

BrainIgnite Education Program
Pilot Study
TDSB - Brookview Middle School



The Impact of BrainIgnite on Classroom Learning
Performance Levels, Social Behaviour, Test Scores &
Teacher Job Satisfaction

Managed by:

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Summary

Background music in the classroom has been shown to provide no measurable benefit; study results are often unclear and contradictory.¹ Despite this, it has become a common tool for some teachers to help enliven students and make the classroom environment a more enjoyable one.

The patented BrainIgnite Neuro Technology is purported to enhance music and sound in such a way that trains & enhances the brain into peak performance modes. Without BrainIgnite, music is a nice classroom additive that studies have shown has no discernible impact on student performance. With BrainIgnite, music becomes a brain performance tool that creates drastic improvements in all areas of brain and student performance, as demonstrated in a range of EEG clinical trials and a breadth of studies.

Volition's BrainIgniter Player is a software program that adds adjustable levels of neuro technology to music on-the-fly, allowing teachers to play special music in the classroom through speakers that are connected to a computer. The speakers are of normal consumer quality and reside in each corner of the classroom.

BrainIgnite Neuro Technology introduces specific brainwave characteristics to students that are typically only found in students during specific times of high mental functioning (peak performance, focusing, reading, meditating etc.).

The BrainIgniter Player has 4 different sessions to choose from. Each session increases certain cognitive characteristics in different ways, which allows students to peak perform during a varying cross-section of tasks.

Students don't use their brains the same way though out classroom time, but in different ways based on the different subjects and assignments, so having 4 different sessions is important.

This pilot study commenced in November of 2009. The purpose of this study is to clearly define the relationship between the use of the BrainIgnite Education Program in the classroom and its impact on student performance. The following results have been achieved to date (April 2009):

1. A 500% + increase in time spent learning at the ideal level of performance.
2. Average grades improved a letter grade above the norm.
3. Student social and classroom behavior improved.

¹ See references at the end of this report.

4. Teachers reap more satisfaction from their work place and profession.

Information was also gathered relating to the students feedback regarding their opinions and attitudes toward the “in class” use of music, its effects on their learning and its effects outside of the classroom.

Hypothesis

1. The amount of class time at the “Peak Performance Level of Learning” will increase with the correct use of BrainIgnite in the classroom.
2. Test scores will increase relative to the increase in “Peak Performance” class time.
3. Student social behaviour will improve.
4. Teachers will enjoy having a more manageable class of students causing them to enjoy their jobs more.

Participants

Teachers of grade 6 classes at Brookview Middle School have voluntarily participated in this study. Students were informed that the music is designed to help them learn.

Principle: Karl Subban

Teachers:

- Ms. Daniel
- Ms. Antoine
- Ms. Vienburg
- Ms. Jones
- Ms. Khamisa

44 Students

Method

Each participating teacher used the BrainIgniter Player in their classroom in accordance with the Education Program handbook, and used a Volition approved speaker system.

Each teacher was shown how to complete daily data collection sheets regarding the BrainIgnite session played and the “learning level” of the class. These data collection methods have been thoroughly used in various medical clinical trials to measure the impact of pharmaceuticals on pain, focus and other areas of human feeling and emotion.

An events or comments section on the weekly sheet allowed the teachers to indicate relevant qualitative information.

Student and teacher questionnaires were completed.

Student grades have been tracked over the course of the study, as will EQAO test scores.

Comments:

Change is difficult at the best of times, but is best implemented when all stakeholders desire and need it. Results from this study are dependent on the level of commitment each teacher possesses. Ideally, positive classroom change will occur rapidly so that commitment to using BrainIgnite will increase once the value is seen first hand.

There will be a positive change for each classroom with student to student variations which will lead to further interesting results. Once training to enter the ideal mental states appropriate for each task has been implemented for a period of time, each student will be able to demonstrate an ability to perform even without the presence of the specific auditory environment, at home and in other classes.

Therefore, each student will have the innate desire to enter these states at will and use the basis of these learned skills to complement their lives both inside and outside of the classroom, which will provide very interesting anecdotal results that we would like to follow.

Control / Comparative Study

Level of Learning & Social Behaviour: Prior to the commencement of the study, a baseline was established over the course of 8 weeks for each classroom, consisting of teachers monitoring their classes daily levels of learning and behaviour using the same scale and method that will be later used in the study.

Grade performance of the class: Grade data from classes of the same grade and the same school that are not using BrainIgnite will be used for comparative assessments. These classes used will be from the same school year as well as earlier ones. This grade data will be statistically averaged to provide a baseline measurement of grade score and to demonstrate a typical rate of grade improvement over the course of a school year.

Each of the teachers involved have several years experience at Brookview and can therefore use prior years' class grade data that is relevant.

A control group using music that does not contain BrainIgnite Neuro Technology will not be carried out for 3 reasons:

1. Numerous studies have been performed in the area of music and specifically classical music, so the low-level benefits of such are well understood and documented.
2. Incurring the cost of the speaker installation, but not allowing the students to receive the benefit of BrainIgnite was something that Brookview did not want to do given the early expectations they had from this program.

Data Assessment

On a monthly basis, the data will be compiled and changes, trends and areas of concern will be noted and discussed.

On a monthly basis, the teacher and student questionnaire will also be collected and assessed.

Means of improving the data collection process, with input from all stakeholders, will be discussed and implemented as appropriate. This is a fluid, plastic, and moldable process, the goal being to maximize benefits to the students.

Test scores and classroom grades will be tracked and then collected at 24 week intervals.

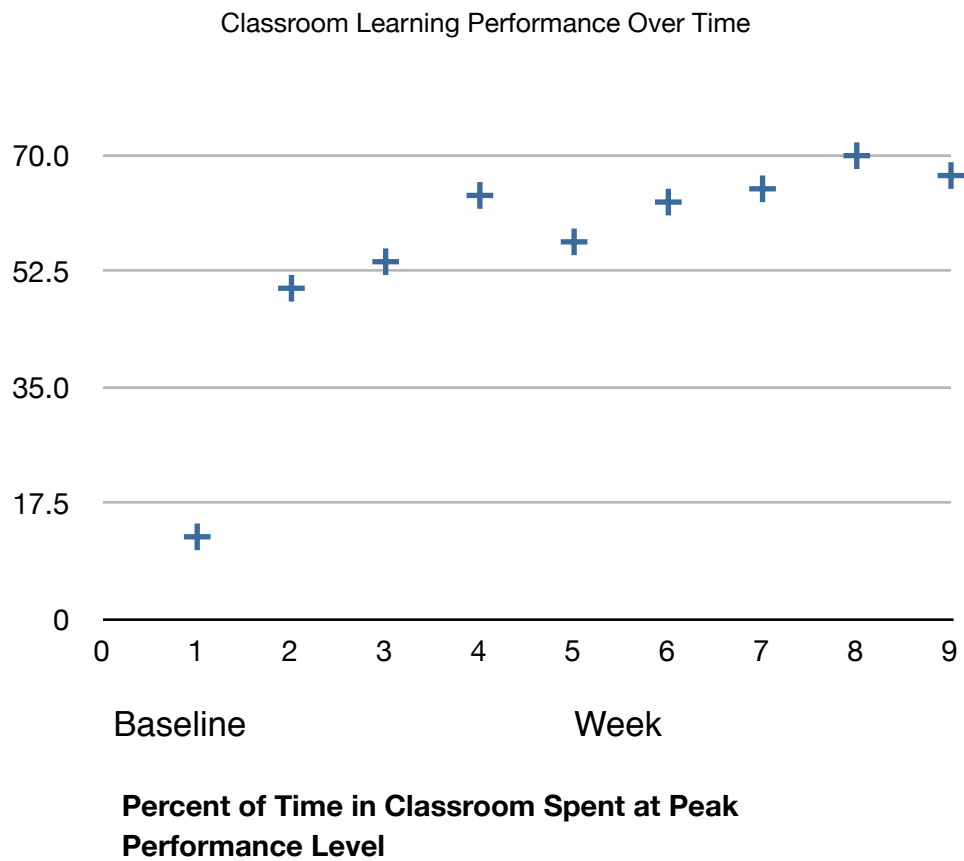
Results

Changes in Classroom Learning Performance

Prior to the commencement of BrainIgnite in the classroom, a total of 12 % of class time was spent in ideal Level of Learning Performance.

Within one week of beginning this study, the percent time spent in the ideal level climbed to over 50% and a week later it grew and stabilized at 70%+ for the remaining weeks. This translates to a 500% increase in time spent in the ideal level of learning.

Figure 1



Changes in Social Behaviour

A strong improvement in classroom behaviour took place by the end of week one, and steadily improved until week four. Behavioural improvements continue to surface in different ways, and previous improvements have been maintained to date.

The teacher's comments regarding behavioral changes included the following:

“There is a night and day difference in the student’s behavior. Teaching is so much easier now.”

“I’ve seen such an increase in my student’s focus, participation in class and improved behavior.”

"Students are much more quiet and attentive to accomplishing their work. They are more focused, relaxed, able to concentrate and able to think better."

“Every single student has been affected for the good. I’ve even felt a difference in my ability to focus and perform my duties as a teacher.”

“I’ve had parents ask me why their children are reading at home now? They never used to do this.”

“Suspension rates have gone from several per week prior to the start of using Ignited music to zero. One student had been suspended 3 times in September and October and now spends her day engaged in school work!”

"Students are less hyper-active and are more focused. There is increased class participation, more inclination to ask for help and less bad behavior in the classroom. I'm enthusiastic about the changes."

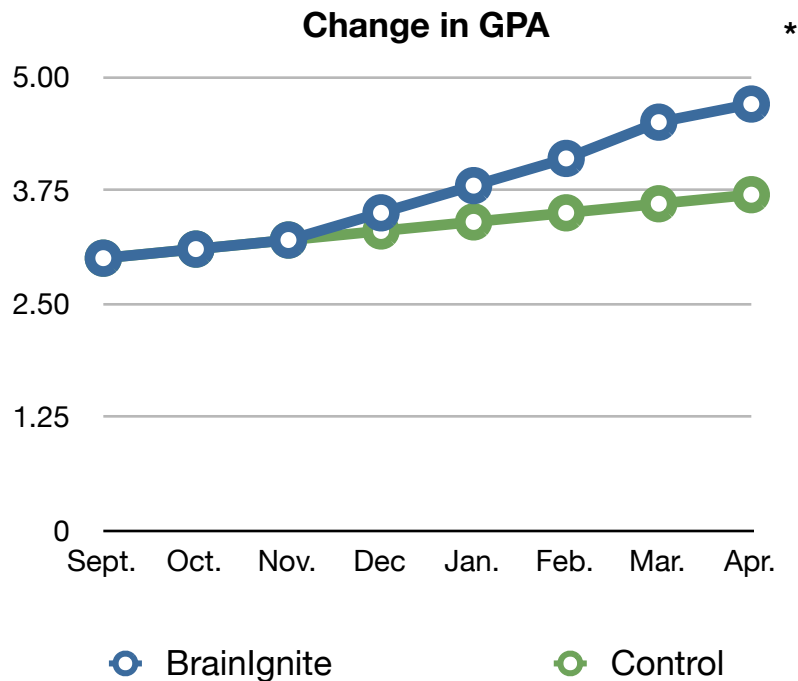
Due to the significant behavioral changes taking place in the classrooms, after 3 weeks Principal Subban requested that BrainIgnite music (iMusic) be provided to play over the school sound system to commence 5 minutes prior to DEAR (Drop Everything And Read) at 12:25 and be played until the end of DEAR at 1:00 pm. The reasons for implementing the playing of Ignited music at this time were related to the post lunch energy levels of the students and their inability to “settle” back into learning mode. Hallways were extremely noisy, teachers had a great deal of difficulty getting students to actually read and the value of the exercise was lost.

Following the commencement of school wide playing of Ignited music, several significant events occurred. Some teachers and students complained that they didn’t like music being played while trying to read. Since the music was “classical”, some people thought there should be different music played that more people would “enjoy”. However, the complaints soon quieted once the school wide change in behavior surfaced. In Mr. Subban’s own words, “Now when you walk through the halls during DEAR time you can hear a pin drop!” Every one has become adapted to listening to the music and it has created a trigger effect to get students quickly into the reading mode.

Test Scores

Based on grade data collected, results have shown that a general rise in the class averages throughout the school year has taken place that is above & beyond the control. Each teacher reported a class improvement of at least one grade point above and beyond the expected and traditional rise in class scores that takes place.

Figure 2



* BrainIgnite began in November

- GPA was 27% higher (a letter grade) than the control group by week 24 (April 2010).
- GPA increased 56% between September 2009 and April 2010, but increased only 23 % for the control group.
- One teacher has had some of the same students for 2 or 3 years and could directly compare changes in those students after BrainIgnite, to their prior behaviour and levels of improvement, which further highlighted the impact of the program and the drastic change.

Teachers comments:

“All of my students demonstrated increases in grades. One of my students who spent last year sleeping is up at the board regularly doing math and is achieving an 80% grade in it!”

“Grades have gone up across the board! They have to because they are spending so much more time being engaged in school work!”

“When my fellow teachers realized that my class is showing so much improvement, they wanted in on the program. They’ve also seen improvements in my students when they are in their classes so there must be a carry over effect.”

Change in Teacher Job Satisfaction

Principal Subban stated that one of his mandates is to improve workplace conditions for his staff. The use of BrainIgnite has had a tremendous affect in succeeding in this mandate.

More teachers want to have access to BrainIgnite because they cannot ignore the results that have been demonstrated, in both student performance and teacher satisfaction.

The strong improvement in teacher stress and job satisfaction levels is notable, and will hold long-term ramifications when it comes attrition rates, hiring and of course teacher quality of life.

Comments from teachers included:

“When the DEAR music starts my body goes into relax mode because I now know my students will spend the next half hour quietly reading.”

“It’s such a change from past experiences in my classrooms, actually being able to spend quiet time teaching instead of disciplining.”

“ I wish I had Ignited music in previous years!”

Conclusions

The results demonstrate that the use of BrainIgnite in the classroom has had a positive impact in the following ways:

1. A 500% increase in time spent learning at the ideal level of performance.
2. Average grades improved a whole letter grade above what is typical.
3. Student social and classroom behavior improved.
4. Teachers reap more satisfaction from their work place and profession.

Students definitely grasped onto the benefits of the Ignited music. If it wasn't playing, they asked for it. During changes in tasks they would request changes in styles of music to enhance their abilities to learn.

Parents of the students are much happier with the status of the school.

Students have learned that their brains are malleable, and a muscle that can be improved. They no longer feel limited or constrained by their natural levels of intelligence, but now know they can improve their cognitive performance-- a lesson that will change their future and life path for the better.

Has the pilot study been a success? Most definitely. The teachers and students involved demonstrated the ease of use of the program in the classroom, and the immediate improvement it brings.

As a major part of this study, grade data for the end of the 2009/2010 academic calendar year will be tracked, and the results of the province wide EQOA test for the BrainIgnite using students will be included in the autumn of 2010 when the scores are released.

*This is not a final publication of results, as the BrainIgnite will continue to be used and data will continue to be tracked and collected.

* Brookview Middle School welcomes those interested in seeing up close what BrainIgnite has done for their fine school. Please call Brookview to make arrangements. <http://brookviewmiddleschool.com>

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