

B.R.A.G
Bridging and
Reducing the
Achievement
Gap of
Exceptional
Students



DURHAM DISTRICT SCHOOL BOARD

Lisa Millar, Superintendent of Education,
Pickering Area

Doug Crichton, Superintendent of Special
Education

Karen Ovenden, Vice Principal Westcreek
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Bridging and Reducing the Achievement Gap of Exceptional Students

Final Report

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PROJECT MEMBERS:

Karen Ovenden Vice Principal Westcreek Public School
Team Members; Tony Rizzuto (P), Paul Haines, Valerie Green, Sandra Holt, Cindy McNeil, Marilyn Pitson, Lindsay Dearing

John Briggs, Principal, Kyla Remier, Vice Principal Highbush Public School
Team Members, - Deirdre Morgenstern (VP), Emily Cosway, Janine Marlatt, Jenn Hanessian, Jane Hutchinson, Cara King, Laurel Gowan, Caroline Ferguson

Gert Rosenau, Principal Glengrove Public School
Team Members, David Draper, Jennifer Goodbrand, Carrie Marcos, Elaine Warburton

Essential Question:

By implementing specific and targeted intervention strategies with our students who have a learning disability, will we be able to successfully alleviate the achievement gap that the data presents?

Background:

When looking at the MISA data in August of 2008, the Superintendent of Education, Pickering schools, Lisa Millar, noticed a discrepancy between the achievement levels of our identified students and non-identified students. Through discussions with Doug Crichton, Superintendent of Special Education as well as Administrators in Pickering, we committed to working with our teachers to understand the nature of this achievement gap and work towards bridging it.

Three schools, Westcreek PS, Highbush PS and Glengrove PS, volunteered to work on this project. In the fall of 2008 the Administrators meet several times with the Area Superintendent and Superintendent of Special Education. Throughout the course of these meetings, it was determined that although our students who have a learning disability are programmed through an IEP, perhaps we need more intensive, focused intervention to promote success.

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Looking closely at the Education for All document along with other literature, it was determined that our students with a learning disability could be much more successful if they were consistently using Assistive Technology. We noted that to ensure successful implementation, we needed to provide teachers with substantial training.

With the use of the MISA funds, we were able to provide one and a half days of professional development to a sample group of teachers from each school.

Our initial plan was to work with teachers in grades 3 and 6 as the EQAO data would be a good measure of success. As our planning sessions evolved, we decided to include grade 2 and 5 teachers as they could implement strategies early, for success the following year in the assessment. Special Education Resource Teachers (SERT's) were also included as they are key leaders in programming for our exceptional students. Each school selected at least one teacher in grades 2, 3, 5 and 6. On November 17th, 2008, we held our first session (see appendix 1 for the agenda).

The morning focused on developing a profile of the learning styles of our students, looking at the Education for All document, Differentiated Instruction followed by analyzing the MISA data. We spent the afternoon in the computer lab with Special Education Technology Facilitator Laura Hogan, who taught the teachers a variety of Assistive Technology programs. Teachers had an opportunity to explore these programs and determine which ones they would implement based on the needs of their students. They left the day with a goal to implement at least one Assistive Technology program with the students in their class who have a learning disability.

Data Collection Methods and Analysis:

Administrators at each school supported and monitored the implementation process. In January of 2009 we provided a written update to our Area Superintendent where all schools felt that technology was improving the success of the students, although we had not looked closely at the data. In May of 2009 all three schools met again to look at the MISA data and share insights on the project (see appendix 2 for the agenda).

Teachers and students involved in the project completed an attitudinal survey prior to our May workshop so that we had a combination of anecdotal and raw data to aggregate.

Teachers also had the opportunity to share successes, obstacles and discuss the impact this project had on their students.

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Results and Findings:

Teachers went beyond our hope to implement Kurzweil or Scan and Read into their literacy programs, and used the following programs;

- Word Q (12 teachers)
- Talking Word Processor (4 teachers)
- Scan and Read (3 teachers)
- Audacity (3 teachers)
- Smart ideas (3 teachers)

The results from the teachers' attitudinal survey suggest that all teachers believe their students are more engaged in the learning process as a result of Assistive Technology and their intention is to carry on using it.

STAFF SURVEY	Agree	Strongly Agree
I have increased my knowledge of assistive technology	92%	8%
I have improved my use of AT with students	92%	8%
I want to further increase my knowledge of AT	38%	62%
I want to use AT even more with students in the future	38%	62%
I believe my students are more engaged in their learning when using AT	100%	

Teachers also indicated the following impact that the implementation of technology had on the achievement of their students;

- Kept students on task
- Provided a better understanding of the material
- Improved student behaviour
- Provided a reason to improve keyboarding skills

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- Gave students the tools to complete the tasks
- Growth has been evident
- Increased access to the curriculum
- EA available to support other students
- Use of Multiple Intelligences

Our survey indicated that most students like to use computers at school. They not only feel as though technology is helping them learn, they would also like to use it more frequently.

STUDENT SURVEY (21 participants)	SA	A	D	SD
I like to use computers at school	71%	24%	5%	0
I like using programs like WordQ, Universal Reader, SMART ideas	19%	71%	10%	0
Using programs above helps me learn things in school	43%	57%	0	0
Using the programs above helps me write better	24%	38%	38%	0
I would like to use the computer programs above more often	57%	29%	10%	5%

Through the use of the MISA data warehouse, we were able to chart out student progress by looking at CASI/PM Benchmarks data and Report Card data. The chart below outlines the progress made by students at each of the three schools.

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School A	CASI/Running Record-Term 1	CASI/Running Record-Term 2	CASI/Running Record-Term 3	Report Card-Term 1	Report Card-Term 2	Report Card-Term 3	EQAO
<i>Grade 3 A</i>	9	13	16	B	B	B	2.9
<i>Grade 5 A</i>	25	Level 1	Level 1	C+	C+	C	N/A
<i>Grade 6 A</i>	Level 2	Level 2	Level 2	C	C	C	3.5
<i>B</i>	21	23		C	B-	B-	2.1

School B	CASI/Running Record-Term 1	CASI/Running Record-Term 2	CASI/Running Record-Term 3	Report Card-Term 1	Report Card-Term 2	Report Card-Term 3	EQAO
<i>Grade 3 A</i>	10	16	22	D	C	B-	2
<i>Grade 5 A</i>	Level 2	Level 2+	Level 2	B-	C+	C	N/A
<i>B</i>	Level 1+	Level 2	Level 1+	C	B	C	N/A
<i>Grade 6 A</i>	Level 2	Level 2	Level 2	B	B	C	2

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School C	CASI/Running Record-Term 1	CASI/Running Record-Term 2	CASI/Running Record-Term 3	Report Card-Term 1	Report Card-Term 2	Report Card-Term 3	EQAO
<i>Grade 3 A</i>	11	19	21	C-	C	B-	3
<i>B</i>	9	12	15	B	C	B	3
<i>C</i>	9	14	20	R	R	C	2
<i>D</i>	12	15	17	R	D	D	2
<i>Grade 5 A</i>	19	24	30	B	B	A	N/A
<i>B</i>	26	26	30	C+	C+	B	N/A
<i>Grade 6 A</i>	Level 1	Level 1	Level 2	B-	B-	B	3
<i>B</i>	Level 1	Level 1	Level 2	C+	B-	B	2
<i>C</i>	Level 2	Level 1	Level 1	B	B	B	3
<i>D</i>	Level 1	Level 1	Level 2	B-	B	B	2
<i>E</i>	Level 2	Level 2	Level 1	B	B-	B	3
<i>F</i>	NE	Level 1	Level 2	C	C-	C	2

Steady gains were made by almost all students. In some cases, junior students who were not able to read CASI, were able to as a result of the implementation of Assistive Technology. The teachers were a bit surprised that the data did not suggest greater gains as they felt very strongly that major gains were in fact made. As you can see from the template, the EQAO data will be added once the results of this assessment are shared with us.

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Reflections and Action:

This project has provided us with an opportunity to train a sample of teachers from our schools on Assistive Technology. That means we now have lead teachers within a school to train colleagues. All teachers involved noted that student interest and motivation has been activated. We anticipate that this data will show greater long term gains in the future than the evidence suggests for this target group. The use of technology has provided an opportunity for successful Differentiated Instruction where students who thought they were weak readers, now feel success. Other successes that were noted include:

- Inclusion
- On task behaviour increases
- Increase in student confidence
- Writing is more fluent on the computer
- Able to work independently
- Increase access to the curriculum
- Student motivation (eager to learn)
- Cross curricular gains
- Improved comprehension and reading fluency

Obstacles that we need to consider include;

- Computers are slow
- Limited number of computers
- Access to computers
- Teacher training
- Number of identified students and number of available computers
- Supervision
- Keyboarding skills
- Licences for programs
- Time
- For WordQ still need to know the start of words
- Still need help with organization
- Temperamental computers
- Need microphone
- Equipment failure
- Access to scanners

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In summary, all teacher participants agreed that they were more successful in delivering their reading programs as a result of the intensive professional development that they were provided. As a result, teachers felt more confident using Assistive Technology to differentiate their lessons and students were more successful academically, motivationally and behaviorally in reading.

Contributions to MISA Professional Network Centre:

The MISA warehouse is an excellent tool to access data. Teachers are able to see an overview of their class and look closely at the discrepancies that exist. They are able to compare Report Card data, Reading data (CASI/PM Benchmarks) and EQAO data (if applicable). This information is readily available for both identified and non-identified students.

Suggestions for Future Research:

We believe this project is just beginning and must be ongoing to ensure the effective use of Assistive Technology. Continuing to train teachers in Differentiated Instruction such as the use of technology will continue to ensure education for all of our students. Revisiting the data through the MISA warehouse each term is a valuable way to monitor progress and to provide the evidence necessary to revise programming to meet the needs of our students.