book is based on the work of Jack Whitehead at the University of Bath, UK where the "living educational theory" model of action research puts the researcher at the center of the research. "How can I improve my practice?" becomes the catalyst for the investigation by the teacher, with students in the classroom. Action! Research for Teaching Excellence (2005) by J. Delong, C. Black, and Ron Wideman is a professional resource that acted as a guidebook to new and experienced researchers in the application of the processes of action research. Thank you to Cindy McMaster and Sharon Laidlaw for editing assistance. As well we would like to recognize Karen McDonald for the cover design.

The content of this book is as follows:

Heather Knill-Griesser

Part I, "About This Book" sets the stage for the projects that represent a variety of levels of experience in teaching and research in Grand Erie.

Part II, "Assessment for Improvement" demonstrates action research in practice with a focus on data driven decision making. Some projects use assessment frameworks to collect performance data and divisional learn teams are involved in the data analysis and subsequent instructional planning.

Part III, "Special Education", investigates the changing role of the Learning Resource Teacher and strategies used to support students with special needs. It also includes the use of music, non-verbal messaging and Differentiated Instruction to improve learning.

Part IV, "Special Projects" includes projects that meet the needs of students through Healthy Lifestyles, and Virtual Projects.

Part IV, "Appendices", includes a DVD of the Virtual Grand Erie Project.

Congratulations to the authors of this book for your dedication and commitment to continuous professional growth and success in improved student learning. A special thanks to Dianne Morgan for facilitating the research groups.

References

Delong, J., Black, C., and Wideman, R. (2005). *Action! Research for Teaching Excellence*. Barrie, ON: Data Based Directions Quality Resources for Educators.
Whitehead, J. (1993). *The growth of educational knowledge: Creating our own living educational theories*. Bournemouth: Hyde, 67.

Part II

Assessment for Improvement

How can I most effectively support the teaching team in their journey to improve student learning through the use of strategic teaching practices that are data driven?

Annette Blake

Biography
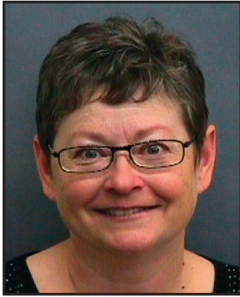
Annette Blake is an educator with a passion. As a professional, she makes it a priority to learn as much as she can, and to share her passion for learning, her excitement, her work, beliefs, questions, and thoughts with colleagues. She believes it is through this process that trust is earned and meaningful relationships forged. Annette believes colleagues use positive interrelationships to support each other, to stay focused on the positive and the task at hand, ensuring that our children learn. She believes her personal values, which include integrity, honesty, and work ethic, must be the driving force behind all that she does. She believes that being proactive, being willing to take action based on what we know and value to be important, and needed, are the first important steps on any journey. Annette feels privileged to be able to share her knowledge and her love for the art and science of teaching. She considers herself indeed fortunate to walk the path of continuous learning.

Abstract

This paper chronicles a journey, a journey that began as a means to align assessment and evaluation practices across the divisions at Oakland-Scotland Public School, and resulted in the creation of a collaborative teaching team focused on the development and sharing of effective teaching strategies that respond to the specific needs of their students.

In the beginning . . .

It was in the fall of 2005 that Hazel Rook, Principal of Oakland Scotland Public School, approached the teachers' consultant team to assist with an initiative she wished to undertake in her school. Her goal was to align assessment and evaluation practices at the school. Could we help?

As a primary, junior, intermediate consultant team, we devised a plan, supported by Hazel, to develop a common assessment, accompanying rubrics, and engage in some moderated marking with the staff. Teachers would be released for half day blocks of time in order to facilitate this undertaking. Our goal was ambitious.

In partnered teams, teachers created a rubric to assess narrative texts written by their students. We collated and analyzed the resulting rubrics to ascertain what each teacher partner valued in a piece of narrative writing. The results were interesting, and varied. For a number of reasons this process did not come to fruition, nor achieve the anticipated outcome (alignment of assessment and evaluation practices across the divisions in the school). Nevertheless, it proved to be instrumental in setting the stage for what was to follow because it laid the foundation for the truly meaningful work that was to come.

More questions than answers were elicited. We were intrigued. We wanted answers. We wanted results - for ourselves as professionals, and for the students in our care. With Hazel's encouragement and support, we decided to embark on a new path. Our focus had changed somewhat. We now spoke almost entirely about deepening children's comprehension abilities, and using Action Research as the vehicle for our journey.

The path ahead . . .

The junior team, Charlotte, Jayne, Carol and I were very excited by the prospects presented by our Action Research initiative. I know for my part, I looked forward with anticipation to the role I would play. With assessment still in the forefront of our minds, we decided we needed a common assessment to provide us with the data that would inform our practice. It was decided, by the group, that I would provide in-service in the use and implementation of the CASI (Comprehension, Attitude, Strategies, Interests) Reading Assessment tool by Thomson Nelson. From this, we would get our common baseline and summative data, and identify the foci for our strategy lessons. It was in this context that my initial action research question was posed. It read as follows: How can I most effectively support the teaching team in their journey to improve student learning through the use of strategic teaching practices that are data driven?

The journey commences . . .

Charlotte, Jayne, Carol and I embarked on this journey together as comrades of like mind and purpose. We did it for ourselves, as professionals, and as learners. We did it for our students, the learners currently in our care, and for those yet to come. From the beginning of our work together, I felt the collegiality the teaching team shared. In my journal, I wrote of my excitement. The members of the teaching team also expressed their own excitement with the prospects this action research presented to them. (Discussion notes, Jan. 11, 2006) We didn't know it at the time, but the beginning of true team building and collaboration had begun.

Given my prior knowledge and experience with the CASI assessment tool, it was my responsibility to support the team in CASI's implementation. We looked at its basic components (attitude survey, interest inventory, reading passages, and reading interviews), their respective uses, and implications for programming. After its administration, we carefully analyzed student responses and, as a team, practiced scoring the reading passages. In addition to this moderated marking, we used a shared template that helped identify, organize, and track individual students' subset skills for programming needs. (Refer to Appendix A) This framework aligned classroom practice, and assisted with grouping students for targeted, differentiated instruction. It would also serve to track student growth over time.

Charlotte was the first to voice her surprise at the results of the CASI assessment. More students scored at level 2 than she had anticipated. She noted that their answers lacked the level of complexity needed to achieve the standard, level 3. (Discussion notes, Feb. 14, 2006)

Reflecting upon her students' CASI results, Carol identified a discrepancy between what the students could do orally, and what they could achieve in written form. Developing lessons to bridge this gap was something Carol felt warranted further attention. (Discussion notes, Feb. 14, 2006)

From her data, Jayne identified reasoning as a significant area of weakness for her students. (Discussion notes, Feb. 14, 2006)

A shift in thinking, supported by our ongoing dialogue, had begun to occur. The change was subtle at first, but quickly rooted itself in our shared values. Group discussions no longer focused on our teaching of the program. We had begun instead, to discuss what the data from our common assessment tool told us about our students and what those students most needed to learn in order to be successful. Our discussions had become more learners centered! We began brainstorming, and the group planned common, as well as specific lessons to meet specific student needs.

I felt confident that the teaching team was on the right track. They shared and responded passionately and sincerely to one another, demonstrated active listening, and addressed one another's ideas. (What is collaboration, if not this? It was rewarding to witness!) The team was very knowledgeable and knew what they valued in the reading process. Charlotte, Carol and Jayne were able to articulate clearly what it was they wanted their students to know and learn. Over the course of our discussions, they readily focused on higher order processes, and prioritized. It was invigorating to witness how the teaching team shared and responded to each other. The recursive nature of our interactions, building on prior learning to extend and expand our knowledge, conceptually and in practice, was rewarding and motivating for all concerned.

A time to rest, reflect, and plan for the journey ahead . . .
Since my contact with the team was limited, I wished to ensure that the work we were doing, and the role I was playing, specifically, was meaningful. I had begun to question the level of support I was able to provide, my efficacy, and truthfully, I missed the excitement the hands-on work in the classroom provided.

In various journal entries, I had mentioned that Carol, Charlotte and Jayne, based on their own needs, seemed to respond favorably to various tidbits of information, knowledge, or ideas we shared. I had observed that team members made note of the teaching suggestions, lesson ideas, possible extensions I presented, and later discussions confirmed that the teaching team had, in fact, tried these suggestions in their classrooms. But these journal entries reflected my perspective, and I wished to know whether or not my observations would align with their thoughts and feelings. With this leg of our journey completed, it seemed the perfect time for the group to reflect, and offer feedback.

Carol observed that the CASI data directed our focus so we were more able to plan effectively, and scaffold skills, to teach students what they needed. She appreciated it when I paraphrased what I saw happening because she felt it helped the group focus on highlights, connections, extensions, and potential next steps. She liked the many questions I asked of them to help guide their thinking. She felt my participation helped her work through the process herself as she revamped and refined her initial thoughts. Again, this speaks to the recursive nature of our undertaking. (Discussion notes, April 21, 2006)

All three team members, Carol, Jayne, and Charlotte commented that they appreciated the guidance. They told me that they appreciated the fact that I was able to help them identify what was important, where to begin, and how to track their data and use their results in immediate and relevant classroom applications. They liked the template I provided them because it connected the data and it helped focus their results. They felt that my participation meant the project was "not as overwhelming as it seemed to be from the beginning." (Discussion notes, April 21, 2006) As Charlotte said, "Teachers don't have the time to read through all the material relevant to this work." In their eyes, my participation "increased the comfort level and lessened the time commitment."(Discussion notes, April 21, 2006) In some odd way, as Jayne had written to me in an e-mail just the day before (April 20, 2006), I had become a resource.

As always, our discussion turned to the children in the classroom, and the impact our strategies and lessons were having on them, and their learning.

Jayne recounted how her use of more probing questions was eliciting evidence of deeper understanding, and that her explicit modeling was helping students know exactly what it was they were expected to do, what it looked like, and how it was done. Jayne had a sense that her students were thinking more deeply, and she was witnessing their intrinsic motivation to revisit texts, and engage with activities over extended periods of time. Students, totally engaged with these tasks, continued to work on them to their completion, without external motivation from her, as their teacher. I asked her if this was different from what she would have experienced in the past. Her response was a resounding, emphatic yes! (Discussion notes, April 21, 2006)

To illustrate, Jayne shared her recollection of a strategy lesson that resulted in a student who rarely shared, speaking out at length about her identification with a character in a particular text.
I watched and listened as Charlotte, too, shared a similar story. She described a 'non reader' in her class who had begun actively searching out texts to read, and initiating discussions about these texts with others. (Discussion notes, April 21, 2006) Carol shared that she received a letter from home about one of her students. It was filled with positive comments about the student's attitudinal change and growth. (Discussion notes, April 21, 2006) These stories, among others, demonstrate the impact changing our teaching practices can have on student learning. They speak to the success of the initiative. They speak to the dedication and hard work of the teachers involved. Success breeds success, and passion is contagious. Responses such as these are powerful motivators for teachers and students alike in our struggle to do the best we can.

And so, the journey continues . . .
Near the end of our time together, I asked the team:
Has the way you worked together changed? If so, how?
Has my involvement in the project changed the way you work together? Explain.
Has my involvement in the project changed its outcome, in your opinion?

The manner in which the team worked together had always been collegial, but as evidenced by their collective work over the course of this project, it evolved into collaboration. (E.g., The level of dialogue they shared, the work they did together creating a binder for shared, common lessons

and comprehension strategy units, their collaborative use of data to identify common needs and develop strategic lessons).

For my part, the team recognized the role I played in facilitating their acquisition of a 'common language' and as Jayne stated, "The sense of the larger picture that I provided." Carol commented on the excitement and positive feedback I shared with the team, and how motivating it was. (Discussion notes, April 21, 2006) Everyone had been given the opportunity to contribute, feel valued, learn from, and work with others. It seemed that my influence had effected some change in the overall team dynamics.

Carol's words resonated with me when I asked the final question. She replied, "We scaffold for our children. It's a different level of scaffolding. You scaffolded for us in our professional learning to work successfully with our kids, to help us go deeper, and refine what they are learning. It would not have been as effective or successful." (Discussion notes, April 21, 2006)

I was honestly overwhelmed by the gracious and positive feedback I received from the team, but it made me think: What in their responses could identify what worked well to support their needs? How could I refine these skills to become more effective in the future?

In the end, I think what I was really asking myself was: In my support staff role, how can I most effectively support teachers, and in this way, improve student learning?

What I believe I accomplished was to mentor and facilitate effective personal professional development through meaningful dialogue and professional collaboration, and in this way impact student learning in a positive way.

Ultimately, through this process, each of us, as an educator, has evolved. We are changed. And so, the journey continues . . .

In closing, I wish to express my sincere thanks to Hazel Rook, for planting the seed that opened the way for this all important professional dialogue, to the teaching team, for welcoming me as a member of their learning team, and to Diane Morgan, for her positive leadership and support along the way.

CASI

Name: _____   Assessment Date: _____

Title: _____

Assessment Category	Observations	Next Steps
Reasoning Question/Level 1 _____ 2 _____ 7 _____		
Communication Question/Level 8 _____ 9 _____		
Organization of Ideas Question/Level 5 _____ 6 _____		
Application of Language Conventions Question/Level 3 _____ 4 _____		

How can we broaden students' understanding of what reading is through the home-school connection?

Karen Francisca
Karen England

Biographies
Karen Francisca has been teaching for fourteen years, mainly in the primary division and special education. Karen England has been teaching for four years, in the primary division and special education. They are currently in a teaching partnership at Oakland-Scotland School. They are the notorious Karen and Karen duo. They both teach a blended class of junior and senior kindergarten (JK and SK) and are the learning resource teachers (LRT). They perform these roles on alternate days. This has been their first experience with Action Research and they have been very appreciative of the company on this learning journey!

The Question
How can we broaden students' understanding of what reading is through the home-school connection?

In the beginning...
Our classrooms are in many ways typical rural Kindergarten classes, except that we are very lucky to have classes that stay consistently around 17 students per class. They are blended JK/SK programs with slightly more JK students than SK students. At this time there are no exceptional students, one English as a Second Learner (ESL) student, four students receiving speech and language assistance, and one student receiving fine motor assistance. These students are balanced between both classes.

Our school plan had a focus on literacy for this school year. In the first term, as part of this plan each classroom teacher was asked to survey our classes using the CASI (Comprehension, Attitude, Strategies, Interests) Reading inventory tool by Thomson Nelson. As this was not age appropriate, we developed our own simple student reading inventory. Based on this student reading inventory, what became very obvious was that the students were unsure of what "reading" really meant. When students were pressed to answer, the majority of students answered that reading meant bedtime stories and that mom was the one who would read these stories with them. The results of this student reading inventory puzzled us. Our classes this year had several academically strong students with supportive parents. We had predicted that these students would be able to give us a broader description of what materials people read and who reads - but they didn't.

Once we looked at the results, we thought that it would be important for us, as teachers, to educate parents and further develop the home-school literacy connection. (Prior to this student reading inventory we already had Snuggle Up and Read bags, library books and Jolly Phonics workbooks going back and forth between the home and school.) At about this time our principal became enlightened about action research and persuaded staff members to become involved in action

research for the current school year. We decided to participate since we already had a research question formulating.

Getting Started
At this point we decided to narrow our focus to the senior kindergarten part of our JK/SK classes. We did this because we wanted to have manageable data to work with as well as these students were farther along on the reading continuum. We also had built a relationship with these parents from having them the previous school year which meant that we were confident that these parents would actively participate in this research.

We sent home our initial invitation (and permission) to participate in our research. Once again, we were surprised by the low numbers of families agreeing to participate.

The Baseline
Parent Survey
We sent home a letter explaining our parent survey (Appendix A). The letter explained how mom and dad were to independently fill out their surveys regarding what reading activities they perceived to be happening in their household. This survey gave us a baseline of what types of reading activities were happening outside of school and who was involved in these reading activities from both parent's perspectives.

From this parent survey we made several discoveries. We were pleasantly surprised that a greater variety and intensity of reading activities were going on at home than our students had previously told us (with reference to the student reading inventory from first term). We also found out that the majority of bedtime reading was done by dads, contrary to what the students had said. Moms however interacted with reading activities twice as much as dads, with no differences found on weekends. Interestingly, moms read newspapers and read on the computer more than dads.

Developmental Reading Assessment (DRA) tool by Pearson
To further our understanding of the children's reading ability, we assessed each student using the DRA. The DRA is a diagnostic one-to-one assessment of both decoding and comprehension. According to this assessment, the majority of students in both classes achieved in the emergent or early reader levels and one student achieved in the transitional level.

Definitions of DRA Stages
DRA levels are defined as follows:

> *Emergent*
> Consists of repeated word of sentence pattern with natural language structures. The simple illustrations include animals and objects familiar to primary children and highly support the text. One line of text appears on the left hand page. The words are large and well spaced so the children are able to point as they read. The number of words in the text ranges from 10 to 36 (Beaver, 2000, p. 9).

Early Reader

Consists of simple stories that contain repetitive words, phrases and actions. They use mostly predictable language structures. The stories include characters and experiences that are familiar to primary children and pictures still provide much support. One to three lines of text are generally placed below the picture. The number of words in the text ranges from 46 to 75 (Beaver, 2000, p.10).

Upper Early Reader

Stories about children and problems to which children can relate. There is some repetition of events in each of the stories. Book and oral language structures are integrated and the number of high frequency words is expanded. The illustrations give moderate support, provide information about the setting and suggest the sequence of events. The text, consisting of 2 to 6 lines, is located under the illustrations. The number of words in the text ranges from 86 to 207 (Beaver, 2000, p. 11).

Transitional

The characters are either imaginary (giants and elves) or animals with human characteristics. The content begins to move beyond students personal experiences and builds a basis with which to compare and contrast other stories. Literary language structures are integrated with natural language. Some description of characters and setting is included. Illustrations provide moderate to minimum support. The text may be 3 to 12 lines above or beneath the illustrations, or a full page. The number of words in these texts starts at 266 and increases with each level of difficulty" (Beaver, 2000, p. 12).

Taped Student Interview

We conducted taped interviews of each SK child that was participating in our research. We asked the following questions:

What does reading mean?
What do you read (or try to read)?
Does your Mom read? What does she like to read?
Does your Dad read? What does he like to read?

From this taped student interview, we learned that the children's understanding of the variety of reading materials was larger than what they initially told us in the reading inventory. The majority of students were able to state that moms, dads and kids were reading books, magazines and newspapers. One student, that achieved the highest DRA reading level showed a noticeably higher understanding of the variety of reading materials. He was able to state 26 different kinds of materials that a mom, dad or child could read. He was able to report the usual books, magazines, and newspapers, but he expanded to include mail, cards, signs on buildings, computer screens, and animal collars/tags. This correlation of a high DRA reading level and a great understanding

of possible reading materials was interesting to us. We wanted to further investigate the situation surrounding this wonderful result.

Baseline Summary

From these initial assessments we observed that all readers were on the reading continuum and most were in the emergent stage. We also observed that the majority of families continued to provide limited exposure to the large variety of reading formats available. For example, a typical family would enjoy bedtime stories, reading on the computer and share newspaper reading, however they would consistently read the same formats with no variety in their reading "diet." Hence, each child could name about three different types of reading formats, but no more. At this point we were also trying to make some direct connections between the home reading diet and the children's oral capacity to describe reading formats. It was becoming clearer that home reading exposures directly effect the children's understanding of reading formats, even though in the classroom setting, they were receiving a varied reading "diet."

The Process

Keeping in mind our baseline data, we decided to take action! We needed to ensure that parents were improving the variety in their home reading diet since they have their children on a daily basis and we only see them for ten to fifteen hours per week. We wanted them to ensure that their children took special notice that reading was more than bedtime stories, magazine and newspaper reading. Therefore, we devised a Read and Share Checklist to be filled out weekly by our participating families (see Appendix B). This checklist was sent home and returned weekly. When it was returned, students were to bring their favourite home reading activity from that week to share with the class. It was clearly stated that we were looking for new reading activities (that stayed away from bedtime stories). To keep track of what students brought to share, we made a large graph of all of the types of reading activities. The headings for the graph matched the headings on the Read and Share Checklist. We prepared orange squares for students involved in the action research and yellow squares for the students who were simply inspired to participate as a result of the other students' sharing.

Once again, we were surprised by the results of the Read and Share! Children involved in the research predominantly brought in bedtime stories to share. Only eight out of twenty-five Read and Share activities were things other than bedtime stories/pleasure books. We also must have been naive to have thought that the students would be inspired to bring in, read, and share activities on their own initiative. There were none forthcoming. We tried generating excitement via conversation and compliments given to the Read and Share students but to no avail. We were perplexed. How is it that children would want to bring in a typical bedtime story rather than game instructions or a recipe for cookies?

From this, we decided to have a discussion with the parents to see their perception of the dilemma. The discussion was framed using the following questions:

1.   We noticed that most of the children participating in our research brought in bedtime stories for Read and Share time even though we were encouraging the sharing of different types of literacy

activities, ie. Instructions from a board game, recipes, letters to Grandma, etc. Were bedtime stories the easiest...is this what your child wanted to share...any other thoughts?

2.   What kinds of extra-curricular activities are each of your family members involved in? Does this schedule change throughout the year?

- Mom
- Dad
- Kindergarten Child
- Siblings

3.   If you work, what type of daycare arrangements do you have?

When we were thinking about possible reasons for this dilemma, we wondered whether or not busy lifestyles were a contributing factor. Could families be too busy to help the child adequately prepare for Read and Share due to work and extra-curricular commitments? Could families not be doing the varied reading activities that they had previously written in their Parent Surveys and on their Read and Share Checklists? We hoped that question two and three would help to address our concerns.

The results were varied. Two families confirmed that busy lifestyles were the major contributing factor for less varied reading activities. These families found that bedtime stories were part of a regular routine and therefore were read regularly. Things that were not part of a regular routine were difficult to accomplish, such as the creative reading activities, and therefore these reading activities did not become a regular part of their lifestyle. Two families found that although the parents encouraged the children to bring in more creative reading activities for Read and Share, children were reluctant to bring in the creative activities and opted for the bedtime stories. Parents felt that their children were more comfortable explaining how they interacted with a bedtime story since it was an ingrained script in their daily lives. The family whose child achieved the highest DRA reading level and showed a higher understanding of the variety of reading materials, felt that their ability to integrate creative reading materials was a matter of priority. Neither their lives nor their children's were too busy for rich discussions, learning moments and creative initiatives. Not to say that their lives are not full, they simply made time for educational moments. They made education a priority for their children regardless of whether they were at home, in the car, at the store or waiting for an appointment.

After reviewing the results of discussions with parents, we concluded that there are multiple reasons why the children tended to bring in bedtime stories for Read and Share and we felt it could still be possible that the children's understanding of reading materials was broadening. We decided we needed to measure their exact understanding of what types of materials can be read. Another interview with students seemed to be a natural collection method for this information.

We interviewed students individually and asked them, "What types of things can you read?" If we received no response, we continued to prompt with follow up questions such as, "What do you see other people reading? Or What do other people read to you?" In the baseline interview students

reported, on average, three materials that could be read. These three materials were usually books, magazines and newspapers. In this final interview students, on average, were able to report five materials that could be read. They continued to list books, magazines and newspapers and the most common new item listed were signs out in the world (such as stop signs, store signs, etc.). We confirmed the possibility that children's understanding of reading material was broadening - just a little bit!

We decided that the next course of action would be to determine again, if there was a relationship between reading ability and a broad understanding of reading materials. Therefore, assessing the students using the DRA seemed to be the final course of action and so we did!

The results of the DRA were awesome! We are truly proud of all the children! Our research group all improved along the reading continuum. Research students moved up at least one level (with one exception) and two students moved a greater amount. Two students ended up in the transitional stage (refer to Definitions of DRA Stages). For kindergarten students, being in the transitional stage is extremely impressive! This is clearly above the norm. What is different about these children?

The one student in the transitional stage, made a dramatic jump up from Upper Early Reader Stage. The parents of this child noticed that she was reading everywhere and everything without prompting. She read signs in stores and menus in restaurants. Noticing and reading the materials in her daily life improved her reading ability through an increase in sight words and comprehension. The second student in the transitional stage, maintained a position in this stage. This student's word decoding ability improved, but due to his young age (we surmise), he made only small gains in comprehension. With time to continue experiencing life, both in person and through books, we expect his comprehension, and therefore his overall reading level, will continue to increase ahead of grade level. These two families, with such wonderful readers, interested us. We decided to do a little comparison about these families to find our what qualities these families possess that made such great readers!

Comparison of Great Readers' Families
In looking at both families, the children live with both biological parents and at least one other sibling. They have an involved and connected extended family. Grandparents are often a part of children's lives. At least one parent in each family has a university degree. Both families have double incomes however their schedules are flexible and not necessarily full time (due to self employment). Both families are socioeconomically middle class. Parents in these families are more active and visible in the school than other parents. This would speak to the involvement in their children's lives. These children spend their alternate days from kindergarten with one or both of their parents. Both of these families do not participate in a lot of personal activities (such as adult hockey league) but both of these families are involved in activities that effect their children's lives (school council, class volunteer). Reading is modeled by the parents as being important in their daily lives; for example educational reading for courses, reading for work and reading for pleasure or functional purposes. Both families make time to read with their children in a variety of ways. They find the educational moments in life and run with them! The families read recipes for baking favourite cookies, they read catalogues to order materials and they plan and plant a garden together. These educational

moments also lead to meaningful conversations with their children throughout the day (this being the oral language component of reading development). Both of these families do not run a regimented household. The structure of their day can vary. This allows for the flexibility to have these educational moments.

There are fewer differences between these families. One family is nuclear, and the other is a blended family which leads to a slightly more chaotic lifestyle. One family is rural and they live in a very natural and environmentally conscious way. The other family lives in a small town that has a suburban feel and their lifestyle has more of a city pace. Parents and children have different personalities (although all are very personable).

So what? The "what" is that these families both have a constant focus on what is best for their children. Their daily lives, their livelihoods, and their personal agendas are structured around and for their children. These families don't need our professional assistance to fit a varied reading diet into their children's lives. They do it anyway!

What does this mean to us as educators?
Due to a variety of different types of lifestyles, the majority of families try to feed their children a varied reading diet, but it is not always easy. As educators, our job is to enable those families who find this difficult. If we can structure our reading homework and show and tell around the various types of reading materials, then we are predicting that this will help families accomplish our goals of a varied reading diet for all students.

Next year, we will give show and tell a reading goal. Month by month we will change the reading focus of show and tell items. September might be bring in your favourite bedtime story. In November, students will have a newspaper focus. Students will bring in a show and tell item such as a toy car and a relevant newspaper clipping (a toy ad, a car dealership ad, an article about a car). On the back of our monthly calendar, we will assign a monthly project with a different literacy focus. For example, one month we send home a recipe for play dough. Parents are asked to read the instructions with their children and make the play dough with them. After enjoying this together time, children will be asked to bring back the product of their homework for school use. We will implement a visual tracking system of this homework that the children will be excited to get stickers on! Those children who cannot complete the assigned homework due to special circumstances will be invited to do these activities with us. This will ensure that they are still receiving their varied reading diet and an equal opportunity to succeed is given to all!

How does this answer our initial question: How can we broaden students' understanding of what reading is through the home-school connection? We answer it by implementing the above changes to our program. Although these are not large changes to our program, we feel that they will be meaningful. Due to the changes that we as educators will make, this will impact the students' understanding of the variety of reading materials. It will also increase the parents understanding of the types of activities their children need to participate in on a daily basis in order to become proficient readers. Although bedtime stories are great, students need to consume a balanced reading diet both at home and school!

Appendix A

OAKLAND-SCOTLAND PUBLIC SCHOOL
15 CHURCH ST. WEST,
 SCOTLAND, ON
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Date: January 30, 2006

From: Karen England & Karen Francisca

To: Families

Re: Action Research - Initial Survey

_____

As part of this Action Research, we need all families participating to fill out our initial survey. Your child will not be graded on the quality or quantity of literacy activities you do at home. There are no right or wrong answers here. Simply fill out the questionnaire pretending it was a usual week in your household. Some days you may find you there is no time for these activities and some days you may do many literacy activities. Your honesty throughout the research process will help us the most! We need each parent in the household to fill out this survey independently, seal it in an envelope and send it back in your child's planner.

For example, if Dad and child worked together to read instructions for how to put a toy together on Saturday then the chart would look as follows:

Day of the Week   Who was involved?
(Check all that apply) Type of Literacy Activity
(Check all that apply) How much did your child participate in the activity?Comments
Saturday
☐   Mom
☐   Dad
☐   Sibling
☐   Grandma
☐   Grandpa
☐   Other ☐   read newspaper
☐   read instructions (ie. recipe, for toys)
☐   read at a store
☐   read grocery labels
☐   read on the computer/Internet

□   school assigned reading
□   bedtime story
□   other _____
□   Independently, the child participated in the activity
□   We participated in the activity together
□   My child observed me do the activity and we discussed it
□   My child observed me do the activity & we did not discuss it   Jimmy mostly "read" the pictures and Dad read the words.

*** Please do not feel you have to comment but if you need to expand upon your observations, it is welcomed.

Please return this survey by next school day. We plan to start the research as soon as all surveys are returned. Thank you for your cooperation!

Appendix B

Read & Share – Action Research on Literacy

Activities we shared with our child from _____ to _____ (check all that apply):

*** Shared means that you have read & talked about the material with your child.***

Instructional Readingreading a recipe
□   reading a simple science experiment (ie. making play-dough, volcano, or goop)
□   reading game instructions
□   reading building instructions (fan, shelves, etc)
□   reading instructions for everyday jobs (ie. On laundry box - how much soap?)

News Related Reading
□   reading magazines
□   reading newspaper

Reading Writing
□   reading something I have written (grocery lists, letters)
□   reading something my child has written (grocery lists, letters)

Mail Reading
□   reading something in the mail (letters, flyers, etc)

Environmental Reading
□   reading grocery labels (at the store to buy, in the cupboard, on the table)
□   reading signs in the community (street signs, store signs)

Technological Reading
□   reading on the TV (children's programs - Dora, news chanels, etc)
□   reading in a computer/video game
□   reading on the computer (Internet, etc)
□   reading a computer print out

Informational Reading
□   reading to learn something/answer a question (ie. Where do polar bears live?)

Practical Reading
□   reading schedules (ie. When is dance class?)
□   reading calendars (ie. Is it my special me/sharing day?)

School Related Reading
☐   reading Shared Reading/I Can Read Book from school (poem & song book)
☐   reading library books
☐   reading Snuggle Up & Read Books / Literacy Bag Activity

Routine Reading
☐   reading bedtime story/ pleasure books

Other Reading
☐   reading job related materials
☐   other_____
☐   other_____

Please return this checklist and ONE piece of reading material you shared with your child this week. Return the activity and this paper on _____.

Your child will be sharing the reading material with the class. They should be prepared to talk about what they have brought to school. Some examples might be:

1.   You and your child read and talked about a newspaper article and picture about the Olympics. Your child may bring in the newspaper clipping to talk about with the class.

2.   You and your child read a play-dough recipe and made play-dough. Your child brings in the recipe and some play-dough they have made. They talk about how they were able to learn how to make play-dough.

3.   You and your child read a fishing magazine article about how to make fishing lures. You followed the instructions on how to make a lure. Your child may bring in the magazine and the lure to talk about how they learned to make lures with class.

Can we improve our students' reading comprehension by teaching them to make connections and inferences?

Charlotte Millen
Jayne Mather
Carol Chipps

Biographies

Charlotte Millen is a Grade 6/7 teacher at Oakland-Scotland School in the town of Scotland, Ontario. She has taught in the Grand Erie District School Board for eight years. Charlotte has a Bachelor of Physical and Health Education from Brock University and a Bachelor of Education from the University of Western Ontario. She has a Reading Specialist. This is her first action research project.

Jayne Mather is a Grade 4/5 teacher at Oakland-Scotland School in the town of Scotland, Ontario. Although she has taught in the Grand Erie District School Board for sixteen years, this is only her second year teaching in the junior division. Jayne has a Bachelor of Arts in English and history from the University of Western Ontario. She received her Bachelor of Education from the University of Toronto. This is her second action research project.
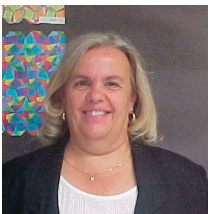
Carol Chipps is a Grade 5 teacher at Oakland-Scotland School in the town of Scotland, Ontario. She has taught in the Grand Erie District School Board for 30 years. Carol has a Bachelor of Arts from McMaster University and a Bachelor of Education from the University of Western Ontario. She has specialists in Reading, Visual Arts and Junior Education. This is her first action research project.

Background

Our action research project began as our Junior division met to analyze the Ontario Ministry of Education Quality and Accountability Office (EQAO) results and work on our school plan. The junior division at our school is comprised of three staff members and approximately seventy students. We work well as a team and this factor led us to undertake our action research project together. Our initial goal was to develop a plan to improve our students' reading comprehension levels. Since the school was planning to use CASI (Comprehension, Attitude, Strategies, Interests) Reading Assessment tool, by Thomson Nelson, as an assessment tool for our division, we decided that this would be a useful starting point for establishing students reading comprehension levels.

Each of us administered CASI to a group of students in our room. We chose to focus on small groups of students, rather than the whole class, so that we would have time to carefully analyze the data from the CASI.. Annette Blake, Teacher Consultant, guided us through the analysis of our students' responses. She helped us organize our data using the chart in Appendix A. As we shared our results, some common observations were made by each of us. We all felt that students needed to develop their written answers further, using much more detail (discussion January 11, 2006).

Students answers could be improved if they were able to make connections to their own experiences and to other familiar texts. Developing their inferencing skills was also necessary to deepen their level of understanding. Our research question became clearer at this point. Can we improve our students' reading comprehension by teaching them to make connections and inferences?

We started by deciding upon a common vocabulary and approach based upon Stephanie Harvey and Anne Goudvis' book entitled Strategies That Work. Charlotte shared posters that were used to introduce key words for each of the reading strategies. Jayne compiled a resource binder to organize the charts and student worksheets so that ideas could be shared easily within the group. Carol found a suitable text entitled Michael and Rosie and the group planned a lesson to try with each of our classes during March to introduce making personal connections to our students. This lesson plan can be found in Appendix B.

Charlotte's Journey
An important part of my reading program is my use of the response journal. I have students respond to a variety of written texts, presentations, videos, and movies in the form of letters. These letters are written to me, as well as to their classmates. My students have a choice as to the topic or purpose of the letter. I was finding that most students were just sticking to the summary and retelling of the text, in most cases. This is understandable considering it is what they are used to doing and they are comfortable with it. I wanted my students to go beyond retell.. I wanted them to make connections to other books or to their own life. I wanted them to put themselves in the character's position and question whether they would make the same decision as the main character did. I wanted them to make predictions and ask questions. I wasn't getting that and I was getting frustrated. Written and oral feedback just wasn't changing things for so many of my students. I knew I needed something different.

In December, I chose to focus on the strategy of making connections as a place to start for making improvements in the responses. The activities that I completed with my class centered around making connections. One of the activities I had my students do in January was to make a connection between a movie and a novel he/she was reading. The students were able to share some good connections with each other. I wanted the students who were struggling to hear some of the connections made by their classmates. We had a discussion that day about why making connections helps with reading. The class and I came up with reasons like: gaining knowledge, activate prior knowledge, visualize something you've seen and sympathize with a character.

When the project began, I decided to focus on the progress of a few Grade 6 students. However, I realized that when I was talking about what was going on in my class, during our group meetings, many of my stories were about one particular student. Dalton kept talking about his reading and I kept listening. It was a surprise to hear Dalton talking about his reading. He didn't like reading, or so he thought. Being his second year in my class, Dalton would tell you that he didn't really like books and would find any excuse not to have to read. I remember on Feb 13 he shared a connection with the class between characters in the novels Silverwing and Mrs. Frisby and the Rats of Nimh. I was excited he had made a very valid connection and made sure to praise him in front of the class.

Dalton's turning point was the day I assigned him to the group reading Brian's Winter by Gary Paulsen. He says, "it was like putting a new motor in a car when you gave us Brian's Winter." It was exciting to hear him make this comment. In my interview with Dalton on May 18th he remembered back on last years reading successes. There weren't many. He made the comment that reading "sucked". He had only read about six books over the course of the year, last year. He said that he would have rather gone outside and basically found anything to do but read. After reading Brian's Winter, Dalton read at least five books in the second term. They were all Gary Paulsen books. Dalton had found his first favourite author. A milestone each of us experiences in our development as a reader. Dalton concluded that reading was easier now. When speaking with his mom, in May, she noticed a change in his reading habits at home. He was more willing to sit and read for a while rather than going straight outside to ride his bike. I am extremely excited about the attitude change because, without this shift, I really don't feel that his reading comprehension development process would have truly begun.

Once this attitude shift had begun with Dalton I was able to hear him talk about books more frequently. In our small group sessions he was able to make connections orally between Brian's survival experience and his own camping experiences with his dad. He was beginning to make detailed oral comparisons between the text and his own personal life. His comprehension of the text, along with his interest in the text, allowed him to be able to clarify the details of an event in the book that a group member was unable to recall clearly. Quite the confidence boost.

Confidence, or lack of, played a huge role in his progress. Once he started to believe that he could read a piece of text and comprehend it, the lessons I was teaching and the discussions we were having were starting to make sense. He was asking more questions about what he was reading. He was making predictions about what he was reading. The pieces of reading comprehension strategies were slowly fitting together to make sense of reading. His level of comprehension, as demonstrated through making connections, was developing orally. He has yet to make large strides in writing out these connections. This is evidence that talking is the first step in the development of reading comprehension.

Dalton's reading comprehension level will continue to develop with his new interest in reading and his shift in attitude. His connections made orally have developed over the course of the year. He will need to continue to work on his written responses to text. The response journals that we have been writing in, since September, have yet to show an improvement in his level of making connections. Although he is developing orally, his written output still requires a great deal of attention. This too may be a slow process for him.

Reflecting upon this year I have come to two significant realizations. Dalton's experience confirmed that we, as teachers, need to know a wide range of quality books and authors to appeal to the children we wish to inspire. I have realized that, for my students, to improve their connection making in writing, I need to model the thinking process. I need to show them what a quality response looks like rather than always sharing orally. In order to get the richness and depth of the connections, they need to be repeatedly shown how to express their thoughts in written form. This link between reading comprehension and modeled writing is a component of my literacy program that I need to

develop further in my literacy program next year.

Jayne's Journey

To begin this project with my class, I had all of my students complete the reading interests inventory and the reading attitudes survey from the CASI teacher's guide. I chose a group of five students to focus on for the next step. This group completed the CASI assessment in the first week of November to provide a starting point for reading instruction.

Some student responses were very brief one sentence answers. Other students wrote long answers that repeated one idea in different ways. It became clear that although the students could decode the text and locate simple ideas in it, they were unable to develop their answers or connect what they were reading to other experiences and knowledge.

Reading conferences became much more focused on the questions from the reading strategy posters on inferencing and making connections. I began asking questions like: Does this remind you of anything that has happened to you? Does this remind you of any other books you have read? What do you think...... means? How do you know ...? All of the students were eager to share their ideas about the books they were reading and oral responses were very thoughtful. I also emphasized that good readers ask themselves questions as they read. I encouraged them to bring their questions to conferences. Some of these questions fostered fun discussions like Jennifer's question, "How can a dog smile?" (Feb. 6 based on novel Because of Winn Dixie). Many students in the group then shared dog stories that they personally related to this novel. A student in this group later shared that another novel, Rescue Pup reminded her of when she was teaching her own dog to fetch (March 7). Students began to compare texts. For example Jade compared legends, Brave Jack and the Unicorn and Rumplestilskin, explaining that the son separating straw and sand, with the help of the ants, was like the millar's daughter spinning straw into gold with Rumplestilskin's help (March 7) . In conferences students began to make multiple connections to their text. For example, D.J. linked two movies and some non-fiction saying, "Crypted Hunters reminds me of parts of the 'Crocodile Dundee' movie and 'Jurassic Park' movie. All of them are hunting dinosaurs. Crocodiles are related to dinosaurs" (Jan. 16).

Using think alouds and modelling how to make personal connections to the text was also important. I read the book Teammates with my class and shared a personal connection to the text. Then asked, "Does this remind you of anything?" Immediately, one of my weakest reader's hand shot up. She shared that she felt prejudice. She identified with Jackie Robinson, saying that people treat her differently because they think she is poor and sometimes she is also called names but her friends stick up for her (March 7).

During novel study, groups focused on connections once again. In group discussion, initial responses were brief. When asked, "Can you tell us how?" detailed and thoroughly thought out ideas were shared. I encouraged students to add this to their written answers when they returned to their desks. Yet, I often found students oral responses to the text, in conferences and class discussion, much more thoughtful and fully developed than their written responses.

In May , I had my focus group of five students complete another CASI reading assessment. Growth was evident in their responses. Below is a sample of Rayna's answers to question 7 on both CASI assessments. Her November answer is brief. It does not fully answer the question as it provides only two characteristics for Joe. There is no supporting detail for either characteristic.

7. From reading this story, we get to know some things about Joe. Name three important characteristics of Joe. Describe something he says, thinks, or does to show that he has each characteristic.

He collects junk, He thinks that he can invent. And he says his parents hate his junk!

7. From reading "Fossils, Big and Small," we get to know some things about the author. Name three important characteristics of the author. Describe something the author says, thinks, or does to show that she has each characteristic.

The characteristics of the auther are she loves fossils, She is a sientest, and she likes diging. I think she likes fossils because that's what she was talking about throug the now book. I think she was a sientest because she knew so much. I think she liked diging because you have to do a lot of diging to find fossil.

Rayna's response to a similar question on the May assessment demonstrated significant growth in her skill level. Her answer provided three accurate characteristics and she was able to support each characteristic with information from the text. The question asked her to describe what the author says, thinks or does to show each characteristic and her response includes all three. She needs to use more specific detail to deepen her comprehension but her response addresses all parts of the question. She also makes a clear inference about the author writing, "I think she liked digging because you have to do a lot of digging to find a fossil."

These two CASI assessments are different forms of writing - narrative fiction and nonfiction. Rayna's oral responses in reading conferences demonstrate that genre is not a significant factor in examining the responses.

Thinking back over the year, many students thoroughly enjoyed their reading and shared many wonderful personal experiences and insights. This did not always translate to their written work. Next year I will spend much more time modelling how to put ideas into written answers. Yet I do have a much greater understanding of the value of talk in the reading process. A lot of understanding developed from discussing things with peers and responding to their ideas.

Carol's Journey

To begin my journey, I had all of my students complete the reading interests inventory and the reading attitudes survey from the CASI teacher's guide. I chose a group of five students to focus on for the next step. This group completed the CASI assessment in the first week of November which provided a starting point for reading instruction.

My first impression was that CASI is a tool to be used by teachers to find areas where learners are not performing to their potential. Teachers then select learning strategies based on the CASI diagnosis to help students overcome reading/writing obstacles. It gives teachers information that can help them plan needed lessons to effectively and strategically meet the needs of a specific group of learners. Strategies can be re-taught to fill gaps in students understanding. Teachers can adjust assignments according to learner's needs, knowledge, and interest.

After data analysis was reviewed in January, I could pinpoint the strategy I needed to use for my small group. I found that their responses were too brief. They were unable to develop their answers or connect what they were reading to other experiences and knowledge. Using Connections was the specific strategy I needed to focus on to help move these learners forward.

What worked best?
I did a shared reading of the novels Hour of The Olympics and its' companion Ancient Greece And The Olympics ,by M. P. Osborne, with my class. I picked these novels because they fit the winter Olympic theme and they provided a rich resource for inspiring lively discussions, thoughtful writing and a deeper appreciation of how women's rights in Olympic competition have changed over time.

I used Venn Diagrams to help students identify pertinent information from their readings. Students were encouraged to use this information during various retelling, relating and reflecting activities. I found improved student achievement after using the Venn Diagram. Pupils were able to give more thorough thought out ideas because they had made comparisons between the things that happened in the past Olympics compared to the present day Olympics.

During the shared reading group discussions I used questions to help the learners make personal connections from the text to themselves. When asked, "How do you think Annie must feel?" Immediately the girls in the class were waving their hands. Some really thoroughly thought out answers were shared. After this I encouraged the students to write down their feelings when they returned to their seats.

Saskia's response was an "aha" moment for me. Saskia wrote, "I am glad that girls today are allowed to participate in all Olympic events. I enjoy riding horses and playing soccer. If I were good enough to be in the Olympics in either of these Olympic sports I would be sad if I couldn't participate just because I am a girl. I'm glad women's rights have changed over time!"

Saskia had connected to the text. She spoke from the heart and was able to demonstrate the magic and power of words.

Sharing novels that speak to children are a great choice as writing prompts. I've found they inspire learners to write with purpose and feeling. When learners are excited about what they're reading, they'll be ready to write with gusto. In addition to encouraging meaningful writing it sparked, in-depth class discussions.

It is important to note here, that as a teacher, I had to learn to ask questions that would help learners clarify and deepen their thinking. I was excited to see the improved achievement in Saskia's response.

Another instructional approach I tried during March is read-alouds. I read aloud non-fiction text about Jeff Bean. I wanted the learners to know what had happened to freestyle skiing aerialist Jeff Bean, since we were studying bones in health.. Katelyn Shaw, (student teacher) was able to connect the lesson on bones, with the Olympics unit and with Jeff Bean's accident. I explained to the group

that we read a variety of non-fiction material for different purposes. After reading this article on this Olympic athlete I had the pupils make a time line of events from the story. Pupils were able to give more thorough thought out ideas because they had made a time line of things that happened in Jeff Bean's life, up to the present Olympics.

Then pupils were given the question," What do you think was the main idea of the story you just heard read?" This was another "aha" moment for me. Spencer wrote," The main idea of this story is Jeff never gave up, even after he broke his nose, neck, and face. So now that tells me when I'm losing by a lot in hockey or any other sport that I should never give up". Spencer was able to connect and this opportunity opened the door for other learners. Spencer helped others become more confident in their ability to articulate their understanding of topics. I was inspired by everyone's progress.

As teachers I believe we must think beyond our traditional concepts of textbook literacy if we are going to prepare students to navigate the many texts they will encounter. Our connections in communications through the internet has made this an increasingly global society. Another instructional approach I used was Hyper Studio in March, with Tom Pappas (teacher librarian) as a publishing resource for learners. Learners had to include the essential components necessary to make their presentation clear, concise and accurate. Learners had to prepare a slide show and make connections as they completed their project. Pupils were given many opportunities to talk and confer about topic and text. I found that sharing of ideas and discoveries as a community of learners helped improve student achievement.

It also helps to form connections between reading and writing in learner's minds.

Good News
My small group of students are giving better well thought-out answers, and I see them focusing on lessons for longer periods of time. I am thrilled to see that they are making better connections.

This journey gave me an opportunity to collaborate and learn how to work together and reflect on my discoveries and share my ideas about my group of learners.

It also provided all of us with a common vision for a whole-school division approach to literacy instruction. I think such partnerships are essential for literacy learning and overall student achievement.

The processes of reading and writing are, in fact, interrelated. In short, the skills that we regarded as reading skills are utilized during writing time as well. Reading and writing are interconnected processes. This has provided me with a model to use in my classroom to link reading and writing strategies.

Future instructional approaches for reading

- model the structure and features of the text;
- build learning experiences through read-alouds, shared reading, guided reading and

      independent reading;
- provide students with graphic /anchor charts, when appropriate;
- provide learners with many opportunities to talk and confer about topic and text;
- use modeled and shared writing instructional formats to teach mini-lessons;
- provide students with publishing resources (e.g. slide-show software, web site pages);
- ensure presentation format (font, graphics, text layout);
- ensure presentation style matches the form, purpose and audience.

This approach to literacy instruction I found useful. It gave me an opportunity to provide essential learning and see if it would help student achievement.

Where We Go From Here
As we think about next year's plan for the Junior Division, at our school, it becomes clear that having a shared approach and common vocabulary for reading instruction is a tremendous benefit for our students. Our focused approach on making connections and inferences has allowed for much more meaningful discussions and the development of deeper comprehension levels. We will continue to encourage student talk in order to allow them to rehearse their thinking and better prepare for written responses. Greater focus will be placed on modeling and demonstrating, to them, what a good response should look like. CASI will continue to be a tool for us to analyze our students' comprehension levels and plan effective instruction. We also realize this is only the beginning of a much longer journey.

Bibliography
Goudvis, Harvey and Anne. Strategies That Work. Pembroke Publishers, Markham, ON, 2000.

http://www.mayer.cps.k12.il.us/Strategies_that_Work/STW.htm#Matrix (Related website shared by Annette; used to make some parts of our binder; source for posters like the ones Char got for us)

CASI

Name: _____   Assessment Date: _____

Title: _____

Assessment Category	Observations	Next Steps
Reasoning Question/Level 1 _____ 2 _____ 7 _____		
Communication Question/Level 8 _____ 9 _____		
Organization of Ideas Question/Level 5 _____ 6 _____		
Application of Language Conventions Question/Level 3 _____ 4 _____		

Reading Strategy Lesson: Personal Connections

Text: Rosie   and   Michael
Author: Judith Viorst

Pre-reading Activity:
Ask the students to think about the following statements.
▶   Friends can never be forgiven for revealing secrets.
▶   All kids are bullies.
▶   You should always be honest with true friends.

Have the students form an opinion line to express their agreement or disagreement with each statement. For this, students discuss the statement with each other and move to a spot in the line to show how strongly they agree or disagree with the statement.   Strong agreement would be at one end of the line , strong disagreement would be at the other end and those who do not have strong opinions would choose a spot in the middle. When the line is formed, ask several students to share why they chose their spot in the line.

Lesson:
▶   Select a male and female student to read half of the text to the class.
▶   Model making a connection personally in written form on the overhead.
        Emphasize specific information about the personal connection. This should
        demonstrate to the class what a level 4 response looks like.
▶   Then open a class discussion of more connections that students can make to this
        text. Encourage them to explain their connections with specific detail.
▶   Ask students to read the remainder of the text independently and write their
        personal connections.
▶   Share responses as time allows.

Alternate tasks:
▶   For students with output difficulties, connections can be made orally into a tape
        recorder.
▶   For students who finish early, a picture can be added to illustrate their reading
        response.

Assessment   Rubric:

Level	1	2	3	4
Content	-a basic connection -explanation lacks clarity	-a simple connection with some explanation	-one or more clear connections with a complete explanation	-one or more complex connections with a highly detailed explanation

Reading Strategy Lesson: Personal Connections

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Ask the students to think about the following statements.

- Friends can never be forgiven for revealing secrets.
- All kids are bullies.
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Have the students form an opinion line to express their agreement or disagreement with each statement. For this, students discuss the statement with each other and move to a spot in the line to show how strongly they agree or disagree with the statement. Strong agreement would be at one end of the line , strong disagreement would be at the other end and those who do not have strong opinions would choose a spot in the middle. When the line is formed, ask several students to share why they chose their spot in the line.

Lesson:

- Select a male and female student to read half of the text to the class.
- Model making a connection personally in written form on the overhead. Emphasize specific information about the personal connection. This should demonstrate to the class what a level 4 response looks like.
- Then open a class discussion of more connections that students can make to this text. Encourage them to explain their connections with specific detail.
- Ask students to read the remainder of the text independently and write their personal connections.
- Share responses as time allows.

Alternate tasks:

- For students with output difficulties, connections can be made orally into a tape recorder.
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Assessment Rubric:

Level	Content
1	- a basic connection explanation lacks clarity
2	- a simple connection with some explanation
3	- one or more clear connections with a complete explanation
4	- one or more complex connections with a highly detailed explanation

How can I change my assessment practices to improve student achievement?

Donna Murray

Biography

Donna Murray started teaching in Halton but has spent most of her career teaching in all of the secondary schools in the Haldimand board and has spent the last ten years at Cayuga Secondary School. She also has worked as a curriculum advisor for the Haldimand Board and as an Education Officer for the Ministry of Education. She is currently the Secondary Teacher Consultant for Literacy and Numeracy and the E-learning Project Manager.

Abstract

Will student achievement improve if they design their own rubrics? This research compared students' reactions to receiving rubrics after or before they completed assignments and to designing their own rubrics. It also compared engagement when they designed their own rubrics and projects. Three classes were involved in the study, a Grade 10 open, a Grade 12 workplace and a Grade 12 university /college class.

My Question

How can I change my assessment practices to improve student achievement? I was frustrated because my students would not meet or exceed the expectations of the assignment even when they received the rubric when the task was assigned (November 10, 2005). I believed that if students went through a gradual change from receiving a rubric, which I had designed, to modifying a rubric and then finally designing their own rubrics, and choosing their own topic, then their achievement would improve. I also wanted to compare my Grade 10 class to my Grade 12 class. I thought my Grade 12 students would want to design their own rubrics and that my Grade 10 students would not feel confident in doing this.

The Process

I teach three classes, a Grade 10 open programming class, a Grade 12 work place business management class and a Grade 12 university college business management class. I decided to start by giving each of my three classes an assignment where I did not present a rubric as an assessment tool. Then I gave a rubric along with the next assignment. I gave them the first questionnaire after I returned the second assignment. Each of my classes received the same initial questionnaire (See Appendix A).

First Questionnaire

Both the Grade 10 class and the Grade 12 college/university (c/u) class wanted the rubric ahead of time, whereas the workplace group did not. One of the workplace students commented, "I don't believe they really make a difference." (Journal April 19 2006) Each of the other questions on the questionnaire seemed to support the conclusion that the Grade 12 work place students do not feel that they can get better marks if they know how the assignment is going to be assessed. The Grade 10 students, even though some of them are also workplace, seem to believe that they can

improve their marks if they have access to a rubric ahead of time. One student commented, "I can see what is expected of me and know what I can do to get the best mark".(Journal March 7 2006) (See Appendix A) One of the Grade 12 college/university student's commented that it is important, "to know how I am evaluated to get the best mark possible."

Modifying A Rubric
As I worked with each of my classes, I realized that both the Grade 10 group and the Grade 12 college/university group had enough confidence to build a rubric on their own. The Grade 12 group worked together as a class to build the rubric for their reflection report. The Grade 10 group took the biggest step by both designing their own project and creating a rubric for marking it.

My Grade 12 work place group were the most reluctant to create a rubric, let alone modify one. S. Sukkell said, "Can't you just do the rubric for us, I don't want to think" (Journal, May 26, 2006). I began to believe that I would never get them to modify a rubric, let alone design one.

Second Questionnaire-Modifying a Rubric
I originally believed that I would have to have all three classes modify a rubric before they actually completed one on their own. However, I was surprised to find that only my Grade 12 workplace students needed this step. The Grade 12 workplace students actually changed their minds about getting a rubric ahead of time. When they were originally asked if they wanted a rubric, when they got the assignment, only six out of the fifteen students said yes. By the second rubric questionnaire twelve out of fifteen students said they would look at the rubric before they wrote the report. However, only seven of the fifteen students said that they thought their mark might improve because they helped design the rubric.

Third Questionnaire Creating a Rubric on Their Own
The Grade 10 group were the biggest risk takers among my three classes. They were quite willing to both create their own rubric and design their own project. They took one period to both create their rubric and design their own project. In response to the question, "What was the hardest part of creating your own rubric?" one of the students commented, "Thinking of my best areas to highlight" (Journal March 7 2006). Another student said, "Coming up with what was a level 4"(Journal March 7 2006). When asked, "What was the hardest part of creating your own Independent Study Unit (ISU)?" one student said, "Creating/thinking of a topic that is focused fully on the course taken" (Journal March 7 2006). All of these students accepted this challenge with little complaint. Their maturity and ownership of their own learning was greater than either of my Grade 12 groups. I am seeing a focused effort from all of these students as they complete their ISU's. Seven out of the eight students said they would review their rubric before they started their ISU. Six out of the eight students said they understood the expectations better when they designed their own rubric. However only four of the students said that they thought their mark would improve because they designed their own rubric.

The Grade 12 college/university group participated as a class to create their own rubric for a reflection report. This class was led by Lori Vanderberg, my student teacher. Lori commented, in her reflection, "only two of the students were really engaged and contributed most of the ideas" (April 30, 2006).

Although the class seemed inattentive and all were not participating, they did respond positively to the questionnaire. When they were asked on the first questionnaire if they wanted to help design a rubric, they all said, "No." However when asked in the third questionnaire if they thought students should participate in the design of the rubric, six out of the ten said, "Yes." It was surprising to see that seven out of the ten students said that they would not look at the rubric while they were writing the reflection paper.

My Grade 12 workplace class surprised me by actually agreeing to design their own rubric for part of their ISU. Although four out of the seven students still did not believe that they understood the expectations better when they wrote their own rubric, six out of seven said they would review the rubric before they started their marketing report. Finally, five out of the seven still don't believe their marks will improve if they have the rubric.

Does achievement improve when students design their own rubrics?

TIK20
When I compared the students' marks when they didn't have a rubric to when they did have a rubric, their marks were all higher with the exception of one student. Surprisingly, however, there was no improvement in achievement when they designed their own rubrics.

BOG4e
Just as in the Grade 10 class, when I gave these students the rubric, when they received the assignment, their marks were higher than when they helped to modify the rubric. However, when they designed their own rubric, twelve out of the seventeen students scored higher.

BOH4m
No students scored higher when they designed their own rubric compared to when they received a rubric before starting the assignment. These students were highly disengaged when they were designing their own rubric. One student commented, "isn't it the teacher's job to create the rubric" (Journal April 24, 2006).

Conclusions: What did I learn?
My Grade 10 class surprised me with their maturity and their ownership of the evaluation process. When I discussed this with my action research colleagues, they pointed out that these students would be most familiar with rubrics because they would have been receiving them throughout their elementary school years (Journal April 19. 2006). They were also willing to challenge themselves more by both designing their own rubric as well as their own project, one that would exploit their talents.

My Grade 12 university/college class was not fully engaged when given the opportunity to design their own rubric. Only one or two students actively participated while the rest talked to their classmates or played on the computers. For students who are constantly saying that they need high marks to get into their post secondary programs, it was surprising to see their lack of engagement.

Although my Grade 12 workplace class never seemed to think that their marks would improve if they looked at the rubric when they were completing their assignment, the majority of these students did move in their thinking from saying that they never looked at the rubric to that they would look at the rubric before they completed their assignment. When they designed their own rubrics they scored higher than when they simply modified an existing rubric.

I believe that secondary teachers need to begin their class each semester by sharing with their students the provincial rubric for their particular subject discipline. When I was working with each class to design their own rubric, I gave them a copy of the provincial rubric for business studies. I asked each of the classes, in my questionnaire, whether they knew that there were subject specific rubrics: the majority of the students said, "No." I believe that students, especially those who have used rubrics since the primary division, are more engaged in their own learning when they help to design the rubric and the projects they are assigned, even though their achievement is not higher.

I also believe that students are more focused on their projects when they have spent the time to design them themselves. In my Grade 12 university college class I asked them to pick any three leaders they admired. They often chose leaders who were not business leaders. Then I told them they had to choose one and demonstrate that they did have the characteristics of a good leader which we had studied in class. By not limiting their choice to business leaders, as I had done in the past, I have found them much more engaged in their research. They are not complaining that their leader is boring, in each ISU period. Similarly, in my Grade 10 class I have found that their research topics have been carefully chosen to reflect their own strengths and interests. One of my students, who is a talented artist and musician, has chosen to research synthesizers. She is not a strong programmer and therefore chose not to write a program for her final project in Computer Science.

Overall, giving students a rubric before they start a project will improve their achievement. Although designing their own rubric did not seem to improve their achievement, designing the rubric and the project did seem to improve their engagement.

Appendix

First Questionnaire

Receiving a rubric before completing Assignment

Question	Tik20 Y	n	Bog4e Y	n	Boh4m Y	n
Do you want to have a rubric before you begin?	11	3	6	9	10	3
Would you like to design your own Rubric from scratch?	4	10	1	14	0	13
Would you like to design a rubric together as a class?	5	9	5	10	5	7
Would you like to look at a rubric before you begin the assignment and modify it?	6	2	6	8	9	2

Second Questionnaire

Modifying a Rubric questionnaire

Question	Tik 20 Y	n	Bog4e Y	n	Boh4m Y	n
Do you prefer modifying an existing rubric to simply receiving the rubric?			3	11		
Did you know there was a common rubric for all grade 11 and 12 (9 and 10) Ontario business courses?			3	11		
Do you think you understand the expectations of the assignment better when you modify an existing rubric?			5	9		
Do you think your mark will improve because you actually analyzed and changed the target market report rubric?			6	8		
Will you review the target market rubric before you write your report?			12	2		
Would you create your own rubric for an assignment if you were given the opportunity?			3	11		

Third Questionnaire

Tik20

Question	Y	N
Do you think you understand the expectations of the assignment better when you make your own rubric?	6	2
Do you think your mark will improve because you actually analyzed made your	4	4

own rubric?		
Will you review the isu rubric before you start your isu?	7	1

BOH 4m

question	y	n
Would you spend more time on the assignment if you participated in the design of a rubric?	6	4
Do you understand the expectations of the reflection paper more clearly after participating in the design of the rubric?	7	3

Achievement

TIK 20

	Rubric After	Rubric before	Student Designed
1	83	97	96
2	78	98	85
3	83	92	84
4	71	73	81
5	82	96	95
6	88	82	
7	88	95	81
8	83	92	100
9	83	88	86
10	93	98	99
11	91	0	62
12	92	94	84
13	91	96	71
14	88		91
15	91	96	54

BOG 4e

	Rubric after	Rubric Before Student Modified	Student Designed
1	94	92	91
2	91	83	91
3	82	76	76
4	80	79	87
5	91	82	77
6	88	85	91
7	87	78	82
8	86	86	93
9	85	81	87
10	83	78	91

11	38	0	0
12	81	0	92
13	91	81	91
14	37	77	94
15	66	28	80
16	89	85	80
17	63	82	61

BOH 4m

	Rubric After	Rubric Before	Student Designed
1	81	77	79
2	87	83	80
3	85	72	79
4	87	87	43
5	82	84	68
6	78	75	41
7	91	85	88
8	86	75	44
9	95	88	73
10	93	90	87
11	86	85	84
12	87	67	83
13	79	0	46
14	90	84	76
15	79	63	76
16	92	88	86
17	70	0	39

How can we continue to use brain-based research teaching methods and strategies to enhance student learning in math?

Tina VanKuren, Dave Love, and Elizabeth Greasley

> Most models of learning assume that intelligence and mathematical ability are fixed: by reducing explanations to trivial steps, one can add only tiny increments to a student's knowledge. Based on my work with elementary students, I am now convinced that all children…can be led to think mathematically. (Mighton, 2003, pg. 4-5) Brain-based learning is a natural and motivating way of maximizing both learning and teaching. It is the way our brain learns best. Teachers from preschool to graduate school will find that brain-based learning has a positive effect on all aspects of classroom life. (Politano and Paquin, 2000)

Biographies

Tina VanKuren is currently the Learning Resource Teacher at J.L. Mitchener School in Cayuga, Ontario. She is in her fourth year as a Special Education Teacher at the elementary level. Her previous careers have ranged from retail management, recreation, social services, brain injury rehabilitation to health care. Her educational background consists of a Bachelor of Recreation and Leisure Studies, Bachelor of Arts in Psychology, Master of Education, Multidiscipline Rehabilitation Certificate, and Bachelor of Education. Many of her professional roles have involved working with persons of different ages who have a variety of special needs. This is Tina's third action research project.

Dave Love currently teaches Grade 5 at J.L. Mitchener School in Cayuga, Ontario. Previously, he has taught Grades 2, 5 and 6. With 11 years of post secondary education, he has always been interested in learning. Dave attended the University of Windsor for his B.A. in English and History and his B. Ed. He has a Masters degree in Theology from the University of Toronto. Dave believes asking questions provides for meaningful application of current learning. After completing a year long action research project in 2001, dealing with improving student learning by integrating subjects, he became hooked on professional development involving action research. The implications of knowing that integrating classroom experiences helps improve student learning changed his planning and approach to teaching. This year's continued research considering the application of brain-based learning with mathematics brings the same excitement and the added joy of working as part of the group who completed our first project together last year.

Elizabeth Greasley is currently the Learning Resource Teacher at River Heights School in Caledonia,Ontario. This is her third year as a Special Education teacher. Previously, Elizabeth worked for the Rainbow District School Board teaching various computer programs to adult learners. Elizabeth has a Bachelor of Arts degree in Geography from Laurentian University in Sudbury and she attended Teacher's College at Lakehead University in Thunder Bay. In her current assignment she is

working with struggling students ages seven to thirteen. This is her second time participating in an action research project.

Abstract
This paper describes the efforts of 3 teachers working with students of various ages and abilities. The focus is on the further utilization of brain-based teaching to assist with the acquisition of skills in the subject of math during the second year of implementation with these strategies as part of a Teacher Innovation Fund.

Background and Rationale

A brain-compatible classroom is synonymous with a constructivist classroom which says that we learn by constructing personal meaning from the information that is presented to us. Learning may be seen as the brain's attempt to derive meaning from and make sense of the external world. The brain learns by connecting new information to concepts that it already understands so old learning becomes the foundation on which new learning is constructed (Parry and Gregory, 1998). According to McCallum and Whitlow (1994), every child can learn even the most complex mathematical concepts and this competence can develop naturally given time and appropriate learning environments. Some students designated as 'learning disabled' may be merely 'schooling disabled'. Sometimes, these students are struggling to learn in an environment that is designed inadvertently to frustrate their efforts. Just changing our instructional approach may be enough to move these students to the ranks of successful learners (Sousa, 2001).

There are ten factors that need to be considered when creating a brain-based environment: uniqueness, assessment, emotions, meaning, multi-path, brain-body, memory, nutrition, cycles and rhythms, and elimination of threat (Politano & Paquin, 2000).

Our brains, like our fingerprints, are unique. When activities are designed in a brain-based way students are actively engaged in constructing and representing their understanding, they are not only busy, they are learning. Successful lessons and activities have the two elements of choice and variety. Teachers can accommodate the wide range of needs, learning styles, learning senses, and abilities in the students by providing those two crucial aspects. According to Politano and Paquin (2000), it is important when planning lessons that there is enough scope to appeal to the uniqueness of learners in all classrooms and provide choices that allow students to think and learn in the ways that are best for them.

Assessment done well provides feedback that the brain needs and students with positive attitudes are more likely to learn. Authentic assessment creates useful information about and for the students and is embedded in the learning activities that happen in the classroom. The closer the assessment task is to the everyday routines students are familiar with, the more authentic and dynamic it is. As students represent their learning, they create meaning and understanding. Establishing criteria with students before an assignment reduces anxiety and helps more students to be successful. Feedback should be timely and specific and personal reflection should be allowed. Self-assessment and peer-assessment are valuable and recognizing mistakes need to be perceived as a positive part of learning.

Learning is strongly affected by emotion. Three themes have emerged from the research: (1) emotions have their own pathways, (2) emotions affect brain chemicals, and (3) emotions influence learning and memory. Emotions drive attention, health, learning and memory. The stronger the emotion connected with an experience, the stronger the memory of that experience. The ability to focus, set priorities and goals, and make value-based decisions is improved by positive emotions. In order to establish a brain-based environment, teachers need to recognize that fun and play are a crucial part of learning. Some very good ways to help students get into a positive emotional state are to have them talk, move, and reflect (Politano & Paquin, 2000).

To the brain, making meaning is more important than receiving information. The brain makes meaning through patterns, relevance and emotions. According to Politano and Paquin (2000), our brain is a superb patternmaker because through the senses, the brain constantly scans the environment looking for patterns and connections so that new information links with current knowledge and understandings. Students learn best when they have the big picture, real-life connections, and conceptual, thematic learning. Emotion is critical to meaning because feelings are triggered by the brain's chemistry and they signal to the brain to indicate when something is important. Two of the major kinds of meaning are called surface and deeply felt. Surface meaning is more literal and deep meaning involves more critical/creative thinking. What is actually meaningful depends on who a person is and the experiences he/she has had in life (Politano & Paquin, 2000).

The brain learns best through rich, multi-dimensional sensory experiences. When a conceptual thematic approach is used in teaching, one of the advantages is that each of the activities done as part of a theme contributes to students making meaning of the topic. Many educators have developed classification systems that assist with considering different learning styles and learning senses. Some examples are: the five senses; learning senses (VAK- visual, auditory and kinesthetic); multiple intelligences; and, learning domains (physical, social, emotional and cognitive, and aesthetic) (Politano & Paquin, 2000). It does not matter which system that is used, it matters that every teacher has a system that works. Also, the environment should be enriched with challenge, novelty and feedback.

The entire body thinks, not just the brain. The body takes cues from the mind, and the mind informs the body. Frequent physical breaks are a requirement for every type of learning situation. The increased blood flow created by exercise results in more oxygen getting to the brain. Therefore, movement must not be seen as a luxury but as a necessity. Music promotes relaxation, reduces stress, stimulates thinking, and is a brain-building block for math, science and reading. According to Politano and Paquin (2000), nearly everything people do and nearly all decisions made are affected by the state someone is in at the time. Some positive states are challenge, curiosity, and anticipation. Some less positive states are frustration, apathy, and fear. Educators need to give directions in a state that will induce activity. Ways to create a positive state in the classroom include the following: playing music, role-playing, storytelling, standing up and moving about, sharing, getting food and water, listening to guest speakers, planning field trips, using humour, taking deep breaths, mind mapping, and stretching.

Our brain does not store memories of whole events but it recreates them. It is better to think of memory in terms of a process. Memory does not just happen in our brain, our whole body is involved in 'remembering'. The saying "hands on, minds on" refers to active learning of procedural memory and the best way to activate procedural memory is through physical movement. Skills become automatic when they are 'overlearned' through activities such as raps and games. The way to set things up in a classroom can help or hinder students' memories. The trick is to engage the students and then give them opportunities and time to make connections and establish memories (Politano & Paquin, 2000).

According to Politano and Paquin (2000), studies of the effects of nutrition have demonstrated a strong correlation between the quantity of water a person drinks and the quality of food eaten in relation to one's feelings and performances. By the time somebody is thirsty, he/she is already dehydrated. Once the brain is dehydrated, the chemical balance is negatively altered. Different neurotransmitters in the brain either speed up or slow down actions and thoughts. Dopamine is the pleasure and reward chemical while norepinephrine helps keep us alert and serotonin has a calming effect. It is important for teachers to try and help students to understand how eating good food will improve performance, increase concentration, and boost energy by naturally altering and enhancing brain chemistry.

The brain is designed for ups and downs but not constant attention for prolonged periods of time. Our bodies run in cycles which is affected by breathing and energy levels. However, as educators we can't actually determine these stages and cycles of our students but we can provide enough choice and variety in an attempt to best achieve a productive learning climate for all (Politano & Paquin, 2000). By using energizers, physical breaks, and emotional engagements such as storytelling, singing, humor, drama and games we can help maintain interest which coincides with these cycles in our classroom. Therefore, it is important to remember that the idea of 'getting students' attention and keeping it' is not productive or realistic.

Research has revealed that distress and threat are the biggest contributors to impaired learning because when the brain goes into survival mode, it tends to revert to instinct, becomes more automatic, is less able to take clues from the environment, and is less able to perceive relationships and patterns. As long as the learner feels in control, stress can be good for learning but when the stress is too overwhelming it becomes hazardous to learning. As teachers, we must try to identify the sources of stress and threat in our classrooms and avoid or reduce them. We can be the source of stress or we can create a nonthreatening environment (Politano & Paquin, 2000). The choice is ultimately yours.

Tina's Reflective Narrative
My research focus involved a small group of students ranging from Grade 3-6 for whom I provided a core Math program in a Resource Withdrawal format from January to June, 2006. Many of these students struggle with all aspects of Math and have reported that they generally do not enjoy this subject at school. My goal was to help these students become more comfortable with this part of the curriculum and to provide lessons that are stimulating and interesting to assist with motivation. I frequently included a variety of hands-on manipulatives, children's literature, snacks,

social interaction and kinesthetic activities within my program to ensure that I maintained a brain-compatible environment.

A few times a week I had the students write a short Math journal entry reflecting upon what they did or didn't like about the lesson that day. I obtained many different comments including some of the following: "I like to do the multiplication facts"; "What I did not like was that math was easy and what I did like was the flashcards"; "I did not think I liked fractions but now I do because it is fun and easy"; "What I liked about math is that we got chocolate bars"; "I liked math today because I had pizza and there is no part that I didn't like"; "Today's math was boring because I don't really like 3-D shapes and yesterday was okay because we built stuff"; "I did not like math because we did a test but I liked the pizza"; "I liked math today because we got partners"; "Math was fun"; "I thought math was fun and hard today but I am happy we got pizza"; "The chocolate bar thing in math was fun and the worksheets were boring"; "I liked colouring in the fraction circle shapes. I didn't like the Dear Ms. Fraction page"; "I liked the pizza but I didn't like the worksheets"; "I liked playing with the money this time"; "I liked math today because I like making shapes. It was really really fun playing with the dice"; and, "I liked the test because it was fun plus it was stuff I was good at".

One of the first units we did was multiplication and division. The most successful part of learning the multiplication tables was the familiar trick using the fingers for the nine times table. It is quite encouraging that the youngest student in the group who is a girl in Grade 3 became the expert with this skill and although she is not required to know the nine times tables for her curriculum expectations she continues to remind other students how to do this trick. When I attended the "Reading for the Love of It" conference in February one of the sessions included an interesting division lesson with the children's book called "The Doorbell Rang" by Pat Hutchins. I used this lesson with my group and they thoroughly enjoyed the story and the participatory nature as they were able to each play the role of the children in the book and then eat the cookies at the end of the story after they divided them up equally.

Another area of focus in the Number Sense and Numeration strand was fractions.   During this unit we used many different manipulatives including fraction circles, games, chocolate bars and pizza which was quite exciting for the students. The two favourite lessons were the following: I cooked one large round pizza and several small round pizzas which were eaten by the students after they had to first discuss cutting each pizza into different fractional parts using the correct terminology; and the lesson when I read aloud "The Hershey's Milk Chocolate Fractions Book" and they had to use their own chocolate bar to create the different fractions described in the book and answer questions before they could eat the chocolate bar at the end of the story.

Some Measurement lessons included learning about area and perimeter as the students made chain-link fences using plastic links following specific instructions as to how many links were required in the length and width of the fence. Also, I used a lesson from one of our school board publications called "Improving Student Learning through Mathematical Literacy: Problem Solving". This lesson was based on the book by Marilyn Burns titled "Spaghetti and Meatballs for All".   This book presents a problem that asks students to explore the concepts of area and perimeter in a real world context. I began to read the story aloud and stopped after reading the part where Mrs. Comfort drew a seating

plan in the book. As a group we discussed the possibilities for seating arrangements. I continued to read the next page and asked a student to draw a diagram on the blackboard to show the 8 tables illustrating the first seating plan. As each guest in the story arrived, I had a different student change the drawing on the blackboard to represent every new seating arrangement suggested. At the end of the story we discussed the best possible seating plan and it was decided that renting 8 small tables and arranging them in the initial pattern established by Mrs. Comfort was the best solution because it was the cheapest and used the least table area. I also used the Learning Carpet for some area and perimeter lessons with the students placing different shapes in the squares to do the calculations.

Other lessons in the Measurement and Data Management strand included some ideas that I learned at the "Reading for the Love of It" Conference related to a Valentine's Day Theme. We completed a Venn Diagram about "What is My Favourite Part of Valentine's Day?" with the categories of 'chocolate/candy, dance/party, cards or other'. Then we created a tally chart for each category on the blackboard and everyone participated in making a bar graph to organize all of their responses. The students also completed some estimation tasks such as, guessing the number of coloured candy hearts in a jar. We created a line graph and a bar graph on the same piece of flip chart paper to illustrate all of the candy jar guesses. In addition, I had two different sized large red hearts cut from bristol board which were taped to the wall in different areas. The students stood on a spot marked on the floor with masking tape and cut a piece of yarn in approximately the size to indicate the perimeter of the hearts. They wrote their names on a piece of masking tape and taped their yarn segment on the wall beside each heart to later measure the hearts to determine who had guessed closest to the actual perimeters. Finally, each student was given a random amount of coloured candy hearts which they sorted into different colours and created corresponding bar graphs for each colour. They were then required to answer questions posed by myself and their peers related to their individual graphs.

In the Geometry and Spatial Sense Strand, the students enjoyed creating three-dimensional sculptures from familiar objects such as Kleenex boxes, pizza boxes, cardboard gift wrap tubes, plastic drinking straws, ping pong balls, Toblerone chocolate boxes, dice and cones made from bristol board nets. As they constructed these items, each student was required to complete a chart indicating the number of edges, vertices and faces for each object, as well as stating another familiar everyday object for each figure. Another lesson that was very successful involved my group of students working with a small group of Grade 1 students to create prisms, pyramids and some other two-dimensional and three-dimensional shapes using mini marshmallows and toothpicks. All of the children were quite enthusiastic as they created these figures in partners.

During our Probability Unit, one of the grade 6 students who usually works with my high school co-op student one-to-one spent time with the co-op student while her class went with the other Grades 3-8 students to Track and Field day at the high school. It was quite interesting when I returned that afternoon from helping at the track events, I found 2 excellent probability word problems written on the board by this student for the other group members to answer during our next math lesson. That student was absent the next day so I specifically left the questions on the board for when she returned and then we solved the problems as a group. This was quite a fun activity and the girl

who created the questions is a very shy, withdrawn person but she was extremely proud of the acknowledgement that we gave to her for her creative efforts.

In general, I found this experience to be quite rewarding for the second year as I explored more opportunities to offer creative brain-based math lessons and my group of students were very positive about the program. Also, the attitude and confidence of these students with respect to math has increased significantly. I plan to continue using my new knowledge about providing a brain-compatible program in math and other subject areas.

Dave's Reflective Narrative

"What am I doing teaching Math?" I believe I have difficulty thinking like a Mathematician. My mother found it nearly impossible to figure out discounts or taxes on clothing. I can't seem to calculate the perimeter or area of my backyard as quickly as my father. It seems that I take after my mother's side of the family. Ideas such as these are addressed in John Mighton's book, "The Myth of Ability". He discovered through his life experience that "belief" in what you can do is more important than what you may think is your inherited ability. As he confronted his failures in high school and university math, he began to think of himself as hopeless in ever learning any aspect of it. "The myths surrounding the subject encourage children to give up the moment they encounter any difficulty (Mighton, 2003; pg. 20). He persevered and learned that he could do the work and abstract thinking involved with Math.

Mighton developed clear, cumulative steps in order to master basic concepts and progress to considerably more abstract thinking. He came to realize that all children are capable of learning about math. However, he also found that teachers, on the other hand, must open their minds to the fact that, with proper teaching, all children can learn Math (Mighton, 2003; pg.204).

Action Research not only allows, but encourages me to become part of a growing, questioning and solution-based approach to learning. As I prepare and develop this research I am becoming a better Mathematician and teacher. I am learning and growing by utilizing unrealized abilities which shriveled during my public education. Using a brain-based approach to teaching Math assists both the teacher and the student, in sharing a classroom atmosphere responding to the learner's physical, mental and emotional needs.

In order to effectively establish the pathways for the brain to incorporate new ideas, students need to 'sense' that their environment is safe and that they have some acceptable awareness or beginning understanding of the ideas being presented. The uniqueness of one's prior knowledge becomes enhanced by the learner's response in choosing from a variety of responses including their learning style and strengths. Throughout the school year, I had used clapping as a means of reinforcing math vocabulary and basic facts. We had clapped amounts to represent addends, sums, subtrahends, and differences.

When we came to working with multiplication, the students were comfortable with this method. As a pre-test, each student was given one hundred multiplication questions (one digit multiplied by one digit) and a fifteen-minute time frame. The students were told the timing aspect was only for

verifying student improvement later in the experience. Student responses were exchanged and marked by their peers as answers were provided through a "Round the World" activity. Students were encouraged to note their results and look forward to improvement. Each lesson began with a clapping experience where I clapped a multiplication question. The first set of claps represented the multiplicand and ended with a motion to indicate that number was finished, and I said, "multiplicand". The next set followed the same procedure and represented the multiplier, so I said, "multiplier". A student was asked to clap the product. When they were correct, the student clapped their own question and selected another student to clap the answer. This usually continued for four or five questions. Some students chose to stand and clap or respond at their desks, while others moved to various places around the room, or even shut their eyes when listening for the clapping sounds. One of the very capable mathematics students was noticed to be quietly 'mouthing' the number of his claps so that some students just watched his lips. Needless to say, he was told about it by others, so he tried not to do it. He did think it was funny he was concentrating so hard at such as easy task. Every so often it would happen again and he would blush but happily carry on.

The next step was to introduce the concept and drill portions of the lesson. The Rock and Roll songs of the multiplication facts from 0 to 12 were paced differently, had varying rhythms and instruments. Students made it quite clear which songs they liked and which were "dumb". One of the students wrote: "My favourite song is 'Singing Along for the 8 Times Table.' I like it because I like the tune and the part where they sing, 'Singing along with a number song.' I also like that it doesn't go too fast or too slow. I like it because it's not too long and it's not too short." I distributed copies of the words to all students, as well as, short activities involving the timetable we were working on at that moment. We repeated listening and singing the songs a number of times depending upon student response. If some students particularly liked a song they would stand and start dancing while they were singing. One of the students reflected that: "the cool part was we got to rock and sing out loud." Students would often reach for their water bottles in order to keep going. Some used them as conductor's wands as they directed the class.

Concept songs focused upon understanding multiplication as certain amounts contained in a particular number of groups and as a rapid way to add without having all those addends. Relationships between facts were discovered and helped to connect one fact family with another.

The integration of music, movement and memorization all created a stimulating environment for retention and easy recall of multiplication facts. A student wrote in his journal: "The music made me more interested in math. I liked the music because it is funny and I can learn with it." Another person wrote: "I kind of know my facts better than two weeks ago because we always listen to those songs so they get stuck in my head for a long time. I don't have to use my fingers or a chart." One of the girls expressed it this way: "I know them better because singing is more fun than just reciting them so we will remember them by the tune." A third person stated: "Yes, I think I know my facts better now because last night I was trying to get to sleep and in my head I could hear math facts repeating itself and I actually remembered them! Also, I don't need to use my fingers anymore for the nine times table and I did two weeks ago—that's good!" This approach recognized and provided opportunity for differing cycles and rhythms of student brain patterns. If reciting the facts became boring then the students could respond in another way, yet continue to be engaged in the activity

and still learn. As excellent climate of respect prevailed while students were free to sing, dance, tap their feed/hands and sometimes get a little carried away. There were no 'put downs' and I didn't have to give any reminders about such things. The students' motivation came by participating and enjoying themselves.

As our time with multiplication came to a close, the students rewrote the 100 questions that they had as a pre-test. Our final activity was to write a journal about our multiplication experience. The entry was completed after the test but before they had the results. As a suggested outline, each pupil could write about whether or not they had learned their facts better, or there was no difference with what they knew. Did music help or hinder their learning? What changes to a song (tune or words) would they make with the music we had used and/or would they like to create their own songs? (I have quoted a number of typical journal responses in the previous section). Seventy-six per-cent of the students felt that they knew their facts better and that music had played an important part. Of that group, only two students had the number of correct answers actually decrease. It is interesting that they believed they knew their facts better. Of the twenty-four percent of the class that thought they did not know their facts better, three out the six students scored the same or above by one question. One of these students told me, "I knew all the facts before we started so how could I learn them any better?" One hundred percent of the students felt that the music and being able to respond freely, make a difference with their learning. A number of them commented they were glad others did not make fun of them as they sang or danced. Sixty-eight percent of the students re-wrote words to one of the songs. Twenty-four percent did not want to change any of the words or tunes but did write a favourite part from one of the songs. Two students did suggest another tune from a popular singer they liked and changed the words slightly. One of these students did not want a guitar for any of the songs.

The power and joy of this experience for me is that when I design learning which actively involves students in constructing and representing their understanding, they are not only busy, they are learning. This allows each student to work on the same concept (multiplication facts) while allowing each person to work in ways that best suits their learning style.

Elizabeth's Reflective Narrative
Even though I was changing schools this year, I was just as enthused about continuing with the Action Research project. The challenge was finding a good situation with which to work. With a mix of learning difficulties, behavioural and attentional problems, the grade 4 class seemed like the ideal forum with which to test out the effectiveness of brain-based strategies on mathematics performance and understanding. Mr. Barrett, the classroom teacher, graciously agreed to participate.

I had to think about which areas of brain-based research I wanted to focus on this year. My hope was to build on what was accomplished last year. Certainly the grade was different since last year I had worked with intermediate students, but I would also be working with an entire class of students of varying math abilities. The challenge would be to keep the interest of the students that are more skilled in math while allowing the weaker students in math to find success.

Initially, I went into the grade 4 class to observe where the students currently stood in their math

abilities. I observed that some of the kids were still counting on their fingers to calculate simple addition, they were failing to see the patterns in numbers, math procedures were not being remembered, and many lacked good strategies for arriving at an answer and therefore would guess at the answer unable to realize that their answer was not reasonable. I also noticed that it tended to be the same students raising their hands to answer questions. A few of the weaker students displayed a lack of confidence in their abilities and exhibited learned helplessness, waiting for assistance rather than attempting the seat work on their own.

Bearing this in mind, I hoped to increase the students' confidence in their math abilities, increase their speed in completing work, improve participation in math lessons and improve understanding of math concepts.

The classroom teacher and I discussed what we hoped to accomplish and I believe the following quote outlines our thinking beautifully, "learning is greatly enhanced when the learner is affectively motivated, that is, when students feel encouraged to take risks and grow in a supportive and comfortable environment." (Mccallum & Whitlow, 1994, pg. 20).

The brain-based strategies that I used with the grade 4 class were:

- playing brain-based music (Whistle While You Work, Another World and Imusic)
- using manipulatives and games
- controlling lessons with known math facts
- teaching math tips and tricks (e.g. multiplication on fingers)
- creating active and novel experiences
- incorporating movement into lessons or activities
- creating a non-threatening atmosphere by:
    1.   using the JUMP math program
    2.   being encouraging and patient
    3.   setting up activities to ensure success

To measure success I would look for improved marks on the Term 3 report card, an increased speed in completing work, improved frequency of homework completion, and better recall of multiplication tables. I would also give the students a survey which I hoped would indicate a positive shift in attitude towards math and I would listen to students' comments and observe their behaviour during math lessons.

I started out by practicing skip counting by 2s, 3s and 5s with the class and when I felt that everyone had mastered the skip counting, I taught them how to add and subtract by skip counting on their fingers. We practiced this everyday as a warm up and played the game "I have" on which I put the statement "I have _____. Who has that plus or minus _____?" on coloured cards. The numbers we used would be restricted to only the facts that we had been practicing. Each student was given a card with different numbers on it. One student would be chosen to begin the game and would read their card that might say "I have 22. Who has that minus 18?" Students would have to calculate the answer but only one of them would have the answer on their card. That person would read their

card and the game would continue around the room until we came back to the person who began. The class just loved this game and begged me to play it everyday. They enjoyed trying to complete the round more quickly each time and asked to be timed with a stop watch. At first, some students were reluctant to count on their fingers and continued to guess, incorrectly, at the answer, but it did not take long for them to accept that counting on your fingers was OK as long as you got the correct answer. I later observed students counting on their fingers during other activities. Soon I added skip counting by 4s and when we did fractions and decimals I was able to create a new game incorporating these. I also taught the class how to multiply and divide easily on their fingers by skip counting and we practiced this every day as a warm up before beginning the lesson.

I began teaching from the JUMP math program created by John Mighton. Specifically I chose the fractions unit because it is designed to increase the students' confidence. The method is to control the math facts to ones that the students know (only those we had practiced above) and to take it very slowly with a basic step by step approach. I encouraged participation by calling on students randomly and having the students come up to the board to answer sample questions. I played brain-based music specially designed to stimulate concentration, spatial ability and creativity and I tried to get the students as active as possible. After the lessons, while handing out the worksheets to the class, I would hear many students comment, "This is too easy". Unbeknownst to the students, some of the fractions work that I was having them do does not appear in the curriculum until Grade 6 or 7. The entire class did very well on this unit and many of them commented in the survey that the fractions unit was a section of math that they understood really well and reasons given were:

> "…because it was fun."
> "…it was fun and you learned fun stuff."
> "…fractions were easy."
> "…because it is easy to understand."

Mr. Barrett felt that both the fractions and the measurement unit worked well because, "... each new lesson built on the previous lesson."

Throughout the fractions unit the students were all given individual help as needed (a luxury afforded because the classroom teacher was also in the room) and immediate feedback on their progress because we marked the pages a bit at a time as they worked through them. This also was a great confidence builder and removed a lot of the threat because students could know that they were doing it correctly after completing only a couple of questions. Both the teacher and myself were very encouraging and continually praised the students' efforts. Everyday I would create a bonus page of work that was slightly more challenging and really only intended for the stronger math students who would be finished their work more quickly. Many of the students were eager to further impress me by completing this page as voluntary homework, including many of the students who normally would struggle with math and shy away from doing their work at all.

Overall, all of the 28 students but 4 indicated on a survey that they were good at math. Some of them indicated that they would have said they were not good at math before hand. The reasons that they felt they had improved were:

"…because the teacher helped me."
"…because I worked harder everyday and I improved."
"…because I started asking for help."
"…because I got extra help and I try."
"…all the help and teaching got me way better at this."
"…because I've learned more than in the beginning of the year."

The classroom teacher observed that, "confidence seemed to improve and end results were good."

When asked what activity they really enjoyed the students indicated either a game or an activity that got them out of their desks. On the survey the activity that students mentioned the most was a probability activity that we did that was like a Tribes activity that the students were familiar with. I would make a statement and the students would have to go and stand by their choice of certain, likely, unlikely and impossible. The students really enjoyed giving their opinions about why they made their choice and many of their reasons were very thoughtful. A few commented that they enjoyed this activity because it got them out of their seats.

I had a lot of fun working with the Grade 4 class and with Mr. Barrett, and I believe that the students had fun too. As has been indicated, there was a general improvement in attitude about math and participation did improve. The teacher noted that there was an improvement in marks in Numeration for term 3 from B- to B/B+ on average. However, throughout term 3 I felt rushed to complete the curriculum and I believe this impeded the students' ability to internalize and deepen their understanding of the math concepts we were teaching. Mr. Barrett agreed with this observation, stating that "less concepts need to be covered so that re-enforcement can take place." All in all, the results were positive and encouraging and I will continue to research about brain-based teaching methods and incorporate these into my teaching strategies.

Conclusion
Educators working in brain-compatible environments can develop an unprecedented professional competence that will enable students to reap the rewards of powerful, successful learning (Erlauer, 2003). More children are being referred for special education evaluation not because they have true learning difficulties but because an inflexible (though well-meaning) school environment has not adapted to their changing brains. Rather than disparaging the changing brain and culture, perhaps we should recognize that we must adjust schools to accommodate these changes (Sousa, 2001; pg.18).   Although brain research may not "prove" anything, it gives us a way to think about what we already do, what we need to do more of, and what we need to reconsider. Many articles about the brain are beginning to appear in popular magazines on a frequent basis, leading parents of students to ask us questions about the connection between what they are reading about the brain and what teachers do. As educators, we need to be informed, thoughtful, articulate, and active in using relevant information to enhance learning in our classrooms (Politano & Paquin, 2000)

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Part III

Special Education

How can I use the Schools Attuned: CODE Special Education Project to help classroom teachers develop their understanding of individual learning differences?

Karin Mertins, M.A., C. Psych Assoc. and Schools Attuned® Facilitator

Biography

Karin is a member of the College of Psychologists of Ontario and has worked in many schools across the Grand Erie District School Board. With brain research as her area of professional interest, the interface between the learning profile of the educator and that of the student has always held a particular fascination. She was trained as a Schools Attuned Facilitator by All Kinds of Minds in November, 2005.

Abstract

One of the themes that runs through the school improvement literature is that good instruction begins with an understanding of individual learning needs. The development of expertise in this area is a daunting task as individual variations are endless while the time to observe and distinguish those that are important is finite. To this end, the National Association of School Psychologists advocates that school psychology shift away from testing children to helping classroom teachers understand and modify the classroom environment to improve student learning. One strategy to implement this paradigm shift is use psychology expertise to deliver a professional development program. The paper that follows is a reflection of this experience.

The context

My cognitive affair with Mel Levine began almost two decades ago as a recent graduate from the School Psychology program at the Ontario Institute for Studies in Education. I returned to my alma mater to listen to Dr. Levine speak about developmental variation in learning and the adverse impact of misunderstanding these differences. I can still recall taking the east bound subway from my sister's apartment and then sitting in the OISE auditorium listening to its rumble. Little did I know that Dale McManis and Terri Sheehan, two colleagues in psychology whom I would meet when schools boards amalgamated in 1998, were also in the audience that day. In the mid 1990's, Jim Little, a teacher colleague who was also a huge fan of Dr. Levine, handed me a recent publication describing brain research and its implications for education. This prompted me to return to my science roots and continue what I had started as an undergraduate at the University of Guelph, namely to understand what the neurosciences have to say about learning. In July, 2004 I completed my Schools Attuned training with Dale. About 3 minutes into core course, I began to wish that every educator in Grand Erie be given this learning opportunity. Here was the direct link between the individual differences the neurosciences tell us to expect and what to do about them in an education context.

So far, the journey has had more ups than downs. Dale continues to work tirelessly to support me and all the educators who attend Schools Attuned. I have been reminded that you don't really know who your friends are until something goes wrong but I continue to believe that the right action, at

the right time, with the right intent will accomplish the impossible.

Volunteer to Secondment to ?????

In January, 2006, I was seconded from my regular duties as a psycho-educational consultant to oversee a Council of Ontario Directors of Education (CODE) administered special education initiative that would see 75 staff trained in Schools Attuned. In general, I would describe my organization as excessively concerned with status quo in spite of Einstein's musings that we cannot solve the pressing problems of the day at the same level of thinking that we were at when we created them. This secondment required thinking outside the "job description box" and decision making based on something other than organizational convenience.   I am grateful for the risk taken by Sharon Laidlaw, Jackie Delong and Kim Cottingham. As I write this, there is still a part of me that does not believe this happened. Education makes some effort to recognize and plan for the diverse talents of its teaching staff but seems quite content with the narrow roles defined for others, even when those roles do not reflect "best practices" literature. I also wonder how work assignments that aligned neurodevelopmental profiles with roles might shift who does what in education. Are the neurodevelopmental profiles of current educators a good match for current and emerging work demands?

Not everyone was delighted with the secondment but fortunately they are also the ones who don't send me e-mail. For better or for worse, I have never been saddled with an overarching desire to have everyone like me and so I choose to accept the good wishes of many as well as the polite silence of others. Planned ignoring is a two way street.

Shifting Schools Attuned from a volunteer initiative to a 'during the school year event' was a second challenge. There is an appreciable amount of leg work required to attract and organize a class grouping of 25 people and we were looking at 3 such groups. Balancing the system's need for order with the time lines for CODE while integrating the experience of two summer institutes was a good way of leaving behind the world of resource team meetings and individual assessment. Somewhere along the way, I have learned to follow rules and am rewarded with the energy to do the important content and relationship pieces within their framework. The trick is to know what are the rules so that you can follow them to accomplish your goals:

> "Congratulations! You are the right person to make these programs a reality in our schools. I hear good things about them, but need more info. as to secondary application. Will you be coming to the secondary Director's Meeting to tell us more about them?" (Secondary School Principal e-mail, January 10, 2006)

Getting quickly to the right people in the right order turned out to be a Godsend in terms of meeting timelines.

I don't believe in working alone. Team Levine is an informal group of people who believe in the work of Schools Attuned and have taken, in different ways and to different extents, the responsibility of organizing summer institutes and other information sessions for schools mostly in the spirit of voluntarism. The Globe Modern Dictionary defines the adjective voluntary as "done or acting of

one's own free choice, without being compelled or motivated by hopes of reward". Membership has shifted and become role-determined to some extent as Grand Erie has increased its investment in Schools Attuned but Saturday and summer work remains voluntary. A specific position to take on not only the organization but the facilitation has created a chasm on the Team. While I feel it is personally regrettable that this short term transition is viewed negatively by some, I also know that anything less than an egoless commitment to this project is impossible. For every door that closes, another opens.

This shift from a volunteer initiative also had implications for the profile of Schools Attuned. Would we be drawing a different kind of educator and how would release time versus personal time affect interest in subsequent offerings? Interestingly, few people whose names had been kept on a "wait list" from the previous summers offering came forward but most schools sent lists of 2 to 16 names for consideration. In part, this reflects the authority of the principal to govern what happens during the school year.

Communication

From time to time, I have been known to complain about communication within Grand Erie. I have learned from these complaints but with some chagrin must report that I have become she who is complained about. I have learned that the name people use to identify themselves is not always the same as their First Class e-mail address. I have learned that e-mail does not always arrive at its destination. I have learned that not everyone reads their e-mail. I have learned that an expression of interest is not the same thing as a willingness to do the work. I have learned that policies and procedures that are so straightforward on paper, take on a different meaning when real life blows freezing rain and 43 people are already on the road or in that building that has been closed. I have learned that administrators do not always share all of the information that has been provided. I have learned that not everyone reads detailed pre-course information that has been hand delivered to them with as generous a time-line as possible until 24 hours before core course and then they are surprised by what they learn......I take comfort in knowing that there are all kinds of minds that contribute to communication issues. I promise to keep working at this from my end.

Disengagement

I began this school year thinking about the question of fit between me and the organization that has employed and nurtured me for 16 years. Nurturing has not been an endless stream of positive experiences and photo ops. There is a great deal of repetition in education which I sometimes experience as boredom, frustration and then guilt for feeling bored and frustrated. I fantasize about that road trip to South America, leaving it all behind in a quest for the unknown. I am relieved when others dare to share their stories. Isn't it ironic that education holds captive both unengaged students and unengaged staff.

"I am interested in the "Schools Attuned" sessions being offered in Brantford in April. Karin Mertins session held here at Valley Heights got my attention. I have 2 reasons for being interested: I teach Geography and am therefore in contact with EVERY Grade 9 student that attends our schools and second, Karin's presentation said one of the after-effects of taking this course is a "rejuvenated career". I need rejuvenation if I am to have a better impact on these Grade 9 students. Too often I

end up running on autopilot and I don't like that."
    (Subject Specialist Path e-mail, January 31, 2006)

Measuring what?
The idea of measurement and evidence is popular in education at the moment although I am not convinced that anyone knows what they should be measuring or how. I struggle with the differences between empirical and action research. As a scientist I am bound by the conventions of systematic observation and objective reporting in a traditional format that seeks to remove the voice of she who writes. I understand empirical research with control groups, crisp independent variables and that pristine world of statistically significant differences. Collaborating with Sid Ali from the Peel District School Board contrasts sharply with paying attention to educational change as reported by those who are changing. Have I become an independent variable?

As a citizen of the world, I know that the thigh bone is connected to the hip bone and that the butterfly effect is real. It seems to me that in education, the butterfly effect is set in motion when an educator begins to think about things in a different way. These AHA!'s are what inspire me.

Final Reflections
    I used to think....students should work quietly at their desks. All students should do the
    same amount of work. Hard work will make all things right with the world.
    Now I think....all students have different ways of learning, processing information etc. and
    there is a need for multiple strategies and team work in teaching children.
    -Generalist Path Participant, April 25, 2006

So what?
One of the things that I learned at Schools Attuned is that if I really focus on being impeccable with my own practice, I don't have time to get side tracked by that of others. Change happens when I decide it will happen, not when my boss or colleague or family member or neighbour tells me it will be so. I know that people are really engaged in their own learning when the road maps to implementation are as diverse as the minds that have created them. There is not one "right" answer.

    I'm taking a social work course and have an essay due. The essay is to choose a current
    Canadian social policy issue in a specific area. I would really like to do something, highlighting
    the schools attuned theory. I want to somehow find a social policy issue in education that
    will relate almost fully around Schools Attuned. I think because it's such a new area, the
    professor may not have even heard of it - and that would be pretty exciting.
    -Generalist Path Participant e-mail, May 26, 2007

I accept that I may be failing the management team that presses me for clear evidence that Schools Attuned has made a difference in the classroom that will causally lead to improved EQAO results, but I applaud every person in core course who has had the courage to put their plans on paper and dares to dream as I did that every kid can be successful in school if we take the time to help them understand how they learn.

Closing Reflection

The Ministry of Education time line for this CODE project is a difficult match with the real world of front line educators. The Schools Attuned learning process for the 75 people with whom I have learned these past 5 months is not complete and already there are some whose journey takes them on a side trip that I hope they will tell me about. I believe that communities keep an eye on one another. We find ways of building bridges because we believe both in the journey and the destination.

For me this has been a rich and varied learning opportunity. The process of learning to facilitate the opportunity called Schools Attuned is a perfect match with my belief system, the observations I have made as a citizen of the world and the gifts that I have been given. The challenge of one mind at a time seduces me. I am empowered knowing that I can create that opportunity for every kind of mind. I am hooked on watching learning happen.

I have enjoyed this vantage point of a complex system that seeks to make sense of such diverse needs and learners. I am surprisingly comfortable with the absence of easy answers and will endeavour not to be bullied by those who believe they exist. Like Dr. Levine, I believe that change happens one mind at a time. I am indebted to the many who have helped along the way.

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www.allkindsofminds.org
www.naspweb.org
www.schoolsattuned.org

How can I, as an Elementary School Principal, support the Learning Resource Teacher to improve the learning environment?

Cheryl Black

Biography

An employee of the Grand Erie District School Board for twenty-five years, the writer is currently an Elementary School Principal. Prior to that role, she worked as a Vice-Principal/Learning Resource Teacher for two years and a secondary school music teacher for nineteen years. She received her Masters of Education as a member of the Grand Erie/Brock cohort and used the action research methodology in her final project. She has almost ten years of experience in action research.

Abstract

This is the story of the impact a Learning Resource Teacher (LRT) can have on the climate of a school. As a principal, I found myself being continually reactive to discipline issues. I found it stressful to be ready for anything and to feel that I had very little autonomy over the course of my day. As a consequence, I made working with the LRT to ensure that students received appropriate programming in the classroom a priority, and saw a resulting impact on the whole school.

Background

The writer of this paper met regularly with other Learning Resource Teachers (LRTs) to discuss the changing role of the LRT. The LRT's voluntarily took part in the discussions when they answered an invitation to participate. Their discussions were made more difficult due to the many different aspects to the role, and many different perceptions held by parents, teachers, administrators and students. There are varying perceptions as the best way to help children with learning problems. The role can be seen as a spectrum with total withdrawal of students needing assistance at one end, and at the other end the learning resource teacher can work as a resource for teachers to help their own students. The position on the spectrum depends on the needs of the school, the needs of the students, the attitudes of the other teachers and the attitudes of the parents in the school community. Realistically, it is impossible to 'fix' learning disabilities by withdrawing students. Adapting classroom programs to ensure the student's success is a way to more efficiently help the greatest number of students, but not all situations lend themselves to that method. My position on the spectrum varies depending on the situation and the needs of the child. However, meeting the needs of as many children as possible remains my priority. This story explains a principal's role in supporting an LRT's struggle to find a way to be effective in her setting while still remaining true to the values that they hold.

A contributing factor has been the mandate of the Ministry of Education to foster an environment of inclusion—to return students with special needs to their home school and work with them within their own, age-appropriate classroom. More special needs students in the regular classroom, necessitate the LRT's support for the classroom teacher. Educational Assistants (EAs) can lighten the load in extreme cases, but the increasing need for their help means that their potential for assistance is lessened, especially at an academic level. The number of students needing more

intensive support in the way of medical and behavioural concerns, means that academic EA's have virtually disappeared.

Developing a question

Philosophically, I have always believed that suspension should be used as a last resort in order to make a point as to behaviour accepted at school. Students cannot learn if they are not in school. In order to improve student learning, I believed it was important to reduce the discipline issues so students were spending more time in the classroom rather than sitting outside the principal's office or at home. However, I realized that there is a larger issue. The school community has to work together to recognize good choices and discipline bad choices in a consistent manner. With the staff, I have spent some time organizing a system by which I can track patterns in misbehaviour with specific students in order to determine academic frustrations. I believe that some misbehaviour can be an indication that a student is struggling. As a consequence, I decided to work with the Learning Resource Teacher(LRT) at my school and reduce some academic frustrations where possible with the intent that behaviour would improve and the school would become a more positive environment. While academic frustrations was my main focus, other patterns began to emerge like certain girls who become moody at the same time each month, or other students who have difficulty whenever there is a full moon or finally, the impact social friction can have on certain children. In order to investigate my impact on one aspect of the issues, I devised the following question:

How can I, as an Elementary School Principal, support the LRT to improve the learning environment?

As facilitator of the research group investigating the changing role of the Learning Resource Teacher (LRT), I had to model my involvement in the process by conducting my own research and collecting my own data. My connection with the role of the LRT is based on two things. First, in my role as a new elementary vice-principal, 70% of my role was to be an LRT in the school. The difficulty in balancing the two roles meant that I had to be creative. One means of effectively helping students with the least amount of wasted transition time, was to go into the classroom to help students rather than withdraw identified students. The second issue, was that the current LRT at my school, became an LRT when I hired her to the role in December of 2003. So, when helping a new LRT, I passed on the things that I had learned in the role, but she took them, made them her own and creatively took things even further.

To connect with the role of the LRT, I watched the outcome of some of the creative experiments that she tried at our school, with the support of the staff and myself. While I am writing the research paper to describe our successes and things we would do differently, I have to acknowledge that every teacher contributed to the successes and learned from the failures. None of the events described in this paper are based on solely my changes in my own practice, but in various changes made together that we hoped would improve the culture of the school and create a more positive learning environment. The changes made were initiated by different people or resulted from brainstorming sessions at staff meetings. I believe that decisions reached by consensus through discussion at a staff meeting will be implemented more wholeheartedly than decisions mandated by me without the discussion.

Although an old model, the "Logical Consequences" model of Rudolf Dreikurs (Dreikurs, Grunwald, & Pepper, 1982) still holds true, in my experience, I have always believed that if students were successful in the classroom, there would be a reduction in the frustrations spilling over onto the playground at recess time. Students cannot learn if they are sitting in the principal's office or worse, suspended. Dreikurs model reinforces my belief. He stated that "people behave in certain ways to gain attention, exercise power, exact revenge, or display an inadequacy"(as paraphrased in Allington & Cunningham, 2002, p. 232). I believe that students behave in certain ways to ensure their removal from the classroom as a means of avoiding the embarrassment of displaying inadequacies. Thus ensuring they maintain their popularity with their peers because being a 'bad kid' has more status than being a 'dummy'. As a consequence of this belief, I consider patterns of misbehaviour as indicators of academic avoidance for some reason.

The first situation came about as a result of two Grade 8 boys who were not coping well in French. When approached about them being exempted from French, my first question was regarding supervision. The LRT had already asked a teacher about overseeing the boys. We had separate meetings with each set of parents and obtained their approval for the plan. We had five Grade 2 students in a Grade 1/2 split class who struggled with reading. The plan was that the two boys in Grade 8 would be trained to do "Running Records" (a tracking mechanism for keeping track of a student's reading improvement) and they would spend their French period working with the Grade 2 students. For one of the boys, in particular, there was a significant change in his school behaviour.

Jeff
When I came to this school, Jeff was in Grade 5. In the time I have been here, his impulsivity has meant that he has had difficulty making good choices at times. Frequently on the school yard he has been posted or suspended for using physical contact inappropriately. Disrespectful comments to teachers and other people in authority have been the norm. His mother is very supportive of our discipline at school, and has followed through with consequences at home. But, Jeff seems to forget negative consequences very soon after they occur. He also has had tremendous difficulty sitting still in class long enough to understand a lesson and the resulting work expected of him. We, the former LRT, classroom teacher and I, had many meetings as a group and with his parent, to discuss strategies which we could implement in the hopes that he would be more successful in class. Eventually, we determined that assessment and presentation to an Identification, Placement and Review Committee (IPRC) would be appropriate. As a result, we were able to modify his program which meant he was better able to cope with work, but he was still not achieving to our perception of his potential.

Our school has a discipline system designed to catch the issues that can fall between the cracks. Our Reports to Office are filled out for students who make a bad choice, but escalate the situation by denying their action and defying the instructions of the teacher. After the first report received by the office, the child's parents are called. After the second report, a letter goes home stating that the child will be suspended for one day upon earning a third report. "Persistent opposition to authority is used to explain the suspension which follows the third report. Two years ago, a child would have been suspended after receiving five reports. Under this system, Jeff had been suspended three or

four times for receiving reports. Under the system of five reports, Jeff therefore earned five or more reports per term. This was significant in the number of discipline issues involving Jeff.

This year, the Learning Resource Teacher asked about exempting Jeff from French. I was concerned about supervision for Jeff when not with the rest of his class. Her suggestion was to have him listen to Grade 2 students read. We have a Grade 1/2 split in which the Grade 2 students are very weak and were put in that split in order to, hopefully, fill some of the gaps missing in their learning. The teacher of that class offered to supervise him as he would sit at a table just outside her classroom and do running records with her Grade 2 students. I was surprised at her willingness to supervise this student, but he has had another side that was not evident very often. He is a likeable kid and there have been times when he has been very helpful around the school. In fact, he'd rather help around the school than do his school work.

We met with the parent and received her blessing for the project. The hidden agenda is that listening to the Grade 2 students read, would give him a chance to bolster his own reading skills.

The project to date, has been a huge success. He has had one report to the office for some impulsive behaviour on the schoolyard, all year. In fact, about six weeks into the school year, I spoke to him about the fact that he had succeeded in changing his own reputation. Teachers were noticing his maturity and his focus in his own classroom, as well as his improved ability to speak to people with respect. The teacher of the Grade 1/2 class was thrilled with his help and the way he handled the situation. He was taught to do "running records", and while the younger students haven't made huge gains, they are gaining in confidence, as is Jeff. His mother called me one day in January, and said, "You guys walk on water, as far as I'm concerned. Jeff has developed a different relationship with his little brother. He sits and reads to him, he is teaching him colours, letters and numbers. Jeff has also said that he wants to be a teacher. Thanks for doing all that. You've made a big difference for Jeff."

Other Aspects of the Role
With the push for the inclusion of more special needs students in the regular classroom, the job of the LRT has become more challenging. Allington & Cunningham state that "in-class, collaborative instructional models focused on enhancing achievement in the core curriculum of the classroom do, in fact, seem to offer the greatest promise for providing high-quality instruction." But they also encourage some "flexibility in intensity, location, schedule," and emphasis. "No single program design can possibly be expected to meet the needs of all children" (p. 75). However, they do believe that those needs can best be met by "creating responsive, in-class support, collaboratively planned and offered by classroom and special teachers" (p. 75). Our LRT has attended various workshops and meetings designed to help her better understand different learning styles, different classroom management techniques, and Schools Attuned-based on the work of Dr. Mel Levine. As a consequence, the LRT at my school found she could be more effective in helping the older students(Grade 6, 7 & 8) by going into the classrooms during specific subject areas to assist more students while they worked on grade-appropriate work and occasionally to model minor adjustments in practice that could better meet the needs of more learning styles within the classroom. An added bonus was the ability to understand some of the classroom social dynamics that could also be

negatively impacting the ability of students to focus fully on the lessons being taught. The teacher working with students in the classroom also reduced the amount of time lost in transition as withdrawn students walked out to the learning centre for extra help.

Education Quality and Assessment Office Grade 6 Assessment
A recent change in allowable accommodations on the Ontario Education Quality and Assessment Office annual Grade 6 standardized testing caused another situation in our school. The change mandated that any students receiving accommodations or modifications during the Grade 6 test, should have an Individual Education Plan (IEP) in place showing that each student receives those accommodations in all aspects of their schooling. While there are many accommodations allowable in the classroom which many teachers provide as naturally as breathing, this recent change meant that extra assessments had to be done to collect the proof that the students really needed the provided accommodations and were not underachieving for other reasons.

This year, as the Grade 6 teacher prepared her students for the upcoming assessment, she decided she had some concerns regarding the ability of some of her students to be successful. They were struggling in various capacities and needed some fairly extensive support to be successful. Within the first month of school, the teacher contacted the parents and began working with them to explore strategies that might help their child be successful. After In-school Team Meetings, the LRT contacted the parents and asked for permission to assess the students in order to better understand their capabilities.

A couple of families were concerned that, suddenly, in Grade 6, their children were having problems in school. They contacted other parents and began having meetings. Eventually a letter arrived at the school criticizing the capabilities of the teacher and making suggestions to help her improve her classroom practice. The parents wanted to make her responsible for their child's inability to cope with grade-level work. So, I set up case conferences with each set of parents. Each conference involved myself, the LRT, the classroom teacher and the parents. The LRT tabulated the results of the assessments for each child and was able to present them to the parents. In each case we were able to come up with a list of strategies that would be implemented at home and at school to help the children be more successful. Once the parents realized that the assessments were meant to be diagnostic—to find specifically where the students had difficulties-their fear of having their child "labeled", disappeared. Also, the assurance that the accommodations could be provided without their child being singled out and made to feel inadequate, helped alleviate concerns. Once we determined where the students needed more help, their improved success resulted in a slightly more positive attitude about some aspects of their schoolwork.

The change in requiring the proof and the IEP in place before the Grade 6 assessment was a change mandated by the Ministry, but one that needed support from the school community. Without the help of the LRT in doing the assessments in a timely manner and explaining the results to the parents in a way so that they understood this was only a matter of slightly different wiring in the child's brain, the concerns of the parent community could have blown into a much bigger situation. As Allington & Cunningham recommend, involving parents in planning the changes to improve the learning of their children, means the changes are more readily accepted.

The assessments did not increase the number of identified students at our school, a concern raised in New York State as the "stakes attached to statewide testing rose"(Allington & Cunningham), the assessments enabled us to put in writing, the special things that helped some of our students achieve a higher level of success.

R.E.A.L. Kids

Another change that we implemented at our school which did not directly involve the LRT anymore than it involved the whole school was the implementation of the R.E.A.L. Kids program. This is a program that has been around for many years in the Brantford area and involves the chance for students to earn letters depending on the exemplary qualities exhibited during the school day. Students who are 'caught' being respectful or responsible, can earn an 'R'. 'E' stands for Effort, Excellence and Empathy. 'A' stands for Academics and positive Attitude and 'L' stands for Leadership. The additional condition was that students are doing the right thing because it is the right thing to do, not because they were going to get something for making a good choice. We wanted to help students become responsible members of a community of learners thus preparing them for becoming contributing members of society. Allington and Cunningham (2002) state that "schools that work well for all children make a concerted effort to help children develop personal responsibility for their own actions. (They) need to accept responsibility for their learning as well as for their behaviour (often the two are related). At the same time, schools must accept the responsibility to help all children learn more effective self-monitoring strategies" (p. 232).

This positive approach to behaviour has resulted in some older students stepping in to help younger students solve conflicts and some students solving their own conflicts themselves. At one point, a young girl in Grade 2 noticed some kindergarten students seemed to be arguing. She went over and put her arm around the shoulders of the young girl who was upset and negotiated with the others how they could adjust their game so they could all play together. Another young man in Grade 4 noticed that some Kindergarten and Grade 1 students were arguing over the ownership of a pile of snow. He organized them into two teams and proceeded to teach them how to play basketball. Those were the kind of events that happened more and more often as students understood the REAL kids program. Those students earning all four letters, were recognized at monthly assemblies and their pictures were placed on a special bulletin board at the front of the school. Their parents were invited to the assembly and we tried whenever possible, to have a guest speaker come to reiterate one of the qualities that we hoped the REAL kids program would foster.

Aspects of Peer-Tutoring

I am a strong believer that whenever lack of time is creating stress, then one way to manage time is to delegate some jobs. So, I encouraged the LRT to only do what only she could do. So, she created the Alphabet Kids Club. Grade 8 students who monitored the kindergarten students eating their lunch, picked one or two each day to practice the letters, the sounds of each letter and colour recognition. This year, the plan is to create an additional club for Dolch words. Her plan of peer-tutoring meant that there were increased opportunities to recognize older students who stayed in for part of lunch recess and provided that practice. They often stepped up and took on extra responsibility with the children for which they received REAL kids' letters. At the REAL kids assemblies, Kindergarten

students who graduated from the Alphabet Kids Club, received certificates from the Grade 8 students who were running the program.

Conclusions

According to Seita & Brendtro(2005), when designing programs for students who struggle in school, four conditions will help:

- Connections: social bonds to family, school, peers, and community
- Continuity: patterns of thinking and coping that influence life pathways
- Dignity: environments that cultivate trust, talent, power and purpose
- Opportunity: situations that develop strengths, supports, and goals for positive growth. (p. 116)

"The goal is to create environments in which all youth can thrive and grow" (Seita & Brendtro, p. 117). Our school culture changed substantially this year. Admittedly some challenging students did relocate thus positively affecting the situation, but we believe that changes implemented to help students achieve more success in school along with a program that fostered and rewarded students who contributed to the positive culture of the school, meant that last year at our school, the environment was much improved. Discipline issues, suspensions and absenteeism were greatly decreased. To choose one aspect of our changes as the main contributing factor, would be impossible; rather I believe that the combination of recognition of positive behaviour, fostered more positive behaviour and more positive attitudes about school. That factor combined with the recognition that some behavioural issues were indicators that academic changes were necessary, meant that our whole school environment was very different from years past. I know that the factors mentioned in this paper were not solely the cause of the improved environment, but they did play a large part.

The ability for those changes to occur was due to the board philosophy that school administrators need the flexibility to support staff and students by implementing programs that work for our respective school communities. This also means that the role of the LRT will vary from school to school depending on the needs of the students and the respective strengths of the staff. It is difficult at times that the role is not more clearly mandated but that would remove the ability of staff, parents and administrators to "orchestrate resources" (Allington & Cunningham, p. 86) and collaborate toward improving school climate and the resulting classroom instruction thus attempting to meet the individual needs of our students.

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How can I improve my practice as a learning resource teacher; supporting teachers and students and yet still meet the demands placed on the role by the board and province?

Christina Brittain

Biography

Christina Brittain is the learning resource teacher at Russell Reid Coronation in Brantford. She has taught grades three to eight and self contained special education classes. Christina has a Bachelor of Arts degree in Geography from The University of Western Ontario and a Bachelor of Education degree from Memorial University of Newfoundland. She has specialist certificates in special education and reading. This is her first Action Research project.

Abstract

The role of the learning resource teacher is defined by the needs of students and staff of a school. My observations during my first year as a learning resource teacher were that classroom teachers needed support when accommodating and modifying for their identified students in the regular classroom setting. How can I improve my practice as a learning resource teacher; supporting teachers and students and yet still meet the demands placed on the role by the board and province? My goal was to work closely with two teachers to accommodate and modify for our identified students. Although I was not successful in meeting my goal, I improved my performance as a learning resource teacher.

Action Research Group

The writer of this paper met regularly with other Learning Resource Teachers(LRT's) to discuss the changing role of the LRT. The LRT's voluntarily took part in the discussions when they answered an invitation to participate. Their discussions were made more difficult due to the many different aspects to the role, and many different perceptions held by parents, teachers, administrators and students. There are varying perceptions as the best way to help children with learning problems. The role can be seen as a spectrum with total withdrawal of students needing assistance at one end, and at the other end the learning resource teacher can work as a resource for teachers to help their own students. The position on the spectrum depends on the needs of the school, the needs of the students, the attitudes of the other teachers and the attitudes of the parents in the school community. Realistically, it is impossible to 'fix' learning disabilities by withdrawing students. Adapting classroom programs to ensure the student's success is a way to more efficiently help the greatest number of students, but not all situations lend themselves to that method. This story explains one LRT's struggle to find a way to be effective in his/her setting while still remaining true to the values that they hold.

A contributing factor has been the mandate of the Ministry of Education to foster an environment of inclusion—to return students with special needs to their home school and work with them within their own, age-appropriate classroom. More special needs students in the regular classroom, necessitates the LRT's support for the classroom teacher. Educational Assistants (EA's) can lighten the load in extreme cases, but the increasing need for their help means that their potential for

assistance is lessened, especially at an academic level. The number of students needing more intensive support in the way of medical and behavioural concerns, means that academic EA's have virtually disappeared.

Background

Russell Reid – Coronation School is a twinned school educating kindergarten to grade eight students and it has two self contained special education classes; a junior Mild Intellectual Disability (MID) class and an intermediate MID class. The school has two sites. Russell Reid houses the primary division and Coronation holds the junior division, intermediate division and the two self contained classes. The learning resource teacher (LRT) is a full time position between the two sites.

My Role as the Learning Resource Teacher (LRT)

The role of the LRT is a diverse position. It requires skills, knowledge and an appreciation for the unique needs and values of students, parents, teachers, and administrators. It helps to have a clear understanding of the school culture. Teachers regardless of the division or grade they educate in, have an understanding of each other's responsibilities. It is my opinion that the role of the LRT is probably the least understood position in a school.

My principal moved me into the position of LRT when our LRT left to become a consultant. I was excited about this new opportunity and felt the beliefs I have as a teacher and my experiences in special education would fit well with the role. From 2004 to now, I continue to learn and grow as a teacher. The role of the learning resource teacher is changing as the model for special education changes. How can I improve my practice as a learning resource teacher; supporting teachers and students and yet still meet the demands placed on the role by the board and province? I compared my practice from 2004 to now to see how I have grown and to note the benefits and downfalls for others. The Individual Education Plan (IEP) procedure at our school has changed, annual reviews have become much smoother to run, teachers and students are using Co-Writer, students have benefited from challenging activities, In-School Team (IST) meetings are run in the primary division, and two teachers share their experiences with accommodating and modifying. When I look back, I understand why the role is diverse and how flexible one must be. The role of the learning resource teacher must reflect and meet the needs of the school.

My responsibilities as a LRT consist of:

- support teachers when accommodating and modifying programs
- monitor kids, small group support and in class support
- supporting teachers as they write their IEPs
- hosting Identification, Placement and Review Committee (IPRC) meetings, In-School Resource Team (ISRT) meetings, In-School Team (IST) meetings, case conferences, parent meetings
- paperwork for Single Point Access Referrals (SPARs), annual reviews, consent forms for enrichment, speech social work, Child and Youth Worker (CYW), behaviour counsellor, SEA System Resource Teacher; Ontario Student Record (OSR) searches
- participation in MindShift (Laidlaw, 2005)

- training of Special Educational Amount (SEA) equipment for the students, teachers and EAs
- grade eight transitions to high school and identified students transitions to self contained classes
- communicating with outside agencies that include social workers, CYWs, Occupational Therapy (OT), doctors
- Woodcock Johnson III (WJ III) testing,
- encourage teachers to try different strategies, guide teachers and EAs on what they say to parents
- plan with teachers for annual reviews (self contained classes)
- training for GEDSB Guiding Principles for special education, Differentiated Learning, Tribes
- share information in staff meetings, training at staff meetings for IEP, Co-Writer
- accommodations for Education Quality and Accountability Office (EQAO) testing
- helping students with SEA equipment use it appropriately in the classroom
- extra curricular-Geography Challenge, Math Bingo, Parent-Teacher Association (PTA), social skills club
- providing a study skills workshop for our grade six to eight students, Cyber Bullying workshop for our Awareness Day
- professional reading such as the Tribes textbook, Hold on to Your Kids, SMART Ideas manual, When Kids Can't Read
- attending LRT meetings, staff meetings for both sites

In 2004, I wrote the IEPs for our identified and non identified students in the regular grades. The easiest IEPs for me to write were those IEPs for my former students. I knew them; their strengths and weaknesses. After speaking with my administrator, it was decided that the teachers would write their IEPs this year as they knew the students best. During our first term, in a staff meeting, the teachers registered with the IEP engine. I inputted all of the necessary information regarding personal data, assessments, amount of support, and staff wrote their expectations for language, math, science, social studies and for the skill areas. The amount of support given to each teacher varied and continues to do so now. Teachers have written their expectations, teaching strategies and assessment for second and third terms. Some staff members are also printing the contact records and updating the assessment data (Slosson Oral Reading Test (SORT), Morrison-McCall, etc.) by adding the most current results. Next year, it is a goal to have all teachers issue the contact records and to make the necessary copies.

Again, in 2004, I did annual reviews for the first time. We had 31 identified students in the regular classes. The forms were e-mailed to me by our secretary as she had inputted the information in the previous year. I updated the material, wrote the strengths and needs for the students and planned the two days while the reviews took place. I asked teachers to complete a check list marking the strengths and needs for students (The Special Education services wanted the same language being used across the board) and to record some strategies that had worked with the student. This year, I met with each teacher and discussed the students' strengths, needs, strategies they had attempted and which of these strategies had worked. I reviewed what would be said at the annual review and how they could support the process by their participation in the meeting. I called parents prior to sending out the letters of invitation and reviewed the strengths and needs with them, what the

school's recommendations would be and how they felt about these ideas. Meeting with teachers one on one and phoning parents ahead of time seemed to relieve some anxiety for everyone. Teachers didn't feel constrained having to fill out paperwork for me and parents shared information with me prior to the meeting that was very helpful.

During the spring of this year, I had arranged for a presenter to complete a workshop on Co-Writer, a word prediction program to be used with a word processing program, for our staff during a staff meeting. The presenter was unable to attend due to an unexpected emergency. My colleague, an educational assistant at our school, Carie Ferrel, and I presented an information session on Co-Writer for the staff. The different features of the program were shown. They played with the program for twenty minutes after the presentation. The most rewarding experience from this endeavour was to see teachers use Co-Writer with their struggling writers and to report less anxiety felt by these students. Teachers also started to include Co-Writer in their IEPs under the section for teaching strategies in the English expectations area. Next year, Carie and I plan to do a workshop on Smart Ideas.

I am a slow starter. I like to get a feel for the job before I extend myself too much into extra-curricular duties. During the first year as a LRT, I attended school council/PTA meetings. This was the extent of my extra curricular duties (I should also mention that I was acting vice principal for the first three months of the 2004-2005 school year). This year, presented scheduling problems for extra curricular activities as we went to balanced day and many teachers were trying to schedule practices before and after school (Our gym was being used as a cafeteria during the nutrition breaks). One of our grade eight teachers solved my dilemma for me by passing along letters to run the Geography Challenge for both junior and the intermediate divisions and to supervise the writing of the Scholastic Challenge for grade eights. The geography challenge was an enjoyable experience. Every Monday, during the first nutrition break, the students from the junior division participated in a round of the geography challenge. Two days a week, grade seven and eight students completed a round of the geography challenge. One of our intermediate students went to Toronto to compete in the provincial challenge. Also, a selected group of grade eights wrote the Scholastic Challenge and scored very well (all within the provincial average if not higher). Although the challenge is written during class time, I supervised the time period and I know the students were excited to receive their results. These experiences of running the challenges were very positive for me as it allowed me to interact with students outside of my daily experiences.

Another unique opportunity presented itself this year. Nippising/Laurier was looking for a placement for a student teacher. I volunteered to take the student although I wasn't really sure how it would work. The student, Carly Smith, was in her fourth year and would be doing a three week placement with me. It was expected that she would teach up to 50 percent of the day by the end of the three weeks. On a suggestion by Lisa Andrews, a Junior MID teacher, an enrichment group was created consisting of six grade five students from Dave Clarke's class. With the help of Mr. Clarke, the student teacher and I determined the students would research ancient civilizations and we would incorporate Bloom's Taxonomy into the unit. She and I supervised the students as they recorded their information using the webs from Smart Ideas. Once done collecting information, Carly and I explained Bloom's Taxonomy to them. We planned a comparison activity where the students

compared the two civilizations they were studying. A second higher order thinking activity involved the students listing advantages and disadvantages for mono and polytheistic civilizations. This activity was planned and led by Carly exclusively. The students generated many insightful ideas and generally expanded their thinking during this time. The success of this project ensures that I will include it next year; possibly having a junior group and an intermediate group.

Many schools in our board host In-School Team (IST) meetings every month. These meetings consist of an administrator, the learning resource teacher and the classroom teacher. Parents may come to these meetings. Concerns regarding students are shared along with strategies attempted and their success level. Other strategies could be offered, suggestions given for outside agencies (medical or social) and a plan is set. Often, people agree to meet at a future date to review the plan. We didn't have IST meetings at our school sites. Lori Barkans, our Vice-Principal, agreed to support IST meetings at the Russell Reid site. We began in December and teachers didn't sign up for a time slot. I spoke with teachers and we posted a schedule with four students on it. Fifteen minutes was scheduled for each student. Teachers discussed the concerns and a plan was put in place. Although I can't remember the reason now, two of our teachers, a grade two teacher and a grade three teacher, ended up sitting with each other as we discussed a grade three student. The grade two teacher shared what had worked in her classroom with a student in a similar situation. The grade three teacher was willing to try the idea. I thought it was wonderful that two teachers shared ideas with each other. Often, a suggestion from the Special Education services is for teachers to talk with other teachers, particularly the former teacher of the student, when looking for new strategies and information about a particular student. It happened first hand during the meeting with positive results. Since then, only one teacher has signed up to speak about a student, however when teachers do come to me with a concern, I always suggest the IST meeting to present these concerns to our administrator.

For action research, my initial project was to work with two teachers accommodating and modifying in their classroom. I approached two teachers, one from each site and they agreed to participate in the project. The goal was to have two teachers feeling confident and comfortable accommodating and modifying their programs for their exceptional students. A board directive this year is to have the students in the classroom full time and to have the LRT as a resource person to the teacher and student. I wanted to see if I could support teachers on the sidelines. Classroom teachers are the experts regarding their students. Students benefit by staying in their classrooms. The older a student is, the less he/she likes being removed from the classrooms. Often, you can see it in their demeanour, their body language and through what they say.

Charlotte Pipe is a grade three teacher at Russell Reid School, she has three identified students and one student being monitored. Two of the students are identified learning disabled and one of the students is mildly intellectually delayed. The fourth student was reading and thinking about math at the grade one level. Charlotte and I met in January and we decided to accommodate and modify a science unit. We decided to modify the unit by reducing the number of expectations the students would be required to understand and to be evaluated only on those expectations. We accommodated the unit by reducing the amount of work expected from them. The work for one lesson consisted of completing a chart and writing the different responses for different categories. Altogether there were

sixteen blanks. For these students we filled in one to two blanks per row thereby asking the students to complete a maximum of eight blanks. Also, on this worksheet the students were expected to copy a definition. For these students, we wrote most of the definition and asked them to fill in three blanks. For another student that experienced fine motor difficulties, we gave him the same sheet, reducing the amount of written output and hopefully reducing his frustration level as well. Charlotte and I discussed what the physical format of the sheets would look like and I went back and created the sheets. This planning took her through a week of science. We agreed to meet again but we never did. Scheduling difficulties and availability were problematic for us. I do know she went on to create her own worksheets that allowed for reduced writing for these students.

Linda Moffatt is a grade eight teacher at the Coronation site, she has three identified students in her class and three weak students that she worries about. One student is identified mildly intellectually delayed and two students are identified learning disabled. When Linda and I met we chose to accommodate and modify an English assignment and a science unit. The first accommodation to the English assignment was to reduce the number of questions the students needed to complete. The second accommodation was to reduce the amount of writing. Instead of the students writing in full sentences, I created webs for each question using the Smart Ideas program. I saved the webs to the shared drive and the students could then access the webs on the shared drive and save them to their own drive. They could fill in the webs and submit these webs for grading. The students never used the webs. One of the requirements for the assignment was for the students to come out with me to use the computers in our lab. We never did that due to scheduling difficulties. The days I would be available, the class would be going to curling or had gym. The days when it was convenient for the grade eights, I was at a meeting.

A Year in Review and Next Steps
In my mind the project failed. The restraining factors that contributed to the failure were time, scheduling conflicts and taking on too much on my part. It would have been wiser to work with one teacher at a time. A regularly scheduled planning time would have been beneficial. Communicating the goal and revisiting the goal at each planning session may have helped.

Overall, this year has provided me with many growth opportunities. The writing of the IEPs is much better as the classroom teacher, who knows the student best, is creating them. The annual review process went much smoother this year. The mini training session on Co-Writer produced results. My extra curricular opportunities grew. With my colleagues, I planned an enrichment opportunity which will occur again next year. IST meetings may occur next year. A facilitating factor for the success of the LRT role is a supportive administrator. Our new vice principal may wish to continue these meetings and she/he may not. Charlotte Pipe and I plan on doing another unit together next year. We will make a greater commitment to the unit planning. Although I don't feel successful completing the action research project, the opportunity has enabled me to reflect on the role of the LRT and to observe how diverse and unique the role is. The duties and responsibilities of the learning resource teacher truly reflect the needs and culture of the school.

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How can I as Program Coordinator of Special Education assist in facilitating the Council of Directors of Education Special Education Project and ensure that regular class teachers have the tools needed to understand and manage all students in their classrooms?

Sharon Laidlaw

Biography

Sharon Laidlaw is the Program Coordinator of Special Education for Grand Erie District School Board. This is her 18th year of teaching. She has a Honours Bachelor of Music, a Bachelor of Education, and a Master of Education. This is her third Action Research Project (Delong et al, 2005, 2006).

Abstract

This paper will describe and assess how I implemented professional development programs to assist regular classroom teachers in differentiated instruction in particular, the "Schools Attuned®" program.

"The preparation of regular classroom teachers in this way is of critical importance for the application of inclusionary service models for children with learning disorders. To place such children in regular classrooms with teachers who lack the preparation to understand and manage them effectively is unfair to the students and to the teachers themselves' (Levine, 2000, p.2).

Data Collection

Data was collected through my Reflective Journal. Conversations and e-mails were also included in the journal. I used the statistical data from the Grand Erie Schools Attuned® Participation List to validate the perceptions that I had around our success in Schools Attuned®. The process of analysis included my own reflections, feedback from other staff and researchers and dialogue at the action research group meetings led by Diane Morgan. The first draft of this paper was difficult because of my health issues and despite that I persisted. When I responded to the editor, I managed to make the writing clearer and, as well, included more of my personal values and voice.

Beginning The Project

Today's student has changed the face of education. More and more students who learn differently are placed in regular classrooms. "Most students with special needs spend at least fifty per cent of their instructional day in a regular classroom, being taught by regular teachers." (*Education for All*, 2005)

It is important that the regular classroom teacher is trained to deal with the unique needs in the classroom. The Council of Directors of Education Special Education Project, funded by the Ministry of Education, gave us the opportunity to help prepare classroom teachers to understand and manage all students. "The classroom teacher is the greatest resource in the educational system" is one of the Guiding Principles that drives Special Education within the Grand Erie District School

Board. These Guiding Principles, the Special Education Operating Plan 2005-2006 and Professional Development recommendations from *Education for All*, (2005) assist in discovering the focus of the project, "increasing the capacity of regular class teachers to teach students with special needs."

In writing the proposal, I needed to ensure that it needed to be aligned with the goal that every student receives sound classroom instruction and timely supports and interventions, based on evidence based research, continuous assessment, and successful practice. Prior to writing the proposal there were some key factors that were important to our Special Education Team: aligning the project with our Special Education Operating Plan, using Action Research to share our knowledge, and increasing the capacity of classroom teachers to teach all students in their classrooms.

"It took two weekends and a lot of back spacing to write the proposal" (Laidlaw, S. Reflective Journal, Oct 6, 2006). We divided our proposal into three main areas of focus: one, extending Schools Attuned® training supports and practices; two, redefining the role of the Learning Resource Teacher; and three offering a one day conference for secondary students with Learning Disabilities and their teachers. To assist with organization of all the events we created groups of individuals to complete each aspect of the project. These areas all focused on enhancing literacy and numeracy achievement for identified exceptional students, promoting an inclusive culture which supports identified exceptional students, and increasing the capacity of all teachers in meeting the varying needs of all students. The three areas I will discuss are Schools Attuned®, Redefining the Role of the Learning Resource Teacher and a one-day conference- login06 for Secondary Students and Teachers.

Schools Attuned®
As a School Board we have had a developing professional relationship with the Peel District School Board and their Schools Attuned® Canada. Peel's own CODE Special Education Project revolved around Schools Attuned® and training teachers in schools in the philosophy of Dr. Mel Levine. On October 3, 2005 I wrote in my journal "I received an e-mail from Shari Nickle (Assistant Director of Schools Attuned® Canada from Peel District School Board) today inquiring if we would like to have a Grand Erie employee become a *Schools Attuned*® Facilitator. Wow, what a great opportunity; it costs over $17,000 US for training." Shari had asked me if Karin Mertins was available. Karin is a Psychological Associate, a strong advocate of *Schools Attuned*® in Grand Erie and part of our Team Levine group that helps set up for the training, who responds to inquiries about Schools Attuned® and assists in choosing the participants for the courses.

With Karin participating as a facilitator in Grand Erie Schools Attuned® sessions, we needed to adjust her work schedule to accommodate the running of two General Path courses. A decision was made to second Karin to work on the CODE project from January to June. Her responsibilities would include assisting in the Schools Attuned® aspect of the project, as well as leading the committee organizing the Secondary Conference login.06. The most difficult aspect of seconding Karin was in replacing her work in the schools.

Our Team Levine group met with Shari to discuss dates and what Paths we could be offering. It is very difficult to find dates and rooms available because of other Professional Development initiative

workshops that the Literacy and Numeracy team have planned. Fortunately, we were able to find some time in March, a little close to March Break and report cards. We decided to run two classes in March, one Generalist Path and one Specialist Path, which is for secondary teachers and focuses on teaching one subject. That is an advantage because we would be able to engage secondary teachers more. We would also be offering a second Generalist Path. Karin would be assisting in facilitating both the Generalist Path courses. We decided that we want to have teams of teachers participating from one school so that we are able to develop Professional Learning Communities in the schools. When choosing participants from the expressions of interest we chose schools which had staff already involved or where there was going to be more then one participant. One clear goal was to get more teachers participating from the Cayuga Family of Schools, one of three areas in our large geographic district.

Karin's impact was seen almost immediately. In the summer of 2005, when I, personally, asked several teachers in the Cayuga Family of Schools to participate in the program, we were successful in getting one teacher only. After Karin spoke at the Cayuga Principal's meeting, as well as school staff meetings, the expressions of interests increased significantly from the Cayuga Family of Schools. The data is:

Number of Participants by Family of Schools

Year	Cayuga	Simcoe	Brantford	Support Staff	Total
2004	3	6	29	10	48
2005	1	14	27	8	50
2006	24	23	25	3	75

Schools Attuned® Program's purpose "is to equip teams of educators with new knowledge, skills, and strategies so that sound, defensible professional judgments can be made about instructional practices with struggling learners." (www.allkindsofminds.org) Schools Attuned® is a comprehensive, professional development program that gives K-12 educators the knowledge and skills to meet the diverse needs of all students in their schools. It is based on the expertise and philosophies of pediatrician Dr. Mel Levine, co-founder and co-chair of *All Kinds of Minds*. Schools Attuned® curriculum assists teachers in understanding how students learn by demystifying the learning profile of a student with whom they work. Schools Attuned® also provides the teachers with an opportunity to be part of a large professional learning community.

World wide, when asked to compare the Schools Attuned® Program to other professional development programs, more than seventy-five percent of participants found Schools Attuned® to be more useful to their work than other programs they had attended (2004 Participant Evaluation Executive Summary: *All Kinds of Minds*).

Education For All states that "students benefit when all members of the professional learning community share the same values and goals." (*Education For All*, pg. 146) The goal in Grand Erie is to train all teachers and administrators in Schools Attuned®. The structure that is used in Grand Erie recommends that groups of at least three to four teachers/administrator(s), or divisions, or full departments, or grades from one school attend to train as a team and then continue to support each other in a school professional learning community.

The emphasis is on the classroom teacher as indicated in the data:

Regular classroom teachers total eighty percent of the participants of Schools Attuned®. This allows us to invest in our classroom teachers and increase their capacity and understanding of students with learning disabilities.

Redefining the Role of the Learning Resource Teacher
One key factor in assisting teachers to deal with the increase number of students with learning differences is to change the role of the Learning Resource Teacher. We would like to change the role from the Learning Resource Teacher from withdrawing the weaker students to the Resource Teacher as coach.   "Teachers can best help their student succeed when they are able to reach out to the larger community of learners. Teachers need support from their principal, special education resource teacher(s), other classroom teachers, and other professionals" (Education for All, p.12). To investigate changing the role of the learning resource teacher an Action Research group of a principal, learning resource teachers and a regular class teacher was established. Cheryl Black, an elementary principal in Grand Erie, took the lead with this group. This research project is published in Passion In Professional Practice, Vol. 6 (Delong & Knill-Griesser, 2006).

One Day Conference for Secondary Student and Teachers: login.06: Technology for Your Future
In September 2004, we piloted a four-day conference model program for students in grades 4 to 6 called MindShift (Laidlaw, *Passion in Professional Practice*, 2005). login.06 was designed to be our conference for secondary school students with learning disabilities and their teachers. The focus of the day was to build awareness about the use of assistive technology to help students be more successful in school. The keynote address was delivered by Todd Cunningham, M.A., a Ph.D. candidate at UT/OISE who described his life experience as a student with a learning disability from primary grades through to post secondary institutions. Conference attendees had a variety of workshops to choose from covering such topics as Ministry of Education licensed software available in all Grand Erie schools, learning styles and special services available in post secondary institutions. The day concluded with a student panel where four students from Grand Erie secondary schools shared their experiences/strategies using assistive technology.

The committee that worked on login.06 was composed of a Psychological Associate, who was seconded to assist with the completion of our CODE project, Psycho-Educational Consultant, three secondary Learning Resource Teachers, and myself. We met on a regular basis starting in January to plan the conference. It was important to share with students and teachers the importance assistive technology plays in a student's education. *Education for All* states that "assistive technology plays

an important role in the provision of instruction based on universal design. In a universal designed classroom, teachers can provide students with the tools necessary to adapt methods and materials to their individual needs, flexible goals for learning and continuous assessment."

We sent out surveys to the schools to gather the number of students who would meet the target population:
- Identified Learning Disabled and/or diagnosed with a Learning Disability in the areas of reading and/or written language;
- Presently uses assistive technology *or* would benefit from using assistive technology
- May be planning on attending College or University;
- Would accept an invitation to participate.

There were some trends that were disappointing. Our largest high school did not send any students to the conference. When I e-mailed the Learning Resource Teacher to ask why no students were attending my response was "the day was too long for the students" (Laidlaw, S. Reflective Journal, April, 2006).

What I Learned
I learned that:
- The further away from the classroom you are the more difficult it is to effect change;
- System Support Staff need the support of Principals to ensure that change is happening in the classrooms;
- System Support Staff need to support Principals "look fors" so when they are doing their 'walk through' they can tell the teacher is using techniques from Schools Attuned® or seeing students using assistive technology;
- Special Education should be part of every teacher performance;
- I need to regularly correspond with meetings or through a newsletter, with School Attuned graduates so that successes and failures can be shared, and to refresh in everyone's mind key concepts of the program;
- I need to recognize that it takes time to bring about change;
- Having teams from schools taking the Schools Attuned® course allows the teachers to work together and discuss using strategies from the course;
- We continue to need addition funds to continue to help teachers in understanding how to teach *all* students.

Next Steps
The Grand Erie District School Board will need to maintain funding in Professional Development, ensuring that teachers continue to receive training in Schools Attuned®, (differentiated instruction and evidence-based practice). They will also need to increase the amount of training in the use of assistive technology through the running of conferences for students with learning disabilities and their teachers such as 'login.06'. I will be working to ensure that training needs to continue in new concepts followed up with mentoring.

Final Thoughts

This was the most difficult paper that I have written. In January 2006 I was diagnosed with a reoccurrence of Uterine Cancer. The cancer had metastasized into my liver and across the abdominal wall. The course of treatment was a trial drug which meant weekly trips to the Cancer Clinic for blood work and an hour long treatment. I continued to work fulltime and work on this research project because it was part of our CODE proposal and because my integrity does not allow for not keeping my commitments. Throughout the next four months there was an increase of pain, fatigue, and tumor growth. May 18th, 2006 my Doctor told me I had terminal cancer and I needed to get everything in order. I worked daily on this paper trying to get it done, even though I was on heavy pain medication and hooked up to an intervenes, nicknamed the 'mothership', for 6 hours a day. My first draft wasn't very good; it didn't even make sense most of the time. Thanks to some editing and a clearer mind, nine months later I finished the final draft.

I have had a lot of time to think about how we can improve education for students with learning difference since I have not yet returned to work.

I believe that every teacher needs to have Special Education training so that they can teach every student that walks through the door to their classroom. Special Education should be part of the Teacher Performance Review so that we can ensure that students are being taught according to their learning strengths and preferences. There is still work to do to ensure that programs are modified and accommodated. Students with learning differences need a voice, a champion.   I am hopefully returning to work in a few weeks; I am thinking and planning how I can be that voice for those students. I just hope I don't let them down.

To treat everyone fairly is to treat them unequally.

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How can I, in the role of the Learning Resource Teacher assist teachers, and support my goal of making a difference in the lives and the future of children?

Debby Carson

Biography

I have been teaching for the Grand Erie District School Board for eleven years. I began my teaching career in a Special Education classroom and then moved on to Kindergarten for five years. Kindergarten is much like a Special Education class as each student is working at their own level. The last two years have been as a Learning Resource Teacher. I have decided to go back into the classroom next year to teach Grade 5.

Before teaching, I had a variety of jobs, that included Banking, Employment Counsellor and school secretary, before deciding to go back to school and get my degree part time at McMaster University. I did this while I was still working, so it was a long haul. Eight years later I graduated with my Bachelor of Arts in Psychology. When my degree was completed I worked as an Educational Assistant in a Behaviour class and then went to Teachers' College for my Bachelor of Education degree. I have both my Primary Education and Special Education specialists.

Abstract

This Action Research came about when an invitation was sent out by e-mail for people to work on the changing role of the Learning Resource Teacher (LRT). I put my name forward as I felt this was a worthwhile project and I was looking for a formal job description in order to better understand what was required of me in this position. Our school has a full time Learning Resource teacher but we are a twinned school. This meant that I was only half time in each building which presented some scheduling challenges and limited face to face time with teachers and students. The whole process of writing journals, researching and some deep soul searching made me more aware of what the job of the LRT entails. It was not always something concrete or clearly defined which is a difficult concept for many to realize. Telephone conversations, e-mails, meetings and discussions with individual teachers all have an impact either immediately or eventually over time. I have provided some specific examples for our school's situation and some of the ways that I in the role of the LRT was able to make a difference.

Action Research Group

The writer of this paper met regularly with other Learning Resource Teachers to discuss the changing role of the LRT. The LRT's voluntarily took part in the discussions when they answered an invitation to participate. Their discussions were made more difficult due to the many different aspects to the role, and many different perceptions held by parents, teachers, administrators and students. There are varying perceptions as the best way to help children with learning problems. The role can be seen as a spectrum with total withdrawal of students needing assistance at one end, and at the other end the learning resource teacher can work as a resource for teachers to help their own students. The position on the spectrum depends on the needs of the school, the needs of the students, the attitudes of the other teachers and the attitudes of the parents in the school community. Realistically,

it is impossible to 'fix' learning disabilities by withdrawing students. Adapting classroom programs to ensure the student's success is a way to more efficiently help the greatest number of students, but not all situations lend themselves to that method. This story explains one LRT's struggle to find a way to be effective in his/her setting while still remaining true to the values that they hold.

A contributing factor has been the mandate of the Ministry of Education to foster an environment of inclusion—to return students with special needs to their home school and work with them within their own, age-appropriate classroom. More special needs students in the regular classroom, necessitates the LRT's support for the classroom teacher. Educational Assistants (EA's) can lighten the load in extreme cases, but the increasing need for their help means that their potential for assistance is lessened, especially at an academic level. The number of students needing more intensive support in the way of medical and behavioural concerns, means that academic EA's have virtually disappeared.

Action Research Notes

Classroom teachers are struggling in today's society to meet the varying needs of their students. My action research question examines, "How can I, in the role of the Learning Resource Teacher, assist teachers, and support my goal of making a difference in the lives and the future of children?"

There are no quick fixes. Students who are withdrawn for small blocks of time, and usually on an irregular schedule due to meetings and other commitments of the Learning Resource Teacher will not go back to the classroom setting and be back on track. It's not like they can be "fixed." They will struggle with these same challenges throughout their school career. What they need to learn are strategies and tools to use in order to overcome or circumvent their learning difficulties or differences. Providing an educational assistant for academic/social needs is not preparing these students for success in the world of work and life. We need to prepare them to be successful as contributing, valued members of society.

In order to do this the classroom teachers need ideas and suggestions, and probably an extra hand or three, to cope with the needs and challenges of the students for the entire time they are in their classrooms. The policy of the Grand Erie District School Board is inclusion and according to the Guiding Principles in Special Education (GEDSB, 2005) it states that "the classroom teacher is the greatest resource in the education system." This is true as they know their students and their needs best. However, so much is being downloaded on classroom teachers that they need some support from somewhere. It seems that the role of the LRT is now more of a resource to the teachers which ultimately, in turn, improves the learning of the students in their classrooms.

One of the key areas in order to make student's educational experiences positive and rewarding is the acceptance by all parties involved. This means other students, other teachers who come into the class (French/prep), the classroom teacher, parents and most importantly the student, themselves. To treat everyone equally is to treat them unfairly. All students in the class need to understand that everyone requires something different in order to experience success. Some students may require glasses to see the board. We would never think to take this tool/assistive device away from them. Others may need different tools like calculators, computers, extra time or a different program

entirely. This is where it becomes challenging for the classroom teacher. For example, how do they teach a Grade 8 curriculum and provide a Grade 4 program for some and maybe a Grade 6 program for others, while still meeting the Grade 8 curriculum expectations for the rest of the class?

Through observation and teacher's comments and possibly further testing, such as the Woodcock Johnson III, the learning resource teacher can provide suggestions and ideas to help support the students' unique learning styles and needs.

In my schools I asked myself where to start? Was it more beneficial to concentrate on the primary, junior or intermediate divisions? The philosophy that everyone receives what they need for success can be established at an early age and hopefully carry throughout their school careers.. However, on the other hand, Grade 7 and 8's will be needing to make some major decisions regarding high school choices. If they are receiving the Grade 8 curriculum and are struggling, their self esteem and confidence level will be very low. If they are taught that all people can be successful if they find their own strengths and build on them, they will feel better about their choices at the secondary level.

I chose to focus on the Grade 8's first. In a lot of schools most primary teachers are more comfortable working at the student's individual levels because the students are learning, growing and developing at varying rates.

I began by administering the group type assessments from the Woodcock Johnson III to all of our Grade 8 students. This included Spelling, Reading Fluency, Writing Fluency, Writing Samples, Math Fluency and Math Calculation. From these assessments, along with their report cards, what the classroom teacher was seeing in their everyday work, and tests and assignments, we would get a general idea of where each student was currently working and or struggling. In other words a general baseline from where to start.

We already had a few students in these two Grade 8 classes on Individual Education Plans (IEP's) who should be receiving major modifications, as well as a couple who are in the process of being identified. There were still others who would require some fairly substantial accommodations.

Of the 52 Grade 8 students (31 in the straight Grade 8 and 21 in the split Grade 7/8 class) these results indicated that approximately fifteen students were at risk. How do we address this situation? Red flags were immediately raised and I made contact with Monique Goold, Teacher Consultant for Students At Risk. The classroom teachers had already gone to workshops about the Pathways to Success website but needed a little more support and encouragement to begin using it with their students. Together we set up a parent information night to discuss and introduce the Pathways to Success website. This would supplement the traditional high school Open House visits where it is usually crowded and therefore does not allow a lot of personal contact for parents to ask specific questions or discuss their concerns. Parents would be encouraged to consider other avenues for their children other than the University route. Unfortunately, the turnout was fairly low, but even if we were are able to help one student it is worthwhile.

I made direct contact with about four other parents by phone to discuss the possibility of their child attending Tollgate Technological Skills Centre (TTSC). These were students who would benefit immensely from having their Math and English programs, over the course of the whole school year, at a much slower pace. The other high schools have come a long way with their locally developed courses for students not working at Grade level as well as the Ontario Youth Apprenticeship Program (OYAP). A shift in focus where students are directed into apprenticeships and/or the world of work are all positive steps. Hopefully, parents will also get on board in this new way of thinking which will help decrease the enlarging numbers of students dropping out of secondary education programs.

It was a hard sell for TTSC. Even though this school has been recognized for their successes and their approach, some parents still have a stigma about sending their child to this school. One discussion with a parent was cut short when she said, "my daughter is not ..." I told her I thought she was going to say "stupid". I agreed that this student was not "stupid" by any means. We talked about how some students learn differently and that this program would be ideal for her daughter's learning style (D. Carson, Telephone Conversation, June 2006). She called me back the next day and had a complete turn around because a friend of hers had a son or daughter who went to TTSC and they only had great and positive things to share about the school. Unfortunately, the mother changed her mind again and decided to send her to summer school instead. The classroom teacher, and myself, were at least able to convince her to register for the locally developed courses. This is not a formally identified student, so my role as the LRT includes all students at both sites, not just students with IEP's. Two parents registered their son/daughter at TTSC and now one has withdrawn that application. It is so important for these students to go off to high school and experience success. If they get started off on the wrong foot, the journey will be that much more difficult.

Another step was to assist the classroom teachers to understand the lingo and different expectations for identified students. This is also a crucial part of the puzzle for student's success. A student who is being provided Grade 4 curriculum can not be expected to do a regular Grade 8 math test even with the assistance of a calculator. It would be like asking a teacher to perform surgery. Pretty scary isn't it? Ongoing conferencing with the classroom teachers has been beneficial in helping them understand the needs of their students and to be realistic in their reporting process at report card time. Time was set aside to work on the IEP process. The IEP engine is more user friendly but the teachers still needed to understand what should be in the document and how it ties into the report card. One on one consultations are helping to clarify this process and progress is being made. At the Grade eight level it is important to have the students involved as well. They can communicate what they are struggling with and together decisions can be made in order to assist them to be successful. We determined together whether we needed to modify their programs and at what level, or were major accommodations required in order to allow them to still work on the Grade 8 curriculum? After further discussions and meetings with the teachers, parents and the students themselves we created programs that we thought and hoped would be successful. There was a common concern in many of these IEP's. Math appeared to be a subject area that many students were struggling with. The first suggestion, right off the mark, was that these students would be allowed to use calculators for their daily work and tests. I still remember the first day when I sat down with a group of students that were writing a test in the library and told them they could use the calculators. A couple of them were surprised and didn't really believe me that this would be allowed. They were very happy and

had many questions which led to further discussions about their futures, both in secondary school and their work/career aspirations. A couple of students were reluctant to use this tool as they felt it would be cheating. We talked extensively about how different people all learn differently. I again used the example of the student who needs to wear glasses in the classroom. It seems to be an analogy that is easily understood by everyone. It is a tool that we would not take away from them as they would be at a disadvantage. We give each individual student what they need to be successful. This is the same way I approached the topic with the classroom teachers as this was a new concept for one who felt that this was not allowed.

A few students were definitely going to need more than just this accommodation though. They were working three or four grades below grade level. How was I going to be able to help these teachers with this onerous task? We talked about setting up a partnership with the classroom teachers that taught either Grade 4 or Grade 5. These classroom teachers are already planning and implementing the curriculum at that level. We can not have these Grade 8 students go into those classrooms, but if those teachers could run off four or five extras of everything and just put them in the Grade 8 teacher's mailboxes they would have the work for these students. Often, teachers of different grades are covering similar materials at the same time in the school year particularly some of the math strands. A separate duotang could be set up for the Grade 8 students so it isn't as obvious to others in the class that they are working on something different. These were some of the suggestions and ideas that I presented to the classroom teachers. This was more of a challenge because we are a twinned school and the Grade 4 class was situated in a separate building. It was left up to the individual teachers to set up their own partnerships. I'm not sure this idea was implemented.

Working with the parents is still in the growing process. Even though the parents have been to an Identification, Placement and Review Committee (IPRC) meeting and have attended annual reviews they still need clarification from time to time that the C's or 60's, on the report card, are often based on different expectations at another grade level.

One student that was new to our school was experiencing a lot of difficulties settling in and adjusting to his new school. Many telephone conversations transpired between myself and this student's mother. The student would always write on the top of his paper " WHY TRY" (Telephone conversation, Oct. 2005). This student was on a modified IEP but was being expected to write the same test as other students in the class. The conversations with the mother and student always centred around wanting to go back to their old school. I contacted his previous school and spoke to the LRT. She informed me that he was not receiving any other human resource support other than what he was getting here at our school. We definitely needed to change his program. We are very fortunate to have an Educational Assistant that is assigned to another student because they required a two person lift. We were able to change her schedule around in order to accommodate some time to work with this Grade 8 student. Even though we are not encouraging withdrawal of students, in this case it seemed necessary. Since the Grade 8 class had 31 oversized teenagers in an undersized classroom, and a high percentage of at-risk students, our Educational Assistant sometimes worked one on one or in small groups with these students. They are easily distracted in their classroom and this support has helped the classroom teacher immensely as many of his students were struggling and had either academic/social/emotional difficulties or a combination of assorted difficulties.

I am not actually the person who will provide this direct support, as I am only half time in each building with numerous meetings and workshops to attend on an ongoing basis. I have come to the realization that I am the facilitator in order to create an environment that will, in the end, ultimately benefit the students. The mother of the student who wanted to leave our school made me realize this when she called to tell me that, "whatever we were doing for her child was great. The child was much happier and expressed that he did not feel as anxious since he wasn't going to be asked to do anything he wasn't able to do" (Telephone conversation, Jan. 2007). The student still writes on all his papers "Why Try?", but he has had a lot of previous years of failures and it will take more than a year to undo the way he feels about himself.

Another strategy that was used with one of the students who is going to TTSC for next year was to obtain a French exemption letter to be put on file in order to allow him extra time to work on his other subjects. This did not require anyone to supervise this student as he was still able to work in the classroom during French on his other work. The French teacher said, "We should have done this a long time ago as he is much more cooperative and is usually on task" (Face to face conversation, March, 2007). Previously, he had been a major disruption in the French class.

When the option sheets were being completed and choices being made for high school I met with the Grade 8's, one on one, briefly to give them feedback on their Woodcock Johnson scores and some recommendations for their course selection levels. The students were very receptive and were anxious to see me about their testing results. I knew this because since I am only at this building half time, the students came looking for me if I had not seen them yet.

Even though I have not been able to work directly in the classrooms, I have affected change. The teachers are now trying to provide the type of program the students need. I have brought in people (experts in the field) to support the parents/students and teachers. I sit in on meetings with parents to provide suggestions and moral support for the classroom teachers.

After a recent Professional Development (PD) session run by the Grade 2 classroom teacher, our Lead Early Literacy Teacher, Vice-Principal and myself on Differentiated Learning, the feedback received was overall positive. Most of the staff members have accepted this new role of the LRT. Some of the following comments were submitted anonymously in response to the question, "How does interaction between classroom teachers and support teachers (literacy coaches, LRT) add to the teachers' practice in your school?"

Here are some responses :

- "Collecting resources and ideas for classroom use."
- "Teacher support"
- "Mentorship (gather information from experienced support teachers)"
- "Second opinion on a child's problem and needs."
- "Other questions maybe not thought of."
- "Next steps"

- "Provide advice on how to effectively promote differentiated instruction."
- "Give advice on common needs in your classroom and how to meet these instructional needs."
- "Assist you in developing appropriate strategies for effective teaching."
- "Provide support for teacher/children in effective learning."
- "Often have experience in a variety of grades/with a variety of learners."
- "A sounding board for ideas you are considering using in the classroom."
- "Often provides access to resources that are relevant."
- "Helps to decide where we go from where we are."
- "Teachers may get a better idea regarding some problems that some students are dealing within class."
- "Informal conversations help with pre-planning and being ready to differentiate for different learning styles."
- "IEP's - to identify accommodations and modifications. LRT has the data to help set these up."
- "Also helps to talk specifically about students as opposed to generally for a class."
- "Sharing of strategies."
- "Going to workshops and sharing those ideas/information with others."
- "Collaboration and piggybacking results in new/different ideas and perspectives."
- "Reinforce what we are doing."
- "Wider variety of strategies and resources to help with new situations, needs, learning styles, etc."
- "Makes you feel confident about your program to know you're doing a good job.(on the right track)."
- "Deeper thinking/different perspectives."

Two responses indicated they would like to see a different focus. Here is a sample of their feedback.

> We need more access to these people. Early literacy teachers use to come to my class 3 times a week. Haven't seen an early literacy teacher in my class all year. We need more access than once a year. Our LRT has so much paperwork she has a hard time getting in the class to work with individual students.

> Ideally, professional interaction should be frequent, flexibly available and focussed on individual and or division needs. Realistically, very little interaction takes place and organized P.D./support is infrequent.

We are now looking at concentrating on an Anti-Bullying program with presentations and other events to support this philosophy on an ongoing basis rather than a one day presentation. Through In-School Resource Team meetings we have our Child and Youth Worker and Behaviour Counsellor working individually with students and teachers and creating a small group of girls to focus on self esteem, making good choices and peer pressures. I have sat down and discussed ongoing social/ emotional issues with students to support them and lend an ear.

Facilitate, Facilitate and Facilitate. This role is difficult to see concrete results of my efforts but indirectly I am making a difference in someone's life.

Post Note
Even though I have just worked half time in each of our twinned buildings I do feel I have established a positive rapport with more students than if I had been a classroom teacher. However, I feel that I prefer the ongoing feedback the classroom teacher will experience and have decided to go back into the classroom as a Grade 5 teacher for the next school year. I know that having had the experience for the last two years of being the Learning Resource Teacher will make me a better classroom teacher. I will strive to meet all the needs of all the students in a variety of ways. I know that testing students, or getting an EA does not change what we already know about each and every one of our students. It is my responsibility to help them be successful in whatever way that might look like. I do believe that the Intensive Support Amount (ISA) now called SEA - Special Equipment Application grants of technological equipment is beneficial for students as it is an additional tool they are able to learn to make them successful in life.

However, I spend a great deal of my time attending meetings and workshops from CASI training (Comprehension, Attitude, Strategies, Interests Reading Assessment tool by Thomson Nelson), to Education Quality and Accountability Office (EQAO) training , workshops on Kidspiration, Inspiration, the Student Data Warehouse training, in preparation of being an Assessment for Improvement Project (AIP) school, Differentiated learning and many others. I have a wealth of information that I really never have time to implement.

In this changing role of the LRT I sometimes feel like I am no longer a teacher. I went to Teachers' College to make a difference in a child's life. I guess I still am a teacher, but in a different sense. I am a teacher to the teachers, parents and indirectly to the students. I know, in my mind, I am making a difference, but in my heart it isn't the same as being a classroom teacher. I believe I do an excellent job in this changing role but I have decided it is not for me.

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How can I enable and support students and teachers with implementing Co: Writer Word Prediction software in their regular writing program?.

Theresa McDougald

Theresa is currently in her seventeenth year with the Grand Erie District School Board (GEDSB). She has been a Learning Resource Teacher for the past seven years. She has also taught Core French, French Immersion and English prep, including Primary Drama, Social Studies and Science. She has taught and worked with students from Kindergarten to Grade 8.

Abstract

Along with the infusion of new computers into our school came access to some very good assistive technology such as Co:Writer Word Prediction Software. Now all students could have access to this helpful writing software. Simply because it is available doesn't mean the program will get used. I needed to find a way to convince the principal, teachers, educational assistants and students that this software was worth learning how to use and I needed to find a process for training teachers and students how to implement the software into their daily writing . This action research project explores the methods I used and the importance of collaboration amongst staff in making positive and effective change in our students' ability to communicate in writing.

Background

Over the past seven years as a Learning Resource Teacher I have worked with many students who struggle with reading, writing and spelling. I am always in awe of how much energy they put into learning sight words and spelling words often with very little benefit in the long run. I also became painfully aware of how much of evaluation and assessment of a student's knowledge was derived from what he/she wrote. This put the students I worked with at yet another disadvantage. Through my participation with the School's Attuned Project (All Kinds of Minds - research based on the work of Dr. Mel Levine) I have come to understand much more deeply the many different brain processes that are called upon when a student attempts to read, write and spell - Attention, Temporal-Sequential Ordering, Memory, Language and Neuromotor Functions. A student's writing problem could be caused by a breakdown in one or more of these processing areas. A breakdown in any one of these "neurodevelopmental constructs" makes spelling and writing extremely challenging for students. Always questioning how words are spelled, always wondering "does that look right?", their writing is slow, laboured and their confidence in writing is diminished. Their writing never reflected their knowledge or intelligence.

Last year (2004 - 2005), along with Educational Assistant, Jeanette Harris, I began to explore the Ministry licensed word prediction software Co:Writer.. We began using this software with a few students who had written output difficulties, but we didn't use any formal or structured process. We were, however, excited and impressed with the improved quality of the students' written tasks. I could see how the software was allowing these students to bypass some of their neurodevelopmental weaknesses. Jeannette and I noted how students with very different exceptionalities (from Autism, Mild Intellectual Delay, Learning Disabled to Behaviour), were seeming to benefit from the same software.

This year when I had the opportunity to be involved as an instructor for MindShift (a GEDSB conference, funded by the Educational Change Fund Project, training learning disabled students to use assistive technology), I was eager to learn more about how to properly train students to use Co:Writer. I came away from MindShift with two very clear opinions about Co:Writer: though relatively simple to use initially, students do require step by step instruction and practice to become effective and independent users; and, that teachers will require in-service, encouragement and time to become comfortable with having their students using Co:Writer in the classroom on a regular basis. I came away from MindShift with a question as well: How can I support students and teachers at my school in making the most effective use of Co:Writer word prediction software?

Explaining the Technology

What is Co:Writer Word Prediction Software?
A Ministry of Education licensed piece of software, Co:Writer uses word prediction to help students with spelling and meaning. Co:Writer is used in conjunction with a word processor such as Word Perfect or Write Out Loud.

Word prediction software such as Co:Writer provides possible word choices (both visually and auditorily) to students after they type the first letter of a word. The software can also make word suggestions based on the context and meaning of the word in the sentence. Co:Writer reduces the number of keystrokes made by the student and has the potential to increase motivation for writing. Word prediction software such as Co:Writer is intended to help students who have problems with keyboarding, spelling, or grammar. This program may also assist kids who struggle to come up with the precise word they want to use in a sentence.

The Action Research Climate
I was very fortunate to have at my school a supportive and enthusiastic principal and many teachers, both new and experienced, who were willing to join in my action research journey with Co:Writer. Their experience with assistive technology ranged from limited experience to advanced experience. Because Co:Writer does require basic keyboarding skills and good mouse skills I determined that my research would focus on students in Grades 3 to 7. John Shurvin, a Special Education Teacher for Developmentally Delayed students also shared his expertise, observations and results using Co: Writer with his students. Along with the classroom teachers, I selected my "study group" of students. They ranged in exceptionalities from Autism, Mild Intellectual Disability, Learning Disability to students who were not identified but who experienced difficulty with written output (letter formation, spelling, development and organization of thought). Two of these students had the opportunity to use Co:Writer last year. The teachers and I determined whether students would learn Co:Writer in small groups on a withdrawal basis or as a whole class in the computer lab.

We had to wait until late December 2005 for the new infusion of computers to be installed and Co:Writer was available to every student in the school. There was no formal training or manual available to work with. I called on Germaine Glaves, System Learning Resource Teacher- Assistive Technology and she was able to direct me to a website with downloadable lessons and information.

By January 2006 we were all ready and eager to get started.

The Procedure

1.   During a regular school Professional Development (P.D.) session, I trained staff members on how to log on to Co:Writer and on its basic functions during a regular staff meeting. The Principal and I split the staff in half and while I trained one half on Co:Writer she discussed school issues and then we switched. In one hour and fifteen minutes we trained the whole staff on Co:Writer and covered important school issues. We felt this was an excellent use of everyone's time.

2.   I met with individual teachers and together we developed a list of students who we felt would benefit from Co:Writer training. We prepared a timetable for when students could be withdrawn from class for training.

3.   Training began by giving students a picture and asking them to write a brief paragraph about the picture using paper and pencil. Training then proceeded over the next six weeks with using Co:Writer to copy a sentence from a sheet of paper, to writing a brief paragraph about yourself (your likes, dislikes, etc.). Through these writing exercises I was able to teach the students how to log into Co:Writer, choose an application (Word Perfect and then Write Out Loud), create their own Co:Writer file (so that Co:Writer remembers the words they use), how to save their documents carefully, how to select the number of predicted words that appeared, how to choose the desired word from the prediction list and how to use the auditory feedback to their advantage.

Then Marvelous Things Began to Happen

In February, Ms. Davies, a Grade 4 Teacher, asked me if I could come to the computer lab during her class computer time so that I could train the entire class in logging in and using Co:Writer. Talk about Ripple Effect!!!!!!!!!!! I enlisted two intermediate students who had good computer skills to assist me and Ms. Davies. In forty minutes we taught each of her students to log in, create a personal Co:Writer file and write a small paragraph about themselves and to save that document to their H drive. In less time than that Ms. Davies had shown an entire class of Grade 4 students that Co:Writer was a tool available to all learners. What a powerful message. Several weeks after that I returned to the computer lab to check in on how they were doing and together we taught the class how to develop their own dictionary of specific vocabulary for the research project they were doing. Significantly, Brandon, a student I had been training with individually on Co:Writer, assisted in helping other students create their personal dictionary. This ripple was turning into a wave. The students were now using Co:Writer to meet curriculum expectations. The connection had been made.

> *I am Brandon. I like to play soccer. My dad coaches my soccer team. I like to call my friends. I like to eat Pizza Hut and pasta. I traveled to Disneyland and Cuba. I like recess at school. I have two dogs named Sky and Tasha.*

Also, in February, Mr. Foreman, Grade 4/5 Teacher approached me and asked me if I might be able to work with a group of three of his students who were struggling with writing and who had science assignments on habitats due.Yes indeed, Mr. Foreman. Another curriculum connection had been made. The students developed jot notes in class for their assignment and then used Co:Writer on

a withdrawal basis to develop sentences and paragraphs for their final product.

Three Grade 6 students in Ms. Hoskins' Grade 5/6 class and one student from Mrs. Johnson's Grade 6 class worked with Educational Assistant, Jeanette Harris on daily writing assignments and EQAO (Education Quality and Accountability Office) writing exemplars. Ms. Harris provided training on Co: Writer as well as intensive training on development and organization of thoughts and opinions. Co: Writer was fast becoming the writing tool of choice for these teachers and their students. On May 23, 2006, Ms. Hoskin communicated by email to me, " I'm really excited about EQAO, I think with the technoogy D., B. and Rushane are really going to surprise everyone with what they can do."

> *One day Owen's mom gave him $50 so he went to the store and bought two toys. He bought a toy and a small box that had candy and a special surprise inside. Owen went home and gave his mom some of the candy and put the rest in his pocket. Owen was hungry so he felt the little box in his pocket and smiled. Owen took the box out of his pocket and there it was, the special surprise it was a limed edition mini car. Owen thought that if he sold the car he would make a lot of money. Owen family did not have any money. He went to tell his mom. She said we would make $1,000 because of that car. His mom said we would b rich. Owen's mom said sell it on ebay. on the computer. He went to his room and turn on the computer. Owen went on to ebay and started the deed at $1,000. Up to 500 people wanted the car. Then he changed the price to $21,000. Only one problem. There was only one person that wanted the car so he sold it to him Owen gave his address to the person. The person's name was Bob and he is a billionaire he came with the money. Owen was happy that he was rich. Owen ate the last bit of candy.*

By late February, John and Austin, Grade 3, were using Co:Writer to complete reading response journals to books they had read in class.

> *The best team of hockey.*
>
> *I was ready for hockey I was going out to the rink. We were practicing skating. We were singing O Canada. My friend got hurt.   And I bodychecked the person that bodychecked my friend.*

But it Wasn't All a Bed of Roses
Throughout these eight weeks of training and implementation the students had endured many technical difficulties. Often sentences that were completed and then transferred to Word Perfect never made it there and were lost. Some files that were saved correctly vanished. Sometimes Co: Writer just disappeared altogether while the students were working. Sometimes Word Perfect would freeze while the students were logging on. After talking about these "stories of ruin" with my Action Research group on February 16, 2006, fellow researcher Trish Currie recommended that I try Write Out Loud. She had had similar frustrations with Word Perfect but since using Write Out Loud she had no problems.
I re-trained "study group" students to choose Write Out Loud as the application for Co:Writer. Added advantages were that Write Out Loud would read back to the student their entire document. This

allowed students to edit longer texts on a continuing basis.

Throughout the initial training period I observed two "habits" that I felt needed attention. Many of the students would begin a sentence without a clear view of "where the sentence was going." Also, I noticed that most students were listening to most of the nine predicted words before choosing the word they were trying to spell. This was very time consuming and an inefficient use of the software.

I trained students to "talk" out their sentence before starting to type it. They needed to orally practice their sentence to solidify the thought or idea they were trying to express.

I trained the student to say the word they were looking for and to concentrate on the middle and end sounds. So if the word they wanted was "friend" they should look for the words that ended with the "d" sound. This cut down the amount of time the students were spending listening to words in the list. They simply listened to the one or two words that had the proper middle or ending sound. This was excellent phonemic training as well, as it forced the students to break down the word into its' "sound parts." The students immediately saw the benefits of this because they were finishing sentences quicker.

I trained students on the concept of root words and how Co:Writer can predict these. For example, if the student wants the word "friendly", they type in "fr" choose "friend" and then backspace and a list of words with friend as a root will appear. The student then chooses "friendly" from the list (friend, friends, friendly, friendlier, friendship, etc)

Gathering Data

After three months of training and re-training I decided that it was time to gather feedback about the effectiveness of the Co:Writer program for students and to what degree Co:Writer was being implemented by teachers. I felt that I had been successful but what really mattered was what the students and teachers felt.

 Throughout the training period I had recorded student, educational assistant and teacher comments and dates in my journal.   I decided as well to develop a survey for students and one for teachers as another way to gather data on the subject.

I modelled my student survey after the School's Attuned Student Key (see Appendix). I allowed students to express both the positive and negative about Co:Writer. My student survey asked them to comment on their abilities to spell, develop and organize ideas, and form letter and words when writing. It then asked them to comment on how Co:Writer effected their writing.

The teacher survey questions focussed on the teacher's ability to use Co:Writer; the benefits Co:Writer produced for their student's writing and how and where they were implementing Co:Writer into their curriculum. Both student and teacher surveys requested positive and negative feedback.

Analysing Data and Findings

Does Co:Writer do what it claims?
As I reviewed my journal notes there were several comments from both students and teachers that attested to Co:Writer's ability to improve written output.

On February 20, 2006, John was comparing a pencil written assignment to a Co:Writer written assignment: " The Co:Writer copy is neater. The words are spelled correctly. If people can't read what you've written, then you're stuck.."

> *I like to ride my bike .I go around the block with my bike. I fell off my bike. Me and my sister had a race. I won the race. My sister sometimes wins the race. Last time we both won the race. My sister had fun. My sister sometimes fell off her bike.*

After observing three Grade 4 students she works with using Co:Writer, Cheryl Inberg, Educational Assistant, commented: "Wow! They write so much more. It usually takes B. so long to write." On March 6, 2006, Grade 7 teacher Mrs. Drekic told me that M. " is enjoying using it (Co:Writer). She feels better about her writing." Ms. Davies, on March 27, 2006 commented that "K. is writing more than he ever would on paper." On May 18, 2006, Ms. Davies reported that K. is asking her if he can use Co:Writer to complete his questions and that he was able to complete most of his questions and make corrections independently. According to Ms. Davies, this is huge growth for K.

In my notes from April 10, 2006 I wrote that Austin had independently written a reading response to a book on knights that he had read. I wrote: "this is the first time I have seen him use Co:Writer with any enthusiasm. He was much more motivated today." Austin was writing about a knights book. He used a lot of picture clues and his own knowledge to complete his reading response. In February, Austin had told me that " I don't think Co:Writer is helping me." With a little more time and practice, Austin was discovering otherwise. In May, 2006, Austin used Co:Writer to complete his Grade 3 Writing sections for EQAO testing. He approached most writing tasks with confidence and even some enthusiasm.

In January, 2006, Paisley produced two pieces of writing that I analysed. Paisley had a good understanding of word spacing however punctuation and spelling hindered her ability to communicate effectively with the reader. In early April, 2006, using Co:Writer Paisley produced a re-tell of a movie she had seen on the March Break. Punctuation and spelling were greatly improved. In her survey, Paisley commented that with Co:Writer, her writing was " much neater, spelling is better and she felt better about her writing."

> *I saw ice age at the movies with my friend. The little chipmunk Was trying to get the peanut but he couldn't get it and it kept on falling so he kept on chasing it. The mammoth said that the girl mammoth butt looks big and she said thanks.   The mammoth thot she was a molreat so she hung upside-down on the tree trunk and she was to big so her head would tuch the ground.*

All these "testimonies" support Co:Writer's claims that quality and quantity of written output can be increased. These comments also support that motivation and pride are improved as well.

Student Survey results

Name	What I like about Co:Writer	What I don't like about Co:Writer
Ryan	-that it reads the words to me -I can get my work done -it's not messy	-when there are technical problems -when it doesn't give me the right word
Austin	-it tells you what the words are -it's better than using a pencil-it's neater and darker -I feel good about what I write with Co:Writer -ideas are better	-I don't like to just click on the word I want. I like to type it out myself. That way I learn how to spell the word. It feels good to type.
John	-my work is much neater -if I don't know a word, I click on it and it will say it for me -my fingers don't get tired using the computer -periods are in the right places	-when everybody hears what you are doing -using the computer when everyone else is writing with paper and pencil
Paisley	-that you don't have to type the whole word -that it reads the words to you -I feel better about my writing	-when you have a long sentence you can't see the beginning of your sentence
Rushane	-spelling is better	-when you type a sentence and then press ENTER and it doesn't go up (into Word Perfect) and then you lose your sentence
Brandon	-you get to type instead of write -you can see the letters and you are not guessing how to spell -it helps you read words -it tries to guess what you are saying	
Other Comments	-I like the voice that reads to you -I like using the headphones-I can concentrate better -it has its own dictionary and you can program your own words into the dictionary -I use better words -I only have to type 2-3 letters -my teacher doesn't have to write it down for me	-it takes forever to load (set up) -technical trouble between Co:Writer and Word Perfect -sometimes it doesn't say the words properly

Teacher Survey Results

Curriculum Connections	Students use Co:Writer to complete the following tasks: short answers, journal responses, EQAO exemplars, story writing, proofreading and editing, word processing, copying from materials, answering fill in the blanks, spelling tests, to complete Science, Social Studies and Health assignments, in combination with Writing With Symbols, six students use Co:Writer to complete Reading and Writing sections of the EQAO in May, 2006, twelve students have Co:Writer listed as an allowable accommodation on their IEP's.
Classroom Organization/ Logistics	-students use classroom computer and laptop, they work independently or with minimal assistance -during writing periods -during Science/Social Studies/Health periods -used in Computer Lab with entire class
The positive	- more writing in less time -increase in written output production -increased confidence -increased ability to complete work -increased self esteem -increased attitude to work -increased expression -increased clarity -increased independent work -increased development of sound/symbol relationships
The negative	-Grade 2 students too young, they lack keyboarding skills -some Intermediate students find it "uncool" -technical difficulties, especially with Word Perfect, limit productivity -misspelled words that are not caught by student are entered into the students dictionaries and come up as choices next time -if you don't open correctly, you can lose your work -it takes a long time for Grade 3 students to learn to use the software -some students don't like using it in class

Conclusion

When I saw on one page how many curriculum connections teachers were making with Co:Writer and the different ways they were organizing their timetables and classroom environments to make Co:Writer available to students, I was impressed. It was obvious to me that these teachers had been convinced of the effectiveness of Co:Writer and were willing to make changes to their programming to allow students the opportunity to use Co:Writer as a writing tool.

I think the success of this action research project can be pinned to several specific processes. First was the Principal's support that put the training in place and her continual encouragement to staff

particularly around the inclusion of Co:Writer in the student's IEP's. Secondly, I feel the systematic training of students was important. Proper and systematic training gave the students confidence and they could see their improvement week to week. They eventually became independent users of Co:Writer. The third and perhaps most important process was the creation of trust and collaboration amongst myself, educational assistants and the teachers. The teachers knew that there was always support available to help them and their students through technical difficulties; support to problem solve through self esteem and motivational issues and support to celebrate the weekly successes of children for whom writing has been an arduous task.

We talk about the Gradual Release of Responsibility Model for students. I approached this Action Research project with a similar model for both students and teachers. First, training and guidance as we navigated through learning how to use Co:Writer, then finding the curriculum connection to show students and teachers how Co:Writer was simply another writing tool to complete classroom tasks and then finally, encouragement and support as teachers "took the torch" and began to put Co:Writer into their daily plan without my involvement. Seven of the teachers at my school who teach Grade 3 -7 encouraged their students to use Co:Writer on a regular basis to complete written tasks and/or EQAO testing. What an incredible group of forward-thinking professionals and how fortunate the students are to have these teachers as role models. As Mr. Foreman put it " they are learning an important life skill as well as completing curriculum expectations." (Journal, May 3, 2006).

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"Defining the Changing Role of the LRT: Voices from my Comrades and How I Survived my First Year in the Role of LRT as we Enter a Major Transition Period"

Tina VanKuren

Biography

Tina VanKuren is currently the Learning Resource Teacher at J.L. Mitchener School in Cayuga, Ontario. She is in her fourth year as a Special Education Teacher at the elementary level. Her previous careers have ranged from retail management, recreation, social services, brain injury rehabilitation to health care. Her educational background consists of a Bachelor of Recreation and Leisure Studies, Bachelor of Arts in Psychology, Master of Education, Multidiscipline Rehabilitation Certificate, and Bachelor of Education. Many of her professional roles have involved working with persons of different ages who have a variety of special needs. This is Tina's third action research project.

Abstract

This paper is about the trials and tribulations of a fourth year teacher as she experiences her first year in the role of Learning Resource Teacher at a fairly large school with many students who have a variety of special learning needs.

Rationale for Focus Question

When I received an e-mail message earlier this year requesting participants for an Action Research Project about "Defining the Changing Role of the Learning Resource Teacher (LRT)" I quickly responded that I was interested since this was my first year in that role which has been a career goal of mine. I am currently in my fourth year as an elementary school teacher after a variety of other careers. Within this reflection summary, I will share the responses from a survey which I created and forwarded to all Learning Resource Teachers in the Grand Erie District School Board to provide some feedback from other individuals in this role and I will also describe my own personal trials and tribulations during this past school year.

Findings

I obtained 21 completed questionnaires from fellow LRTs in the board which contain some very interesting facts and comments. Eleven of the respondents are full-time LRTs and I am also currently a full-time LRT for my school. Some of the people who are not in the role of full-time LRT are strictly half-time LRTs or less. In addition, some LRTs have other teaching assignments half-time ranging from Librarian, Prep., Kindergarten, and other grades. One person is a full-time LRT but provides service to two schools. Nine of us assume the role of Principal Designate/Teacher-in Charge in addition to the role of LRT either individually or shared with another colleague.

The enrollment sizes of the schools for those persons who completed the surveys included the following: 100, 159, 168, 175, 191, 220, 225, 235, 240, 250, 250, 327, 345, 345, 347, 360, 375, 413, 420, 500, 560. I received valuable information from a wide cross-section of schools of many different sizes. With respect to the number of students identified with IEPs (Individual Education Plans) these

numbers range from 4 to 43 which is a very large variance. In terms of the number of students who have are not formally identified but have IEPs this is also highly inconsistent, ranging from 2 to 29.

It would appear that many of us in the role of LRT are being quite creative in the way we provide our programs because some of us are not able to provide direct withdrawal to any students at the moment and others can do this for 40 students. Some of the comments related to this aspect of the job indicate that there is support available from an Educational Assistant (EA). This is one element of most Resource Programs that I think is sadly missing. This year at our school it is the first time there is no full-time Educational Assistant included as part of the program which has caused a significant challenge to meet the high numbers of students who have many different special learning needs at our school. I have managed to provide the best service possible considering this major gap in human resources available and I have been fortunate enough to have an Educational Assistant Placement student for 2 periods of time this year along with a high school co-op student during second semester from February to June, 2006. It is my opinion that the support from an Educational Assistant is crucial to the success of all Learning Resource Programs and with this type of service no longer available we are not able to provide an acceptable level of assistance to our students.

The number of years experience in the role of LRT according to those teachers who completed my survey ranges from 1 to 15. I was surprised to learn that everybody except possibly 3 people still planned to remain in the role of LRT next year. The reasons given for not staying in the role were the fact that one person is surplus and another person misses direct contact with students. I plan to stay in the role due to the fact that we are trying an innovative approach at our school next year with me sharing the position with another person. This will increase the resource personnel available for our large school with many students who have special learning needs. I found it interesting that one of the comments in a survey done by a person, who is half-time LRT and half-time Librarian, indicated that it helps being only half-time with another half-time LRT also in the school.

Seven of the LRTs who completed my questionnaire answered 'yes' to the following question: 'In your opinion, are the current responsibilities of your role manageable and reasonable to allow you to effectively complete all duties including meeting the needs of the student population that you serve in the form of direct service?' Some of the reasons given were the following: 'being only 0.5 helps'; 'when the role is full-time'; 'most times but due to a smaller population because the program I have set-up would not be successful if in a larger school'; and 'as long as I spend time at home to do some of the work and as long as I am able to program effectively so classroom teachers can manage the IEP and as long as I can schedule volunteers to work individually with students so that's what I do.' This data was unexpected, as I thought there would be fewer people who answered 'yes' to this particular question. Those persons who are full-time LRTs do not feel that their job would still be manageable if it became a half-time position or less. One person stated: "absolutely not because I go home each evening now feeling I will never get caught up or worrying about the student I did not get to today - testing, IEP's, Identification, Placement, Review Committee (IPRC) paperwork, working in the class, covering for French exemptions, transition meetings and visits, etc., etc., etc.," I can actually relate to that exact quote and continuous feeling of not accomplishing what is expected on a daily basis. I have never been in a role within any of my careers where I consistently feel that there is way too much unfinished business at the end of each day. I find it interesting that 6 respondents who

are currently half-time or less as LRT believe that the job would be manageable it if became full-time. However, one person disagrees with that group and still doesn't think the role would be manageable even if it became full-time. I think this indicates that people always see things differently depending upon their point of reference. I may be incorrect in believing that having two roles next year rather than being the only LRT at our school will distribute the workload more equally.

All but one person answered 'yes' to the following question: "When you first began in your position of LRT would it have been helpful to have had a mentor and/or an LRT Survival Guide/General Instruction Manual to help you complete the required duties?" Some specific comments related to this question included: "I did have at the time by connecting with an experienced LRT. Also, there was quite a lengthy and detailed job description at the time. It was overwhelming and no one person could possibly have accomplished it all. There were also regular and informative LRT meetings during school hours"; "Actually, there was also another LRT in the school at the time who acted as a mentor and was a great support. I also liked having the timeline checklist of things to do"; and, "A mentor would have been very valuable. I have a lifetime of experience working with students with developmental challenges but I had no experience with the administrative and paperwork expectations. I had absolutely no idea of how to organize or chair an ISRT meeting. Terms like SPAR (Single Point Access Referral) and SES (Special Education Services) were foreign and I kept wondering why they referred to the referral forms as SPARS instead of SESs like it was on the top of the referral form. I am presently a mentor for a newly appointed LRT who is right out of teacher's college. I believe this is a real necessity but I also strongly disagree with principals hiring LRT's who have not worked for a good number of years in a classroom." I think this last comment about new teachers being in the role of LRT is very important because I feel that even though I have prior experience in other professional roles, I am still quite a new teacher to be providing suggestions and modeling lessons to experienced educators about how to offer appropriate programs for their students who are identified as exceptional.

Defining the Role of the LRT
When considering the myriad of duties fulfilled by LRTs as part of our daily responsibilities, the following list contains the major elements of the job with varying consistency, as indicated by the LRTs who completed my survey : (1) resource withdrawal with LRT for small groups and individuals; (2) some limited resource withdrawal with an Educational Assistant for small groups and individuals; (3) instructional support provided by an EA to small groups or individuals in the resource room, other location or regular classroom; (4) team teaching with LRT and regular classroom teacher; (5) modeling effective instructional strategies for exceptional students in the regular classroom; (6) teaching the class while the classroom teacher assists specific students individually or in small groups within a different room or within their classroom; (7) creating appropriate programs for exceptional or struggling students; (8) providing resources for classroom teachers; (9) facilitating in-services within the school; (10) completing assessments for report cards; (11) completing diagnostic assessments such as Woodcock Johnson Tests of Achievement – Third Edition (WJIII), Kauffman Test of Educational Achievement (K-TEA), Canadian Cognitive Abilities Test (CCAT), Developmental Reading Assessment (DRA tool by Pearson), Peabody Picture Vocabulary Test (PPVT), Brigance and CASI (Comprehension, Attitude, Strategies, Interests reading assessment tool by Thomson Nelson) to assist with program development; (12) providing consultation with classroom teachers;

(13) IEP completion; (14) report card comments; (15) In-School Team and School Resource Team Meetings along with related documentation; (16) IPRC meetings and Case Conferences and related documentation; (17) OSR searches and filing of Special Education Documentation; and (18) communication with parents, students, teachers, support personnel, outside agencies and administration.

Some additional job duties indicated are: to address medical issues such as diabetes and allergies; enrichment programs; scholastic achievement awards; involvement with math contests; monitoring parent and student/college/university volunteers; teaching specific students individually or in small groups within the classroom while the teacher works with the rest of the class; IEP interviews with parents; guidance counsellor; supply teaching at times when none available or when a teacher is required for an in-school meeting; some behaviour programming and monitoring/supervising students not co-operating in class; early intervention program; in-school suspensions; computer site administrator; supervising French exempt students; modeling effective organizational strategies for exceptional students in the regular classroom; computer training for staff and students; support for Grade 3 and 6 EQAO Testing; and, complete paperwork to support student involvement with community agencies/doctors/hospitals. Written on paper, the above duties seem overwhelming but in reality they are like a neverending mountain of incomplete tasks. I have always been a very organized person who enjoys being busy and I have excelled at multi-tasking while managing numerous projects simultaneously in my previous careers. I feel that the LRT role as it currently exists is virtually impossible to complete all required elements of the job. Therefore, it is important that the role does undergo a change but this will be a lengthy process.

The following is a summary of the comments shared in the completed surveys related to the question "which duties do you feel are the most important and valuable as part of your role?":

(1) "they all are - particularly all aspects of working with students- from assessments to developing programs to working directly with kids - IT'S ALL ABOUT KIDS"; (2) "meeting student needs for learning"; (3) "servicing students"; (4) "direct and indirect support of classroom teachers and individual diagnostic assessments"; (5) "working with students and developing their programs specific to their learning needs. Unfortunately, working directly with the students is not possible due to the other LRT duties that have been added"; (6) "time spent working with kids"; (7) "instructional support to students and direct support to classroom teachers"; (8) "my work with students is the most important part of my job"; (9) "it's all important"; (10) "instruction and support of students and teachers"; (11) "teaching directly to help build reading, writing and math foundation skills"; (12) "WJIII assessments and related programming, IEPs, direct/withdrawal support for identified and non-identified students"; (13) "working with the teachers to support and assist them in program planning, working with the students, connecting with support personnel and outside agencies"; (14) "working directly with students either withdrawal in small groups or supporting in classroom which I am unfortunately unable to do"; (15) "direct support to students, IEP and paperwork are equally important"; (16) "they are all important because one task will support the next and all relate directly or indirectly to providing student support"; (17) "assessments and working individually with students"; and, (18) "all of the duties are important and I do not believe assessment or modeling accommodations are more important than the other. Every aspect of the position is vital to students

feeling successful and achieving to the best of their ability with dignity". The most prominent theme which is threaded throughout the above comments is the importance of working with the students. This is one of the major aspects of the job which is being eroded by the increasing administrative and paperwork responsibilities which are required by the LRT and until a better system is developed, the students are getting diminished support than they need to experience success.

Other general concluding comments provided by the survey respondents include: (1) "every school needs a full-time LRT at least"; (2) "please don't make any decisions regarding the role or need for LRTs based on the number of IEPs at a school because this is not an accurate measure as I could easily do 100 IEPs for non-identified students and I wish I could do more IEPs for identified students if the identification process was faster"; (3) "THERE IS TOO MUCH RESPONSIBILITY AND THE ROLE IS NOT CLEARLY DEFINED AS MORE AND MORE IS ADDED EACH YEAR!"; (4) "the job is very paperwork intensive which can be very frustrating. However, the many, many other demands, teachers and children's actual needs, which is what the job is about, is really a whole other job and marrying the two adequately is the challenge and the biggest stress factor"; (5) "I strongly believe that LRTs should complete IEPs with classroom teacher's input"; (6) "LRTs ARE NOT SUPPLY TEACHERS AND WHEN THE BOARD FAILS TO GET A SUPPLY, LRTs SHOULD NOT BE REQUESTED TO FILL IN AT THE EXPENSE OF THEIR STUDENTS. IT DIMINISHES THE IMPORTANCE OF THE ROLE!"; (7) "I find our role is changing from a more student-based to a more administrative paper-pushing position and I find I am working less with kids each year to uphold the paperwork needs"; (8) There isn't enough time in the year to complete all responsibilities at a level 4. It is difficult to decide when something is not going to get level 4 attention and providing direct withdrawal services for individual students is increasingly difficult"; (9) "the paper trail is important, however, I feel there is too much duplication of information"; (10) "time for workshops is important but some weeks I am hardly in the school"; (11) "I feel that establishing programming and resource support and communicating with parents, staff and outside agencies to get everyone on board is key to supporting students. I spend a lot of time at work at home making sure of this. LRTs need time to do all the paperwork required"; (12) "if I spent a significant chunk of my day directly supporting students, I would not have time to do all that is required to set-up supports and all the paperwork and connecting that goes with it"; (13) "all LRTs should be full-time, larger schools should have at least 2 so there is one person for paperwork and 1 for support in/out of class"; (14) "continual requests placed upon LRT time should be made available (i.e. computer program - allow ample time in school to check-out programs/websites); (15) "there is just not enough time to fulfil all the duties. Providing inservicing to all teachers on the role of the LRT is a necessity"; and, (16) "I disagree that the role of the LRT needs to change. We are failing our students in not providing them with the support that a classroom teacher is unable to provide. Couple this with the ever-reducing EA complement and it spells disaster. I hope that parents realize what is happening and voice their complaints to the appropriate person or persons."

Summary
There are many LRTs who are very passionate about the true essence of their job and we are feeling increasingly frustrated by the unrealistic demands on our time. Last summer I attended a workshop for struggling readers where there were many people from all over the province and I was disheartened to learn that in some other school boards there are schools the same size as my school that still have 2 full-time LRTs so that one person does the paperwork component of the

job and the other person actually works with the students and teachers. I believe there are way too many inequities throughout the province and that all children who have special learning needs have the same right to quality education and appropriate support from the LRT.

One of the most positive aspects of my role this past year has been the opportunity to provide a multi-age math and language program where the older students experience improved self-esteem when they are able to assist the younger students. Also, there is one student in my group whose mother told me would sometimes cry when he was trying to complete his homework in the fall and now that he is in my group with a modified program, he is experiencing success. Finally, I have completed several WJIII assessments which have led to referrals for students to receive Psych.-Ed. Assessments this year or next year and these children are now feeling less frustrated since they have had a modified program with direct withdrawal support from me.

Conclusion

During the past year, I have primarily been doing the best I can with very limited resources and some demanding attitudes from parents and teachers who don't understand why the students can't have as much help as they have in previous years when my program had a full-time Educational Assistant. When I reflect upon my experience in the role of LRT for the first time this year, I would clearly express the fact that it has been very frustrating and challenging but also I have enjoyed working with some very special students who have benefited from an increased level of academic success. Finally, there is still a lot of work to be done as we move toward this drastic paradigm shift about the new role of the LRT and it will take a considerable amount of time for this adjustment to occur.

LRT Action Research Project Survey
"Defining the Changing Role of the LRT"

Please take some time to complete the following questionnaire to help us obtain information about the current role of the LRT as part of an Action Research Project. All information will be anonymous and confidential with no use of your name. The purpose is solely for the collection of data.

1. Are you a full-time LRT for your school?   Yes____   No____
   If not, what percentage of your job/position is technically allotted to your LRT duties?_____
   If you are not a full-time LRT what are your other roles? _____
   Are you also a Principal Designate/Teacher-in-Charge in addition to your role of LRT? Yes____   No____
   Are you an LRT for more than one school? Yes____   No____

2. What is the enrollment size of your school? _____

3. How many students in your school are identified with formal IEPs? _____
   How many students have Voluntary/Informal IEPs? _____

4. How many students are you able to provide direct withdrawal service for at the moment? _____

5. How many years have you been in the role of LRT? _____
   Do you plan on remaining in the role of LRT again next year? Yes____   No____
   If, not, why are you choosing a different job? _____

6. When you first began in your position of LRT would it have been helpful to have had a mentor and/or an LRT Survival Guide/General Instruction Manual to help you complete the required duties? Yes_____   No____

7. In your opinion are the current responsibilities of your role manageable and reasonable to allow you to effectively complete all duties including meeting the needs of the student population that you serve in the form of direct service? Yes____   No____

8. If you are currently a full-time LRT, would your job still be manageable if it became a half-time position or less? Yes____   No____
   If you are an LRT with 50% or less of your assignment being that of an LRT, would it be manageable if it became full-time if you don't feel that it is currently? Yes____   No____

F. Administrative Duties
___IEP completion
___report card comments
___In-School Team Meetings and related documentation
___In-School Resource Team Meetings and related documentation
___IPRC Meetings and related documentation
___Case Conferences and related documentation
___OSR searches/filing of Special Education Documentation
___all of the above
___other (please specify)_____

G. Communication
___with parents
___with students
___with teachers
___with support personnel
___with outside agencies
___with administration
___all of the above
___other (please specify)_____

G. Please list below any other job duties that you complete:

10. When reflecting upon the above list of LRT duties, please indicate the following:
   a) a general estimation of time spent on each category outlined including both in school during the instructional day and at home/after hours

   b) which duties do you feel are most important and valuable as part of your role?

   c)
11. Please indicate below any comments you wish to provide that you perceive as important elements to include in this Action Research Project to define the changing role of the LRT?

         Thank you in advance for your time taken to complete this survey.

9. Please select from the list below what type of duties you fulfill as part of your
    daily responsibilities:

    A. Resource Withdrawal with LRT   Resource Withdrawal with EA
    ___small groups   ___small groups
    ___individuals   ___individuals
    ___other (please specify)_____   ___other (please specify)_____

    B. Instructional Support provided by EA as part of LRT Program
    ___small groups in resource room/learning centre/other
    ___individuals in resource room/learning centre/other
    ___in the regular classroom
    ___all of the above
    ___other (please specify)_____

    C. Direct Support provided by LRT in Regular Classroom
    ___team teaching
    ___modeling effective instructional strategies for exceptional students
    ___teaching the class while the classroom teacher assists specific students
        individually or in small groups within a different room
    ___teaching the class while the classroom teacher assists specific students
        individually or in small groups within their classroom
    ___all of the above
    ___other (please specify)_____

    D. Indirect Support to Classroom Teachers
    ___creating appropriate programs for exceptional or struggling students
    ___providing resources
    ___facilitating in-services within the school
    ___completing assessments for report cards
    ___completing diagnostic assessments to assist with program development
    ___consultation with classroom teachers
    ___all of the above
    ___other (please specify)_____

    E. Individual Diagnostic Assessments
    ___WJIII
    ___K-TEA
    ___CCAT
    ___DRA
    ___CASI
    ___all of the above
    ___other (please specify)_____

The Changing Role of the Learning Resource Teacher
The Need for an LRT Mentorship / Inservice Support Program

Grant White
Learning Resource Teacher, Lansdowne-Costain School

Biography

Teaching is Grant's third career. After working in the field of advertising as a layout artist and the office equipment industry (comptroller and corporate secretary), he returned to school to pursue a career in teaching. Grant is a graduate of Wilfrid Laurier University and the Ontario Teacher Education College. He also received his Specialist Certification in Special Education from the University of Western Ontario. Grant has enjoyed a varied career in education. With the exception of one year as a regular class teacher (Grade 8), his 25 years in teaching have been devoted to special education in both the elementary and secondary panels. Grant has taught in just about every area of special education; from the profoundly mentally and physically challenged to enrichment programs. In 1988, Grant resigned to seriously pursue his passion of sailing. After three years of sailing in Florida, California and the South Pacific, Grant sailed back to Hawaii and accepted a position teaching special education in a residential treatment facility for young offenders. Following the closing of the treatment facility a year later, Grant returned to Canada to teach alternate education programs in British Columbia. Grant returned to Ontario in 1997 and has been employed by the Grand Erie District School Board since then. Grant is in his 9th. year as a Learning Resource Teacher and is presently at Lansdowne-Costain School.

Abstract

This year, an Action Research group, funded by the Council of Ontario Director's of Education and composed of Learning Resource Teachers, was formed to investigate the changing role of the LRT and how that role would support inclusionary practices in classrooms and schools within the Grand Erie District School Board.

As a member of that group, my research was going to focus on how I, as a Learning Resource Teacher, was going to support the classroom teacher in creating an inclusive model that supports special needs students.

Throughout the initial investigation, I began to realize that, due to the rapidly changing role of the LRT in education today and the increasing expertise needed to manage that role, that it was the Learning Resource Teacher who needed support as well. That's when I decided to change the focus of my action research. I realized that there needed to be a more effective support system for Learning Resource Teachers if they were going to, in turn, provide support for the rest of the teachers and students in their schools.

Due to a Ministry mandate regarding program standards and inclusionary practices, the Grand Erie District School Board struck a committee last March, to look at the role of the Learning Resource Teacher in education today.

The committee's findings, reflected in a draft report, "Role of the Elementary LRT" presented an overview of the role and outlined LRT responsibilities as well as a three year plan for goal implementation.

The committee recognized that the "role of the LRT is to help build the capacity of schools to meet the broad range of special education needs." "Under the direction of the school principal, the LRT will coordinate and provide support and leadership regarding school-based special education programs and services..... work cooperatively with the classroom teacher to educate all students in the classroom.... make collaborative decisions about programs and instructional practices.... aid staff with the development of accommodations and modifications..... and assist in the creation of alternate programs if required." (GEDSB Draft Report "Role of the Elementary LRT, March 2005)

In the past, more teachers were interested in moving into the role of the Learning Resource Teacher in order to:

*   increase their expertise at different grade levels and with different populations
*   to gain more experience in the field of Special Education
*   as a link/stepping stone to administrative and consultant positions (note: many LRTs are also Administrative Designates)

We are finding now, that due to the expanding role of the LRT (it's more complex and demanding and there is the need for more expertise and experience), that the incentive or pathway to administration is less attractive (candidates are seeking other avenues such as Principal and AQ courses and Board sponsored leadership programs) and a greater number of "new" teachers are applying for the position.

We recognize the need for mentorship programs for new classroom teachers. Current estimates indicate that:

"... 9 to 17% of new teachers will not last their first year ...... between 40 and 50% will leave during the first 7 years..... and more than 2/3 of those who do, will leave in the first 4 years of teaching." (New Teacher Induction Programs, A. Breaux and H. Wong, 2003)

Studies have identified a number of reasons for an early exit from teaching including: lack of support, excessive paperwork, high stress and difficulty balancing personal and professional demands.

Statistics (US data) also reveal that when Boards provide mentorship / induction programs:

*   95% of teachers experiencing support remain after 3 years
*   80% of those teachers who experienced support remain after 5 years
    (New Teacher Induction Programs, A. Breaux and H. Wong, 2003)

The Ministry of Education, School Boards and Teachers' Unions recognize this need and are encouraging and actively promoting these programs. (eg. Ministry of Education. New Teacher

Induction Program (Mar. 2006) and Board sponsored Mentorship programs)

Learning Resource Teachers hold key leadership positions in our schools. It stands to reason that LRTs, not only new to the profession, but also new to the position, would benefit from the support provided through an organized and sustained Mentorship/Inservice Support Program.

My Action Research
This year, the Council of Ontario Directors' of Education (CODE) provided the Grand Erie District School Board with funding to investigate the changing role of the Learning Resource Teacher and how that role would support inclusionary practices. Our Board chose to do some of this through Action Research.

I hadn't really intended to get involved in Action Research at all. When I saw the email asking for LRTs to participate in, what I thought was an extension of the original Board committee, I said yes.

With Cheryl Black's name as the chair and a copy to Superintendent Jackie Delong, our Board's Action Research guru, I should have clued in. But, I was committed and in hindsight, I was happy to be involved.

My original Action Research question was going to be:

> "Given the changing role of the Learning Resource Teacher in education today, how can I begin to support the classroom teacher in creating an inclusive model that supports special needs students?"

I began to put my project together, gathering information on what I needed to do, what I had done so far this year and what the indicators of success would look like.

But, as I attended action research group support meetings and our monthly LRT meetings, I started thinking more about what Learning Resource Teachers actually do. The more I talked with my colleagues about the role, the more I realized that the scope of this job is HUGE and that the amount of knowledge and expertise required to do the job is the same.

Many Learning Resource Teachers were expressing their frustrations with the excessive amounts of paperwork, the need for more support and inservice, and the lack of time, to not only work with students, but to effectively manage all of the other demands and aspects of the role. A small number of LRTs were openly considering leaving the position and returning to the classroom.

The old addage, "You can't see the forest for the trees," is true! I was so caught up in managing the demands of my own position, that I hadn't taken the time to really consider the group as a whole.

That's when I decided to change the focus of my action research. I realized that there needed to be a more effective support system for Learning Resource Teachers if they were going to, in turn, provide support for the rest of the teachers and students in their schools.

The Survey

I needed to collect some initial data to support my research and a survey seemed to be the best format. I had a good idea about the type of information I wanted, but didn't want to make the survey so intrusive or intensive that LRTs would find it too complicated or lengthy to complete.

The final survey, in the form of a check list, was presented at one of our monthly LRT meetings. Resource teachers were asked to fill them out and return the surveys to me at the end of the meeting. I also emailed the survey to those not in attendance and to LRTs in other school families.

LRT Educational Background: Survey results....
- Although all LRTs had Bachelor's Degrees (BA, BEd, BSc, BCom, BRLS, BPHE), 9% had Master's Degrees (MA, MEd) as well
- In addition, 86% had obtained their Specialist Certifications in Special Education. The rest were in the process of qualifying.
- Fifty percent (50%) of the LRTs surveyed also had Specialist Certifications in other disciplines (Computer, Guidance, Reading, Primary, FSL, Music, Blind) in addition to their Spec. Ed. qualifications.

Do you feel that an organized and sustained Mentorship Program for LRTs new to the profession / position would be beneficial?
- Survey results ....Yes (100%)

Do you feel that an organized and sustained Education / Inservice Program for LRTs would be beneficial?
- Survey results........ Yes (98%)

I would like to receive more or continued information / inservice in the following areas: Survey results......
- Assistive Technology (75%)
- The Role of the LRT (71%)
- Community Agencies, Alternate Programming,(58-63%)
- Teaching Strategies, Transitioning, Modifications, Resources, Informal Assessment, (45-54%)
- In School and School Resource Team Meetings (29%)
- Formal Assessment Woodcock Johnson III (WJIII), Special Education Paperwork, Timelines, Accommodations,
    IEP Engine (21-25%)
- IPRC Process, Exceptionalities (13-17%)
- GEDSB Guiding Principles for Special Education (4%)

Would you consider participating in an LRT Mentorship Program?
- Survey results........as a Mentee (33%)
          ....as a Mentor (36%)

.........in a Support Group (50%)

Would you consider participation in an LRT Education / Inservice Program?
        *Survey results........on an Organizational Committee (33%)
                        ....as a Presenter (29%)

Conclusions

Although the survey results reflect information gathered from a small population (50 LRTs), I believe that the data supports the need for an organized support program for Learning Resource Teachers. That support program should consist of a Mentorship program for teachers new to the position and an organized and sustained Inservice program for all LRTs.

The circle graphs Appendix A, depicting Teaching Experience versus LRT Experience revealed that although almost 60% of LRTs surveyed have 16 or more years of teaching experience, 8% are in their first 3 years and an additional 4% have 4 to 6 years of teaching experience.

When you compare that same population to the graph reflecting experience as an LRT, we discovered that 27% are in their first year and an additional 18% have 2 to 3 years of LRT experience. That's a total of 45% of the Learning Resource Teachers in the Grand Erie District School Board with 1 to 3 years of experience in the role.

It's interesting to note that the LRTs with 11 + years of experience in the role, are most likely to be teachers with 16 or more years of teaching experience. I don't know how many of them are close to retirement -like myself - but, it stands to reason that as this large group of Learning Resource Teachers retire or decide to leave the position (for whatever reason), their replacements will be new to the position and require support.

Survey results indicate that 100% of LRTs (those completing the survey) believe that a Mentorship Program would be beneficial for teachers new to the role. You recall that over 30% (33%) of LRTs would participate as Mentees and that a slightly larger number (36%) would consider acting as Mentors. Fifty percent (50%) also indicated that they would like to be involved in a support group.

When we consider the data surrounding information and inservice, 71% said that they wanted to know more about the actual role of the LRT and everyone requested more and continued information in all or some of the areas related to their position. Remember that 98% endorsed an organized and sustained Education / Inservice program.

The GEDSB does provide support for its Learning Resource Teachers through monthly LRT meetings, inservice workshops and through their Special Education Teacher Consultants. Although our Board has implemented a Mentorship / Induction Program for teachers new to the profession, there is no formal program at present for new Learning Resource Teachers.

As Learning Resource Teachers, we have an informal system where new LRTs will contact a more experienced LRT with questions regarding process, timelines, paperwork, and so on. Some LRTs

meet in informal support groups - over coffee after school or in some other place - with questions such as "How did you handle this? or What do I need to do now?"

LRT Mentorship / Inservice Support Program

Assuming that the Board recognized the need for such a program and would be willing to commit time and other resources to maintain the program, what would a formal LRT Support Program look like?

If approved, I believe that a Coordinator needs to be appointed to implement and manage the program. At present, our Teacher Consultants are doing their best to provide this kind of support for their colleagues. These consultants are extremely busy with the demands of their roles and don't, I believe, have the time to devote to such a program.

The LRT Coordinator would create, implement and maintain a two-tiered support program. The first tier would be to create a Mentorship program where teachers new to the position would be matched with experienced LRTs. Support programs similar to those outlined in new teacher induction programs would also be created to assist Mentor and Mentee in the process.

The second tier would involve creating an Inservice program that would provide information, not only on new initiatives or programs related to the role as they occurred, but also a continuing or revolving inservice on the basic elements necessary to do the job - such as the IEP engine, the IPRC process, exceptionalities, paperwork, timelines, etc.

The Learning Resource Teacher Coordinator would also be available to field questions or inquiries from LRTs or model processes such as - how to set up and run an In School Resource Team meeting or how to present at an IPRC.

Hopefully, the results of not only my Action Research, but the rest of our group's endeavors will assist the Board in initiating plans and implementing programs to increase our expertise and improve the rapidly changing role of the Learning Resource Teacher in education today.

References

Grand Erie District School Board, (March, 2005). Committee Draft Report: Role of the Elementary LRT

A. Breaux and H. Wong, (2003). New Teacher Induction Programs

As a member of an Action Research group, conducting research on the Changing Role of the LRT, I am investigating the need for, and benefits of, an organized and sustained Mentorship / Education Program for Learning Resource Teachers, not only new to the profession, but new to the position as well. (Rationale/abstract on back of this form)

Please take a few minutes to complete this survey. Hopefully, the results of our research will assist in initiating plans and programs to increase our expertise and improve the rapidly changing role of the Learning Resource Teacher in education today.

Thank you for your assistance.

Grant White, LRT, Lansdowne-Costain School

Teaching Experience: ❏ 1-3 yrs. ❏ 4-6 yrs. ❏ 7-10 yrs. ❏ 11-15 yrs. ❏ 16+ yrs
LRT Experience: ❏ 1 yr. ❏ 2-3 yrs. ❏ 4-6 yrs. ❏ 7-10 yrs. ❏ 11+ yrs.

Education: ❏ BA/BEd. ❏ MA/MEd. ❏ Spec. Ed.- ❏ Pt.1 ❏ Pt.2 ❏ Specialist
❏ Other: _____

Do you feel that an organized and sustained Mentorship Program for LRTs new to the position / profession would be beneficial? ❏ Yes ❏ No

Do you feel that an organized and sustained Education / Inservice Program for LRTs would be beneficial ? ❏ Yes ❏ No

I would like to receive more or continued information/inservice in the following areas:

❏ Role of the LRT ❏ Timelines ❏ Assessment: ❏ Informal ❏ WJIII
❏ IPRC Process ❏ Exceptionalities ❏ Guiding Principles of Special Education
❏ IEP Engine ❏ Spec Ed Paperwork ❏ In School & In School Resource Teams
❏ Accommodations ❏ Modifications ❏ Teaching Strategies
❏ Transitioning ❏ Resources ❏ Assistive Technology
  ❏ Community Agencies ❏ Alternate Programming
❏ Other: _____
❏ Other: _____

Would you consider participating in an LRT Mentorship Program?
❏ As a Mentee ❏ As a Mentor ❏ In a Support Group

Would you consider participating in an LRT Education/Inservice Program ?
❏ On an organizational committee ❏ As a presenter

Optional: Name: _____ School: _____
❏ You can contact me at my school to obtain more information if needed.

Teaching Experience vs LRT Experience:
       * Survey results are presented in graph format.

Teaching Experience

16 percent   13 percent

4 percent

8 percent

59 percent

■	1 to 3 years	■	4 to 6 years
■	7 to 10 years	■	11 to 15 years
■	16+ years		

LRT Experience

18 percent   27 percent

23 percent

23 percent

9 percent

■	1 year	■	2 to 3 years
■	4 to 6 years	■	7 to 10 years
■	11+ years		
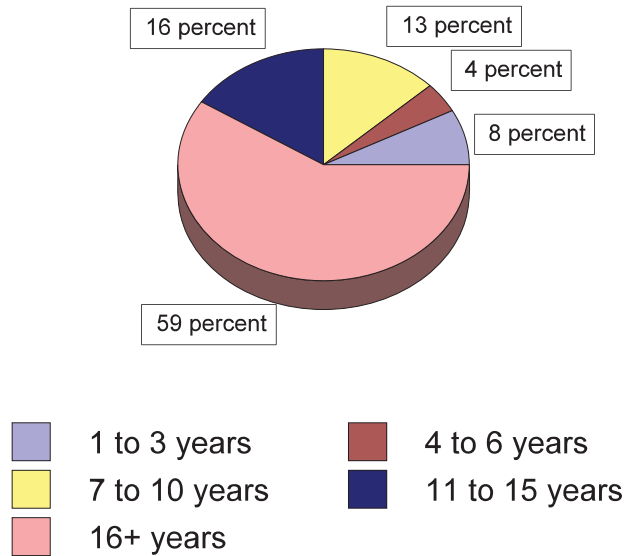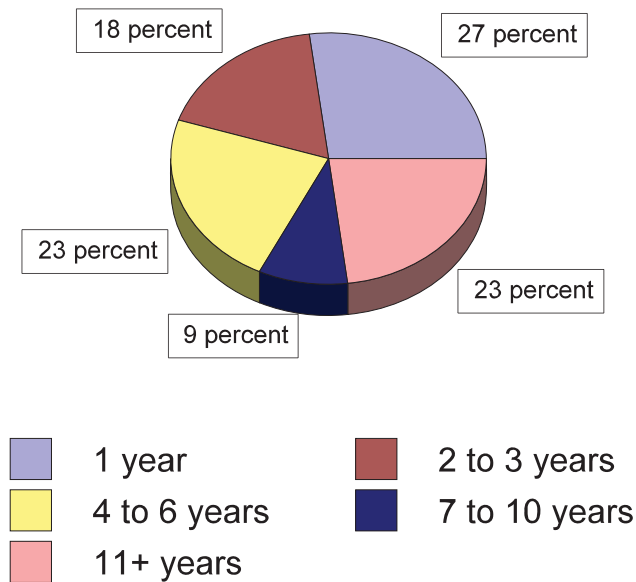
How can I help my students by learning about the ways each individual person learns and how it affects their learning process?

Jennifer Renner

Jenn is in her fourth year of teaching at North Ward Public School in Paris. This is her first action research project. This project was written in her first year. Although she has had several different experiences working with children, including a residential camp setting, and as a volunteer, this year is the fourth for working in a classroom setting with students with exceptionalities. She has a class of thirteen students, so far this year and sixteen students when this was written. Jenn's interests include riding horses and furthering her learning.

Abstract

After taking the School's Attuned course, I felt I wanted to further investigate learning to assist with programming for my students. I then used the Mel Levine, "A Mind that's Mine" (Levine, 1997) program to teach the students about their own learning. The students learned about their needs, interests and strengths. They also investigate the way these factors add to their learning.

Background

My class is a junior/intermediate special education class with 16 students, 15 of whom engaged in this project. The class is a mixed exceptionalities class, made up of a variety of identifications from Autism to Multiple. All the students have a learning delay, some in just one subject area such as math and others in all areas and thus vary with needs. Each student has a level of integration into a regular classroom setting at their age appropriate grade level, starting the day in their home room class. One 13 year old student is integrated into a grade eight classroom for subjects at their own achievement level. The students have been accessing computers on a daily basis for approximately 40 minutes. There are 3 educational assistants, Wendy Drysdale, Dawn Legere, and Susan Soderberg.

My primary goal for the research was to increase my knowledge and the students' knowledge about their own learning. Since the students have an individual education plan (IEP), I wanted to make them more aware of their own learning. By becoming aware of the learning process, a goal was to increase their ability to articulate their needs to their home room teachers. Self-advocacy is very important for their long term success in school.

After taking the Schools Attuned course from July 4 to 8, 2005, I responded to the call for volunteers to conduct action research. I was immediately interested in using the class wide program, "The Mind That's Mine" developed by Mel Levine.

Preparation for this Action Research Project

Before starting my second action research project but after completing the Schools Attuned program I found that I had an increased awareness for investigating the strengths, weaknesses and affinities of the student. I found the "Mind That's Mine" program was changing my views of learning.

The basic goals of the "Mind That's Mine" program:
*   To encourage students to think about thinking
*   To introduce students to the components of learning process
*   To provide students with a vocabulary and conceptual framework that will help them think and talk about learning
*   To help students identify personal strengths and weaknesses and be aware of the implications for success and personal fulfillment
*   To enable students to improve the efficiency and richness of their learning experiences
*   To educate students about various learning disorders
*   To sensitize students to issues underlying their own behaviour and that of their peers
*   To encourage students to recognize, tolerate, respect, and celebrate individual differences in learning and behaviour
*   To extend the knowledge and experience base of the student through family involvement at home

(Levine, The Mind That's Mine, 1997)
The "Mind That's Mine' (Levine, 1997) is a completely planned process that takes you from the start to the finish of learning about learning. It even comes with a video for the students and instructions for the teacher, including material that is sectioned into areas with reproducible items.

Deciding to Conduct Action Research
By looking at the students and hearing from their home room teachers, I learned a great deal about how the students were doing in the integrated classrooms. First, it was apparent that the students were not the same from class to class. Second, many of the students had attention problems in class and were frequently not maintaining the common expectations such as, bringing work to class, being prepared and visually following the lessons. It was not that the students were trying to be difficult or even that they didn't belong but that they were not understanding the process.

So my thought was, "What can I do?". I spoke with the teachers regarding IEPs and the importance of following the guidelines. We set goals for each individual student and the subject, deciding on the focus. The teachers were very cooperative with the suggestions. We worked through the need for copied notes and need for pre and post teaching. All of the classes had many hands-on lessons so the teachers were already prepared for the individual learning styles of the students. However, the problems continued. The students would mention that they were not receiving the items they needed and the teachers found the students' focus not to be present. In some cases the students would not want to go to the classes. After a brief amount of discussion with my principal and VP it was decided that we would conduct the action research again.

One of my values as a special educator is that I feel that my students need to be able to explain their needs for themselves. Self advocacy is a huge foundation for the future of the students, since we will not always be available to determine what each person needs. The process begins in my classroom by having the students ask for help. They need to listen to the directions and if they are still unclear then clarification is to be sought by the student through questions and further

discussion. It is a practice that is used in my class, but is difficult to maintain consistency when they are in other rooms, since we often are under time restraints.

Data Collection - The Brain

I used the following data collection processes: my journal, photos of the students, observation, parent, student and teacher communication. I started the project by asking the students about their learning and talking about all the different learning styles. After the introduction to the program the students seemed star struck. Many were excited and interested in learning about the process. I was excited about having the students learn more about themselves. They would be ready for knowing what they do well? I worry that they will find it hard to find many things they feel they do well (Renner, Journal entries, March 25). To begin learning about the differences with each person, the students completed an assignment describing their bedrooms. By looking at their organizational levels and the way they like their rooms, it gave insight on their learning.

The students enjoy learning about thinking about thinking: the way their brain functions and thinks; the areas of the brain. Becky commented she likes learning about her brain because it is fun to know what they use and what it looks like (Renner, April 19 Journal). They are really enjoying the hands on component of the projects. One project in the brain section was to create a brain. The students had fun making models: we changed the project to allow for any materials to be used to make the brain, but the project had to be three dimensional. Their excitement and commitment was evident when they brought their brains in: they were super. Each one was really different and really cool.

The best part was that most of the students really made an effort. When students then presented their brain to the class, they discussed the areas they used most frequently, what it was used for and the materials used to create their brain. Not only did the students demonstrate their eagerness to create the brain but many knew the areas and some functions of the brain. Douglas, in particular, described his brain as messy when he was starting. He discussed the areas of the brain that Tom Jones, his favourite singer, used when performing. Becky stated she created 3 brains to get the perfect one. And Jordan created advertisements to help sell the brain project. He also mentioned to others the wonders of using Pam cooking spray to have a non-stick brain. Each brain really was a work of art and so individual.

In addition to creating their own brains, the students displayed their knowledge through a "Brain Map". This is a picture displaying the different areas of the brain that are used for their favourite activities. Once again each map was great and individualized to their own needs. One student, Lindsay, had a cigarette package on her map. I quickly asked her if this was because she is a smoker.   She simply giggled and said, 'No, no. It is there because that part is used for decision making, especially tough ones like smoking.' I especially liked her insight into her brain map. And that she obviously had thought about her map (Renner, 2006).

Data Collection: Attention

Paying Attention is a struggle in any classroom and with anyone. I personally find this to be an area that I could improve greatly. The students had been working to identify their distractions. The activity

associated with paying attention was "Tag". The students were given 10 seconds to memorize a symbol; then 30 seconds to find all the symbols. With each tag session, distractions within the room increased. At first we were very quiet. Then the E A s and myself began to speak. We then began asking each other and students for items. Finally I was singing and dancing. Surprisingly, my students' ability to concentrate increased as the distraction increased. This could be because we typically have talking in the classroom. Even when teaching is occurring, other students are working on an individual program. These programs can get noisy. When I asked the students their feelings about the session they simply said they figured they needed to work harder to pay attention and they found that the quiet was way too hard to concentrate (Renner, 2006).

Where are we now?
I have only been using the program for one term. It really wasn't enough time for the entire program to be complete since there are eight topics and we have only completed three. My students have learned many things. They are able to discuss brain functions and some of the basic needs they have.

Some students have begun to be more comfortable with their home room classes. When asking the home room teachers about the students progress I received an email about Amanda, a grade six student. The teacher, Rob Low, mentioned that she improved in the social aspects with his class. She became involved actively in visual art, physical education and music. Rob continued to say that during the more academic aspects she would ask if she could return to my class. This was no longer happening during the social classes. We felt that Amanda really did benefit from the program. (Email from Rob Low to Jenn Renner, June 1, 2006)

The rest of the students have improved in many different ways. Students that were not motivated to work on language were conducting experiments, reading and answering questions on the brain and working with others to solve problems. They were interested and excited about the work. When it was time for a listening exercise, the students listened to the story, then recognized aspects of themselves in the story. As I asked questions about the boy from the story they would explain times that they felt similar. Even when the students are not excited about the work, they soon see themselves in the work. (Renner Journal, 2006)

I will be continuing the mind work with my students next year. I will not be having the exact same make up next year. But I will be doing a catch-up unit for the new students and review with the others. I hope that all of the students will have the opportunity to learn more about the way they learn and their needs. I believe that all students need to know their best learning system and then challenge themselves to learn better. I need to encourage my students to take challenges and risks, with the knowledge that they know the process to solve the problem by continuing to learn their needs and then encouraging them to advocate for themselves with their needs. The students will then be taking the first big step towards independence in learning.

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References

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How can I improve my students' self-esteem and achievement by teaching them to drum?

Ben Davidson

Biography

I am in my eleventh year of teaching. My first year was spent supply teaching in New Zealand. I then taught Grade 8 for two years in Attawapiskat, which is a Cree community in Northern Ontario that can only be reached by plane. For the past eight years I have taught for the Grand Erie District School Board (GEDSB) and currently teach a self-contained Junior/Intermediate Mixed Exceptionality class at Burford District Elementary School. I enjoy traveling and try to bring my travel experiences into the classroom. Drumming is one of these experiences..

Abstract

Drumming has had an amazing impact on our class! Students in a Special Education Class are often isolated from the overall school culture. Drumming has allowed our class to become a bigger part of this culture in many ways. The students perform in front of the school, teach primary students from regular classes to drum and help to facilitate lunch hour drum circles for students in the regular junior classes. I believe that through drumming, students have gained more self-esteem by being proud of their success (success breeds success) and have gained a feeling of worth. Students have learned to cooperate with each other while playing a rhythm together. It is also an activity that has formed a commonality among students with a wide range of ages and exceptionalities. Drumming presents a level playing field for students with learning disabilities. Drumming is an activity that all of the students enjoy and it gives them something to look forward to when coming to school. All of these points help build a positive learning environment. Drumming also allows students to release excess energy and stress; improve their hand eye coordination and improve focus and listening skills when listening for the space in a rhythm that they are to play.

How can I improve my students' self-esteem and achievement by teaching them to drum?
When I first started my Action Research Project, I started collecting data that would answer the question: "Can Drumming help build a positive Learning Environment?". I guess the reason I started with this question is so that I could validate to others why we spend class time and money playing drums with our students. However, once I started talking to my students, parents, and colleagues, it was apparent that I did not need to validate how drumming benefitted our class. Everybody agreed, "Yes drumming has improved the lives of the students in our class." Answering the question: "Can Drumming help build a positive Learning Environment?", was as obvious as, "Can reading with a child improve his/her reading?" Of course it does!

What people were more interested in was, "How did I improve my students' self-esteem and achievement by teaching them to drum?" This question is more practical because by answering it I hope other teachers can learn how they can start to use drums with their class.

However, for those who have not met our class of musicians and are skeptical of the positive impact

that drums can have on a class, I have included the evidence to help you see the light.

Our class is a self-contained Junior/Intermediate Mixed Exceptionality class with one and a half Educational Assistants. We have thirteen students with a wide range of exceptionalities, personalities and ages. Our students range from nine to fourteen years of age. Their exceptionalities include Behavior, Learning Disabled, Mild Intellectual Disability and Developmentally Delayed.

How Drumming evolved in our class
I introduced our class to drumming in the 2003-2004 school year. However, during this year we did not perform in front of an audience and we never took drumming beyond the point of playing the drums (water jugs) a half dozen times during music classes.

In 2004-2005, I invited "Tribal Thunder" to our school to facilitate drum circles for all the classes. Tribal Thunder inspired us and we started to drum more often. As suggested by my principal, Fred Gladding, we performed 20 second rhythms at the beginning of a few school assemblies. This acted as a cue that the assembly was to start and that the students needed to settle and to be quiet.

It was not until 2005-2006 that drums became a definite part of our class and school culture. This was the year that we formed our band, "Tribal Beat", named after the students' role models "Tribal Thunder". During this year we played drums almost daily. We put on concerts at our school and other locations, played 20 second rhythms at the beginning of all school assemblies and taught other students to drum. This is the year that I saw the biggest impact that drumming had on our students.

Evidence: How did drumming help our students?
My own observations
Socially Integrated
I have taught a self-contained class for eight years. One of the most upsetting parts of teaching a self-contained class is when our students come in from recess or after being integrated into a class and complain that other students were calling them "stupid" and saying that they are in "The Retard Class". Unfortunately, this happened far too often. However, this year my students have come in after recess or integration only a few times with this complaint. I feel that the other students from the regular grades see the students in our self-contained class in a new light. They have seen Tribal Beat perform and many students have been taught how to drum by members of Tribal Beat. Our students are now seen as being able to do something that other kids cannot do. I have heard our class referred to by some other students as "The Drumming Class," this is far better then "The

Retard Class." No longer being looked down upon by other students must be one of the reasons, as demonstrated later on in this paper, that our students' self esteem and attitude toward school has improved.

In previous years I have watched my students roam around the school yard not knowing what to do with themselves (other than get into trouble). They only hung out amongst themselves and never mixed with the other students. This year our students have made good friends with students from the regular classes and are playing games with the other students. Their new friends often become good role models for our students. Some of these relationships have started when our students were helping facilitate a drum circle and have taught an individual a new rhythm. Some friendships formed at recess, perhaps because other students no longer look down on our students and our students now have the confidence to approach students from other classes. Our students have finally become socially integrated with the other students.

Hard Work, Practice and Commitment
In November and December of 2005, we were very busy practicing to perform in front of a GEDSB Board Meeting; several School Concerts and in front of the GEDSB Support Staff Professional Development (PD) day. This was unfamiliar territory for the students. Usually we would have drum circles and play for fun while learning new rhythms. Now with all of these performances we had to practice every day. The students were getting tired of the mundanity of playing the same rhythm over and over again. In fact, behaviors started to creep up during drumming (something that usually would not happen). Often they would complain that they were tired of practicing. In fact, though the performance for the GEDSB Support Staff PD day was very good, their behavior just before and right after the performance was one of the worst I have seen from our class this year.

After the Christmas break I was glad that we had no more performances. For the next few weeks we started to play drums for the joy of playing and the students seemed happy and refreshed. Then, we were asked to perform for the Six Nations Reserve School Board on their next PD day. When asked, I cringed and my instinct told me "no"! However, being a big believer in empowerment, I let the students decide. When I asked my students, I reminded them how we would have to practice a lot, that we would not be given as much time to play for fun and that once we say yes we would be committed and cannot change our minds. I was sure they would all say no (I was hoping they would say no.) However, every student said yes and we started practicing that day! Through drumming my students have learned the value of hard work, practice and commitment.

To reinforce the above statement here is a short anecdote about one of our students, who can be very stubborn when it comes time to complete class assignments and who always complains that he has to work too hard. When he is demonstrating this attitude, we will talk and I often say something to the effect that, "If you want to improve your reading you need to practice and complete reading assignments."

In January 2006, the same student wanted to stay in at recess so he could teach me a rhythm that he composed. It was a fantastic rhythm and I really wanted to learn how to play it. I had difficulty learning the rhythm; however, by the end of the recess I finally got the rhythm, though I could not play it as smoothly as he could. At this point he told me, "You need to practice and do it over and over again". I laughed and pointed out that I have been giving him the same message almost daily when it comes time for him to complete a reading or math assignment. He still complains when it is time to work and often refuses to complete assignments. At this point he and I have our usual conversation and I now have one more example to help him realize the importance of practice and hard work. (B. Davidson, Journal Entry, January,2006).

Through drumming, many of our students have found themselves in leadership roles. Members of Tribal Beat have volunteered to give up their lunch hour to help facilitate drum circles for grade 4, 5 and 6 students in the regular grades. They have also taught small groups of grade 3 students to play drums as part of their regular grade 3 music program. They also teach myself and each other different rhythms. Through these experiences I have found that students who are usually bullies, demonstrate, when teaching a group of young students, a patient and friendly demeanor. I have seen one individual who when first given an opportunity to teach drums to others, would get mad at students for not being able to follow a rhythm. At times he still gets frustrated, though he has definitely gained more patience. While members of Tribal Beat gained leadership qualities, their self-esteem sky rocketed.

One of my most rewarding experiences teaching drums revolves around one of my students that is border line Developmentally Delayed and is definitely the lowest functioning student in our class. In November 2005, he just started playing a rhythm from his head and everybody thought that it sounded amazing. This was his time to shine and to be a leader (something he never done before.) While trying to teach us his rhythm he was very patient. He broke the rhythm up into smaller pieces; played slower and encouraged and complimented us. Despite his excellent teaching skills, not one of us could play his rhythm – it was far to fast and complicated for everybody but him. (B. Davidson, Journal Entry, November, 2005).

Through drumming, members of Tribal Beat have: become socially integrated; taken on leadership roles and gained self esteem; learned the importance of hard work, practice and commitment. As a result, the overall learning environment has been improved. There are still behavior problems in our class; however, the behavior has improved dramatically. In the 2004-2005 school year, our class had 20 suspensions and many informal suspensions. In 2005-2006, our principal, the same one as the previous year, did not have to suspend one student!

Not only are our students better behaved they seem happier and more positive. One of the best feelings is watching our students celebrate, clap and encourage each other when they have learned a new rhythm or played a song perfectly with no mistakes. All of a sudden our class has become a cooperating team working in unity toward a common goal. This is a huge accomplishment when working with a group of students who have such a wide range of exceptionalities, personalities and ages. Even the one girl in our class now finds she is part of our class.

When we first started teaching drums, one of the biggest challenges was teaching the students to listen to the rhythm being played so that they would know when it was their turn to enter a rhythm. Many students were also challenged when having to maintain focus when following the pattern of a song on the steel drums (therefore they would learn only simple short songs.) However, over time, the students improved their listening skills while drumming and have very few problems maintaining focus, so they know when it is their turn to enter a rhythm. They now have the focus to learn more complicated, longer songs on the steel drums. For example, at first students learned to play Hot Cross Buns and by the end of the year they could play a more complicated song, Skip to my Lou, which had two parts - a harmony and a melody. I have definitely observed an improvement in the students listening and focusing skills while drumming and I feel it will make it easier to teach or extend these skills into their everyday lives. Though I do not have any students assessed as having an Auditory Processing Disability, I believe that if I did, drumming would definitely help them overcome this disability.

Observations from others

The quote below is from our principal, Fred Gladding.

Impacts of Drumming 2005-06

The differences within the class this year are significant. Suspensions and incidents of escalating behaviors have been greatly reduced. Social interactions for the class have expanded, and evidence of the students' acceptance within the school can be seen in the ways they are included in numerous school activities and games with peers at recess. Certainly the approval that drumming has brought to the class has left the students with a real sense of pride and accomplishment. They have accomplished excellence and have met a high standard. It would seem that many in the class are now expecting more from themselves.

When incidents of temper or frustration are encountered, I have seen pupils persevere with their attempts to regain composure. They genuinely want to respond respectfully to peers and staff, a reflection of their culture of drumming. This has allowed pupils to use time-outs more effectively to self-correct, and with support more often return to the classroom and success.

Having opportunities to show their abilities at school assemblies and in noon drumming circles, has thrust the students into a leadership role that they have responded to. Very publicly they have been able to demonstrate talent and ability. Others have wanted to learn from them. The perspective that they have had of themselves has shifted.

As a group they have been much kinder to one another, as they have seen and discovered abilities within their group that they might not have expected. Drumming is great, as regardless of challenges and abilities, all the students in the class have made significant contributions.

We have a much happier and socially appropriate group of learners within our class this year. I would attribute the change to a number of factors, with drumming being one of the most significant.

Fred G. Gladding
Principal

This quote is from Mary Ann Shay (Teacher Consultant Special Education and Learning Resource Teacher), who sent me this email after she saw Tribal Beat perform at the G.E.D.S.B. support staff PD day.

When I was watching your students drumming in December at the combined support staff meeting, I was so impressed with their attention to the task, how they conducted themselves, looking so confident. When one drum needed to be moved because of incorrect positioning,

two helped another classmate by recognizing and repositioning the drum with no extra attention seeking/behavior but instead a sense of professionalism and respect for each other and the audience. I looked over at you and you were standing calmly, confident that they knew what to do. I recognized BJ from PES. He was in the MID class when I taught the self contained communications class at PES. The classes did things together and I am well aware of how BJ conducted himself then. Other than by physical appearance I would not have recognized him. I would have loved for his classroom teacher at that time to have seen him on that day!!

Sharon Laidlaw (Special Education Consultant) was also kind enough to give me a letter regarding the concert at the support staff PD day.

I just wanted to say how impressed I was with your students when they presented at the Special Education staff meeting.

They acted very professional, the young man who was the MC spoke clearly and with confidence. I was especially impressed when the tone drum was positioned wrong and how all the students worked together to problem solve and fix the situation. There was no panic, they just did what needed to be done.

Well done. I think that the drum has been very beneficial for your students in their self-esteem, problem solving, team work and over all confidence.

Great job.

This last quote is from, Julie McIntyre, who taught grade 4 across the hall from us and saw our class day to day.

The sole purposes of any new instructional endeavour are the benefits to a teacher's students-academic, emotional or social. Ben's drumming program has obviously benefited his students greatly. I teach across the hall from Ben and have noticed that, since the inception of the drumming program, his students are much more engaged in their learning, have adopted more positive attitudes in class and on the playground, and have shown greater confidence in their day-to-day approach to school. The students have had opportunities to perform their drumming for the students of BDES on a few occasions and have shown great pride in their presentations. One student in particular amazed me during a performance when he emceed the presentation. This student came to our school only a year ago, very troubled and unable to trust others. The progress he has made is incredible. His interest in drumming and his appreciation and growing trust for his teacher have transcended music.

Julie McIntyre
Gr. 4 Teacher

Comments from parents

I sent a letter to the parents of our students which read:

> I was hoping that you would not mind returning this letter with a short comment or two regarding any positive or negative impact that you have observed that drumming has had on your child and/or the class as a whole.

Out of thirteen students I received six letters back. See below:

> My husband and I have noticed Casey more enthused and excited when it comes to drumming. You don't have to ask him twice to practice. I've also noticed upon going to the concerts, how all the children are eager to please their audiences. It gives the children something to look forward to, all these children are special gifted children and the challenge of them to participate in drumming is very encouraging and the children have found something that they can do. They are really good at this and take this seriously. As you're watching them play the drums you can see on their faces how they are concentrated on where their hands are to hit next. A great pleasure for them.

> I feel it has helped Dillen focus more, he has become more patient and he looks forward to drumming. It's like it makes him feel he is important and that he can do something that some other kids cannot.

> I've seen a positive change in Sheena. She enjoys drumming a lot. Also her self-esteem has improved a lot. Sheena loves all music. So I haven't seen anything negative on her part.

> Eye hand coordination has improved and attention span in things has increased. Now Justin is interested in music – different styles of songs – tries to drum along.

> We found that Gabe gained confidence in himself. It improved his self-esteem. I believe drumming was great all around for the kids. Definitely a positive impact.

> The boys have had a lot of fun drumming. They would do it again if they had the chance.

Student Survey

Below is a survey I did with the students. Many of my students are reading and writing below a grade 1 level, therefore I read the survey to them and wrote their answers down. Twelve students completed the survey.

1.   **Put a circle around your favorite school subject. Put a box around your second favorite school subject.**

Twelve students choose drumming; eight gym; three math and one student choose science as either their first or second favorite subject.

2.   Has drumming helped you in any way?

Below are the answers students gave for this question. Many of the answers were similar so I did not repeat them (i.e. several students said it has helped their counting.)

- Calms me down.
- Helps me work with my brother (his younger brother is in the same class).
- Helps my counting.
- Helps me learn to concentrate.
- Helps me work with others.
- Helps my hand eye coordination.
- Being new to the school I made friends easily with my classmates when we were drumming.
- Helped me make friends with kids from the other classes.
- Helps me when I am stressed out. It calms my mind.
- Has not helped me (only one student said this).

3.   What do you like about drumming?

Below are the answers students gave for this question. Many of the answers were similar so I did not repeat them

- Performing in front of others
- Learning new beats
- I like the noise they make
- I like the beat
- I can make new rhythms
- I like teaching other people beats
- I like the feeling when you play a rhythm well
- I like to drum with everybody together
- Everything

4.   Is there anything you do not like about drumming?

Not one student answered yes.

5.   When you are drumming how do you feel?

Below are the answers students gave for this question. Many of the answers were similar so I did not repeat them.

- Good
- Go go go

- Focused
- Happy
- Calm

6.   Do these feeling continue after your done drumming?

Every student but one said yes! A 20 minute session of drumming for these kids has the potential to change their attitudes from a negative to a positive, possibly for the rest of the day.

7.   Do you think other kids in the school would like to be in our class because we drum?

Every student except one said yes. This says a lot about how our students feel about being in our class. This would not have been the case if I asked the students this question before we started drumming.

8.   Do you feel proud of yourself after a performance?

Every student except one said yes.

9.   On a scale between 1-10 what would you give drumming? 10 being you love to drum. 1 being you hate to drum.

One student gave it a "6." One student gave it an "8." Ten students gave it a "10."

10.   Do you like going to school more because you get to drum at school?

Every student except one said yes. This is quite significant from a group of students who traditionally don't look forward to going to school.

How I taught drumming
Hopefully now that you have read the evidence of the positive impact that drumming has had on my students, you will be ready to learn how we did it.

However, if you would like further evidence of the benefits of drumming, please go to the appendix under the section titled, "Outside Research on the benefits of drumming and music."

I have no rhythm
I am far from being a master drummer. In fact some of my students can play rhythms that I just can't play, (talk about an ego boast for the students.) If a few years ago I was to tell somebody that not only was I going to learn how to drum but also teach a class of exceptional students how to drum, they would laugh. I had no training or interest in music. I would have difficulty tapping my foot to Stomping Tom. I felt that I had no rhythm.

My interest in drumming started in Belize. One day my wife and I were having a little siesta in our

hotel when I awoke to the most amazing sound. I got up and went to investigate. Outside a man was playing a djembe (an African hand drum). I watched and listened. When he was done he showed me several drums that he made. He taught me how to make the two basic sounds and I was hooked. I bought my first drum from him that day and spent time playing with some locals.

When I got home I bought a few instructional books with CDs (check out the appendix under, "Suggested Resources"). I looked on the internet and found more information along with local drum circles. I also met the members of Tribal Thunder who took me under their wing - they were the biggest help.

The first thing you have to do is convince yourself that you can learn to drum and teach your students to drum. Unlike many instruments, students can learn to play the two main tones within 10 seconds, (talk about instant success). With the different teaching strategies and rhythms included in this paper you will have enough information to get started. Don't worry if you can't play very well, think of yourself as a facilitator who is learning to drum with your students. As you learn to play, your students will learn with you. In fact, your students will often be teaching you. Trust me if I can pull it off so can you. Just have fun!

Introducing Drums to your class
One of the best ways to introduce drumming to your students would be to hire a professional group of drum facilitators. There are several troops who can be hired to visit your school. Often, a troop would facilitate drum circles for individual classes for one hour drum circles. Drums are provided and students are introduced to several rhythms. There are several troops who can be hired to visit your school. However, I am most familiar and highly recommend Tribal Thunder. Tribal Thunder has taught more than 42 000 students and staff member in various schools around South-Western Ontario. Tribal Thunder can also give you teaching strategies of how to teach drums to your students. In the appendix under "Recommended Resources" is the contact number for Tribal Thunder.

When our class first started playing drums we used 20 liter water bottles. We would turn them upside down, hold them between our legs and hit the bottom with either our hands or drumsticks (pieces of dowel with super balls on the end). Water bottles are excellent as they not only get the two main sounds but also other sounds as well. They are affordable, very light for the students to handle and indestructible. However, they do not sound as good as real drums.

Once I started to see the benefits of drumming with the students we bought some wooden drums with a wooden head (top) from Tribal Thunder. The drums cost $30.00 each and came unfinished (though I believe they now charge $60.00.) This was great because the students got to sand and paint the drums themselves. This gave the students

a sense of ownership and respect for the drums. It was also very easy to color code the head of the drum to make learning rhythms easier. These drums sounded better then the water bottles, but still not as nice as a drum with a skin.

We also bought other hand drums with synthetic skins and goat skin heads. These drums sound the best, and make a greater variety of sounds; however are a little pricy. Drums of this sort range from $50.00 to $300.00. Tribal Thunder make drums which are of very high quality and if one breaks they will repair it for you. Less expensive drums can be bought at Steve's Music store in Toronto or any of the stores that sell hand crafts from different parts of the world. Going to these stores you can often find a good deal on a nice sounding drum for only $50.00, but be forewarned that sometimes these drums will crack as the wood is from a humid environment and there are no guarantees. You can also buy used drums if you go to drum circles and find somebody who has an extra drum to sell or there are lots on Ebay (though this has its own risks).

At the dollar store you can buy tambourines. You can also always make your own shakers out of film canisters and rice. A dunbek is an Egyption drum that has a very unique high tone sound that is available at many music shops for about $85.00.

When building a collection of drums don't try to buy them all at the same time. You will find that if you have your eyes open that occasionally an individual quality drum for a good price will be available. A good collection of drums should not be all the same type or size. You want to have all different types of drums from all over the world so that you can add a variety of sounds to your rhythms. A nice affordable selection of drums would include a half dozen water bottles; half dozen wooden top drums; a dunbek and a half dozen skinned drums along with an assortment of shakers and tambourines.

Most hand drums are held between the legs. The most common hand drum is in the shape of an hour glass and originates from Africa. It is called a djembe ("djem" mean between and "be" means leg). One thing you need to remember is that the sound comes from the bottom of the drum. If you keep the drum flat on the ground the sound will be muffled. You need to tilt the drum away from you while sitting. You want the angle of the drum to be 10-45 degrees, so that your hands and arms align with the drumhead and your wrists aren't cramped. When our students are playing their drums we give them the small primary chair to sit on, so that they can rest the drum on the floor, which makes it easier for them to hold.

Another way to hold a hand drum is to straddle the drum, putting most of your weight on your knees.

Hand position
Think of the drum head as a clock. Put your left hand between the 1 and 3 and your right hand between the 10 and 11. This is your home base

Different sounds of the drum
Hand drums make all different types of sounds. If you are a good drummer you can make as many sounds on a single hand drum as you can on a drum set. However, we will only discuss two of the main sounds that are made by all hand drums.

To make the base sound, simply move either your left or right hand from home base and hit the middle of the drum with your whole hand. Keep your fingers and thumb together and allow your hand to bounce off the head.

To make the higher tone sound, simply move either your left or right hand from home base and hit the edge of the drumhead with the crease where your fingers and palm meet. It is only your fingers that hit the drum. Make sure you keep your fingers and thumb together and allow your hand to bounce off the head.

Now you have the skill to play any of the rhythms in this paper.

Rhythms
Method # 1:
One way that I taught my students to drum was by color coding the head of the wooden topped drums - blue, red and green. You could also do the same with a water bottle. Blue is in the middle and when you hit blue you make the base sound. A red ring was then colored around the blue and extended 1cm to the edge. When you hit red the higher tone is produced. Along the edge is green. You do not hit green, only touch it. This will not produce a sound but is a way to teach students how to use a rest in the middle of a rhythm. If you have a drum that you can not color code this method will still work. Just explain to the students that blue is base; red tone and green a rest.

I then cut several large circles out of blue, red and green construction paper. On some of these circles I drew a thick black line down the middle. I then explained to the students that if they see a blue circle in a pattern they would play a base, if a red a tone and a green a rest. If they came to a circle with a line through the middle, it meant they would make the same sound twice very quickly, like a "Te-Te".
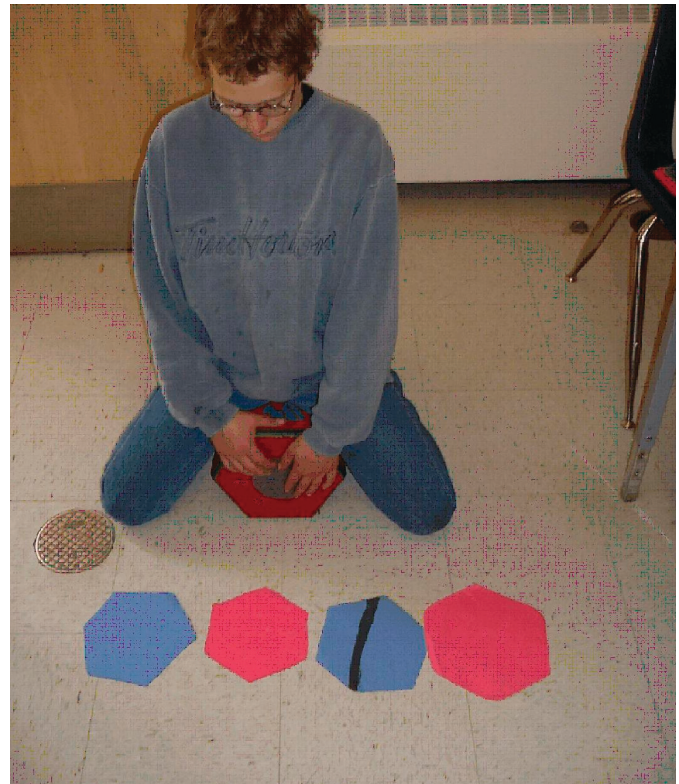
Next, I explained that they should play the bass with their strong hand and the tone and rest with their weak hand. I would then start by putting four circles on the floor, (as the students become comfortable with this you can add more circles.) I would explain to them that a rhythm is a pattern that repeats and once they have played the last circle or beat they go back to the start. The students were then ready to play their first rhythm.

This method of teaching hand drumming has many advantages. Students not only can quickly learn a form of music notation but are able to easily compose their own songs. The number of rhythms that you and your students can compose will be endless. It also has the advantage of being able to teach both simple and some complicated rhythms. Finally, many games can be played using this type of notation.

Below are a few simple rhythms to help you get started.

O Φ O O

| Blue | Red/Red | Blue | Red |

O O Φ O

| Blue | Red | Blue/Blue | Red |

O Φ Φ O

| Blue | Red/Red | Blue/Blue | Red |

Note: The above teaching method was developed by Tribal Thunder and myself.

Note: Kathy Bromhall (Education Assistant) taught our students to play the steel drums. Kathy also color coded the drums, though she had to use several colors, as the songs for the steel drums have all the traditional notes

Method #2
"If you can say it you can play it."

This is a famous quote from world renowned African drummer, Babatunde Olatunji. The tradition of hand drumming has been in Africa for thousands of years. Unlike western music which is taught through written notation, Africans taught rhythms orally. The members of Tribal Thunder use this type of method when they go to the schools. Below are three rhythms that they teach and which the students love to play. Don't get too caught up to whether or not you are using the right hand or not – there is no right or wrong way. Also note that the strong hand does not necessarily only play the base and the weak hand only the tone.

Key: B = Base T = Tone S = strong hand W = weak hand

Rhythm: I like pea / nut but / ter I like jam
Note: B B T T T T B B T
Hand: S S S W S W S S both hands
        at the same time

Rhythm: Fish heads fish heads rol/ly pol/ly fish heads
Note: T T T T T T T T T T
Hand: S W S W S W S W S W

Once the students learn these two rhythms you can have them play two Peanut Butter rhythms followed by one Fish head rhythm and then start over again. Or you can have one group play Peanut butter and the other fish heads.

Rhythm: Hot po / ta / to Hot Hot po / ta / to
Note: B T B T B B T B T
Hand: S W S W S S W S W

When first starting this rhythm I often simplify it to, "Hot Po/ta/to Hot Po/ta/to". I then ask them if they can see any patterns (ie. the strong hand always plays the Base and the hands alternate). Once they see the pattern and can play the simplified version I introduce them to, "Hot Po/ta/to Hot Hot Po/ta/to".

Drum Circles

> Rhythm is anything that repeats itself in time: the moon cycling around the earth, the sap rising in the spring, the pulsing of arteries in the body. Science knows one big thing about rhythm, something it calls the law of entrainment. Discovered by the Dutch scientist Christian Huygens in 1665, the law of entrainment holds that if two rhythms are nearly the same and their sources are in close proximity, they will always lock up, fall into synchrony, entrain. Why? The best theory is that nature is efficient and it takes less energy to pulse together than in opposition. (Hart, Mickey Planet Drum, 1991, p.17)

The idea of entrainment is how a drum circle works. Once somebody starts a rhythm everybody will eventually find their space in the rhythm and a pulse will form which everybody some how picks up and starts to play. When I facilitate a drum circle I or one of my students will often start a simple rhythm that everybody knows. Often this rhythm will somehow get modified yet there still is a steady beat or pulse that the students feel and play.

To keep it interesting I add different activities or games into our drum circles. Below are four activities that the students enjoy.

Name Game: Each student or group of students choose up to 4 blue, red or green circles. The circles are then displayed in a pattern in front of them. This is their rhythm or "name." One student or group starts by playing their own "name" and then, by looking at other students colored circles, will play somebody else's "name". Whose ever name was played must respond by repeating their own "name" and then playing somebody else's "name". An excellent listening game.

Echo: One student is the leader. The leader starts by playing a simple rhythm that all students can play. As the leader plays he/she will speed up or slow down; play loud or play soft; skip one beat

or clap in place of a drum beat. As the leader changes how he/she plays the rhythm the rest of the students must change with them. An excellent listening game.

High Fives: Students break off into partners. The partners face each other while they straddle their drums. They then make up rhythms together which not only includes playing the drum but also giving each other high fives. This is very similar to "Patty Cake." An excellent game for cooperation.

Guess the pattern: One student will play a pattern and the other students need to display the colored circles in the right order. Another excellent listening game.

What about kids who just don't want to drum?
There will always be a student who is not interested in drumming. The trick is to find a hook. I have made students "Equipment Managers" who are in charge of setting up the chairs and drums for circles; setting up the PA system for concerts and even repairing drums that may need something minor fixed. During concerts these students can also participate by being the master of ceremonies. Many times the students who did not want to drum will eventually come around when they feel comfortable enough to do so.

Conclusion
Yes, drumming has had a major beneficial impact on our class. I believe that all students can benefit through drumming and that any teacher can be a facilitator who learns to drum with their students.

Acknowledgments
I would like to thank my wife Michelle who had to put up with the pounding of my drum at home. Thank you to my principal Fred Gladding who not only supported drumming in our class but also encouraged us to push ourselves further. Thank you to Sheila Biro (The Techi) one of our Education Assistants, who took all the pictures and videos and put them on the computer. Thank you to Kathy Bromhall, our other Education Assistant, who taught the students to play the steel drums. Thank you to my Action Research Team who helped me to validate the benefits of drumming with my class. Thank you to Oz and Joan, from Tribal Thunder, who inspired our class and taught me rhythms and teaching strategies which I passed on to my students. Thank you to our students' parents who supported drumming in our class. Most importantly thank you to my students for their hard work and talent.

Appendix
Suggested Resources

Tribal Thunder was my greatest help. Below is a quote from Oscar De Los Santos from Tribal Thunder (May 2006) and their contact information.

> Music is the universal constant that transcends language and cultural differences. Of all the musical instruments, the drum is found in every culture on the face of the planet.

> 85 Bell St.

Delhi,
ONN4B 1W9
Canada
519-582-2090
519-582-2663

http://www.tribalthunder.com/contact.htm
oz@tribalthunder.com

Below are two instructional books with cd which I have benefitted from greatly. Both books can be ordered through www.Chapters.ca

Hip Grooves for Hand Drums by Alan Dworsky and Betsy Sansby
How to Play Djembe West African Rhythms for Beginners by Alan Dworsky and Betsy Sansby

Outside Research on the benefits of drumming and music
The following articles that I have found on the internet help support my believe that active participation in drumming or music help students build a cooperative team; reduce stress; maintain focus and improve attitude and behavior.

http://www.amc-music.com/musiceducation/social.htm

> Many pilot projects studying neurological development have recently released word of increased educational abilities in children who participate in music. Reputable and high visibility music and education organizations such as the National Association for Music Education, National School Boards Association, National Association of Music Merchants, American Music Therapy Association, National Academy of Recording Arts and Sciences Foundation, State Commissions of Drug and Alcohol Abuse, and many universities with world renown neurologists have shown on a consistent basis how music increases brain function.

Scientific studies show that active music making (NOT passive music listening) correlates with:
•	Increased spatial-temporal reasoning and better math scores
•	Better reading ability
•	Lower incidence of drug use and antisocial behavior
•	Increased wellness

Case example: In 1999 at PS96 in East Harlem, only 13% of the students performed at grade level in reading or math. Eighteen months after the music program was restore, 71% of the students were performing at grade level. The principal, Victor Lopez, attributes this astounding success to the restoration of the music program
Source: Nature May 23, 1996 http://www.amc-music.com/research_briefs.htm

> Music training helps under-achievers. In Rhode Island, researchers studied eight public

school first grade classes. Half of the classes became "test arts" groups, receiving ongoing music and visual arts training. In kindergarten, this group had lagged behind in scholastic performance. After seven months, the students were given a standardized test. The "test arts" group had caught up to their fellow students in reading and surpassed their classmates in math by 22 percent. In the second year of the project, the arts students widened this margin even further. Students were also evaluated on attitude and behavior. Classroom teachers noted improvement in these areas also.

htttp://www.remo.com/portal/pages/health_rhythms/team.html

According to Karl Bruhn, Presidential Advisor to the American Music Therapy Association, "without the obstacle of a challenging learning curve, group drumming is an enjoyable, accessible and fulfilling activity from the start for young and old alike. From exercise, nurturing and social support, to intellectual stimulation, spirituality and stress reduction, group drumming stimulates creative expression that unites our minds, bodies and spirits!"

http://www.remo.com/portal/pages/health_rhythms/team.ht

In her 1994 think DRUMS article, Barbara J. Crowe, RMT-BC pointed out that drum circle activities promote: "A strong sense of group identity and a feeling of belonging is created because participants are actively making music together and because the sustained repetition of the steady beat acts to bring people together physically, emotionally, and mentally (rhythmic entrainment)"

http://www.remo.com/portal/pages/health_rhythms/team.ht

Christine Stevens is a certified music therapist (MT-BC) with over 15 years of experience creating and implementing programs using rhythm and percussion for rehabilitation, health maintenance, and life enhancement. According to Christine drumming has many therapeutic benefits, including creating social unity and improving cognitive learning as drumming requires perception, attention and memory.

Music Therapy as a Treatment for Substance Abuse with At-Risk Children and Adolescents: Part II
http://www.remo.com/portal/pages/health_rhythms/library_article17.html

In addition to the use of the voice, drumming and breathing (in a music relaxation context) are also effective ways of adjusting the body's systems on a physical level. Reduction of blood pressure, a slowed heart rate, reduction of adrenalin flow, increased oxygen flow, regulation of neurotransmitters, relief from mental anxiety, release of muscle tension, regulation of cortisol levels, and regulation of other natural body chemicals play a role in the body's ability to integrate and control impulses, and rehabilitate from many states of depression. Lack of impulse control frequently leads to a shortened attention span, which, along with depression can effect a child's ability to engage in educational tasks efficiently and successfully. By Deborah Bradway, MT-BC

References

Hart, Mickey. Planet Drum. United States: Harper SanFrancisco, 1991

How can I improve the students ability to read others non-verbal messages during a variety of social situations?

Jennifer Renner

Biography

Jenn is in her fourth year of teaching at North Ward Public School in Paris. This is her first action research project. This project was written in her first year. Although she has had several different experiences working with children, including a residential camp setting, and as a volunteer, this year is the fourth for working in a classroom setting with students with exceptionalities. She has a class of thirteen students, so far this year and sixteen students when this was written. Jenn's interests include riding horses and furthering her learning.

Abstract

This is the story of how an Elementary Special Education Teacher, of a self-contained Junior/Intermediate Mixed Exceptionalites class, implemented strategies to improve her students' ability to read others non-verbal messages during a variety of social situations. The Special Education Teacher worked with her class focusing on the social referencing aspect of the Relationship Development Intervention Program (RDI) approach developed by Dr. Steven Gutstein.

Background information about the school...

North Ward is a school located in Paris, Ontario. The population of the school is 530 pupils. The school has students from Junior Kindergarten to Grade 8. The school is a feeder school for another school in Paris. The self-contained Mixed Exceptionalities class has 16 students in grades 4 to 8. All of my students are integrated into a homeroom class. In this class they are then integrated for different subjects depending on their strengths. Some students are integrated for the arts and physical education and others for much more. The levels of integration is dependent on their abilities. In the class I have the support of two full-time and one part time educational assistants (EA), with the guidance of Beth Lougheed (Learning Resource Teacher), Cathy Macaulay (Learning Resource Teacher), Thad Zebroski (Vice-Principal) and Jane Foerter (Principal) from the school and Sharon Laidlaw and Karin Mertins as support staff from the Grand Erie District School Board. The Autism Intervention Team was made up of professionals specializing in the field of Autism. The team members are Peggy Blair, Bernie Shuttleworth, Anne Kaiser, Judy Martin, and Belinda Belinko. The education provided from everyone mentioned enabled me to feel confident in my position.

Autism in a Nut Shell...

It is very difficult for me to give a short definition about the aspects of Autism, since there are so many parts to the syndrome, and I am very new to knowing about the spectrum myself. I am able to give a brief synopsis about Autism. The spectrum of Autism is very large and includes many different characteristics. It is very difficult to identify just one characteristic that identifies the person right away. Typically the person with Autism has an easy time learning rote concepts. These are concepts that stay the same, for example, simple math computations, basic reading, and learning scripts. These students have difficulty with abstract thoughts, concepts, and socializing. Structure

and routine allows for the person with Autism to find comfort. With my student, anxiety occurs quickly when structure is removed or punishment is perceived.

The Experts on Autism:
Dr. Steven Gutstein states,

> "Officially, Autism is classified as one of the Pervasive Developmental Disorders (PDD). Unofficially the term is used to describe the entire spectrum of conditions under the PDD label. Autism is characterized by a severe impairment in social, communication and language functioning. A high percentage of individuals with Autism also have other severe developmental disorders resulting in severe cognitive dysfunction." (2000, p. 173)

Kathleen Quill quotes,

> "Research into the origins of the developmental disabilities that accompany autism has shown that the cognitive, language, communication, and social differences interface in complex ways. There is a growing understanding that an inability to process and understand social and affective information in a cohesive manner may lie at the core of autism." (Baron-Cohen, 1995; Frith, 1989; Hobson, 1996). (Do-Watch-Listen-Say, 2000, p. 2)

About the Relationship Development Intervention Program (RDI)...
The RDI program, developed by Dr. Steven Gutstein, is:

- About the joy in connecting: a path for people on the Autism Spectrum to learn friendship, empathy, and a love of sharing their world and experiences with others.
- About changing neurology: a way for people on the spectrum to become flexible thinkers and creative problem solvers who enjoy the challenges of change and who desire to expand their world.
- Based on over 20 years of research by world's experts on typical development as well as scientific studies on people with autism.
- Developmental & systematic: a step-by-step program that focuses first on building the motivations so that skills will be used and generalized; followed by carefully and systematically building the skills for competence and fulfillment in a complex world.

- Realistic: a program that can be started easily, and implemented seamlessly into regular, day-to-day activities to enrich the life of the whole family.
- Precise: a method that measures and begins at the edge of each person's capability and then carefully but continually raises the bar.
- Effective: within 18 months, over 70% of children in our initial study improved their diagnosis based on the Autism Diagnostic Observation Schedule (ADOS). The majority of children also moved from a special education to a regular classroom without needing an aide.
  (Gutstein, Steven E. & Sheely, Rachelle K., Going to the heart of Autism, Asperger's Syndrome & Pervasive Development Disorder, Gutstein, Sheely & Associates, P.C. d/b/a The Connections

Center, 2004, p. 13)

Kathleen Quill defines children with Autism social experiences,

> "Social understanding begins with social interest, shared attention, and social-communicative and emotional reciprocity. These core skills lay the foundation for all social learning. The development of social understanding also requires cognitive flexibility. Social concepts are formed when children compare their perceptions, experiences, thoughts, and feelings with others' during shared social experiences. In children with autism, social concepts are driven by concrete, perceptual information. This limits their development of inferential reasoning, which is required for the development of abstract social concepts and social perspective-taking. The result is limited social understanding and, in turn, self-directed social and communication behaviours that do not take into account the perspective of others." (2000, p. 26)

The beginning...

In the beginning of the year, I was introduced to the wonderful opportunity of working at North Ward in the Mixed Exceptionalities class. On my first day I found that it was also the first day for several of my students. Many of the students were from the feeder school; seven students of my fourteen were new to the school. One of my students, Bill a fourth grader, was new to the school. Bill is a student with Autism. On my first day, during the discussion of their summer vacation to get to know the students, Bill began talking about trains. He talked about the summer and visiting a train park. He was finished with his turn. When the next student then took their turn, Bill interrupted with more train trivia, continuing on with knowledge about the different types of trains. "I saw different kinds" (Renner, Journal, September 3, 2003).

Bill's surprisingly spontaneous outbursts created many different situations for the class and myself. This was the first of many that I needed to learn to acknowledge and ignore. From there Bill's behaviour began to escalate, depending on the situation and the expectations that were being asked. In one case during the Christmas sing-along for the whole school, he ran out of the gym. When asked why he ran out, he covered his ears and stated that he didn't want to hear Christmas music anymore. When asked to return to sit outside of the gym or at the back and not participate he threw himself on the floor and began to flare his arms around. He then was taken into a Learning Resource Teacher's room where he could sit quietly (Renner, Journal, December 18, 2003).

The staff on the school team and I used several different methods to try to change his behaviours. Thankfully in January, after several different attempts to change his behaviour the school managed to receive the wonderful board support of the Autism Intervention Team, a team created to assess the situations of the students and then support the student and the teacher. The team came to a case conference to explain the support that would be offered. After several observations at different times, they were able to put together a program for Bill. With their support I began to further my education of Autistic pupils. I was given the opportunity to attend the Geneva Centre's Autism Intervenor Course where I learned basic information on autism and slowly increased my knowledge of the autistic student. At this point I began to learn that the behaviour that we felt needed to be

changed, by Bill, was actually communication. The course allowed me to look specifically at Bill and the messages he was trying to communicate. He was trying to inform us of anxieties, stressors or even excitement from his surrounding.

Action Research begins...

After some thought and the great opportunities presented by the members of the Autism Intervention Team I was asked about joining an action research project. The project consisted of reading a textbook and implementing some of the strategies in our class. Chris Ryder, Peggy Blair and I created a group to allow us to work through the process together. In the beginning, I thought that the Relationship Development Intervention (RDI) was about teaching students with Autism social skills. I was wrong. It is about increasing their awareness in social settings to learn to do what comes naturally to us. I decided to further investigate methods to increase the students' ability to read other people in different social situations. When we began reading the book *Autism Aspergers: Solving the Relationship Puzzle* by Steven Gutstein (Future Horizon's, 2000), I started to see the possibilities and difficulties of the RDI program. After reading the introduction to the program, I began to wonder if the program was possible? What does he actually know about the entire socialization process? With more in-depth analysis of his book I found that he does have the research and definitely the experience to back up the concepts. The information given made me think about my students.

The more information I read, the more I observed some of the behaviours in my students, especially Bill's behaviours. I soon realized that even though he made eye contact, he never really considered what I was expressing. When I would use clear, simple words or pictures to give actual directions, he always gave a better response. If he did not understand my directions his behaviours would increase. "Bill has difficulties changing roles. He is unable to transition easily from one task to another" (Renner, Journal, March 19, 2004). I began to learn about the social contexts and complexities that we naturally use and learn as babies. Typical children have growth patterns of learning social situations. "Infants quickly begin to offer information that parents can use to reference and regulate interaction more easily ... By the end of the sixth month babies routinely provide signals that help parents determine when to initiate, prolong and terminate interactions" (Gutstein, 2000, 16). I realized that Bill and many of my students had not developed these areas. These students did not look at a person and reference their face. They were unsure of the expressions that I was trying to give them through body language. "After one challenging day, Bill was laughing non-stop. I asked him if he saw my face. I questioned him if he thought that my face was happy. One other student answered the question. He however, could not" (Renner, Journal, January, 2004). The students would look at a person simply because they are instructed. They would not look and discover that a person was saying no through non-verbal language or that they were excited. The missing development in the ability to reference others truly was creating difficulties in my class and in their integrated subjects.

After I learned about social referencing, more complex areas of social development were introduced. Bill, at first glance, may not seem to have many social difficulties. He has an incredible sense of humour, he is able to laugh at many things and finds himself wanting to be an entertainer. When talking with him, he has the ability to answer questions and discuss the subjects of his choice. However, he does have difficulties with other students. "When heading out for recess one day, Bill walked down the line-up of students. He began to call to the students, "Who wants to play with me?

Whose going to play with me?" (Renner, Journal, December, 2003). Bill wants to play with other students but he unsure of the social methods needed to play.

The group had the opportunity to attend a conference in Atlanta, Georgia. The explanations of the concepts were very clear. Dr. Steve Gutstein suggested that I choose only one area to attend to at a time since the whole process is too comprehensive for a person working with the students only for the school day. This will then allow the child to develop one area and then continue to build upon the area. The area I chose to investigate and improve was the social referencing. "Social referencing allows the child to constantly read and interpret his relationship with his social partners to determine his degree of coordination with them" (Gutstein, 2000, 50). Essentially few of my students have developed the area of coordinating a conversation or activity with another person.

To begin this process I took the lead from Dr. Gutstein. Focusing on social referencing, Dr. Gutstein would exaggerate the actions to which he wishes the students to attend. In the beginning I tried to remove the prompts, as suggested by Dr. Gutstein. "Unfortunately, these Instrumental proficiencies are often over-valued by well-meaning adults, creating an even bigger obstacle to teaching Experience Sharing" (Gutstein, 2000, 41). The instrumental proficiencies are prompts and other skills that are required to allow the child to function in society. The overuse of instrumental skills creates difficulties in allowing the child to build emotional complexities. "When I began to remove the prompts for Bill, he would react when others (me, EA's, or other students) did not give the attention to his prompts or demands" (Renner, Journal, April 5, 2004). At the start when Bill would ask to go to the washroom, I would nod my head "yes" and say "yes". In the beginning he would just listen to hear my voice. I slowly began to minimize use of a verbal prompt. I began to speak softer. Now when he asks I am able to just respond with a nod, still exaggerated, but a nod. This technique has begun to work with several of my other students as well.

Although this does not solve the major problems, it does create a framework to increase an area of social ability. From using just this simple technique of nodding my head I have been able to now nod for approval and disapproval of many choices. He has begun referencing when he is unsure of the appropriate decision. When he looks at me, at this time, a simple nod will tell him my choice for his decision. He may not always choose the same as I advise but he does know the decision he should choose!

This is only the beginning of social referencing. Since Social Referencing is much more than "watching for a specific cue, Social Referencing involves the ability to make rapid comparisons between oneself and others. The child learns to evaluate the degree of similarity and /or coordination between something he is doing, feeling, perceiving or thinking and that same aspect in his partner" (Gutstein, 50). Although it may seem as though Bill is able to Social Reference, it is a basic concept that needs to be mastered in order to build on the more complex abilities. He is just beginning to gain the basic but necessary skills of Social Referencing. Bill was able to demonstrate proof of this gain.

"Bill was on yards. He used some language or behaviour that was not appropriate for the school yard. When the yard teacher brought him over to discuss the problem, she simply stated that

the action was not appropriate. She then gave him a consequence. The consequence was to pick up ten pieces of garbage and then to return to her when he was finished. Bill completed this action and then came in from recess with no problem. I was not aware of this encounter until later that day when told. This really was an incredible improvement for Bill since typically he would come in with high levels of stress and anxiety from a similar situation." (Renner, as told by Bonnie Barton, May 26, 2004)

This experience gave me the proof that using the beginning principles of the RDI method is working to relieve some anxiety.

Next Steps
The goals for the RDI are to be ones that are achievable by all of the students. Also the goals are ones that I find are going to benefit the students both with and without autism. My goal was to begin the process of using RDI to increase the use of social referencing. With this goal beginning to be met, I will set a new goal of using the RDI approach in my class. Once the goal of increasing social referencing is met the next goal is to further increase my students' ability to socialize in a typical setting. They will be able to use the referencing and make lasting memories. I feel that my next logical step will be to work on creating episodic memory, which allows the student to "build strong emotion-based positive memories which results in powerful increases in desire to participate and practice activities" (Gutstein, Steven; Getting to the Heart of Autism, May 15 &16; p. 10). The method that I will be using to work on increasing the student's ability to create episodic memories is by taking pictures of activities that the students are doing and then printing off the pictures. The students will then write about the actual event. They will be able to take a copy home. Some special memories will be kept for the class to have as a memory book, allowing us to look back frequently and recall information of events and activities that have taken place. As stated by Dr. Gutstein, "Social development is like a treasure hunt. Each new discovery fills us with awe and a renewed sense of our place in the world" (Gutstein, 2000, 46). I have found that it truly is trying to find the methods that will work for each student, much like a treasure hunt. But this method produces results.

From this learning experience I have been enlightened to the many opportunities waiting for children with Autism and for children lacking social and thinking skills, by having worked with my class focusing on the social referencing aspect of the RDI approach. I am really looking forward to beginning to work on increasing their episodic memories skill. Dr. Steve Gutstein says "Autism is only partly a skills deficit; it is also a motivational deficit" (2000, pp.75). I want to be able to increase the students' motivation for both school work and for creating lasting relationships.

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How can I meet the needs of my students through Differentiated Instruction?

Charlotte Pipe

Biography

Charlotte Pipe has five years of teaching experience and is currently in her fourth year of Grade three teaching at Russell Reid/Coronation School in Brantford, Ontario. She has a Bachelor of Science degree from the University of Guelph and completed Teacher's College at the University of Canberra in Australia. This is her first action research project.

Abstract

This report documents my struggle to differentiate instruction in a mixed ability class. I discuss the ways I have considered: environment, content, process and product in my quest to match students' readiness, interests and learning styles with my instructional approach. I have included examples of physical and time scheduling, modified science lessons, and different ways of representing knowledge through the use of computer software such as Kidspiration, Writing with Symbols and Co-Writer. I found that it was worth the struggle to differentiate when I saw improvement in the material the students were able to produce. In the future I would like to experiment with new ways to differentiate instruction.

Zach's Story (Journal, February 15)

It was one of those few and far between, unforgettable teachable moments. One of those moments that remind you of why you love teaching and why you do this job in the first place. Zachary was a most unlikely source for this moment which made it all the more rewarding.

It was Wednesday morning on a hectic mid-February day. The Grade 3 class had just started a new unit on 2-D Geometry and had been reminded of the concept of symmetry. Zachary and two other students on Individual Education Plans (IEPs) had started their new Grade one level math unit on geometry, as well.

Zachary had refused to do his math, fiddled with pencils, talked to other students and tried to distract them for the first half of his math period. This was typical behavior for him. The other two students proceeded with the first task, colouring 3-dimensional shapes in a picture. They saw that the next task was to build a 3-D tower from wooden solids and were eager to get started. As soon as Zachary saw the construction commence he wanted to join in. I reminded him that he needed to finish the colouring first. By the time he had finished it was five minutes to recess and he had barely had a chance to start building. He was quite disappointed so I assured him that when he had finished other tasks like reading and writing, later in the day, I would give him some time to build.

After the second recess break we had reading time and Zachary didn't want to read. I made a deal with him that if he read with Moe DeFelice (Educational Assistant) he could go and build his tower on the desk outside of the class in the hallway. He agreed and soon he was happily building away.

As the end of the day neared I was busy working with the other students on their science experiments. I noticed students going out into the hall, coming back in and whispering to their friends who would in turn go out into the hall and check it out themselves. At one point, Amanda, who is always helpful, honest and encouraging, came to find me and said, "Miss Pipe, you've got to go out in the hall and see what Zachary is building." I told her I would as soon as I had finished helping Rileigh with her question.

When I finally had the chance to see it, quite a crowd had gathered around Zach, admiring his work. He had built a structure that towered half a metre and used at least 50 blocks. It was a castle he explained and it was (unintentionally) perfectly symmetrical.

Zachary beamed as I brought the rest of the class out into the hall to admire his work. I then seized the moment to show the class the line of symmetry. They congratulated Zach and made comments like "Wow, you made that yourself?"

I had wanted to take a picture but the digital camera wasn't working, so I sketched the castle and gave Zach a copy to take home. He received several positive comments from staff members as they walked by and he ushered his cousin down the hall to see it when Calvin had arrived at the school to pick him up at the end of the day.

It was wonderful to see that happen for a young man who so desperately needed and wanted positive attention and validation from his peers.

How Did I Get Here?

Lori Barkans, my Vice-Principal said that she noticed I was doing things a little differently in my classroom this year and she suggested that I look at Action Research. I knew a few names of colleagues associated with Action Research but really had no idea what it entailed. Coming from a science background I assumed that I would be writing something like a Master's thesis and would be required to provide statistical data and analysis to prove my hypothesis. Lori explained it differently. She told me that this type of project is a reflective piece of work and that I could write about my thoughts, process and feelings. I asked myself, "What am I doing differently this year and what have I learned along the way?" Here is my story about my learning journey.

Purpose for My Research

In September, when my non-teacher friends would ask me, "How's your class this year?" I would reply, "I think I've been training my whole career for this class." This class presented a challenge of the likes I'd never encountered before. I had such a wide variety of learning styles and needs from physical and learning disabilities, students who used adaptive technology, communication disorders, behaviour to some really advanced, motivated self learners on the other end of the scale. After the first week I realized that the way I was used to teaching was not going to work for this group and I was going to have to make some kind of a plan in order to meet the needs of these students.

My goal was to be able to help everyone learn and to provide work that was interesting, challenging and at the right level for each of them. A 'tall order' to fill? I didn't think so. I thought it was my job.

It wasn't until I looked back at my process that I realized what I had been doing all along could be called 'Differentiated Instruction'. "In a differentiated classroom, the teacher proactively plans and carries out varied approaches to content, process, and product in anticipation of and response to student differences in readiness, interest, and learning needs. A teacher in a differentiated classroom... is fully aware that every hour of teaching, every day in the classroom can reveal one more way to make the classroom a better match for its learners. It is a way of life in the classroom" (Tomlinson, 2001. page 5). I thought this sounded like good pedagogy and I have always believed that fair means that each student gets what he/she needs in order to grow and succeed.

Class Profile

I have 23 students in my class this year. I focused on four for my research.

Andrew is a student with vision trouble, cerebral palsy, mild intellectual delay and hydrocephalapy. He has his own computer through Special Equipment Amount (SEA) funding and came to me with a few months of experience using the computer software. He is on an IEP for language and math. Andrew receives occupational therapy support through Lansdowne Children's Centre, speech therapy and visits a tutor twice a week. He works well with others and attempts learning activities enthusiastically. His interests include: the cottage, going to cubs and his family.
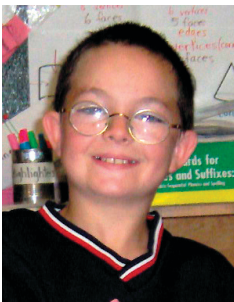
Travis has vision trouble and a mild intellectual delay. He works on an IEP for language and math. He receives additional support through one-on-one reading with a volunteer twice a week, Learning Resource Teacher (LRT) support and has his own computer through SEA funding. His interests include: skateboarding, fishing and hanging out with friends.
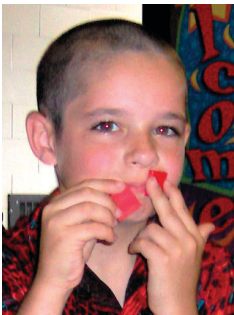
Zachary has a mild intellectual delay and behavioural difficulty. He started the school year on half-day probation and now comes to school full days and is coping with some difficulty. He was identified in the third term and now works on an IEP for language and math. He receives the support of a half-time Educational Assistant (EA), the LRT, and one-on-one reading with a volunteer twice a week. He likes to make new friends, to entertain others with stories and to play tag. He loves puzzles, building things and animals.

Nolan is a very intelligent boy with communication difficulty. He has not been formally identified and is working at a Grade three level with accommodations like: scribing, alternate assignments and assessment. He has a keen interest in science and facts and has found seventeen four leaved clovers in our field on recess breaks!

How Did I Get Started?

Differentiated instruction is a teacher's response to learners' needs. Teachers need to consider: environment, content, process and product according to students': readiness, interest and learning styles. (MOE, 2006)

Differentiating Instruction
is a teacher's response to learners' needs

↓

Teachers need to consider:

| Environment | Content | Process | Product |
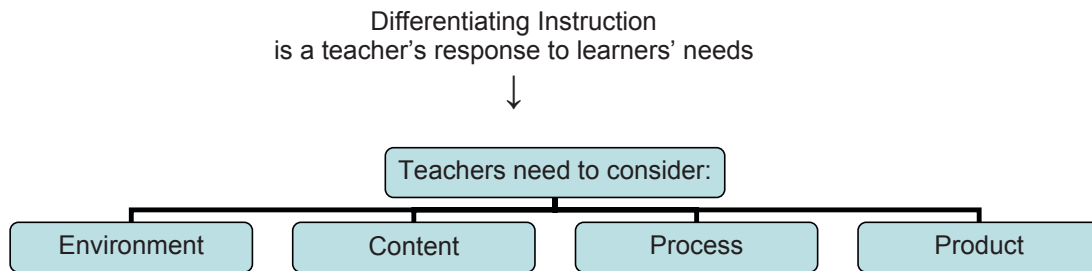
Environment

Balanced Day Schedule

Time

I wanted to be able to have full group instruction, small group and individual instruction time but had never worked with a balanced day schedule before, so I created a new timetable.

8:45- 9:05	Announcements/Morning Energizers
9:05- 9:45	Physical Education
9:45-10:25	Math #1 *Large group*
10:25- 11:05	Nutrition/ Recess Break
11:05- 11:45	Math #2 *Small group*
11:45-12:05	Working with Words *Whole class*
12:05-12:45	Writing *Whole Class* /Guided Reading *Small group*
12:45- 1:25	Nutrition/Recess Break
1:25-2:05	Self Selected Reading *Individual*
2:05-3:05	Science/Social Studies/Integrated Units *Whole class*

Space

I used a round table at the front of the class when teaching small groups. Students worked at their desk groups when they weren't involved in a small group instruction activity.

Content

I differentiated the content of my instruction by giving the students work that was at their level, anticipating their needs and responding by changing content day in and day out.

I was fortunate that Travis, Andrew and Zachary were generally working at the same level in Math and Language so I grouped them together based on their previous years IEPs, report cards and my own observations the first week. I gathered Grade one level materials with the help of Christina Brittain (Learning Resource Teacher), Sharon Boncoddo and Pat Meszaros (Grade one teachers) and created a Math #1 duo tang and a Math #2 duo tang for Andrew, Travis and Zach. During the first math period Travis, Andrew and Zachary would work independently on basic skills such as printing numbers; skip counting, addition and subtraction from their Math #1 booklet at the round table at the front of the class. I was able to build in extra practice during this math period.

While the small group was working at the round table I taught the rest of the class their math lesson from the Grade three text book at the blackboard and back at their desk groups. During the second math period the rest of the class would work independently and I would have a chance to teach the Grade one level lesson to the small group at the round table. I was able to ascertain which skills needed more practice and found that Travis needed some more difficult work to keep him challenged. I felt lucky to have the chance to work closely with the group of three.

Difficulties in delivering content

After a little while, the class got used to this arrangement. Some difficulties I had were: the small group worked well in the first math period with another person supervising them (i.e. Co-op student, volunteer) but I could not often leave them to work independently. The rest of the class worked quite well independently in the second math period but I found it was not as easy to help students who may have been struggling with concepts when I was concentrating on working with the small group. I spent extra time at recess reviewing concepts with the struggling students when possible.

My language block took some time to organize. At the beginning of the year I tried many different strategies to differentiate reading/writing instruction. Having seen success with the Math duo tangs I tried to put together a variety of grade one leveled reading and writing activities for Zach, Andrew and Travis.

The folder didn't work because it was too structured and left little room for the students to choose activities. I had organized a different type of language activity for each day of the week (i.e. Little books on Monday, cut and paste sentences on Tuesday, word sounds on Wednesday etc.) and it was difficult to implement because I had no flexibility to carry activities over one day to the next if needed and it was also difficult to connect to other units of study. I had a prep teacher covering my language block once a cycle and that didn't fall on the same day of the week each time which made it difficult for her to know what to do with the Zach, Andrew, Travis group. I also found that, while I was able to instruct writing to the rest of the class, I was missing the Guided Reading piece that I usually included in my program (Reflections and conversation with Lori Barkans, April, 2006).

Team work

Were it not for the help of Christina Brittain, Sharon Boncoddo, Pat Meszaros, Lori Barkans and a number of classroom volunteers, I would not have been able to gather these materials and tailor my program to meet the students' needs as easily. Christina (LRT) helped me to modify science materials so that the amount of reading and writing was minimized yet the students were still able to communicate their knowledge.

The class followed the science text book, carried out the experiment in groups and wrote their reports using the scientific method. Christina modified the lesson for Andrew, Travis, Zachary and Nolan so that they could circle the appropriate picture and write a concluding sentence.

Process

I was able to differentiate the process of delivering content (teach differently to meet the learning styles of the students) by grouping and regrouping for different purposes.

In January I was able to introduce Guided Reading. It was easy to vary the content and style of language instruction through Guided Reading and to connect reading to writing. I could change the lessons and the reading material based on the students needs. My students really enjoyed Guided Reading and would often complain if they missed their day because of situations beyond my control (Journal entries, March 2006).

After a few months of Guided Reading, however; I found that the quality of written work that I was receiving was diminishing. The students weren't getting the help with their writing process that I was able to give before and many were struggling to write. They were less independent than I thought and while I was teaching Guided Reading the writing was suffering. I had to flip-flop between writing days and guided reading days for the rest of the school year.

I used small group instruction frequently with Andrew, Travis and Zach but I found that they thoroughly enjoyed doing the activities that the rest of the class were doing for language and math sometimes too. I was able to include them with the rest of the class in Reader's Theatre groups, Shared Reading, Making Words, constructing 3-D shapes, conducting surveys, math games (Journal, March 1, 2006) and taking on some leadership roles in the school.

Andrew participating in making words activity

Travis participating in Making words activity

Pat Meszaros (Grade one teacher, May 11, 2006) said, "I especially like it when Andrew comes into my class to lead the morning energizer routine. He always has a big smile on his face and is so proud of himself. It's nice to see."

Product

One of the most exciting things I learned this year was how to use technology to provide different ways for students to present their knowledge. Moe DeFelice (EA) and I learned how to use many of the programs on Andrew's computer (Kurzweil, Kidspiration, Writing with Symbols etc.) and were able to use our knowledge of Co:Writer and its capabilities to help Nolan express what he knew. We found that Andrew was able to teach Travis how to perform some of the functions of the programs when Travis received his computer in second term.

"Andrew is able to help Travis with his computer knowledge of Kurzweil" (M. DeFelice, May 27)

We experienced many difficulties with the technology along the way: trouble saving work, programs crashing in the midst of work, students clicking on various icons and experimenting with desktop set up instead of completing assignments. It was definitely worth the effort and headache to see the products that Andrew, Nolan and Travis were able to produce.

Social Studies

We used scribing and oral assessment frequently for those students who had difficulty expressing their knowledge through written output.

"When someone scribes for Nolan I notice he's able to explain himself easier" (M. DeFelice, May 27, 2006)

There were several occasions upon which students in the class helped scribe for others (Journal entries, April 21, 22, 2006). It was wonderful to see them helping each other out this way and I hope it benefited both of the students. I think the scriber learned something about communicating clearly through this activity.

Significance of my Learning

Over the course of this project I struggled with the definition of 'Differentiated Instruction'. I was full of self-doubt and was not even sure if what I was doing was helping the students. Sometimes I get so caught up in the day-to-day that I forgot the big picture. The big picture for me is that in everything I was doing I was always trying to teach the students in the way that they were most able to learn. I needed to reflect upon where my students were having success and celebrate those moments (Reflection and conversation with Lori Barkans, April 2006).

How does what I've learned affect my current practice? It reminds me that listening to students and figuring out their learning styles and needs makes a big difference.

Next Steps

In the future I would like to use the 'small group/large group' math instruction model to do more Guided Math activities. I would also like to provide more options for students to demonstrate knowledge. I could have students doing a dramatic presentation, diorama or other visually artistic presentation, or a song. In this way I would be able to differentiate according to students' learning styles more.

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How can we improve student's literacy and behavior in the classroom, as well as on the playground, by using music?

Bob Radoja and Lyndie Kennedy

Biography

Working with children that have special needs started for me as a high school student at Sir Wilfrid Laurier Secondary in Hamilton during the late 1970's. I volunteered my time with the physically challenged students as part of the PE. Program. I developed new friendships with students that were not integrated in the regular stream, and this passion never left. After graduating from McMaster with a degree in Geography, I worked for a number of years at Dofasco. During this time I pursued a second degree from the University of Waterloo in Economics. With two teachable subjects available I left Dofasco and attended the University of Western Ontario, Faculty of Education "Althouse College". I had the good fortune of being hired shortly thereafter with the Haldimand Board of Education.

I began my teaching career at Dunnville Secondary for a semester before moving to Cayuga Secondary School (CSS). Here I remained for close to eighteen years. I taught in several departments at CSS, including Geography, English and Economics. I renewed my passion in working with special needs students when I became Special Education Department Head. Currently, I am a Teacher Consultant for Special Education in the Grand Erie Board in the Cayuga Family of Schools.

I graduated in 1990 from the University of Guelph where I majored in Psychology and Child Studies. I then attended Lakehead University in Thunder Bay for Teacher's College. I taught one year at a private school in Richmond Hill and I owned and operated my own school for three years in Owen Sound. I have taught for the Waterloo County Board of Education, Bluewater District School Board, Niagara District School Board and presently the Grand Erie District School Board. Most of my teaching career has been in Special Education, but I am presently teaching Grade 1/2 at Seneca Central Public School.

Abstract

Background- Bob's Reflections

For me, this particular action research commenced when I began visiting some of the Special Education classrooms at Cayuga Secondary School (CSS), and playing guitar for the students. I noticed that right from the very first time, students were picking up the words to the verses of the songs and singing along with me, without any encouragement necessary. Not only were they

working hard in order to learn, the enthusiasm and participation clearly indicated they were having fun.

The teacher of that class started using me as a "carrot". If the students behaved favorably during the week, then they were permitted to attend the music class with me on Friday. Both the teacher and I noticed that there were fewer problems after I had visited their class.

One student stands out for me and I'd like to share this story about him. When I was playing for a Developmentally Delayed (DD) class at Cayuga Secondary School, an echo laic, autistic boy stood up at the microphone and sang verse after verse with me a song titled "Lost and Lazy", produced by the band 5440's. As he sang he looked at me, head tilted to the side in a shy manner, all the while smiling. This boy had not been taught the words formally, but had picked them up on his own. In this moment I felt that music was a key that could unlock the door to learning, and thus became curious about ways I could put this idea into practice.

I started to play guitar for the Mixed Exceptionality (ME) classes, Behavior Classes (BC), and DD classes around the Cayuga family of schools in September of 2005, as a way to get to know the students and the schools in the area.

I was also invited to a grade 8 classroom at Fairview Public School, and two grade 1 classes at Jarvis Public School, where there were two autistic children. I became curious about finding a way of connecting with these students through music. One of the boys was having behaviour and safety issues and having to be sent home frequently from school. It was my hope that I could create an atmosphere in the classroom that would help the student want to stay. The unfortunate part was that when I would show up, he would not always be there having already been sent home.

I would play guitar in classrooms within various schools in the area, mainly when I had time between Resource Team Meetings. I noticed that students were recognizing some of the songs I was playing, and when they did, some would smile and sing along when they were familiar with the words. Even if students were not familiar with the song, they would join in with the chorus once they had heard it repeated once or twice.

Part of my time in the classroom was spent talking with the students about the learning process involved in playing a new song. I would explain that to learn a song, I need to listen to it many, many times, both in whole and in parts. I asked them "what makes a good listener" and "what do we listen with?" to help them understand the concepts involved in listening. We identified that a good listener is "someone who not only listens with their ears, but listens with their eyes."

To help normalize the learning process, I spent time talking about making mistakes and related that to learning to play a song. Playing the same part over and over, until I get it right, is how I learn to play it well. Making mistakes when trying to learn something new is something we expect and is normal.

From these experiences of playing at several schools and in many classrooms, I found that students consistently enjoyed having me visit the classroom to sing and play guitar. They would show interest

in learning the songs and participating. The more that I visited the classrooms, the more I began to believe that music could have a significant impact on learning. In addition, I suspected that positive behaviour would be a natural outcome of students being excited about what they were doing and learning at the same time.

During early September, 2005, in my role as the Special Education Consultant for Seneca Central Public School, I was asked to consult about a class which Lyndie Kennedy was teaching. This class was a grade1/2 class of 22 students, eight of which were having difficulty reading simple words, and did not know their letters, numbers and colors. There was a high level of frustration in the classroom on the part of the students. One boy would cry because he was so upset he could not read.

The behavior in the classroom was also a problem. The students were constantly bickering with each other. This negative behavior continued out onto the playground, and there were many incidents of physical fighting and aggressive body contact. This was very discouraging for the teacher, because the positive social skills that were being discussed in the classroom were not being exhibited on the yards.

When presented with the opportunity to do action research, I thought about this class and felt that this would be the right time to explore some of my ideas about introducing music into the classroom to see how it could impact on learning and behaviour.

Lyndie's Reflections
In October 2005, I brought 8 of my 22 students forward to a Resource Team meeting seeking support and ideas to help further along their learning. Both student performance and behaviour were of concern. The students were not reading at grade level and any improvements that were being made were minimal. I could see that the children were frustrated and upset. In spite of their efforts, reading was not coming easily. Often heard in the classroom were the words "this is too hard" and "this is not fun". Clearly reading was the least favorite activity in the classroom. In addition, behaviour in the classroom and outside was uncooperative and often aggressive.

To encourage further development of literacy skills, I had implemented the following strategies:
> -guided reading program
> -individual and group reading programs
> -reading aloud to the children
> -book bags home for parents to work with their children
> -sight word cards
> -Jolly Phonics
> -Dolch words- in addition, word cards were made up for practice as well as lists home
> -peers reading to peers
> -leveled reading books
> -making charts together
> -reading "buddies"

I shared the strategies with the Resource Team, and was assured that my approaches were sound, and that the best course of action was to continue with those strategies and surely I would see results coming soon.

The Resource Team suggested that we look at these students again after their first report cards. At that time, eight students were receiving R's or D's in reading. All of the students were assessed using the DRA and appropriate marks assigned. My desire was to improve these marks for all of the students.

Our Shared Philosophy

We are both passionate about music and believe that music touches all of us. Hearing a song can immediately change our mood, bring back a memory, or help us feel connected to each other. Music makes people feel good, no matter what our age or ability. If we can help students feel good through music, it may be easier for them to learn and may help them be their "best selves" as they participate in something positive together. We believe that if we can introduce the power, passion and unification of music in conjunction with the written form where available, we will be able to make a visible difference in students' lives.

We also believe that learning can and should be fun, and we want students to enjoy themselves. We also want to find ways to better connect with the students, and find a way they can better connect with one another. We believe music is a universal language that connects people in spite of our individual differences.

In an article by Jane Christmas (2006) entitled Music and the Mind, she found that young children who took music lessons had advanced brain development and memory over children who had not taken any sort of music training. There was not only a greater improvement in musical tasks but there was also a greater improvement in non-musical memory tasks. In Laurel Trainor's (2006) study, he found that musical training and performance correlated with abilities such as literacy, memory, visiospatial processing, math and IQ.

We believe that music is important and that many different areas of the curriculum can be taught through the avenue of music.

Research Question

How can we improve student's literacy and behavior in the classroom, as well as on the playground, by using music?

The Partnership

Our research partnership began in this second term. We decided to work together on this project and as stated, we wanted to find ways through music to increase student literacy and to improve their behavior.

As partners, we worked well together, as we found it easy to bounce ideas off of each other, and then build on those ideas. We met occasionally and corresponded mainly through emails. This

was a great forum to share ideas and to make plans for next steps. New ideas emerged from the discussions, and we were able to branch out from these thoughts and try different things.

Introducing the Music- Bob & Lyndie's Observations
During the second term, I continued to concentrate on the strategies I had implemented in term one. In December 2005, we introduced the music. Bob came into the classroom and played for the students. They absolutely loved it! At first, they thought he was a "rock star" and they wanted his autograph! As the activity progressed, the students listened and were cooperative as Bob talked with them about what makes a good listener, and the process he goes through to learn a new song.

In between the songs, he talked to the students about how they should listen with their eyes, as well as their ears. At first the students were not really sure what he meant, but then they understood that they had to look at someone to make sure that they were focused on them, and then listen to what was being said. Bob used the analogy of learning a song to help them understand that mistakes and repetition are natural and necessary parts of the learning process. They became very involved and participated in all of the activities, which included singing, dancing and playing of their own instruments. Based on the success of this visit, we arranged for Bob to visit the classroom on a regular basis.

It wasn't until the next visit that we realized how quickly the students were picking up the words to the songs and singing along. Although we had not studied the words in class, the students sang out the words at the top of their lungs. We were so excited to see that they had picked up the words not just to one song, but to many songs.

Bob began to visit the classroom on a monthly basis, and the students looked forward to every time that Bob came in. They constantly asked when he would be coming and they promised that they would be good. They quickly learned the songs that he was playing, and would sing along enthusiastically with him. The students did not just want to sing the songs with Bob, but they also wanted to read to him, show him pictures of what they had drawn, talk to him about what they had been doing, and share their successes.

When Bob was playing the guitar and singing with the students, you could see there was a genuine connection. They were sharing a common bond. The students were having fun and so were we. It was a relaxing atmosphere and the students looked forward to each time that we could all get together. We decided to vary the visits and see what other activities the students would enjoy and how they would affect the students' learning. They were excited and eager to learn, so we decided to capitalize on this enthusiasm.

During the next visit, the students were given instruments to play along with Bob. There were not enough for everyone and this was done intentionally. When Bob would stop playing the guitar, the singing would continue and they were encouraged to share their instruments with their fellow classmates. They watched him carefully and they encouraged each other if someone had not picked up on the signal to switch instruments. They were working together and helping each other.

The students enjoyed this activity but occasionally some would argue about whose turn it was to use a certain instrument. As the term progressed, the students realized that they would all get a turn, and they became more cooperative with each other. When we try this activity again, we are planning to have more space available for the students. They wanted to sing and dance, and when they did they would sometimes bump into each other. A few would get silly and occasionally needed to be reminded about proper behaviour.

Once we had them hooked on the music, the students were asked if they wanted to make a video of the song, "Wake Me Up" by Green Day. The words of the song were re-written and that way it would be our video. It took the class about a week to master the new words, which they practiced throughout every day for a total of about an hour. They were already familiar with the tune, and they learned the words by sitting on the carpet and reading them from the chart paper. It seemed that because they were doing something that they enjoyed, the memorization was not a chore to them; in fact it was coming very easily. (See Appendix 1 for the words to "Wake Me Up" by Green Day and the modified words.)

The students asked if a copy of the words could be made for them so that they could sit at their desks and sing along. When they were doing this, we noticed that they were following along with their fingers. They were pointing to the words and singing. They were proud that they knew the words and they could find them on the page. We then transferred the words onto an overhead, and the students were good at focusing on the words on the screen. It was funny watching the students' reaction to the overhead; they had never seen one in use. They would laugh as the words would scroll up onto the ceiling in order to show the next verse. Some would put their hands over the overhead to see shadows of their hands on the screen.

They had learned the words so quickly. We decided that we were going to surprise Bob and perform it for him on his next visit. The students were beaming with pride when they sang the song for him. We were both amazed that they had learned the song so quickly and moreover that they were excited about what they had done. When they heard the song played at home or around the school, they would tell people around them that this was "their song".

Student Impact- Bob & Lyndie's Observations
When Bob came in to play and sing with the students, we found that the afternoons were always calmer. Even when they were coming in from lunchtime and after gym, the students were more relaxed. One of the students, Devin, even noticed that there were no names on the board when Bob had been in. Occasionally, the students were reminded that Bob would not be very happy with their behavior, and it would immediately motivate them to act appropriately. They didn't want to lose the privilege of his visits.

The climate of the classroom became very relaxed. Acceptance and respect was expected, and the researchers modeled this for the children. When Bob came in to play for the students, they knew that he was not just there to play for them. He would talk with them, listen to them, read with them and he showed a genuine interest in what they were doing. The students felt that Bob was part of

their class. He was another adult who cared about them and was concerned about how they were progressing in their lives.

One concern that we had was that following a music session with Bob that the students would have difficulty de-escalating and returning to the normal routines of the classroom. We found the opposite was true.

The students were focused and attentive following Bob's visit. A student teacher brought in to the class in the afternoon following a morning session was shocked at how attentive the students were. We thought the visit and the singing would have stirred them up, but it actually had a calming affect.

During one of his visits, Bob sang a song entitled "Breakfast at Tiffany's" and a grade 1 boy, Nik, loved the song and wanted to learn it. He had the words memorized in a week. Every morning he would come up to my desk and sing the song over for me. He didn't want Bob to hear him until he knew every word. He was so excited about this, and couldn't wait to share his accomplishment with Bob. When Bob came in and played the song, Nik stood in front of him confidently singing the words along with him. He was very proud of himself and he had worked hard to do this.

Throughout the last term, many positive comments were coming from the parents. One evening I was making some phone calls to parents about how their children were progressing. As soon as we had finished our conversation, the parent asked "Who is Bob?" She told me that her son, Jacob, absolutely loves the visits from Bob, and that he is so excited when we have our singing activities.

She told me stories about how Jacob would be walking around the house singing the songs that we had sung at school. She was so thankful that we were working on this project and she said that we had a great influence on Jacob. We were really excited to hear that the students were enjoying what was being done in class, and that this enthusiasm was being carried over into the home.

They seemed to be enjoying the activities in the classroom, and we were hoping that the good feelings and positive reactions would spill out into the playground. We had no idea that the students would take the excitement home with them, and that it would last until the next visit. The children would often talk about the things they learned from Bob; you could hear the students sharing with each other, and reminding each other that you need to "listen with your eyes and your ears". They would constantly ask me when Bob was coming back and could he skip a meeting and come and sing with them.

Since we saw that the students were so positive about singing, we decided to try a program called Funky Phonics. We didn't know if the kids would be very excited about it. It was one thing to have someone come into your classroom and play and sing with you, but to listen to a CD and have to follow along with the words might be less entertaining and interactive.

The Funky Phonics is a CD which has a number of catchy tunes on it. The CD comes with a songbook so that the students could follow along in the book when they heard the songs. There are

many different areas that the CD covers. It talks about time, numbers, phonics and environmental issues. When the music was playing, the students were encouraged to listen to the CD and follow along in their books. They would try their best to keep up with the songs and they would follow along putting their fingers under the words in the songbook.

The students enjoyed listening to the Funky Phonics CD and singing along with it. We would do this at the end of the day, and I noticed that they were concentrating and participating. Back in September, the end of the day used to be a noisy and confusing time. The students were hyperactive, inattentive and often uncooperative. It was difficult to get their attention just to hand out work that had to go home. After we started the Funky Phonics, their energy was now focused on the singing. They became more relaxed at the end of the day and ready to go home. They looked forward to this activity, and if we didn't have time for it, they would be disappointed. They were very excited when Bob came in because they wanted him to hear the song that they had practiced. They didn't want to read him stories or show him their math; they wanted to sing for him.

In May 2006, another CD called Funky Addition was introduced. When the students were first told about this activity many of them groaned, and said that it was going to be "too hard". After just one listen, they said that they loved it and wanted to tell Bob how good they were at it. They asked if I could send an email over to him. Listed below are their comments;

> Sarah – "it's fun"
> Cole – "I like it because it has lots of math in it and it's very fun. It only took us two times to practice and we know it now"
> Riley – "we like doing it"
> Kelsey – "we are really good at it. We have practiced really hard and we want Bob to come and hear us"
> Brody – "we are really good"
> Brittanie – "we want Bob to sing it"
> Ryan – "Bob's really good at singing, so I know he could sing this"
> Aleesha – "we like singing, and it is a great song"
> Kyla – "it is the best song I have ever sang, and I like Bob"
> Devin – "I love it"

The students really liked the addition CD. Again they were concentrating and doing their best. They were following along with their fingers and pointing to the words. They were telling me that they now have their favorite songs from the addition CD.

As the third term went on, we started to notice that the students were getting along better with each other. They enjoyed the activities together that we were doing and they would help each other when we were singing the Funky Phonics or the songs that Bob sang. They were encouraging each other and they would get excited when they were talking about the songs that they had sung the day before. They worked as a cohesive group to be good so that Bob would always come in. They didn't want to lose that privilege and they were quick to remind each other that they needed to keep this in mind.

During our year-end trip, June 26th, 2006, a parent said that she wanted to thank me for Sarah=s first full-time year in school. She said that Sarah really enjoyed all the music we did, and her daughter thought Bob was an "amazing" person.   Sarah's mom thought that the music in the classroom was great, as well as the yoga. Sarah used to go home and do the yoga for her family.

Introducing Yoga
Yoga was introduced as another activity to teach the students to concentrate. It was quite humorous to see how the students reacted. As soon as it was suggested, many of them laughed, some sneered, and one little boy sat in the corner and hummed a mantra. They already had preconceived notions of what yoga meant, even at their young ages. It was going to be a bit of a challenge to win them over in this activity.

It was funny to see some of them the first time that they tried the yoga. They honestly looked like fish out of water. They were flopping around on their mats, and for some of them you could tell it was difficult for them to relax. It almost seemed like the only time that they relaxed must have been when they were sleeping.

We wanted to try yoga to see if this would improve the students' concentration, as well as stretching ability. In addition we wanted to build in time for them to relax. This in itself is a life skill. We felt that if we could get the students to take this activity seriously, then they would be able to learn to better focus and get control of their bodies and their minds. It was originally intended to do the Yoga activities after Bob's music session, but ended up being a daily activity.

Angela Johnston came into the classroom and provided a yoga class for the students. The students followed along as Angela showed them some yoga poses and stretches. Some of the students were concentrating and trying to do their best, while other students were acting silly and unfocused. We were determined to keep trying the yoga, to see if over time the students who were acting silly would start to take it seriously.

The students were regularly taken into the gym every morning. This was implemented into the routine of their regular day. First of all they were introduced to a focusing activity. They enjoyed the tree pose the most. They were told to fixate their gaze onto one spot on the wall, balance on one leg and then they were encouraged to hold this pose for as long as they could. At the beginning of the term, most of the students could only do this pose for about 1 minute, and thought it was funny to fall down and make a loud noise on their mats. By the end of the term, about 5 students could hold the pose for over 10 minutes, and all students were trying their best to hold it for all long as they could. Their concentration, as well as their balance, had greatly increased.

After the focusing activity, the students went through a series of stretches. This routine was taught to the students, and then a peer leader was chosen for the students to follow. The students tried their best so that they would be chosen to be the leader.

Once the focusing activity was complete, a relaxation activity was done. The students were told to lie on their backs, close their eyes, and to think about nothing but the music and the words that were

being spoken. They were talked through a relaxation activity, which lasted about ten minutes. At the beginning of the term, some students could not stay still and relax. They had to move, talk and fidget. By the end of the term, they were able to relax and there was no talking during this activity. Some students almost fell asleep during this time.

Over time the students began to really enjoy Yoga. First thing every morning we would go down to the gym and if for some reason we had to cancel it for a day, they were disappointed. It was becoming an activity that they looked forward to and enjoyed.

Yoga was done consistently and we found that the students were a lot quieter in the classroom. Devin, in particular, was really enjoying the yoga near the end of the school year. At the beginning of the term, he said he didn't like it and that it was hard. Devin was now more focused and was concentrating a little more. He was even becoming a leader in the classroom. If the students were getting too noisy, Devin would clap his hands and the students would copy him. That was an activity that was done in Yoga and the teacher would clap her hands and the students would quiet down, clap in unison, and do three yoga breaths.

Introducing Kelso
Kelso, the frog, teaches the students how to behave and react in different conflicts. He talks about bullying and how to deal with it. The program is about conflict resolution and problem solving and was delivered by our Child and Youth Worker, Tanya Haist. She came into the classroom for two sessions and during both times the students were eager and cooperative.

We wanted Kelso to elicit positive feelings in the children and to help them deal with difficult situations. We wanted him to teach the students how to be better citizens, how to be kinder to each other, and how to learn to deal with conflicts without hitting or hurting someone.

The first time the Kelso presentation was made, the students just talked about different scenarios and how to handle them. They were disappointed that they couldn't meet "Kelso" the frog right away, but were told that they would meet him during the next visit. They did meet Kelso the following week when I was in Quebec City on a school trip with the grade 7 and 8's. When I came back they were so excited about Kelso. They ran up to my desk and said that they had met Kelso. It was evident that they had positive feelings about him and that they had learned something from him. Since the students only met Kelso near the end of the year, they did not have much time to put into practice what he had taught them.

We wanted to incorporate Kelso into our project because we felt that it was important for the students to feel confident in handling their own conflicts. We wanted the lessons that Kelso taught to be globalized to other situations. We were hoping that the students would view Kelso as a positive figure and someone that could help them. Sue Hysert, Behavioural Counsellor, provided us with some Kelso songs that had a positive message for the students. This was another way that was going to help reinforce what Kelso was trying to teach.

We plan to incorporate Kelso into the video that will be produced for the students. We also wanted to make a video for the students featuring themselves singing the song, "Wake me up". The video would also include film footage of the students doing the Yoga activities as well as when they were learning about Kelso. The words are going to appear at the bottom of the screen and Kelso will be hopping from word to word as the students sing. We are hoping that this will help increase their reading in an interesting way. The video was to be given out to the students at the end of the school year, so that they would be able to remember the good times that they had in school making the video, and they would also feel good when they played the video at home.

 Unfortunately, due to time limitations, the video project was not completed before the summer. Hopefully this can be accomplished this school year. The video would allow students to sing along with the song, and also reinforce what they have learned. The students are really looking forward to that, and they can't wait to see themselves on the video.

Qualitative data

Most of the activities were student- driven in that when they enjoyed an activity, it was expanded on and repeated. The students added so much enthusiasm to the research. If we didn't have time to do yoga in the morning, they would be disappointed. They wanted to have Bob come in more often because they enjoyed the activities with him. Occasionally there were times when we would have a few minutes in the day, and the students would ask me if they could sing the Funky Phonics, or the song that Bob had taught them. They would talk about what song was their favourite, and as soon as it came up on the CD, they would get excited.

It was so encouraging to see them being so enthusiastic about learning. They didn't feel like they were working. They were having fun in school and the energy and eagerness was spilling over into other areas of their lives. It was infectious.

After the first time that Bob came in, I was trying to get the attention of the students, and Nick turned around and told everyone to be quiet and that they were supposed to be listening with their eyes and their ears. He was repeating what Bob had said to the class just one time. Also, just after one visit, the students were a lot calmer and they were concerned about what Bob would think if they were not behaving properly.

During the day at various times, you could hear the students singing quietly to themselves the songs that Bob had taught them. Even when they were reading, doing their math, or playing, you could hear one or two humming the songs. They had good memories in their minds already.

Near the end of May, Ryan was sitting in the hall all by himself, putting his shoes on and he was singing the class song "Wake Me Up" as loud as he could.

Near the end of the third term, Devin was singing up a storm and was really involved in the yoga. In early April, Devin's mother had expressed concern that Devin did not want to attend school. By the end of the third term, we noticed that Devin was feeling more confident in himself, and that he was

proud of his accomplishments. He was now becoming more involved in the yoga and the singing in the classroom. Bob and I both expressed to Devin how pleased we were with his effort. More importantly, Devin was proud of himself.

On June 26th, 2006, Bob came in to sing with the students and in the afternoon they didn't want to play when they had free time. They said that they wanted to make a card for Bob and draw him a picture. The EA walked into the room and commented on how quiet they were. They were concentrating so hard. No one was making a sound. She asked me how I got them so quiet.

Academically, the students that were struggling had now improved. They were feeling confident about their accomplishments and they were now enjoying school. Behaviorally, the students who were giving us the most problems had calmed down and were now more focused.

The classroom climate changed a great deal from the beginning of the third term to the end of the term. At the beginning of the third term, when the students were told that they could do whatever they wanted when Bob was there, they were not very controlled. Some danced, but others pushed and shoved. At the end of the third term, actually it was on the last day of school, the students were told that they could do whatever they wanted, and they chose to draw, make cards for the researchers and a few played instruments. One student, Jacob, even read quietly by himself.

Quantitative data

We have looked at different sources of data, which we found support the same findings. We looked at the Diagnostic Reading Assessment (DRA) scores, the report cards, attendance, and observations of the researchers. Since the three sources show similar results, we believe that there is some substantial evidence that the data is valid.

The DRA scores showed that there was an improvement in all the students except three from the beginning of the 1st term until the last term. Some students had improved by 2 DRA reading levels, many ranged from going up by 3 B 10 DRA reading levels. Appendix 2 (DRA graph)

We had many students who were receiving Rs on their report cards for reading. By the end of the 3rd term, there were significant changes, and there were now no students who were receiving Rs in reading. The students had improved by leaps and bounds. Appendix 3 (Report Card Marks graph)

In viewing the attendance patterns for the class over the period of JK, to their present grade, the number of days absent has decreased in the third term that we worked with the students in comparison to the previous terms and grades. Appendix 4 (Attendance graph)

Next Steps

The action research was only carried on for one term and the researchers feel that it is important to run the project for one whole year to get an accurate view of the results. The action research will continue throughout next year.

In September we will start with a baseline (DRA testing, video the students the first time that they do Yoga, video the students the first time Bob visits the classroom and video the students the first time they do the Funky Phonics).   The students will then be videotaped throughout the year.

After the visits from Bob, the students will be encouraged to write a response to the visit, listen to feedback from each other, and share their feelings about what they liked or didn't like about the activity, to build more writing into the process.

A bulletin board will be set up at the back of the classroom where the action research can be displayed. Student's artwork, Kelso's positive comments, yoga pictures drawn by the students and student photographs will be displayed for the students to look at.

We would like to get the high school involved earlier in the year so that the students will have more time to work on the video.

Conclusion

In a study by Cohen (1999), he talks about the right brain versus the left brain difference. He suggests that everyone prefers to use one side or the other. It is thought that the two different sides of the brain have two distinct ways of thinking. The left side of the brain is responsible for logical, sequential, rational, analytical, objective thinking, and looks at parts when processing and the right side of the brain is random, intuitive, holistic, synthesizing, subjective and looks at the whole task.

Over the years, cutbacks have been made to numerous school boards. The first activities that are usually cut tend to be the arts. These are not seen as important and therefore music, art and drama are the areas of study that are eliminated or minimized first. Studies have shown that we need to rethink this philosophy and not be so quick to cut these subjects. Music, art and drama can be implemented into the programs that teachers are presenting to the students. We need to be creative in the way that we present our programs. Reading can be taught through music, students can express themselves artistically while listening to music, drama can be connected to the literacy part of our programs and math can also be taught by using the avenue of music. Cross-curricular activities need to be explored and expanded upon.

Stephen Covey (1986), stated in his book, The 7 Habits Of Highly Effective People, that, "We live in a primarily left brain-dominant world, where words and measurement and logic are enthroned, and the more creative, intuitive, sensing, artistic aspect of our nature is often subordinated." (p. 130)

The researchers are careful not to suggest that one thing increased the literacy of the students and improved their behaviour. There were many things that were tried, and a combination of one or more could have helped to produce the results that were found. It is strongly felt, however, that in order for students to appreciate education we have to appeal to their creative right brain.

The student learning has greatly improved. The improvement was noted from the DRA scores, the report cards and the observations. The data collected shows these results. We feel that our research question was answered, and that learning and behavior did improve throughout the third term.

This project was fun for the students, as well as the researchers, and produced results that we hoped and some we did not expect. To see the students having fun, being excited about what they were doing, and learning at the same time, was amazing. This project was a positive experience for everyone.

The action researchers found that as the research progressed, many different questions were raised; a number of ideas were generated and implemented as the action research took on a life of its own. Having an open mind and being willing to try new things were essential to the project's success.

What was the final outcome of our research for the year? We tried many different activities and it seemed like they all had a positive impact on the students. Ultimately, we feel that what we were able to do was change the atmosphere in the classroom. We provided a fun, warm and accepting environment and the students responded positively. We tried new things and we considered what the students wanted to do. They had a say in the program which helped them be engaged in the learning process and take ownership of their learning.

They enjoyed coming to school, participating in the activities and they looked forward to Bob coming in and singing with them. We received positive comments not only from the students, but also many positive comments from the parents. What we were trying to do in the classroom was spilling over to the home. They enjoyed coming to school and they didn't want to miss anything. Parents mentioned that their children loved coming. We were teaching the students that learning can be fun.

One of the students from last year summed up what the atmosphere in the classroom was like. She said that she wanted to stay in our class forever because "our classroom is made out of love". The students were not only feeling the warmth and acceptance from the researchers, but they were also feeling this from each other. They were getting along better with each other and they were feeling comfortable. They felt that school was a safe and happy place. This was definitely an atmosphere conducive for learning. The students felt comfortable to try new things and to express and share what they were feeling and thinking.

If students are constantly told to be quiet and yelled at, they will either withdraw or act out, depending on the personality of the student. We need to be careful not to stand in their way when they are forming new thoughts and ideas. They need to feel like their words are accepted and that the teacher is there to guide them and help them take hold of new experiences. Children come every morning to school full of energy and excited to learn. Instead of the philosophy of trying to control the child, we need to think about guiding their energy and helping them to become independent and responsible human beings. We should not crush their enthusiasm and their creativity by controlling them. We need to nurture it and help it grow. They are so excited about life and it's our responsibility to add to this and to make learning fun. It is our privilege to help students reach their full potential and be the best that they can be.

It is important to note that the program does not have to be personality driven. The atmosphere created in this classroom should be able to be replicated in other classrooms. One idea we have is that senior students at the school or from the local high school could be encouraged to assist in

delivering the program. The program would then be self-sustaining as the younger children could see themselves doing the same thing when they get older, either in performing, writing or behind the scenes in production.

The overall impact and success of the Action Research, is dependent upon the continuation of the program in whole; incorporating both music and yoga into the school day has shown positive affects on student learning. The teacher is the key to the atmosphere in the classroom and impacts on the emotional comfort of each and every child. Music is a common denominator that can help contribute to a student's well-being and comfort. If children feel at ease in the classroom and school, it is hoped that they will feel comfortable in approaching the teacher to ask for help academically, socially, and emotionally.

Appendix 1

Green Day	Modified words
Summer has come and passed the innocent can never last Wake me up when September ends	Summer has come and passed it's time to go to school at last Wake me up when it's time to go
Like my fathers come to pass seven years has gone so fast Wake me up when September ends	Open the books again learn to read and have fun Wake me up when it's time to go
Here comes the rain again falling from the stars Drenched in my pain again becoming who we are	New students all around walking down the halls New adventures to be found in between these walls
As my memory rests but never forgets what I lost Wake me up when September ends	As my memory rests But never forgets what I learned Wake me up when it's time to go
Summer has come and passed the innocent can never last Wake me up when September ends	Summer has come and passed it's time to go to school at last Wake me up when it's time to go
Ring out the bells again like we did when spring began Wake me up when September ends	Ring out the bells again like we do when school begins Wake me up when it's time to go
Here comes the rain again falling from the starts Drenched in my pain again becoming who we are	New students all around walking down the halls New adventures to be found In-between these walls
As my memory rests but never forgets what I lost Wake me up when September ends	As my memory rests But never forgets what I learned Wake me up when it's time to go
Summer has come and passed the innocent can never last Wake me up when September ends	Summer has come and passed it's time to go to school at last Wake me up when it's time to go

Like my fathers come to pass	Like the students before me passed
twenty years has gone so fast	eight years will go by fast
Wake me up when September ends	Wake me up when it's time to go
Wake me up when September ends	Wake me up when it's time to go
Wake me up when September ends	Wake me up when it's time to go

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DRA Results

Levels
<A = 0 A = 1 B= 2 C= 3 etc

Students

Legend:
- Novemeber 05
- March 06
- June 06
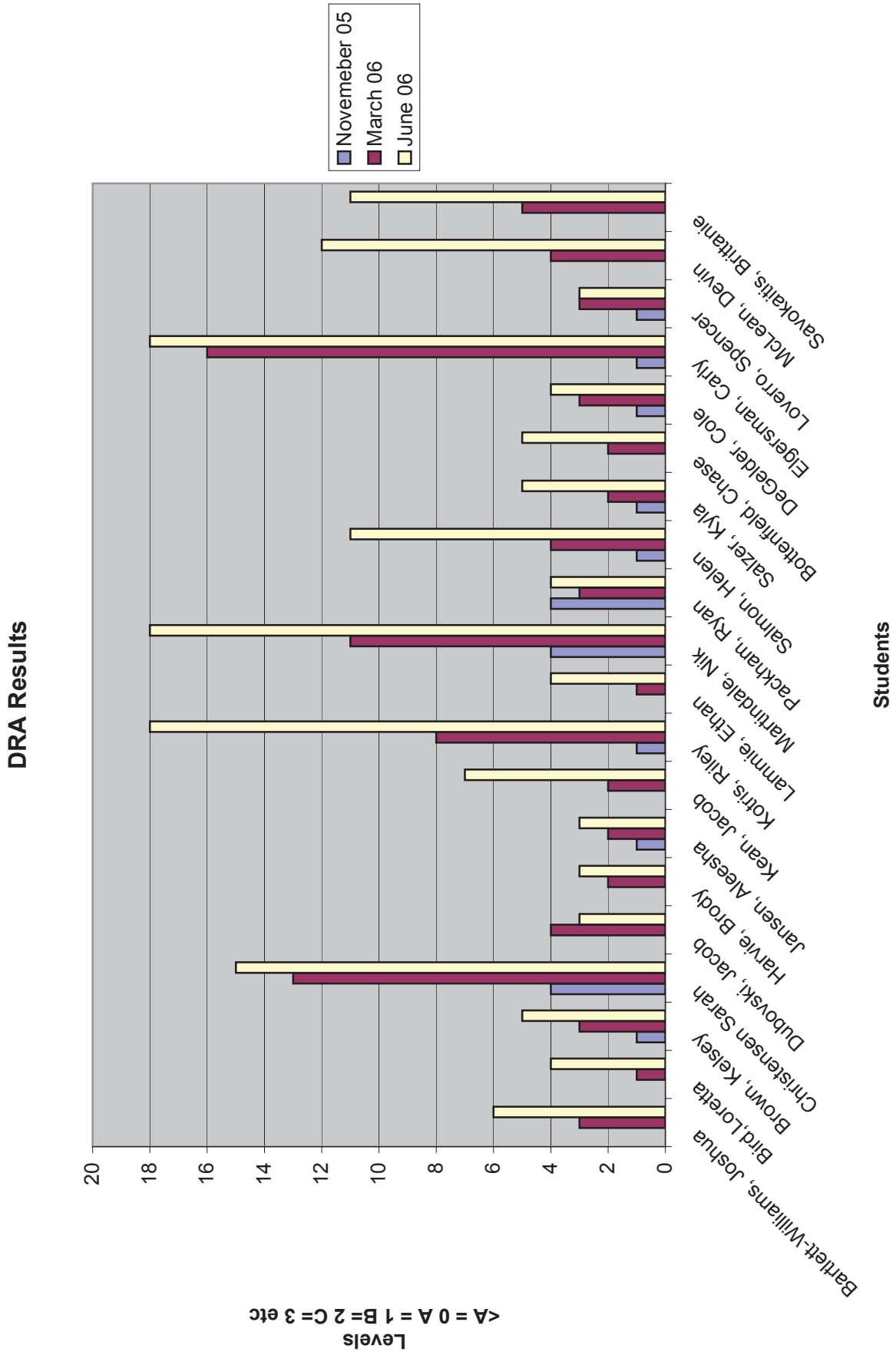
Students Report Card marks

Marks A=4 B=3 C=2 D=1

Students

Legend:
- Term 1
- Term 2
- Term 3

Students (axis labels):
Bartlett-Williams, Joshua
Bird,Loretta
Brown, Kelsey
Christensen, Sarah
Dubovski, Jacob
Harvie, Brody
Jansen, Aleesha
Kean, Jacob
Kofris, Riley
Lammie, Ethan
Martindale, Nik
Packham, Ryan
Salmon, Helen
Salzer, Kyla
Bottenfield, Chase
DeGelder, Cole
Eigersman, Carly
Loverro, Spencer
McLean, Devin
Savokaitis, Brittanie

Grade 1 Student's Attendance

Legend:
- JK Term 1
- JK Term 2
- SK Term 1
- SK Term 2
- Grade 1 Term 1
- Grade 1 Term 2
- Grade 1 Term 2

Y-axis (Students): Bartlett-Williams, Joshua; Bird, Loretta; Brown, Kelsey; Christensen, Sarah; Dubovski, Jacob; Harvie, Brody; Jansen, Aleesha; Kean, Jacob; Korin, Riley; Lammie, Ethan; Martindale, Nik; Packham, Ryan; Salmon, Helen; Salzer, Kyla

X-axis (Days): 0, 2, 4, 6, 8, 10, 12, 14

Grade 1 Students Attendance

Part IV

Special Projects

How can we promote balanced health for girls in a fun and sustainable way?

Patricia L. Currie

Biography

Trish has been teaching for three years, the last two of which were with the Grand Erie District School Board. In this past year, Trish believes she has found a renewed enthusiasm towards teaching. By participating in several initiatives such as Mind Shift (Laidlaw, 2005), Differentiated Instruction Seminars, Writing Workshops, Information Communication Technology Conferences and Art Workshops, Trish gained an invaluable amount of experience, knowledge, and exposure to enlightening strategies for working with students of all ranges of abilities. Trish feels the strongest about the success of a drama club, and the Strong Girls programmes. By completing Special Education Part II, Trish also gained insight into the role of the Learning Resource Teacher, a facet of teaching which she would like to continue to explore next year.

Prior to teaching with the Grand Erie District School Board, Trish taught for an Independent First Nation Ojibwa community in Whitedog, Ontario. In addition to these experiences, Trish's local community leadership roles, artistic endeavours with pottery, painting and international life experience in Australia, Mexico, Indonesia, and Ecuador allow her to view students as individuals, and embrace the concepts of change, and individuality. In both teaching and non-teaching roles, these experiences have reinforced, for her, the importance of 'life long learning' which engages, excites and motivates the people with whom she works.

Abstract

This project was initiated following a staff meeting in which an open funding proposal for the Brant County Health Unit's (BCHU's) "Healthy Living Community Contribution Programme 2006" was offered for new initiatives. The Strong Girls concept was formulated soon after to meet the funding guidelines. What unfolded from that day was a fantastic example of 'life long learning'. The goal of the initiative was to work collaboratively with community partners to assist young girls (ages 11-14) build positive self-esteem through enhanced awareness of healthy eating and fun physical activity. By working with Price Chopper Grocery Store and Tollgate Technological Institute, an opportunity for girls to purchase health conscious ingredients and prepare healthy meals was provided. Collaboration with the Brantford YMCA-YWCA was achieved for fun 'Hip Hop' dance lessons and temporary YMCA-YWCA memberships were provided. Additionally, self defence lessons were coordinated with Joanne Moyer, a third degree black belt karate instructor. As lasting tokens of the experience the participants designed a T-shirt and wrote a cook book! The funding provided by the Brant County Health Unit (BCHU), must be gratefully acknowledged, as without it, these girls may never have had this wonderful opportunity.

Initial Concern

The Strong Girls Programme was initiated following a 'request for funding proposals' that was presented by the Brant County Health Unit (BCHU) at a staff meeting. The BCHU was offering to financially support programmes that promoted the goal of the Healthy Living Coalition. The Coalition's goal is "to support the youth of Brant County in choosing healthier lifestyles by building opportunities and environments that promote healthy weights, and stress management through; physical activity, healthy eating and smoke free living." Following the meeting a second invitation was extended to anyone willing to share some ideas for the proposal; Mary Ann Shay, Marilena Pikula, Yvonne Leetgstra and myself discussed the possibility of swimming lessons, fitness classes or cooking lessons. At the end of the brief meeting, it was decided that a successful programme would likely have to incorporate more than just one of these aspects.

Following significant thought, an idea began to formalise around the question, "How can you promote balanced health for girls in a fun and sustainable way?"

Core values that inspired the programme:

- Experiential education is invaluable.
- A child's success in education is dependent upon his or her physical, mental, and social health.
- Through the mastery of key life skills, a student can gain the necessary self-confidence to take the risks that are crucial for valuable, life long learning.
- Learning needs to begin with the child, and extend to incorporate the child's family.
- Open communication and shared appreciation for successes promotes true learning.

From these core values the seed of the 'Strong Girls' programme evolved and blossomed! The intention of the programme was for girls to have an opportunity to socially interact with each other in an environment that fosters an alternative way to learn about, and participate in, balanced health. A forum for the students to display what they learned, and inclusion of a member from each of their families to share in a celebration of their hard work and dedication, was also a key component of the programme. The sixteen week 'Strong Girls' programme is what developed. Cindy Jessome, a public health nurse with the BCHU was an excellent help in solidifying the proposal and providing encouragement for pursuing the proposal. After discussing the project with her, the following email discussion resulted;

February 6, 2006
Hello, it was great to chat with you this afternoon. I have attached a draft copy of the proposal, I am still working out the details with the partners, however will have things solidified by the 10th. If you have any suggestions I am more than willing to hear them. Thanks in advance, we will be in touch Kindest Regards, Patricia Currie

February 6, 2006
Hi Patricia, I looked over your proposal and it looks great! I did add a few comments/suggestions in another color just for thought. Also, I would suggest that the group focus on the Healthy Eating and Physical Activity pieces rather than trying to add Teen Esteem in. You may find it's too much to try

to accomplish over the course of 6 weeks. Otherwise, I think it looks great. This is exactly the kind of initiative the Brant Healthy Living Coalition is trying to support in our community. Let me know if I can be of any help. I look forward to your submission.

Thank you,

Cindy Jessome

Public Health Nurse, Brant County Health Unit

194 Terrace Hill St.

Brantford, Ont. N3R 1G7

February 7, 2006

Hello Cindy, I have attached the revised draft. Thanks so much for the great suggestions.

I have now received almost solid confirmation from all of the partners involved. Just a few finishing touches and I will submit the final proposal.

Thanks again;

Trish

The first community partner contacted was the Brantford YMCA-YWCA. Jacki Kostuk was very supportive, and willing to participate in the programme. Secondly, Alex Hamilton, the manager of Price Chopper Grocery Store was approached. Although he never had the opportunity to work with school children, he was happy to host us, and provide grocery store tours. Tollgate Technological High School was contacted and invited to participate and provide guidance with cooking lessons. Mark Miletich, Co-op- Ontario Youth Apprenticeship Program (OYAP) teacher, responded with the following email:

February 8, 2006

Hello Trish,

After discussing the project with staff and students we decided to participate. I noticed that the revised version has 6 trips to Tollgate planned. We were unable to get any students to volunteer but between myself and one of the other staff members we'll make sure that someone will be here. Please let me know as additional information develops.

THANKS!

Mark M. Miletich

February 8, 2006

Hi there Mark! That is great news. I imagine, by the time March rolls around the kids there will have more confidence and be willing to participate. If not, I appreciate your offer to assist. About the number of trips to Tollgate, there are only three. The fourth meal will be held here at the school, and the kids can invite one guest each. We will also invite the students and staff from Tollgate who assisted in our programme.

Thanks again in advance. I will get back to you once our funding is approved, and we can look at solidifying some dates in late March/April/May time.

Trish

The positive feedback, and reaction to the programme concept was overwhelming. Everyone who

was approached to participate not only agreed to what was asked, but went above and beyond to make the programme application a success. Cindy Jessome for example, offered each of the girls a cooking apron! Jacki Kostuk suggested that we provide the participants free memberships for the YMCA-YWCA for the duration of the programme. Alex Hamilton suggested a 'sampling' of different foods at the store along with a tour and information session. Mark Miletich thought of the idea for a 'spa day' for the girls at the Tollgate cosmetology department. With these quality community members involved and enthusiastic, the proposal was submitted on February 10th.

Proposal
What follows is a copy of the funding proposal submitted to the Brant County Health Unit. The proposal was successfully funded, and most of the components were successfully achieved.

What is the goal of the initiative?
The goal of this initiative is to work collaboratively with community partners to help young girls (ages 11-14) build positive self-esteem through enhanced awareness of healthy eating and fun physical activity.

What are the objectives?
1.   Work with Price Chopper and Tollgate Technological Institute to provide an opportunity for girls to purchase health conscious ingredients and prepare healthy meals that will boost their energy and provide the nutrition they need as young adults.
2.   To work with the YMCA-YWCA to provide fun 'Hip Hop' dance lessons and opportunities for YMCA-YWCA memberships.

What are the desired outcomes?
1.   Girls build positive self-esteem through an enriching experience with healthy food and fun physical activity.
2.   Girls increase their awareness of programmes and facilities in Brantford.

What tools will be used to measure the success of your initiative?
1.   Attendance and participation of the girls.
2.   Production of a three part recipe book that includes:
                a) the meals prepared and enjoyed by the girls;
                b) a guide to nutritious 'budget shopping' including tips and strategies;
                c) a guide to fun fitness activities including pictures and strategies.
3.   A celebration dinner at the end of the programme where each girl invites someone for dinner.

Who is the target audience?
Girls aged 11-14

What will be the anticipated impact be on the community?
1.   Knowledge transfer from the students to their families and the community. Students will also create a "household request" for nutritious foods;

2.   Forged community partnerships between Tollgate, the YMCA and Major Ballachey Public School could lead to similar projects in the future.

Will your initiative create a product, or a community resource?
Yes.

1.   Cook book for young people: the girls will produce a book that will include recipes and a chapter on healthy, fun activities with an emphasis on a balanced approach to healthy living.
2.   T-shirts will be designed by the girls and distributed to the volunteers and the girls.

What channels will be utilized and total number of people reached?

Channel	*Reach*
Major Ballachey Public School	250 students + their families, staff
Price Chopper Grocery Store	Staff and management of the grocery store
Tollgate Technological Institute	Upper year students and staff
YMCA-YWCA	Staff
Health manual	200 copies will be made and distributed to families within the school and through the YMCA-YWCA
T-shirt	20 T-shirts, worn by all people involved will spread the name and the healthy concepts of the programme
Poster Display and Presentation	A display was set up during education week in the gym at Major Ballachey

Describe the initiative and/or event/project.
This programme has two main components:

1.   4 "Nutritious Meal Events" that involve the girls;
            a) planning, shopping and preparation of healthy meals, including the celebration where girls can invite one guest for dinner;
            b)preparing recipes and tips for each meal, and
            c)preparing an over all 'fact sheet' including strategies and tips on nutritious menu planning on a budget.

2.   Physical activity nights that involve the girls:
            a) learning about, and participating in, different physical activities through the local YMCA-YWCA, and
            b) preparing 'fact sheets' and pictures of activities learned.

Do you foresee any potential barriers to the success of implementation?
Yes: Commitment of the girls, and the staff for the entire project.
Strategies for success would include;

1.   clear communication of expectations and programme guidelines on the registration information;
2.   ask for a nominal $5.00 registration fee, to give value to the programme which will be returned at the end of the programme;
3.   take regular attendance, and
4.   complete a mid-programme assessment to ensure girls needs and expectations are being met.

Implementation

On February 17, 2006, we were required to defend the project proposal in a formal interview, conducted at the Brantford Health Unit. We were asked to explain the project and then discuss and defend all facets of the submission. After minor negotiations and modifications the programme received unanimous support. The next day, the funding for the project was approved! The email log that follows describes the project as it unfolded.

February 21, 2006
To: info@can-doo.com; jackikostuk@ybrantford.com; miletimi@fc.gedsb.on.ca
Subject: The Balanced Girl Health Project
Hello everyone! I am happy to let you know that the Health Unit has approved the funding for the project! I am just in the process of setting up the calendar and information notices to go home to families. I will be in touch soon with some more formal information! I look forward to working with you all, and thanks for your support thus far.
Kindest Regards;
Trish

February 28, 2006
Dear Cindy;
I'm thrilled that Nadine B. can provide aprons for the kids...that is exciting. I will have the information packages ready for my principal's approval by Thursday, and out to the kids by Monday. By Friday I should have my list of participants!!! Things are rolling along nicely. Is there anything else I need to consider with regards to the assessment of results etc.? Thanks so much for your assistance so far. I will keep you posted as to the progress.
Kindest Regards;
Trish

February 28, 2006
Hi Trish,
I'm glad to see that the programme is a go. It goes to show once in a while that hard work can pay. The calendar outline looks good as outlined. I do have a previous booking for a conference on April 11th but I will get an alternate for that evening. It would be good to meet with you and or other volunteers that will be participating. This could occur just prior to the first cooking evening once everyone has a clear picture of what is happening. It may be good to meet here at TTSC so that we could view the facility at the same time. Please let me know what you think. THANKS!
Mark

March 4, 2006

Hi Trish,

I have the tool for the "pre-survey" piece of the evaluation ready to go. My understanding was that Girl Power was to begin next week? If it's possible, perhaps I could visit the first session in the beginning of the orientation day and administer the 10 minute pre-survey to the girls. It is fairly short with less than 20 questions (multiple choice)...this will give us some baseline data to use to compare as you move through your planned Go Girl programme. Ideally, the data that we collect and then analyze will help us determine the level of efficacy we have achieved with regard to awareness raised, skills/knowledge acquired, and maybe even behaviour change?? Anyway, if you would let me know how this might work, I would be happy to accommodate the agenda you have scheduled.

Thank you,

Cindy

April 6, 2006 11:51

Hello Trish,

It looks like we are all set for next Tuesday. So far I do have one volunteer and will likely get one or two more. We do have commercial tin lasagna pans that would work just fine. You may think twice about lasagna on the first night as it generally takes a minimum of two hours to prepare one. Have you confirmed your menus and recipes? If not I think that a meatloaf would be a good beginning, with some mashed potatoes, veggies, salad and a home made apple pie. On the second night we could do a simple dish like a stir-fry, while we start with lasagna for the third night. On the third night we prep the bread and salad, put the lasagna in the oven and visit the cosmetology class where the girls can do a brief workshop on grooming and hygiene, and maybe get a manicure at the same time.

What do you think of that plan? THANKS!

Mark

April 11, 2006

Hi Mark, I cannot thank you enough. The girls were singing and laughing and joking all the way home. They all had a fantastic time.

Thanks again;
Trish

April 12, 2006
Hi Trish,
It was my pleasure. I enjoyed working with the girls. Their enthusiasm and desire to be involved was at times breathtaking. Looking forward to the next round in two weeks.
Mark

April 26, 2006
Hi Mark! Just wanted to offer you yet another big 'Thank you' for what sounded like a great night of 'international cuisine'! Mary Ann was wishing she had a camera to capture the kids stirring the big wok!
I also wanted to ask you...yet another favor...would I be able to include you in my Action Research project that I'm doing on the Strong Girls programme? For example, I would like to include that last email where you mentioned that 'watching the girls enthusiasm and willingness to help out was at times breath taking...'
If you have time to make any other observations about the programme (strengths, constructive criticism or otherwise) I would be more than happy to receive it, and use it, with your permission.
Again, thank you thank you thank you...you really are making this programme wonderful for those girls.
Trish

April 26, 2006
Hi Trish,
Well, we had another fun-filled energetic night. We had fun. Of course you can use the quotes etc. I will remember to bring the camera for the next evening and will forward the disc to you.
Take care,
Mark

May 12, 2006

Hi Trish,

The whirlwind activities continued until the last seconds of Tuesday night. It was a great experience to work with enthusiastic kids again. They certainly were very willing participants all three evenings that we got together. Many thanks for the wonderful gift and card. It is very much appreciated. The platter has a very nice combination of colours that will work out very nicely. I checked my calendar and I'm sorry to say that Sandy and I will not be able to attend on May 24th. That evening we both need to be at St. John's College at an awards banquet with TTSC Co-op students who will be receiving industry recognition. This is really too bad as I was looking forward to being there. The good news is that Susan Slack said that she would be happy to attend. Will forward you all pictures that I took on the last evening. Also, will fulfill your request for a brief assessment and points to consider. THANKS!

Mark

May 17, 2006

Hello Cindy, a long time has past since we last communicated...and many activities also! We are nearing the end of our Strong Girls programme, and I am sorry to be sending this on such short notice...but tomorrow night is our Celebration Dinner! The girls will be cooking for their one guest that they invited. You are also welcome to join us. It might be neat for you to see the wrap up of the programme. I think things went well. There are definitely things I would change next time around, but I guess you learn as you go. Most of the girls seem to have enjoyed themselves and perhaps even learned a little along the way. If you are speaking with Nadine, she is also more than welcome to attend. I was wondering if you were interested in doing the 'post programme' survey with the girls sometime in this month, perhaps in the next two Tuesdays when we are finishing up the cook book. Just let me know.

I look forward to hearing from you.

Kindest Regards;

-Trish-

May 26, 2004

Hi Trish,

I'm glad to hear things went well with your Strong Girls programme. I would love to come and do a post programme survey with the students and prepare a report of the findings for you. I think Tuesday, June 6th would work, if that's fine with you. What time, and where (gym etc.) should I meet you/students? Should take no more than 15 minutes.

I look forward to collecting and analyzing the responses from the girls.

Thanks, Cindy

PS I am just back today from vacation, sorry I missed the Celebration Dinner

June 4, 2006

Hi Mark! The celebration dinner with the girls was really great! They worked like troopers, and served like ladies...really nice to see them...the whole time they were talking about how "Mr. M showed them how to peel potatoes" and how "Mr. M showed them how to cut onions" and how "Mr. M showed them how to hold a knife"! You were not there in body, but you sure were there!!! Thanks again so much for everything. We are getting together for the last time on Tuesday to bind our cook books...they will also be getting their shirts and certificates. If you would like to pop in you are more than welcome, but I know you have a busy schedule as June rolls on.

We do have a T-shirt for you though...and a thank you card. If you are able to make it we will get it to you then...if not I will be sure to drop it in the courier.

Thanks again.

-Trish-

Participants' response to the programme

The following comments were made by the girls on a post programme survey.

Explain one thing you learned, or feel more confident about since participating in Strong Girls.

What is one thing you would like to learn that has not been covered in the Strong Girls programme.

Has the Strong Girls been what you expected it to be when you signed up?

What else would you like to say about Strong Girls?

I feel more confident about myself

I would love to do more Karate

Yes, I thought it would be fun.

It was awesome.

I feel good because I can cook.

I would love to do more Karate

Yes, I looked forward to every Tuesday! It was the most exciting part of my week!

It was so much fun.

I feel like dancing

More Karate
I thought it would be boring.
I feel like it was cool.

How to protect myself
How to skateboard
Yes.
It was fun.

Cooking and dancing and to not be shy.
Karate
Yes.

I feel more confident in my cooking.
I would like to learn more about the Food Guide.
I thought the hip-hop dance lessons would be more fun.
It was an 'okay' experience.

I learned how to replace junk with healthy food choices
I feel that everything I wanted to learn was taught to me
The programme was more than I expected, it was the most exciting thing this year, too bad I will be in grade 9 next year.

Before this programme, I wouldn't cook anything, and now I am starting to cook a lot more
This programme was everything that was explained in the beginning.

This programme was everything that was explained in the beginning.

They should do this programme every year…it was awesome!

Cassie Riddell, a grade 6 participant typed the following message:

> Strong Girls is fun because you get to cook and bond with other peers in the school and with teachers. I learned how to cook better and how to measure. I used to not know how to measure very well, now I know what a ¼ cup is, and how to use a measuring cup. I think Strong Girls should be offered again next year because it is a very good programme to teach kids. We should also have more self defence lessons.

Community reaction to the programme

On June 4th, Lynn Meredith-Cain, Teacher of the Mild Intellectual Disability (MID) class wrote the following letter;

> Four girls from my MID class participated in the Strong Girls group. They thoroughly enjoyed

the activities and participated to the maximum of their abilities. One of their favourite parts of the Strong Girls was the shopping and cooking. These are extremely important life skills for students. Due to the cut backs and closing of the elementary family studies programme, students are not exposed to many important skills. During the programme, the girls also learned about healthy choices, meal planning, cooking, kitchen safety and personal hygiene. Good manners were practiced as they served an excellent dinner to their guests. These types of activities helped to reinforce concepts covered in the classroom. With 15 students, and a half time Educational Assistant (E.A.) it can be difficult at times to complete cooking or shopping activities.

In Strong Girls, the girls also worked on self esteem. They travelled to Tollgate Technological High School where they had the opportunity to have their hair and nails done. They are still talking about this experience! Another aspect of the programme was the fact that my girls made some new friends outside our class. This integration was especially beneficial for my girls. Integration can be difficult due to the academic functioning level of MID students.

I feel that the Strong Girls group is an excellent programme, not only for special education students, but the Major Ballachey girls in General.

Mark Miletich, teaches at Tollgate Technological High School. Mark was extremely helpful in steering the cooking portion of the programme in the right direction. Mark (fondly called "Mr. M" by the girls) worked extra long hours to make the cooking portion of the programme a fun and successful experience for the girls. On June 9th, he sent the following:

Hi Trish. I believe that a programme like Strong Girls is necessary for all children, but I also agree that there are those who are needier. The unfortunate part is that the Ministry of Education has taken those valuable programmes out of the elementary panel. I believe that the cooking part of the programme is very important for those students involved. They continued to be enthusiastic, but also were very needy for assistance and demanded a lot of attention. This is where more senior students would be an asset. Also, I know that you had the huge task of bringing all of the volunteers on board. Having a different person accompany the group on each of the visits had made it less effective. These are all the things that we can work on to improve if the opportunity arises again. I have couriered to you a CD with all the pictures that I took that last night. You may have a use for them. I also have them saved on my computer if the others get lost. Trish, it was a lot of fun to have participated with the project.
THANKS!
Mark

Hank Nyhof is a community volunteer with a passion for cooking. Hank has an interest in school experiences as he has five grandchildren who are approaching school age. When he learned about the programme, he immediately offered to volunteer in any way possible. Hank provided assistance with the final celebration dinner, and proved to be a real asset to all of us. The day after the programme, Hank sent the following email:

> Dear Trish; thanks for the opportunity to participate in the Celebration Dinner with the Strong Girls. I found it to be a real eye opener. What I noticed most, was the lack of dexterity in the girls' hands as they tried to cut and peel apples, carrots, and broccoli; it was almost as if they had never used a knife before! I was very much impressed with the skills being taught both socially, and nutritionally. I observed that the emphasis was on organisational skills that helped the girls to prepare food and provide service to guests. I was so glad to be a part of that and help out a little. I think that to do projects like this, in a setting like an elementary school can only be helpful with social skills and food planning and preparation.

Celebrating Success

Celebrating success is an integral part of reinforcing positive accomplishments. Mark had arranged a special Spa Day celebration for the participants. With the support of Sandy Wilson (head of Cosmetology at Tollgate) the girls had fantastic time learning about pedicures, facials, manicures and hair styles! While they were enjoying their learning and pampering, Mark picked up a "Congratulations Strong Girls!" Dairy Queen cake. The cake was shared by the Strong Girls and the Tollgate cosmetology students who ate dinner with us, and through their efforts collected some of their mandatory high school community service hours.

The second celebration was held at Major Ballachey. Each of the girls invited one guest to join them for a dinner that they prepared. It was a wonderful evening. The participants demonstrated their new skills with confidence and pride. The day after the dinner, one of the participants mothers responded with a note in which she expressed her feelings about the programme;

> Dear Strong Girls; thank you so much for the meal that you carefully planed and served us. The food was so good, and you were wonderful young ladies. I was never at a loss for what I needed and you were there as servers to bring everything. This group has been very good for my daughter as she has had fun being with other girls her age and she has learned a lot about nutrition and how to care for herself. She is also more responsible for herself and show more interest planning meals at home. This group was a great idea! Thank you again, Tammy Hill. May 30th 2006.

This dinner was a great expression of the new skills that the girls had learned. It was also an opportunity to invite family members to share in, and view the celebration of the success of our programme!

Lessons Learned Along the Way

Below are excerpts taken from a running diary used to document the Strong Girls programming:

- Keep it simple, don't try to do too much or the quality of the programme will be diluted.
- Keep it consistent, it is important to have volunteers and staff support in programmes like this; however keep the roles consistent. For example, have one staff in charge of all shopping, one in charge of all cooking trips and one in charge of all physical activity.
- Girls love to learn self-defence and karate!
- Don't run short on time. For a dinner cooking event, plan for at least three hours, and four would be ideal.
- Open communication among all volunteers, don't take any knowledge for granted…it happened once in this programme that a teacher who was supporting the programme was to take the girls to Price Chopper where Alex Hamilton would meet them, when they arrived at the store there was no Alex…that was because THEY WENT TO THE WRONG PRICE CHOPPER!!! We ended up having a good laugh, and Alex's staff had a nice snack from all of the samples he had ready for us.

Unexpected Benefits

Leadership: Both the girls involved, and the teachers involved in this programme gained experience with leadership roles.

Computer Skills: Tori West and Cassie Riddell, two of the Strong Girls participants learned how to use Microsoft Publisher to design programme invitations, thank you notes and the programme cookbook. They have since used their new knowledge in class.

Student Body Enthusiasm: The programme created a 'buzz' throughout the school. Other students were enthused and intrigued about the Strong Girls programme. As the cookbook was distributed to the entire student body, it fostered significant discussion around balanced health and nutrition.

Community Hours Earned for high school students: The girls in the cosmetology department at Tollgate Tech. earned three community hours and gained hair styling experience when the put on the 'spa day' for the Strong Girls.

Special Acknowledgments

This programme would not have been possible with out the hard work and dedication of many people!

- Jane Goldspink, Principal of Major Ballachey School, for support and enthusiasm throughout the programme and for setting me on the path of action research.
- Mary Ann Shay, Learning Resource Teacher/Special Education Teacher Consultant and Marilena Pikula, Teacher at Major Ballachey School for their great ideas, strategies and dedication to the programme and long volunteer hours.
- Cindy Jessome, Public Health Nurse at the Brant County Health Unit for her guidance and support.
- Mark Miletich, Tollgate Tech., for his guidance, patience, enthusiasm, and sincere care for the girls positive cooking experiences.
- Jacki Kostuk and 'Hip Hop Holly' from the YMCA-YWCA for the fun and energetic dance lessons and temporary memberships.
- Bill Philpott from Can-Doo promotions for the special pricing, and fantastic work on the

programme T-Shirts.

- Alex Hamilton, Manager of Price Chopper on Colborne Street for the useful shopping tips and tasty samples.
- Joanne Moyer, 3rd Degree Black Belt Karate teacher, and teacher at Major Ballachey School, for the excellent self defence lesson.
- Hank Nyhof, for his volunteer hours assisting with the celebration dinner.
- All of the parents/guardians of the Strong Girls participants for their dedication to their children in helping them participate in the programme to the best of their ability.
- All of the participants for their enthusiasm and dedication.

Conclusion

This project was a wonderful experience for both the participants and organisers. As a result of hard work, many benefits were derived. If there is opportunity to offer the programme again next year, there will be some refinements and minor modifications, but the original goals and objective of Strong Girls will remain the same. The concept of balanced health is a sustainable proactive approach to healthy living based on prevention. The life skills of healthy, budget conscious menu planning, and tasty nutritious cooking are skills that will follow a student through to their adult lives. This programme has been a tremendous learning experience. The girls provided the enthusiasm and the programme supporters gave their time, energy and expertise; all involved in the programme gained experience, knowledge and memories…that is life long learning!

Tim's question was: "How can I use the Virtual GrandE project to further develop the theoretical concept of Communication Literacy?"

Lynda's question was: "How can I use the Virtual GrandE project to impact the implementation of curriculum content and the development of teacher best practice?"

Biographies

Tim Pugh and Lynda Kilpatrick have served as teacher-coordinators for the Virtual GrandE project over this past year.

Tim Pugh currently teaches at Greenbrier P.S. in Brantford, Ontario. For the past three years, he has taught a combination of FSL and ARTS-based programs across all three divisions of this composite school. Holding certification from l'Université du Québec in French culture and language and being a graduate of York University's bilingual B.A. program au Collège Glendon, Tim began his teaching career 17 years ago in the Junior and Intermediate levels of both the FSL (French-as-a-Second-Language) program and the Immersion program. Since then, he has chosen to work for four different Ontario school boards, both public and private. Within each of these boards, he has been actively involved in teacher professional development and student literacy development as they relate to Information Technology. This past year, he completed his Master of Education degree, with a focus on curricular leadership.

Lynda Kilpatrick currently teaches at Greenbrier P.S. in Brantford, Ontario. She graduated from the Child Studies Honors Program with a Bachelor of Applied Science at the University of Guelph. Her teaching career has occurred extensively in the Junior Division. As a result, she has immersed herself in both curriculum planning with integrated implementation and assessment strategies at this level. She has been involved in writing curriculum at board level: Making Cross Curricular Connections - An Integrated Resource Grade 1-8: and at the Ministry Level: Mathematics Data Management & Probability Strand. She has also presented various integrated units and teaching tools that she has created throughout her teaching career at system and board levels. Most recently, she has focused her professional development upon the literacy and numeracy foundations currently implemented by the province.

Project Profile

The Virtual GrandE project was piloted in 2005-2006 as a cross-curricular, cross-grade, intra-school initiative that enhances the development of literacy and numeracy skills amongst students and staff of the elementary panel within the Grand Erie District School Board (GEDSB). With an intended focus on Student Success and the provision of new services and options for At-Risk students, this project is designed to liaise between the Success Plans of individual schools and the Strategic Plan of the GEDSB within a context of communication literacy. Through the use of laptop computers, webcams, video, and SMARTboard technologies, it is further defined as a self-contained, mobile

communication forum that allows for the authentic exchange of learners' ideas and perceptions within a secure, real-time media environment. Thus far, Virtual GrandE has connected over 200 students synchronously and asynchronously for a variety of learning events in numerous geographic locations throughout the board. In so doing, all three types of our student learners (low-academic, mainstream, and gifted) have interacted with each other, thereby developing their personal literacy and numeracy skills.

Participants

The Virtual GrandE Roll-out Team consisted of the following 10 teachers and 4 students, all of whom conducted their own learning research, investigating both best practice and successful literacy / numeracy ideas within the context of Virtual GrandE:

Norma Bingham – primary teacher at St. George-German P.S.

Sarah Nichol – primary teacher at West Lynn P.S.

George Anger – junior teacher at Doverwood P.S.

Pam Rooney – junior teacher at West Lynn P.S.

Sylvia Wyse – gifted LRT teacher at Centennial-Grand Woodlands Enrichment Centre

Sandra D'Alessandro – gifted LRT teacher at Centennial-Grand Woodlands Enrichment Centre

Tara Duncan-Smith – primary teacher at Greenbrier P.S.

Tim Pugh – primary / junior / intermediate rotary teacher at Greenbrier P.S.

Lynda Kilpatrick – junior teacher at Greenbrier P.S.

Diane Morgan – facilitator for Action research – GEDSB

Mike DiDominicis – grade 8 student at Greenbrier P.S.

Mackenzie Humble – grade 8 student at Greenbrier P.S.

Harry Dickson – grade 8 student at Greenbrier P.S.

Angie White – grade 8 student at Greenbrier P.S.

Please refer to the DVD in the rear of this volume for more information regarding Virtual GrandE.

How can I support teachers through Professional Learning Communities?

Joy Klassen

Joy is in her first year as principal of Paris Central Public School, in Paris, Ontario. She has been a teacher and administrator with the Grand Erie District School Board (and former Norfolk Board) for the past 23 years. Joy has a number of degrees in music and in 2002 completed her Masters of Education from Brock University. This is her first Action Research project.

Abstract

Improving student learning is the focus of schools today. In order to improve student learning teachers must work collaboratively to find common ground and build a shared knowledge base. They must identify specific focus, implement strategies, and provide evidence of students' progress. Building a collaborative culture through Professional Learning Communities is the best way to improving the learning of all students. I believed that, as the principal, I needed to initiate the process and find ways to support my teachers which would facilitate a professional learning community within the school. I wanted to document how this process was implemented and as well as some of the results.

Background

My research question has evolved over the course of the past months since I first began thinking about doing Action Research. In September 2005, The Grand Erie District School Board implemented a new initiative from the Ministry of Education called Professional Learning Communities. The intent behind the formation of Professional Learning Communities is to provide teachers time within the school day to dialogue with each other in order to refine their professional practice and improve student learning. Ideally teachers meet in grade or division teams to discuss specific strategies for teaching, decide on how they will implement the strategies, the timelines of implementation, and how to assess the learning of students using these strategies (that is collect meaningful data).

I became interested in doing PLC's this year as it was my first year as principal in Paris Central. I was in a relatively quiet school in terms of discipline problems and with only 183 Primary/Junior students and 15 staff, it seemed like a good place to start. I also believed that the best way to build capacity of teachers is to create an environment which allows for interaction, focus and collaboration (Conzemius & O'Neill (2002) p.12). I wanted to enable my teachers to work together in a focused, concrete way to improve the learning of students. In order to do this we needed to focus on a common purpose, have common goals and use data to reflect and support the achievement of those goals. Richard DuFour suggests that to create Professional Learning Communities we need to "focus on learning rather than teaching, work collaboratively, and hold yourself accountable for results" (DuFour, May 2004,Vol 61, No.8, p. 6) He also suggests that educators must reflect critically on the merits and core principles of such communities in order to ensure they become "deeply embedded" in the culture of the school.

Much of the dialogue among educators today clearly states that in order to improve student learning there needs to be a change of instruction. If I, as the principal, could enable my staff to meet together with the purpose of professional dialogue, would there be an improvement or change in practice/instruction and would that change be measurable in the students' learning? In order to frame the question I spent time discussing my ideas with Diane, the Action Research group and my staff. My interest and passion grew for Professional Learning Communities as I attended workshops, read articles, became part of a Principal Learn Team, and began to implement a PLC in my school. The initial process of our PLC had so many positive results it was difficult to fine tune a focus for this paper. I finally narrowed it down to "**How can I support teachers through Professional Learning Communities**".

Beliefs/Context

I believe that teachers need time to engage in professional dialogue with their colleagues. I believe that teachers need to know that the principal is committed to supporting them in this dialogue. As a new principal I needed the mentorship and dialogue from my colleagues. We often took time to discuss issues during our principal meetings which were during the day. Many times I would feel I wasn't sure exactly how to handle a certain situation but after listening to advice or experiences from others in my position I was ready to move ahead. Other times I would listen to the stories that other principals had and felt I had learned something to either avoid doing or to use if I was ever in that kind of situation. However the best part was just in being together. Administration can also be isolating but the more we had time to dialogue the more connected we felt. I often felt less lonely and more energized to go back to my school and continue to work at making a difference in students' lives after our discussions. I knew that many teachers felt the same way. I volunteered to become part of a Board pilot project on Professional Learning Communities called Principal Learn Teams. We met as administrators to discuss how we could begin to implement PLC's in our schools. Our goal was to increase our capacity to lead PLC's within our schools. One of our strategies was to attend OPC Workshops and coaching sessions. For one of our coaching sessions we went to a school in London, Ontario. Their principal and his staff were also implementing PLC's in their school. The time we spent at the school encouraged me to continue to move ahead with PLC's in my school. The following is quote part of the minutes from that meeting.

"Time is precious - if we give them(staff) time we show them it is important to   us." He also spoke a bit on creating a mission statement - we have the handouts he sent earlier - and he was quick to say that we cannot rush the staff into creating such a statement. He also talked about celebrating beliefs with staff and H&S and School Council (what are we about, what do we believe and where are we going). I think the day was a wonderful opportunity for all of us. It is important to see what is happening in other schools and to dialogue with administrators who are also beginning the PLC process. I believe we all learned a great deal and were encouraged to continue leading our schools in becoming PLC's." (Minutes from PLT Meeting Dec. 16/05)

Much of the frustration teacher's face is the lack of time to implement new initiatives. Teacher mentorship programs are set up to support new teachers but even so teaching can be very isolating as there are consistently new programs to implement, new in services to attend and specific school initiatives to keep in mind. In addition to this there is an increased awareness and setting of higher expectations in order to achieve the set targets.

I believe that a student's best chance for success in school is if teachers share common teaching practices which build a knowledge base from one year to the next. When teachers teach in isolation, that is, they don't seem to know what the previous teacher is teaching, or what the teacher in the next grade will be teaching, student learning is not maximized. I found that my staff was very collegial. It was obvious they shared knowledge of students. They worked to helped out if coverage was needed and planned activities like sports and music within the school year. There were book buddies and working together between some classes. However sharing teaching practices, building on what had been taught in previous grades, or common assessments had not been a focus. There was no systematic process where the teachers could work together to analyze and improve their classroom practice. I was convinced that we needed to work together as a staff to articulate our purpose, set priorities and spend time reflecting and evaluating in order to develop a collaborative culture.

I was interested in seeing if I could support my staff through PLC's in order to develop a collaborative culture which I envisioned would improve the learning of all students in my school. The concept of assessment **for** learning as it was presented at a conference and subsequent reading (Chappuis, Stiggins & Chappuis (2004))on the topic made sense and seemed to tie in nicely as a beginning focus of common assessment. This was what good teachers do, but not all teachers were applying the concept in their classes. Much of the assessment being done was **of** learning. If we could discuss the shift from assessment **of** learning to assessment **for** learning, using specific collection of data, there would be a measurable improvement of student learning. I was convinced that given time during the school day and given a focus and framework within which to work, we would see that measurable improvement in the learning of students. I also believed that the PLC's would improve the dialogue between the teachers. They had lots to learn from each other but needed a focus and time to do so.

Process
Often when teachers are approached with another "new" initiative they are frustrated because they already have much to do. Sitting in a staff meeting that goes for hours after school is also not the best time to get attention or interest in trying a new idea. It seemed clear to me that the PLC's were the best way I could support my staff. Understanding assessment for learning would benefit all students especially if it was a school wide focus. I was sure that if they understood that this was not a something new they had to learn, but rather a new approach to working together, they would soon be as positive as I was. Giving staff time during the day when they could focus on a concrete goal as a group I felt would be the most productive. It would also demonstrate my support for them and my commitment to making PLC's work.

Early in the fall one of the boards' initiatives was to release a group of lead primary math teachers for a half day. The goal was to observe one teacher teach a lesson to their class and then spend rest of the time discussing what worked what didn't and strategies that others had used which they found worked. After one group had been at my school they seemed very excited about what had happened. It was such a positive experience that they came down to my office as they were leaving to tell me what a great experience it had been. They talked about how good it had been to have the time to discuss ways of teaching that really worked.

This knowledge strengthened my resolve to begin PLC's. It was effective for me and for the lead teachers and it would also be great for the whole staff. If I really wanted to make things meaningful for my staff and if I wanted to enable them to move their students ahead I knew that PLC's would be the way to go. As part of the Principal Learn Teams coaching session, we were able to hear Cindy Harris through the Ontario Principals Council who came to talk about setting up PLC's in our school. Cindy used the phrase "collegial but not collaborative" and I knew that this described my staff. I wanted to learn how to get the collaborative process working in my school. I wanted to see if I could facilitate a PLC and in order to improve instructional practice which would improve student learning.

One of the first things was to look at the mission, values and beliefs statements for the school. As part of the Principal Learn Teams we were put into smaller groups of principals with the goal of helping each other as we began PLC's in our schools. I now felt I had the vision of how to begin the process with my staff. We took some time on a PD day to look at our mission statement. I use the book The Handbook for SMART School Teams as a guide to set up the discussion. The mission statement would be a tool to begin our movement toward a collaborative school. I believed that the mission statement needed to be something that we all knew and used, not just something put together and then had to be looked up in order to know what it was. Again using the suggestions from the SMART School Teams book, I took part of the initial PLC to begin the process of creating a new mission statement. The staff wanted the wording to be in "kid jargon" so that the students would also be aware of our goal. All staff completed the sheets and responded with their ideas. We did some brainstorming at a following staff meeting. We now have a compelling statement that defines who we are:

> At Paris Central School we strive to be the
> BEST school with the
> BEST teams in order to help us to become the
> BEST we can be in our educational journey through life.

> The students have learned the key words as a chant:
> Best school, Best teams, Best we can be!

As a first move toward collaboration the mission statement was a huge success.

As part of the process I needed to know what my support would look like and how to make it viable within my school. There was no extra money for supply teachers. I needed to have a plan to free up the divisions so they could have a block of time to work within the school day.

I wanted the staff to have a framework for the discussion as well as a brief evaluation afterward in order to track what was discussed, what decisions were made and what the focus would be for the next meeting. The focus for the meetings was important. There needed to be some guidelines set out in order to make the most of the time. The most important thing was I wanted the meetings to have quality conversations. The meetings were not to talk about things that they couldn't change like grade level expectations, ministry initiatives, problem parents etc. The focus was specific and there needed to be a follow up evaluation in place.

The first meeting was to discuss what assessments were being done in each grade. The first meeting was 100 minutes. Each primary class was paired up with a junior class with the teachers planning together what would happen during that time.

We also discussed the purpose of PLC's which was "to improve instructional practice which will in turn improve student learning". Our initial priorities were: A. collecting data, B. discussion of three guiding questions; 1) What do we want students to achieve; 2) How will we know when they have achieved the goal; 3)What will we do for those students who don't achieve the goal, and C. aligning resources to meet needs.

After each meeting there was an evaluation feed back form (see attached sample)

A few things became clear after the very first meeting. Not only did the staff feel that it had been worth the time, they also discovered that there were no common assessment practices within the division. They also talked about not really knowing what the others were teaching. I was excited that it had been a positive experience but wasn't sure what the next step would be. I didn't have to wait long.

Findings
The primary teachers came to me to ask if they could use the next PLC as a way to solve a problem they were encountering specifically with reading and concern from parents about the many different approaches in teaching strategies across the primary division. This was positive in a number of ways. The teachers had identified a problem and realized that there might be a way to solve it as a division using PLC time. Not only could I support this but it seemed to be a natural extension of the first meeting. We set a date and time and made it happen. This time instead of pairing up the students I had the primary division students in the gym where we enjoyed learning musical games I learned in my Education Through Music course many years ago. The students and I enjoyed the 100 minute block very much.

For this meeting I had given the teachers three questions to address: 1) what assessment they would do, 2) how would they report this to the parents, and 3) what resources they would need. They used the next PLC time to decide on a common assessment for all the primary students in order to place them into common leveled reading groups.

I could sense the excitement building as they reported back about coming up with the name for the reading program (Striving Together for Achievement in Reading or S.T.A.R.), the timetable for implementing the program, and how they would go about listing the needed resources. Out of that meeting came a wonderful reading program, a letter to the parents and a sense of collaboration within the division. The time the teachers had taken to "sit down" with each other resulted in making them stronger as a team and improved the way they approached reading in their classrooms. They had developed a program which would not center out any student but would provide opportunity for each student to learn at the reading level they were at. The sense of team work seemed to also help them talk and discuss this with the parents. One of the teachers went farther to outline the reading

expectations for each grade and organize them into a checklist for each teacher. In this way each teacher could use that wording from the curriculum as they prepared their report card comments. They also decided to include the students, six who were able, from the Special Education class. Many of these students were reading at the levels of the primary students and needed the same practice and teaching of specific strategies.

I was very pleased on a number of levels. First, the PLC team was succeeding far above what I had expected in such a short time. I had expected that if we were able to create a mission focus this year then we could work on specific teaching strategies for the fall. So in a sense we were already far ahead. Second, they had taken a difficult situation and come up with a workable solution which suited their needs, the schedules of the teachers, and were using their professional knowledge to build capacity in each other. One teacher reported that "at lunch the focus is just not the same. With the PLC's we are just teachers talking what we're doing with no worry about interruptions, the kids are taken care of and it's during the day"(Conversation on Feb 23, 2006). Third, and perhaps most exciting, the student's literacy skills were sure to increase with this sharing and applying of knowledge. I was excited to see what the tracking sheets would show by the end of May.

Word got out about our S.T.A.R. program and we had a teacher ask to come and shadow our program to see about implementing a similar program in her school. She sent me an email saying "the teachers are doing an excellent job with the program. I was impressed with how hard each of the groups are working. The students are on task and I was able to observe and learn much. I wrote lots of notes and took ideas back that hopefully will work as well as they do at Paris Central" (Email March 26, 2006)

The junior division teachers spent time discussing their assessment procedures and discovered they did not use any common assessments. They used their initial PLC time to ensure that they used a common assessment package which included math computation, math word problems, spelling and comprehension assessments. Once they had results they would use the data to focus instruction on areas of greatest weaknesses. One teacher commented that the class results indicated a specific area of weakness in a particular math strand which could then be addressed (Conversation Dec 7, 2005). The junior teachers were working on using Electronic Portfolios for students. During their PLC time they were able to work on specifics as to what skills Grade 4 students would learn, how that would build for Grade 5 students as well as for Grade 6 students . Using collaboration they were able to develop process which would build student's knowledge and skill in Electronic Portfolios. Each teacher knew what would be taught in each grade. As they worked together excitement grew as to how they would use this for parent/student conferencing and how these portfolios would be a "nice tie-in for our future Web site". (evaluation sheet June, 2006)

Comments from teachers on the evaluation of the first meeting include "I thought the meeting went quite well. Teachers were able to freely discuss their assessment methods and give their thoughts about the possibilities to be included in a mission statement….I thought it was great that the classes were put together to make these meetings happen. It enabled some flexibility in our programs and it was enjoyable for me and the Gr. 6's to work together with the KP's" (Dec 6, 2005) and "I liked the informal nature of the meeting as well as being able to meet with our division so that all matters

pertain to our common cause" (Dec 6, 2005).

In a conversation with a teacher I heard "At lunch our focus is just not the same. This time we are just teachers doing what we're doing, no worries about interruptions, the kids are taken care of and it's during the school day!" (Dec 8, 2005)

When asked what could be different one teacher wrote "I wonder if it wouldn't be better to split the primary and junior meetings on separate days so that the planning for sharing classes is broken into two sessions" (Dec 6, 2005) "having an agenda passed out so that thoughts could be generated before ahead of time" (Dec 6, 2005)

Improved teacher collaboration improves teaching practice which improves student learning. The staff had shown that when given the time to collaborate, they were able to use their time in a focused manner. They had increased their capacity to use data to inform and drive instruction. They had gathered the initial assessment data, had used their analysis of the data to form reading groups, had changed or modified their instruction practices and plans, and knew where they were going in terms of post assessments. I believe they also had more confidence to talk to each other about how the specific strategies were working and what refinements needed to be done. The interaction between classes and after school was more profitable as they could focus on what they were specifically doing and how to improve it. I was hearing about an improvement in the working relationships and it was opening the doors to knowledge both for the teachers and the students. The ongoing authentic conversations about important questions had resulted in a change in the methodology of the teachers.

Next Steps
At another of the Principal Learn Team meetings, one of the presenters talked about the concept of "planned abandonment" in connection with "sharpening the saw". The idea was that no staff could address everything needed at one time or in one year. It was part of our job as principals to allow and even encourage the abandonment of some initiatives in order to sharpen the focus on a few areas for specific and measurable improvement. I believe that part of my role next year is to ensure that we sustain our focus on working collaboratively to ensure that all students learn. This means providing time and guiding questions for PLC's. It also means making sure that the ongoing data collected is turned into useful and relevant information for the staff to improve teaching practice and build shared knowledge to improve the learning of all students.

Introducing PLC's this year has been rewarding and positive experience for the staff and the students. There were more results than can be mentioned in this paper. We have collected data from common assessments to help focus and identify specific teaching strategies and a wonderful primary reading program has been created and implemented with excellent results for all students involved. The school has a new mission statement which is referred regularly by staff and students as a basis for our decision making. Having a number of opportunities to focus on success and dialogue for improvement gave teachers a means to identify problems, develop strategies and solutions, and agree on common assessments to provide data. The PLC's were a catalyst in allowing this to happen at Paris Central. It was clear that the staff was determined to work together to improve the learning of

all students. I was also determined that I would continue to look for ways to support and encourage the staff to continue to move ahead. We had indeed become the best team we could be and could celebrate the success knowing we had begun working together and so increased the learning of all our students

The promise of next year was equally exciting. All the teachers surveyed responded that they are committed and excited for the PLC's to continue next year. We will continue to reflect and evaluate the process in order to keep focused on specific, measurable ways to improve student learning.

I am also looking forward to what we can accomplish next year through the PLC's. I am committed to ensuring that teachers have the time and that we remain focused on improving learning for all students. With our mission statement completed we will articulate our Values and Beliefs statements and identify specific strategies for each division and identify how we will measure improvement. We will continue to collect meaningful data to assess what and how we have succeeded in moving all of our students forward.

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Appendices

Notes from Initial Principal Learning Team Meeting, Oct. 24, 2005

Purpose of a professional learning team

- specific time set aside to study, reflect, plan and implement ideas to improve learning/outcomes in previously identified areas

- focus is on learning, reflecting ,planning, testing ideas and taking action

- mandate is to improve student learning and provide data to support information by developing a measurable goal and expectations as part of the school plan

- focus on literacy, math and assessment using three key questions - what do we want students to learn, how will we know when they have learned it, and how will we respond when a student experiences difficulty

- for example identify 2 students who are at level 2 in math and language (can be different students) - identify what it would take to bring them up to level 3? How will you implement this and how will you know when they have reached it?
>   Need to establish baseline data for whole school
>   Discuss possible causes of performance and potential solutions
>   Set time line to try solutions
>   Assess results
>   Share results and what was learned about student learning
>   How can this improvement be sustained

Strategic and specific
Measurable
Attainable
Results-based
Time-bound

Work out possible time for team meetings - junior/primary
Set desired outcomes and SMART goals
Identify resources needed

Professional Learning Communities
Dec. 5, 2005

1. Discussion on Mission (What the school exists to do) and Values(What people associated with the school believe and hold dear) Vision (What the school and its community would like to achieve) statements

2. Purpose of team: to improve instructional practice which will in turn improve student learning.

3. Priorities are: collecting data and aligning resources to meet needs

4. Three guiding questions:
    1. What to we want students to achieve
    2. How will we know when they have achieved the goal
    3. What will we do for those students who don't achieve goal

5. Evaluate time spent - changes for next meeting, how often, format

Professional Learning Communities - February 3rd, 2006

Items to discuss

1. Review last years School Success Plans
      a) which targets have we met

      b) which targets will we meet

      c) which ones should we keep for next year

      d) what should we add for next year

2. Take some time to discuss what the data from the common assessment collected.
    What are overall (and specific) areas of student weakness?

3.What are overall (and specific) areas of student strengths

4. Where are we in terms of Electronic Portfolios - positives and areas to improve/change - how are we implementing the student led conferences?

5. What are the next steps?

Professional Learning Communities - February 3rd, 2006

Items to discuss

1. Review last years School Success Plans
      a) which targets have we met

      b) which targets will we meet

      c) which ones should we keep for next year

      d) what should we add for next year

2. Take some time to discuss and list what some of the positive outcomes/feedbacks you have heard, seen or experienced with the guided reading groups

3. What are some of the problems or things to work on?

4. What are the next steps?