Integrating Whole Brain Teaching Strategies to Create a More Engaged Learning Environment

Teacher as Researcher

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Abstract

In today's post-modern society, it is getting harder and harder to get the students get engaged in classroom instruction and learning. The purpose of this research project was to seek ways to create a more engaged learning environment for the students. The teacher-researcher integrated the most current educational reform "Whole Brain Teaching" method in classroom instruction and management for one whole week of research. It continued on to the succeeding weeks up until the present time. There were 26 fifth graders participated in this study. The research study began on Monday, October 19, 2009 and concluded on Friday, October 23, 2009.

To document evidence of the problem of student disengagement to the lesson, the student behavior observation tally sheet was used in this research. A week prior to research study, the teacher researcher conducted a pre-observation by putting tallies whenever one of the nine (9) listed behaviors was observed. The data were gathered and interpreted and after a week of experimentation, a post-observation of the behaviors listed on the pre-observation, was conducted.

I integrated the "Whole Brain Teaching" (formerly "Power Teaching") approach for one full week of teaching and managing the classroom to address a need to create a more engaged learning environment. After one week of studying these students, the behaviors observed *(Figure 1)* decreased tremendously as they became more engaged in the learning process.

Introduction

I am Jesame Torres Palasigue, currently a graduate student at Marygrove College (SAGE – Master of Education in Teaching), finishing up my program leading to a Michigan Provisional Teacher Certificate in Elementary Education with English Language Arts endorsement. I am thrilled to be at this point of my teacher preparation program. Prior to my acceptance at Marygrove College (SAGE) second degree teacher preparation program in 2004, I taught in the Philippines for 8 years. I got my initial teaching license from the State of Nevada but found myself moving from Nevada to Michigan. I worked with the Detroit Public Schools in the capacity of a long-term substitute teacher from 2001 to 2006. After 2006, I was able to teach at Thomas-Gist Academy, a Charter School in Inkster, Michigan as a Computer Applications Instructor for Middle School from 2006 to 2008 on a special one year temporary certificate. In the Fall 2009, I taught at Franklin Road Christian School, a private Christian school in Novi, Michigan. At this juncture, I am fortunate to be at the last phase of my teacher's education program.

It is my distinct privilege to be student teaching at Louis Pasteur Elementary School in Detroit, Michigan until December 18, 2009. My assignment would be assisting my cooperating teacher, Ms. Nina Harris in her fifth grade class in teaching core subjects such as English Language Arts, Reading, Writing, Social Studies, and Mathematics. My students comprised of 26 energetic and hyperactive African-American children.

Pasteur Elementary School is a Prek-6 Comer school with a clear vision and mission. The school's vision is to become competitive leader in academic achievement by empowering

students to become successful participants in the advancing society of today and tomorrow regardless of status or handicapping situations.

Moreover, Pasteur prides in itself its programs of innovation. Within the educational community, it had several unique milestone and accomplishments to boast of. The student's MEAP scores have risen above the District in Math, Reading, Writing, and Science. Providing students with research-based instruction along with external resources like the MEAP buy in programs with the Children's Museum, Academic games, Curriculum Fair, Omni Arts, Art-Centered Education, and Alumni tutors are instrumental in making these accomplishments possible.

Interest Statement

During the first week of school, one thing I noticed as I observed the students' learning styles and routines: students were disengaged from the learning process. During the teacher's instruction, various patterns of behaviors such as fidgeting, scribbling, doodling, yawning, doing different things but listening, and saying "boring" were onserved. These behaviors might be signs of disengagement on students from the lesson.

As a student teacher, I believe I have a challenge right in front of me to address this concern when I begin to teach the class. Because of this, I began to look for possible strategies on how to create a more engaged learning environment. The first thing that came into my mind was to implement different approaches from educational reforms to help teachers in classroom instruction and management. In September 2009, I became a member of the "Whole Brain Teaching" movement. I planned to experiment this approach in my student teaching and see for myself, firsthand the impact of this method to the teacher instruction and classroom management. I will incorporate, if I may, the strategies I learned from "Whole Brain Teaching" formerly known as "Power Teaching" workshop I attended in the fall. It is an educational reform, which is a participatory instruction method, created in 1999 by Crafton Hills College philosophy teacher Chris Biffle and elementary school teachers Jay Vanderfin and Chris Rekstad. "Whole Brain Teaching" techniques keep students engaged in learning and makes classrooms easy to manage because it combines auditory, verbal, and visual elements of teaching instruction.

Related Literature

Buzan (1976) believes that whole-brain teaching is an instructional approach derived from neurolinguistic descriptions of the functions of the brain's left and right hemispheres. Neurolinguistic findings about the brain's language functions show that in the integrated brain, the functions of one hemisphere are immediately available to the other, producing a more balanced use of language. Whole-brain teaching emphasizes active process of learning, in which the learner makes connections that tap both hemispheres.

Schuster and Vincent (1980) add that another aspect of whole-brain teaching is managing the emotional climate, to reduce the downshifting or primal thinking, which occurs during distress. To relax learners, instructors may offer clear, realistic predictions of barriers such as, *advancement may be sporadic* and progress such as, *Sooner or later, this will become easier*.

Buzan (1976) states that in whole-brain learning, imaging is seen as the basis for comprehension. For this reason, learners are encouraged to visualize, draw, and use drama as they develop new ideas, in order to retain them. A reading teacher, for instance, might present new vocabulary words by building a story or skit that uses them–but does not define them–in context. The teacher then might play music while reading the definitions, leaving time for listeners to draw images of the words. The teacher next might use guided meditation to build a relaxed state containing memories of success before the listeners hear the definitions again. In addition, the learners might even act out the words' meanings or construct stories of their own.

Biffle (1999) believes that the learning methods in this system create strong retention, and effective long term learning that lasts. The students enjoy it enormously. He added the he had students from the previous year stopped by his classroom and asked if they could please come back to his class because it was so much fun.

Battle, Vanderfin, and Rekstad (1999) strongly believe that at the roots of Whole Brain Teaching is a large amount of highly structured, educational tomfoolery. Students learn the most when they are having fun. Whole Brain Teaching classrooms are full of task-focused laughter. Humor and games are used to increase the number of times students repeat core information and practice basic skills. Our classes are highly disciplined and tightly organized because students have more fun following our rules, than ignoring them.

Research Question

Students who are not engaged in the instruction are more likely to be mediocre performers in academics. This study will explore to answer the following questions with regard to the students attitude toward teacher instruction and engagement with the lesson: How does educational reforms such as, "Whole Brain Teaching" method impacts students' educational learning behavior? How this method does foster a more engaged learning experience among the students?

Research Process and Sources of Data

The instrument used to document the problem evidence included students behavior observation tally sheet *(see Appendix A)*. I used this tool within a one-week frame beginning Monday, October 19, 2009 and commencing on Friday, October 23, 2009. The "Whole Brain Teaching" method in teacher instruction and classroom management was implemented after the data from the pre-observation (completed on October 2, 2009) were gathered and interpreted.

How does it work? At the beginning of class on October 19, 2009, the students and I recite the "Whole Brain Teaching" classroom rules. The rules have hand motions and each day we change the style in which we say them- squeaky voice, deep voice, sad, happy, fast, cowboy, etc. The kids love it! In fact, if I try to skip over doing the rules, the students remind me. There is also a scoreboard to help with classroom management. I mark "smiley faces" and "sad faces" on the board as the class earns them. When the class earns a smile, they get to cheer. When the class earns a sad face, everyone groans. The points are tallied at the end of each class and a gold star is awarded for *more smiles* than frowns, a silver star for an *equal* number of smiles and frowns, or no star for *more frowns* than smiles.

The most effective tool I have learned from Whole Brain Teaching is getting the students attention using the "Class-Yes" *(see Appendix B)* component. To get it anytime within the instruction block, I simply say "Class!" and then they reply, "Yes!" Next, is the catch, the hook that makes

this fun, and gets them invested in it in a way that has them looking at me and grinning rather than continuing their conversations. When I say, "Class!" and they say "Yes!" They have to say it the way I said it. If I say "Classity-class-class!" they have to say "Yessity-yes-yes!" If I say it loudly, they have to respond loudly. If I whisper, they respond in a whisper. They have to match my tone and intensity.

"Whole Brain Teaching" has five classroom rules *(see Appendix C)*. These are rules that will make the teacher's life amazingly easier. One of them is a nuclear power in our hands! If rules are only posted on the board, they are not really a part of the class. Teachers must have the rules running around in their students' heads for them to be effective. The following classroom rules did wonders in our class: one: Follow directions quickly; two: Raise your hand for permission to speak; three: Raise your hand for permission to leave your seat; four: Make smart choices; and, five: Keep your dear teacher happy!

Instructing students in the important background information that I want them to know on whatever subject I am covering at the moment is a challenge. I choose this time to step out from behind the worksheets. I want to open my students' brains and give them a learning experience that is both effective and fun, for both them and me. Teach-Ok *(see Appendix D)* is the component of "Whole Brain Teaching" that accomplishes that. This method allows me to engage my students' in learning in all three primary learning modes- visual, auditory and kinesthetic all at one time!

Teach-OK works like this: Divide class into teams of two. One student is a One, the other member of the team is designated Two. The end result is for the students to do most of the teaching. I will give a short set of information, complete with gestures. When I finished I am going to look at the class and clap three times, say "Teach!" and they will clap three times and

respond “OK!” They will copy my gestures (important- kinesthetic learning), what I say, in an excited, tone of voice (auditory), and visual (they see the gestures, and any visual aids I am using). Give them a few seconds to finish repeating the information, and call them back to attention with the Class-Yes! Then begin the next set. It is fine for the kids to do this simultaneously for most of what I am doing. Part of the time I am going to be using the next feature called “SWITCH!” I will repeat for each section of the information I am giving. I will keep the sections fairly short. I will follow up the Teach-OK with traditional methods for authentic connected assessments.

The “SWITCH” component is an extension of the Teach-OK, and can really enrich the students’ learning experience, and enhance my ability to assess where my kids are in whatever lesson I am working on. The problem here is that, for learning to be really effective for all students, there is a need for these two types to switch places frequently. I need the talkers to listen and the listeners to talk. More importantly I need to be able to tell for certain that this is, in fact, happening. I cannot be sure that both types of students are getting benefit from the lesson unless I know both are teaching. This is the beauty of the “SWITCH” component. It allows me to monitor engagement in the lesson by being able to see who is teaching and who is listening. “SWITCH” is best used with Teach-OK when the point of the lesson I am going over is very important to the students’ understanding of the concepts I am trying to convey.

With students still in their One-Two teams, proceed as normal. I tell my students that the point they are about to learn is important, so I want them to both make sure that they get the most out of teaching the point to their partner. I tell them that I am going to give them the Teach command. “Ones” will stand and teach the “Twos” the lesson with big gestures and excited voices. “Twos” do not just sit there. They must make encouraging listening gestures that indicates the “Ones” are brilliant, and that they, the “Two” partner want to hear more! When the

"Ones" have had a chance to teach a bit I am going to yell "SWITCH" and the students will also all yell "SWITCH" very loudly, or in the same fashion that I do. Then the Ones will sit and listen and the "Twos" will teach just as the ones did before. If any balk at the silliness remind them this way is both more fun, and more effective for them to learn in than any other method they will ever have seen before. I give the claps, and "Teach" command, the students clap and respond OK! The "Ones" stand and teach with big gestures and excited voices. The "Twos" listen with encouraging gestures. I give the "Ones" a few seconds to teach, and then yell SWITCH! Now, as I circulate around the room, (Power Teachers typically walk around a lot) I can see who is actively participating and who is not. Remember that I don't need to scold. As I walk around and encounter those not working I will stop next to them and just say "Gestures, please!"

"Hands and Eyes" *(see Appendix E)* component is what I should say when I want the students to pay special attention to a very important thing I am about to tell them. It communicates that what I am about to say is very important. I look at the students, clasp your hands, take a serious tone in your voice and I say "Hands and Eyes!" The class will mirror what I do, clasping their hands in front of them and making eye contact, and pay close attention to me and all talking stops, to hear the important announcement. Incidentally, a very handy thing to develop into a habit during class is telling the class, "mirrors my gestures" or "copy my gestures" or even "do what I do". Doing these shows at a glance who is engaged and following along with me and who is not. This one I will use a lot. I will use it when I want them to listen, but what we are covering is not a significant enough concept to use Teach-OK!

One of my favorite components of "Whole Brain Teaching" method is "The Crazy Professor". The Crazy Professor Reading Game is a new reading system that addresses one of the most perplexing and important questions in education, "How could we progressively and

systematically increase students' reading comprehension?" The Crazy Professor *(see Appendix F)* is an elaborate variation on a reading technique known as Buddy Reading. In Buddy Reading, students divide into pairs and take turns reading sentences. One reads a sentence; the other reads the next sentence, and so on. The Crazy Professor takes this useful pattern much further, building deeper and deeper levels of comprehension.

The Research Process

The tool that I will utilize is the student behavior observation tally sheet. The purpose of this tally sheet will be to observe the frequency of behaviors related to lack of students' interest during the teacher presentation of the lesson within a specified time frame. The pre-observation was conducted on October 2, 2009 and the post-observation concluded on October 23, 2009. The observation tally sheet will be used to measure the frequency of the behaviors related to the student's disengagement with the lesson (pre-observation) and how the pattern of behaviors improved after remediation (post-observation).

Findings

Figure 1 demonstrates the frequency of occurrences of various behaviors observed during teacher presentation prior to practicing "Whole Brain Teaching" method. Overall, head/hand on the desk (13%, n=88), saying "I'm bored or boring" (11%, n=75), staring (6%, n=42), wasting time (8%, n=54), busy doing other things (3%, n=20), fidgeting/stretching (5%, n=36), complaining and whining (7%, n=48), raising hands in the midst of discussion (5%, n=34), and getting out of seat (6%, n= 41) were the percentage distribution of the behaviors observed.

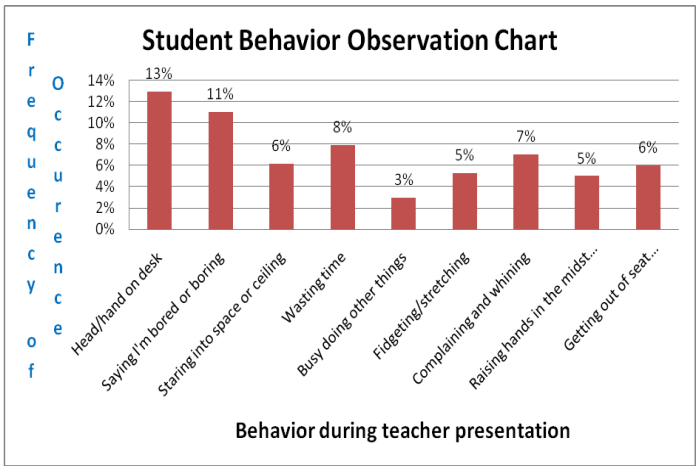

Figure 1. Student behavior during teacher presentation of the lesson (Pre-Observation)

When I took over teaching the class, I began implementing the teacher instruction and classroom management components of the educational reform known as "Whole Brain Teaching" method. I started incorporating it into the then Open Court Reading program now Storytown Reading Program, Writing, Social Studies, and Math. I practice "Whole Brain Teaching" method every single day on all the four (4) major subjects for the full week of experimentation.

Results

Based on the data gathered as results of the first behavior observation, I concluded that students are not engaged in the lesson. As a result of this finding, components of the current education reform "Whole Brain Teaching" were implemented to create an environment where students could get more involved and interested in the learning process.

Integrating "Whole Brain Teaching"

I actually began incorporating "Whole Brain Teaching" (one of the fastest growing educational reform movements in the United States) in classroom instruction as well as classroom management when I took over the teaching responsibilities of the class on the first week of October, 2009. "Whole Brain Teaching" is the latest educational reform introduced by Chris Biffle, Jay Danderfin, and Chris Rekstad in 1999 based on three principles: the system should be brain based, fun, and free.The three of them realized that they all had the common problem of flagging student engagement, and worse, it was becoming epidemic. Everywhere they looked, everyone they talked to, the story was the same. Something had to be done. They decided a radical change in approach was warranted. They set out to learn more about how students should learn as opposed to the traditional ways teachers typically use. Research into whole brain learning, and applying what they learned was the answer.

Whole Brain Teaching was the result. Whole Brain Teaching is a method that integrates an effective classroom management system with learning approaches that tap the way your brain learns best. This approach is amazingly *effective* and *fun* for both you the teacher, and the students. I found the

gestures to be especially helpful in all subjects especially Math. I teach fifth grade, and used it to teach mean, mode, median along with perimeter, area, and several other rules and formulas that they have to know. The kids would take their tests or quizzes and I could see them doing the motions and chants silently to themselves! I also used it for Grammar, helping verbs, linking verbs, prepositions with great success. The kids loved the class/yes and were very creative in giving me great ideas. The kids responded well, and it was fun for me also.

Implications

Overall, there was a 50% decrease in student negative behaviors from the pre-observation to the post-observation. The frequency of the nine (9) listed behaviors during the pre-observation markedly decreased during the post-observation. *Figure 2* shows that head/hand on desk during pre-observation (n=88) decreased 53% during post-observation (n=41). Saying "I'm bored or boring" during pre-observation (n=75) decreased 72% during post-observation (n=21). Staring into space or ceiling during pre-observation (n=42) decreased 64% during post-observation (n=15). Wasting time during pre-observation (n=54); post-observation (n=35), decreased by 20%. Busy doing other things pre-observation (n=20); post-observation (n=16), decreased by 20%. Fidgeting/stretching during pre-observation (n=36); post-observation (n=30), decreased by 17%. Complaining and whining during pre-observation (n=48); post-observation (n=40), decreased by 17%. Raising hands in the midst of discussion during pre-observation (n=34); post-observation (n=28), decreased by 18%. Finally, getting out seat frequently during pre-observation (n=41); post-observation (n=29), decreased by 29%.

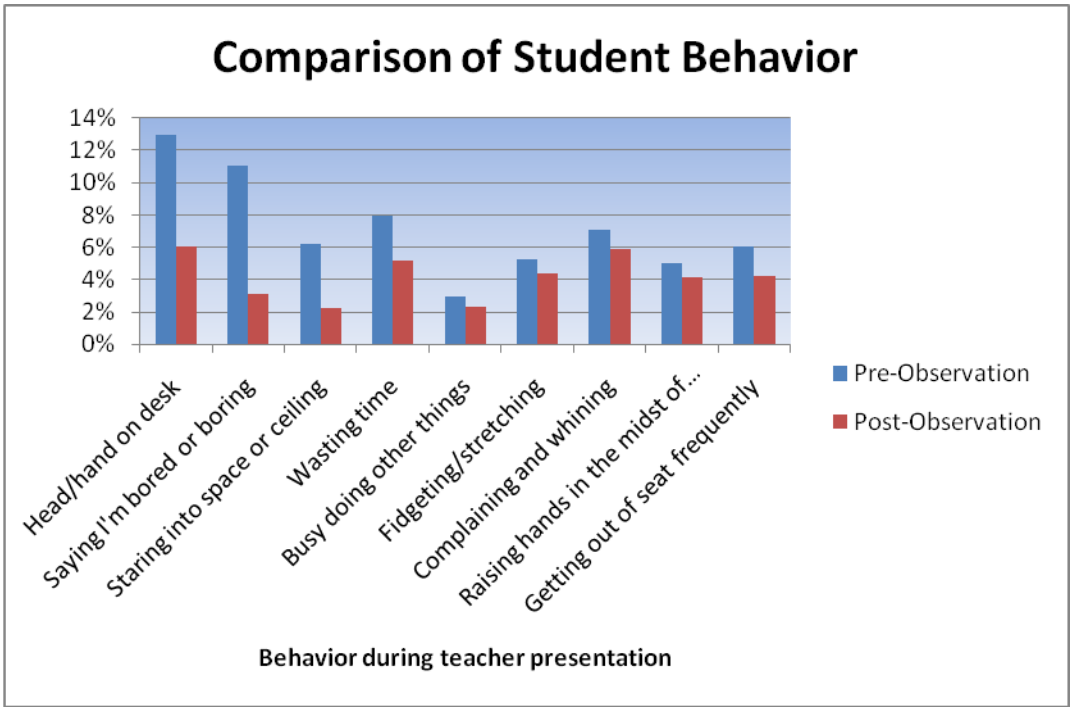

Figure 2. Comparison of student behavior pre-observation and post-observation

Conclusion

After the analysis of pre-observation and post-observation data from the student behavior observation tally sheet, I have observed and interpreted tremendous changes. There was an average of 72% decrease in student behaviors in one week time. Now that the students are used to the "Whole Brain Teaching" approach, they have become more engaged in every lesson on a day to day basis. They not only look forward to the next day but also to the accountability that was given to them through the "Whole Brain Teaching" "Teach-OK" method. As a matter of fact, other students in the building were asking what we were doing differently from theirs. I observed a complete turnaround from our students. Now, they tell me that they look forward to the next day to come to school. They said that they especially excited about the "Teach-Ok" component of the program.

Now that the research is concluded, I decided to continue to incorporate "Whole Brain Teaching" methods on a daily basis to provide them with the opportunity to engage in the learning process on a fun environment. The 26 fifth grade students were all very excited about the "Whole Brain Teaching" method especially the "Teach-Ok" component, which gives them the opportunity to teach their classmates and be accountable to the teaching. Overall, throughout this action research project, I learned that the students' lack of interest will trigger disengagement in the learning process and they showed through different negative behaviors. When I get my own classroom, I will definitely implement "Whole Brain Teaching" method to help build a more engaged learning environment.

Personal Reflection

As a teacher researcher I find my role to be a precarious one where I must negotiate my personal pedagogy with the pedagogy of another teacher and the needs of the students. I am often conflicted by listening to the often over simplifications given out by those who are in the profession that suggest how effective particular strategies were. In this action research I find myself struggling with a very important issue: one of my own philosophies of education. This experience and even my reflections are molding and leading to my philosophy. I want this to be a work in progress always, constantly revising and including new viewpoints and experiences into my own philosophy.

Over the course of the past week of research study, I have learned several things about myself, the teaching profession, and how I could hope to find multiple ways to foster learning amongst my students. At first, I had no idea how the kids would respond to me and similarly, how I would respond to them. The major change that I see in myself now is my increased confidence and level of sensitivity on the needs of students. Upon observing on my first two few

weeks, I was constantly taking everything about the student to heart that led me to do this action research. I would never classify myself as a quitter or someone who gives up and I would never become easily discouraged. Over the course of those two weeks, I think that I really began to take my sense of efficacy to the next level thinking more of my students rather than reacting to obstacles and criticisms. I learned to accept the fact that I am new at the teaching profession and I am not perfect all of the time. I not only learned to accept, but I embraced the fact that I would not be able to utilize instruction strategies perfectly without addressing issues and concerns about students. Coming to this realization has really allowed me to enjoy teaching more, accept the challenges that are ahead of me, and to relieve myself of self imposed stress.

Plan of Action

As a beginning teacher, it is my desire to implement multiple strategies, approaches, and methods that would foster a more engaged and connected learning environment. In analyzing any situation, I feel it's vital to learn how to put into action effectively data-driven decisions for teachers. I believe that all students can learn and should be able to be given the opportunity to work towards reading on grade level. However, I am still learning the strategies and the different modalities of teaching reading. I feel that I do a great deal of observing, listening, and asking.

I understand, however, that each teacher assembles teaching techniques in a unique constellation that reflects his or her teaching goals. There are four major factors I believe to consider to become successful and remain enthusiastic in teaching: strong academic programs with a supportive, cooperative, and inspiring colleagues; understanding, supportive, and loving family; environment that is conducive to learning; and, students who are curious with a strong interest in learning. With this, I take pride to implement what is best for my students, and take

whatever is out there being utilized by other teachers in the profession to address students' unique and special needs.

References

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Appendix A

Student Observation Tally Sheet

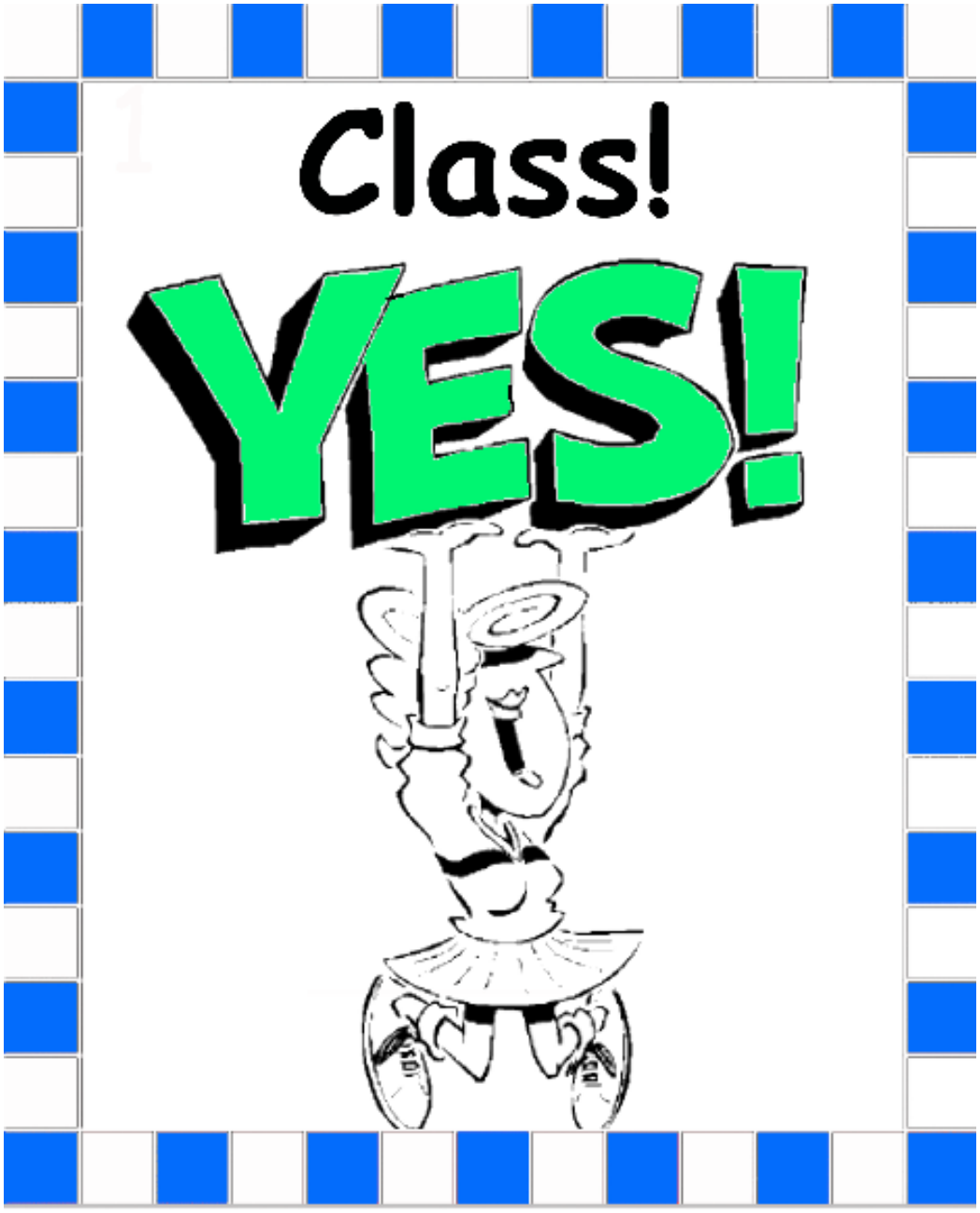
Date _____

Behavior	Frequency of Occurrence	Total
Head/hands on desk		
Saying, “I’m bored” or “boring”		
Staring into space or ceiling		
Wasting time		
Busy doing other works		
Fidgeting/stretching		
Complaining and whining		
Following words yet no understanding at all		
Not interested/raising hands when not asked		
Getting out of seat frequently		

Chart created by: Jesame Torres Palasigue (the teacher researcher)

Appendix B

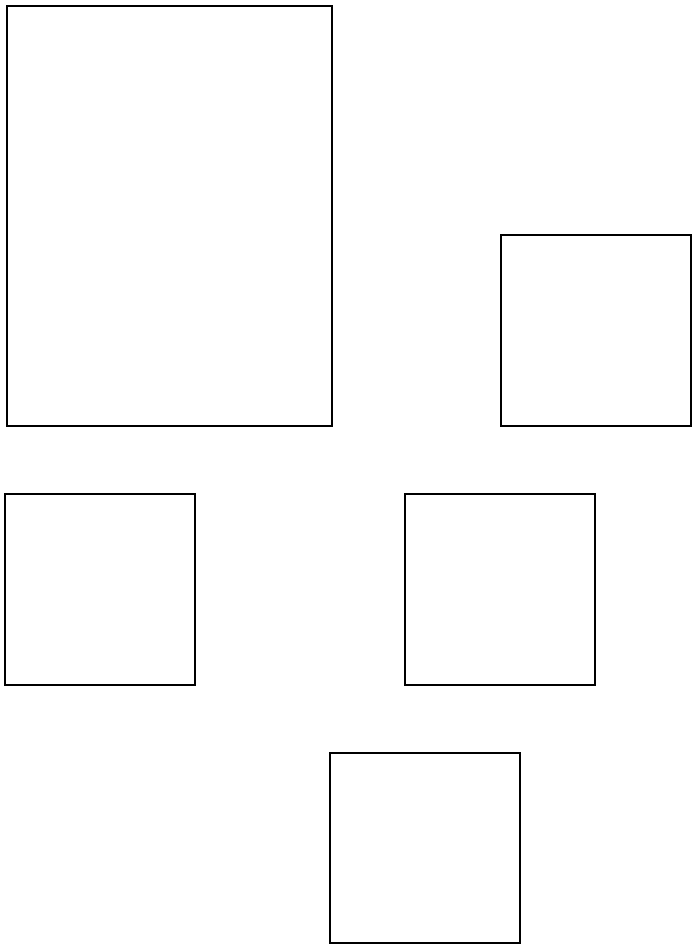
Class-Yes: The Attention Getter



From http://www.wholebrainteaching.com/index.php/First-Steps/class-yes.html

Appendix C

Five Classroom Rules (Whole Brain Teaching Method)



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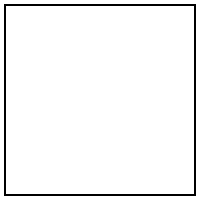
Appendix D

Teach-Ok



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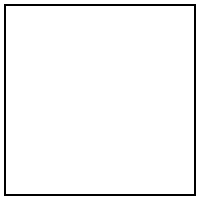
Appendix E

Hands & Eyes



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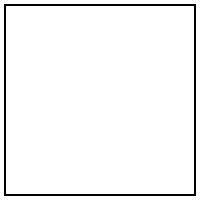
Appendix F

The Crazy Professor



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