Effects of Movement Breaks on Student Attention

Emily E. Woolworth

Concordia University Portland

An Action Research Proposal/Report Presented to

The Graduate Program in Partial Fulfillment of the Requirements

For the Degree of Masters in Education/Continuing Teaching License

Concordia University Portland

2010
Abstract

The purpose of this action research was for the researcher to find a way to help kindergarten students stay focused on their learning activities. The researcher is especially interested in helping her young students due to the scripted, direct instruction that her students are receiving. Twenty-nine kindergarten students, in a self-contained classroom at the research site, participated in this 12 week-long project. The researcher used simple movement experiences named *Transformers*. Students participated in five specific movement breaks at 30 minute intervals during transitions. The research includes observations of the student’s ability to stay on task, student surveys and parent surveys. Results from observation data showed that most students were able to pay better or the same when movement breaks occurred.
Table of Contents

Chapter 1 – Introduction ..................................................................................................................4
Chapter 2 – The Issue ......................................................................................................................9
Chapter 3 – Outcomes and Evaluations .........................................................................................19
Chapter 4 – Action Plan .................................................................................................................21
Chapter 5 – Report .........................................................................................................................27
References ......................................................................................................................................46
Appendix A – Transformer Movement Cards ...............................................................................51
Appendix B – At Task Recording Sheet ........................................................................................53
Appendix C – Video Observation Results ......................................................................................54
Appendix D - Small Group Observation Results ...........................................................................55
Appendix E – Parent Observation Results .....................................................................................56
Appendix F – Student Survey ........................................................................................................57
Appendix G – Student Survey Results ..........................................................................................59
Appendix H – English Parent Survey ...........................................................................................65
Appendix I – Spanish Parent Survey ............................................................................................67
Appendix J – Parent Survey Results ............................................................................................70
Appendix K – English Permission Slip .........................................................................................74
Appendix L – Spanish Permission Slip ........................................................................................75
Appendix M – Other Teacher Definitions of On Task ....................................................................76
Action Research Proposal

Chapter One – Introduction

A warm spring May afternoon welcomes five-year-olds full of energy and their parents to a local school cafeteria. Parents wait in line to receive immunization, registration and kindergarten information papers. The soon-to-be students run around the tables with their siblings or shy away from possible classmates. All children are eager to see the playground, as parents work quickly on their registration papers so they can choose the session their child goes into. The principal walks up to the microphone to explain the upcoming kindergarten program. She explains how much reading, writing and math time the five-year-olds will receive. She continues to say the students will be able to eat breakfast and lunch at school. It is hard to believe that in three months, these energetic five-year-olds will be sitting still in chairs ready to learn.

The location of this action research project is small school district that serves five cities in the Pacific Northwest. According to the Portland State University Population Research Center, the combined population of the cities the district serves is 702,547 (Proehl, 2009). A household of four had a median income of $40,146, with 14.1% of households being run by a single parent (School Matters, 2007). The metropolitan area’s unemployment rate is currently 11.4%, with 13.1% of residents living below the poverty line. The area residents racial makeup includes: 77.9% Caucasian, 6.8% Hispanic, 6.6% African American, 6.3% Asian American, 1.1% Native American, and 0.4% Pacific Islander. 4.1% of residents are made up of two or more races. 13% of area residents are not native to the United States (U.S. Census Bureau, 2005). Due to the increased cost of living, many African American families have moved from
the city to the outskirts where the district is located. This area is also attractive to immigrant families because of the lower prices of housing options.

The district has had compounding problems between state budget cuts in education and prior administrations mismanagement of funds. The district has been forced to cut nine days out of the school year, layoff one in five teachers, eliminated elementary physical education, library, and drastically cut the district’s award winning music program (Hammond and Navas, 2009). There are 10,806 students are enrolled in the district’s 12 elementary schools (grades K-5), three middle schools (grades 6-8), and one high schools (grades 9-12). There are two alternative school (grades 6-8, and 9-12) and five charter schools. The district employs 534 certified teachers to instruct a highly mobile population of students. Several schools in the district are considered high poverty schools (ABC district, 2009).

The elementary school is located on the far west end of the district in a residential area. The school, built in 1958, is a one story building, with a four classroom modular, one portable and a separate building for the gymnasium. The 7.6 acres of land also contains two playgrounds, a large field, and a vacant lot (_____ district, 2009).

Twenty-one certificated staff and 20 classified staff serve 413 students in grades kindergarten through fifth grade. There are two half-day sessions of kindergarten, three first grades, two second grades, two third grades, two fourth grades, two fifth grades and a fourth/fifth grade blended classroom. The average years of experience for teachers is 13.2 and 47.3% of teachers hold a Master’s Degree or higher. The student teacher ratio is 30:1. The diversity of the students in the site consists: 37.5% white, 23.6% Asian American, 21.5% Hispanic, 14.2% African American, 1.2% Native American and 2% of more than one race. The school receives
Title One funds due to the 69.3% of students who receive a free or reduced lunch. English Language Development services are given to the 39.7% of students who qualify and 12% of students receive special education services. The rise of free and reduced lunch students can be attributed to the recent boundary changes that moved a higher poverty area into the schools attendance area (_____ district, 2009).

Due to the high poverty of the school population, the site is eligible for Title One funding to provide supplemental reading instruction for struggling readers. The site has participated for the past four years in the Reading First Grant. This grant has provided funding for teachers to look at reading scores and find ways to accommodate the students. It has also provided many professional development opportunities to help with the instruction of students. The site attributes the growth in their state testing scores to the Reading First Grant. The current scores for the site are reflected below:

Although the reading and math scores have increased, the writing scores for the site and the district continue to decline (Oregon Department of Education, 2007). As a result, the district
and the site have made significant instructional decisions for writing. The administration has brought in additional professional development and curriculum for teaching writing to their students. The district has also adopted mandatory writing prompts to be given throughout the year.

The site holds a variety of events throughout the year to increase parent involvement. The year kicks off with a free Back-to-School Bar-Be-Que that encourages families and students to meet their new teachers and learn about programs that will be offered throughout the year. A follow up Open House in September is also available. The school holds a literacy night once a year and Muffins for Moms and Doughnuts for Dads reading time before school to promote family literacy. A math night also occurs once a year that helps the parents to experience the math curriculum the school uses. Parenting workshops are held throughout the year by the district’s social worker. Chess for Success provides free chess lessons and chess tournaments for many students after school. The school also has a Fast Forward afterschool program provided through grant monies to help students with their reading skills (____ school, 2009).

The researcher teaches two half-day kindergarten sessions at the elementary school. The researcher’s morning class consists of 29 students; with 8 girls and 21 boys. Fourteen students qualify for English Language Development services, those languages include: Arabic, Spanish, Vietnamese, Greek, Somali, and Hmong. Three receive special education services because they qualified while attending Head Start.

The afternoon class consists of 30 students; with 11 girls and 18 boys. 17 students qualify for English Language Development services, those languages include: Spanish, Vietnamese, Hmong, and Chuukese. Four receive special education services. There is also a one-on-one
The researcher has taught in the district for six years and at this elementary school for two years. The research has a Bachelor’s in Elementary Education and is working on a Master’s Degree in Curriculum Instruction with an emphasis in Early Childhood Education. She already has a reading endorsement. The researcher is on the district Literacy committee and has previously been on curriculum improvement teams for the district. The researcher has participated in Data Teams for the past four years.

The researcher has chosen to study "How can kindergarten teachers help their students to stay on task?” This will help the teacher-research plan developmentally appropriate lessons to enhance the learning of her students.
In the past decade, kindergarten classrooms have changed from a social experience where students had play-centered activities to a rigorous academic focus leaving little time for play. Some students are coming to school with no prior educational experience as they did not have the opportunity to attend pre-school. Some students are coming to school without having any structure or routine in their lives. Some students have never had to sit still for the length of a story being read aloud; much less a 60 minute lesson. The American school system expects all students to be able to sit still and learn regardless of their prior experiences.

In addition to all the academics the students need to learn, most kindergarten instruction is given in less than a three hour period. During this short period of time, teachers are forced to make sure all students reach the required benchmarks regardless of their prior school experiences. All of the focus on academics leaves little time for social skills and play.

The demands of instruction and lack of time have been a consistent issue in the researcher’s school. The researcher has seen recesses and free time dismissed from the school schedule in favor of more instructional time with students. Students in primary classrooms sit in chairs receiving direct instruction for as long as two hours without receiving a break. While school staff would like to incorporate more frequent breaks into the daily schedule, the district’s requirements of mandatory minimums of instructional time do not allow that. Teachers are required to teach a minimum of 120 minutes of reading, 45 minutes of writing and 60 minutes of math. The researcher’s kindergarten students have 60 minutes of reading, 40 minutes of math and 30 minutes of writing to be delivered in a two-and-a-half hour session. This leaves only 20
minutes of non-instructional time. The mandates do not take into consideration time needed for transitions or classroom management issues.

Most of the instruction the students are receiving is direct instruction with little time for hands-on learning. Since the students are listening to instruction without necessarily participating in an activity, their ability to stay on-task and pay attention is low. This results in students not receiving the appropriate skills and often getting into trouble.

The question to be researched at the elementary school is: “How can kindergarten teachers help their students to stay on task?”

Literature Review

Staying on task continues to be an issue in the many classrooms. This problem is especially heightened in kindergarten where young students in September are more familiar with playing and short attention spans than learning academics.

Friedrich Froebel created kindergarten in Germany during the 1830’s as a safe place for young children to develop socially, emotionally and mentally through engagement in a variety of opportunities. Kindergarten came to United States in 1857. Between 1890 and 1910 educators saw how important it was that young children develop through exploration, interaction and self-directed play. At that time, formal instruction was seen as harmful to the development of young children. This philosophy continued until the 1970’s when a shift toward academic instruction took place (Lee, Burkam, Ready, Honigman & Meisels, 2006).

This literature review will begin with the controversial evidence on early childhood practices, providing information on play-based versus academic-based instruction. The review
will continue to discuss the impacts instructional delivery, learning, and concludes with how students pay attention.

*Early Childhood Practices – Play vs. Academics*

According to the National Association for the Education of Young Children, kindergarten has traditionally had connections to both the policies and practices of early childhood education and public schooling (Goldstein, 2008). Research has shown the positive and negative impact of play-based and academic-based kindergarten programs.

Many researchers see play-based programs as a pre-requisite to formal academic instruction. When a child enters kindergarten at five years old, they are still developing in their social and language skills. Children actively develop their language skills through speaking and listening with each other.

Some children come to school with no prior social experiences; playing with another child offers a less threatening way of communicating. Having play opportunities to practice their speaking skills offers English language development students a less threatening way. Students need to engage with others in play, it is an important developmental skill that most children begin kindergarten with; however, those who lack this skill can quickly develop it through a play-based program (Church, 2005).

Listening and speaking develop the foundation for early literacy skills. According to Cindy Middendorf, a differentiated instruction expert, “Play is a vital part of language development in children; it establishes a foundation for reading and comprehension” (Curwood, 1999, p 30). These reading readiness skills will help students once they are ready for the rigors of an academic program.
Play allows children to explore, create and use their imagination. Exploration and creative opportunities provide students with problem solving and prediction skills. Imaginative play allows children to make sense of the world around them and develop reasoning abilities. Children’s questions occur while they play, while questioning they create their own learning experiences (Curwood, 1999)

Play-based programs have helped students become more developmentally ready to learn; unfortunately the increasing academic requirements do not wait until children are ready to learn. Increased pressure on school districts as a result of No Child Left Behind has influenced the academic and instructional decisions in today’s classrooms.

Although high stakes testing does not begin in most elementary schools until third grade, school administrators have increased academic instruction in the younger grades so that students are ready for the high stakes testing. Kindergarten teachers are more frequently working in a standards based setting to prepare students for the test, the opportunity to choose topics based on the interests and their needs of students is almost obsolete (Goldstein, 2008).

Besides the pressures of preparing students for a test before they are developmentally ready, teachers are also facing pressures from administrators and intermediate grade teachers. Instructional decisions and approaches are often constrained by district-mandated curriculum. Seatwork often replaces hands-on learning to prepare students for “the test” (Goldstein, 2008 & Wohlwend, 2008). Instructional time continues to be maximized by removing experiences such as field trips, free play, art and recess (Pellegrini & Bohn, 2005). Principals played a key role in allowing teachers to use the commercial curriculum as a resource, rather than requiring them to be regulated by it (Wohlwend, 2008)
Sue Bredekamp and Carol Copple stated:

“Developmentally Appropriate kindergarten is criticized for underestimating children’s capacity to acquire a wide variety of skills and concepts. Those who advocate for a formal kindergarten are criticized for narrowing curriculum, ignoring children’s social and emotional needs, and dampening young children’s natural curiosity and enthusiasm to learn” (Lee, Burkam, Ready, Honigman & Meisels, 2006, p. 167).

The researcher understands the pressures of accountability that lead to an academic-based program; however, the research shows that a balanced approach of play and academics is necessary to educate the student.

*Instructional Delivery*

The way that a teacher teaches makes a difference in the way a student pays attention and therefore retains the information. Student participation in their learning is impacted by the type of activities, curriculum and pacing.

Variety is the spice of life. When lessons are delivered in a variety of ways it is more likely that the child will be able to understand what is being taught. Individual learning styles are addressed when instruction is delivered in a way that allows multiple intelligences to be activated. Montessori schools are known for the variety of hands-on learning opportunities that require students to concentrate on their fine motor skills (Stewart, Rule & Giordano, 2007).

When teachers use project based learning and inquiry experiences in the classroom, students are able to develop higher-level thinking skills such as: analyzing, hypothesizing,
predicting and problem solving (Helm, 2008). A teacher’s imaginative teaching and management strategies enhance the student’s ability to pay attention (Sylwester & Cho 1992).

The additional time of a full day kindergarten program allows the teacher to provide more time on child-initiated activities and teacher directed work (Lee, Burkam, Ready, Honigman & Meisels, 2006). The length of time affords the teacher the ability to use a balanced variety of instructional approaches.

Teacher’s ownership of their instructional delivery has been compromised as a result of scripted math and literacy programs. The need to “get it done,” leaves many teachers hesitant to engage children in integrated learning experiences because of the responsibility of having students learn specific skills (Helm, 2008).

**Learning**

A study in New York and Los Angeles indicates that by age 10, children who attended a play-based kindergarten excel in their social, academic and imaginative skills over their peers who received an academic-based kindergarten (Anonymous, 2009).

Younger children process information differently than older children. Often a kindergartener’s lack of experiences in life and in school makes it more difficult to perform higher level cognitive tasks with the same capability as older children and adults (Holmes, Pellegrini, & Schmidt, 2006) Brain research shows that active, stimulating play on a regular basis promotes cognitive development in young children (Stegelin, 2005).

When children receive short instruction and frequent breaks they are able to learn more. Long periods of structured work create cognitive interference for children, often resulting in their
not paying attention to the lesson (Pellegrini & Bohn, 2005). A student’s ability to self-regulate their behaviors in early education is a predictor of future school achievement (Bodrova & Leong, 2008).

Kindergarteners’ ability to read has changed in the last 40 years. In 1969, 5% of children were readers; in 1989, 15% of children were readers. In 1999, 90% of kindergarten students were able to pass the end of year reading test (Curwood, 1999). Print-rich learning environments that engage children in books, writing experiences, manipulatives and story-sharing routines help children develop their language and early literacy skills (Stegelin, 2005). Pretend play also shows benefits in contributing to a student’s ability to make connections between books (Welsch, 2008). Researchers also show that using hands-on, socially engaging early literacy experiences in literacy readiness and pre-reading skills of young children in preschool and kindergarten setting provide a significant positive effect (Stegelin, 2005).

The National Association for the Education of Young Children stated in 2002 that:

“The nature of children’s development and learning dictates two important school responsibilities. Schools must be able to respond to diverse range of abilities within any group of children, and the curriculum in the early grades must provide meaningful contexts for children’s learning rather than focusing primarily on isolated skills acquisition” (Holloway, 2003).

Abraham Maslow proposed a hierarchy of needs in order of importance. These needs consist of five levels with the lowest being physiological needs and the highest being self-actualization. In order for a person to focus on the higher needs, their lower needs have needed to been met. If the lower needs are not being met, the person is unable to focus on the higher
Children sit in desks every day listening to teachers, but how much are they paying attention or staying on task?

Research has shown that as children grow older and their brain develops, they can have a greater ability to take control of both their thinking and their learning (Bodrova & Leong, 2009). This contributes to why older students are more likely to persist on tasks, are more eager to learn and are better able to pay attention. Although older students are able to stay on tasks longer, students who are retained are much more likely to have problems concentrating or perform to their capabilities (Holloway, 2003). Students are more likely to retain information when learning occurs through music rather than spoken (Wolfe & Noguchi, 2009). Montessori programs believe that “hands lead the mind” (Stewart, Rule, & Giordano, 2007, p.105), meaning that when a child uses their hands, their attention is required on the task and their ability to concentrate increases.

Focus abilities are a pre-requisite to learning (Sylwester & Cho, 1992). When children are required to do seatwork, their attention becomes limited because the seatwork is less interesting and playing (or being off task) provides an opportunity for something new (Evans & Pellegrini, 1997).

Timing and scheduling helps students pay attention and stay on task. Early morning and early afternoon appears to be a vulnerable times for attention performance (Janvier& Testu, 2005). Scheduling interesting activities that demand less precision and sustain attention in the
afternoon when student’s interest in the activity will keep their attention is also helpful (Sylwester & Cho, 1992).

Children are less attentive during long breaks compared to short work break periods (Pellegrini, Huberty & Jones, 1995). This could explain Surplus Energy Theory. Surplus Energy Theory suggests that when students sit for long period of time they accumulate surplus energy. It continues to state that physical activity at break time is necessary to blow off energy so that students can concentrate on the more sedentary tasks back in the classroom (Evans & Pellegrini, 1997). Brain-based researcher Eric Jensen says that the body needs movement in order to learn. He further explains that the body and the brain shut down after sitting for long periods of time.

Giving students breaks helps them to pay attention and stay on task. Short and frequent breaks maximize attention to classroom tasks (Holmes, Pellegrini, & Schmidt, 2006) Children are less attentive as the time between breaks increases. They are also more attentive after a break than before (Holmes, Pellegrini & Schmidt, 2006). Breaks that are placed during and between cognitively demanding tasks increase children’s attention; which may increase learning (Evans & Pellegrini, 1997).

Recess has often been used as a break in elementary school. Post recess behavior suggests that providing a break from seatwork maximizes attention (Pellegrini, Huberty, & Jones, 1995). Children focused more and fidgeted less after they had recess compared with when they did not have recess (Pellegrini, Huberty, & Jones 1995 & Ridgeway, Northup, Pellegrin, LaRue & Hightshoe, 2003).
From this literature review, one can see how the philosophy in early childhood practices of play-based versus an academic-based kindergarten programs offer opposing views in how a kindergarten student can stay on task. The impact of instructional delivery and learning are also contributing in student attention.
The goal of this action research project is to find out how can kindergarten teachers help their students stay on task. While students in the researcher’s classroom pay attention on occasion, the researcher would like to find ways to transfer these skills across activities and subjects. The researcher’s goal is to try many different methods of keeping students attention while taking into consideration obstacles that can impede with answering the following question: “How can kindergarten teachers help their students to stay on task?”

First the researcher will meet with the school principal and email the school’s union representative to receive permission to conduct this action research project. Upon receiving permission, the researcher will meet with other primary grade level teachers to define what developmentally appropriate on task behaviors are at this grade level.

The researcher would like to use observation techniques, and surveys to gather information about how the students are staying on task. The morning and afternoon kindergarten classes will both participate in this study. The At-Task technique by Frank MacGraw (Acheson, 2003), will be used during a specific time each day. The researcher is concerned with the ability to observe the student’s while teaching a lesson, therefore the researcher will train volunteers and/or intermediate students to complete the data collection. After each observation, the researcher will add information to the data that might have been a distraction, such as a fire drill or sound of a lawnmower, to the students.

The observation technique of Wide-Lens will also be employed. The researcher wants to complete observations by video recording a different lesson during the day. The researcher will
watch the video to list behaviors of students and what instruction is occurring at the time of these behaviors. The researcher will additionally employ the At-Task Technique while watching the recorded video.

Both observation techniques will allow the researcher to see the any patterns or type of instruction that changes student attention.

Finally the research will have the students complete a survey about their ability to pay attention, and which instructional techniques and lessons in the classroom are appealing. The survey language will be kindergarten-friendly so they are able to comprehend the questions. The survey will be administered by the intermediate buddy. By having the intermediate buddy give the survey and write the kindergarteners answers, it should relieve any bias answers that the kindergarten student would give to a teacher, parent or the researcher.
The purpose of the action research project is to find ways to help kindergarten teachers help their students to stay on task. The literature review shared many events that have occurred in kindergarten over history that have had an effect on the way students learn. This chapter will discuss possible interventions to help students stay on task.

Possible Solutions

Sandra Waite-Stupiansky and Marcia Findlay shared in their article, “The Fourth R: Recess and It’s Link to Learning,” that physical movement fuels the brain with oxygen and causes the release of mood-enhancing chemicals. They went on discuss that when a person’s brain experiences chemical and biological changes induced by exercise, the ability to master new ideas and remember old information occurs. Learning in children takes place after they attend to information, remember it and then have time to process it. When a child is constantly paying attention to instruction, it is counterproductive because the brain has no time to process the information. Before being able to focus on another cognitive task, younger children need a more pronounced change in their current activity. Recess has shown the ability to help students become more attentive and less fidgety (Waite-Stupiansky & Findlay, 2001).

Though the researcher sees the benefits of having a daily recess to help student’s process information and come back ready to learn, this solution does not fit in the researcher’s school. The current schedule for kindergarten students requires an hour for reading, 30 minutes for writing and 40 minutes for math; additionally the researcher needs to find times to teach physical education, music and library. The ability to add a 20 minute daily recess would take away from
the academic instruction that is required to take place in the classroom. For this reason, the researcher rejects having recess as a solution for the action research project.

Another possible solution for keeping kindergarten students on task is to build the curriculum around their interests. Hilary Seitz (2006) says that a child’s interest becomes the key focus, and that interest will provide motivation for learning. Because the interest originated with the child, the motivation for learning is intrinsic. She recommends ways to plan for students interests by being open to teachable moments. It is through these teachable moments that the teacher is able to find relevant opportunities to extend the learning of the child through prompting questions and additional experiences. She mentioned that capturing student’s interest in topics can happen through conversations with the child to see what they consider important. Finally it was stated that young children learn through active experiences and participation (Seitz, 2006).

The researcher’s previous experience has proven that project based learning as described in this article is very powerful with young children. The researcher was able to teach focused on student interests in the topic of science. However, the kindergarten program does not afford time for science to use this type of learning. Additionally, the kindergarten curriculum is prescribed with lesson pacing for the subjects of reading, writing and math. The researcher sees the benefits of how building the curriculum around the interests of the student kept them on task. However, the current schedule and curriculum for kindergarten students does not allow for building the curriculum around the interests of students. Therefore, the researcher rejects this solution for the purposes of this action research project.
A final solution to consider incorporates part of Seitz’s recommendation for physical activity to help students stay on task. This solution recommends incorporating a variety of movement experiences in the classroom schedule. Young children are known to not be able to sit for extended periods of time (Pellegrini & Bohn, 2005). The use of “Transformers” provides students with the ability to participate in simple movement experiences that will help them prepare mentally and physically for the next activity. The movements also help students increase their focus, improve balance and coordination and give them time to better process what they are learning. These movements can also be used as a coping strategy for students with short attention spans. Transformers are meant to occur during regularly scheduled times of day when students tend to be low on energy or fidgety. Different activities are recommended for different periods of the day. An example for a morning Transformer routine would be:

- Stand tall with your core strong.
- Place your hands on your rib cage.
- Breathe deeply and slowly.
- Breathe deeply again, raising arms overhead as you inhale and puff out your cheeks, then lower your arms as you exhale.
- Inhale again slowly and exhale, making a quiet sound (Shhhhhhh)

This exercise is to help students with their deep breathing which increases oxygen to their brain, improves their posture and increases their attentiveness. As the day progresses, routines change to engage both hemispheres of the brain and re-focus the brain to prevent sluggish behaviors (Vagovic, 2008).
This solution for keeping students on task is practical, developmentally appropriate and supported by brain research. The solution is possible during the natural lesson transitions that occur in the researcher’s classroom. The implementation of this solution will not take away from student learning and the variety of scheduled breaks should keep the student’s interest. Therefore, the researcher will use this solution in her project. Throughout the project, the researcher will observe what effect using Transformers in the classroom will have on the ability for her students to stay on task.

Action Plan

This action research project will begin in September and continue until April. The following explains the timeline in detail:

- September 1st – 30th: The researcher will revise her action research proposal as necessary according to her advisor and situation. The researcher will gain consent from the principal and district office to follow through with the action research proposal. The researcher will create At-Task recording sheets and protocols for the administrator of this exercise. The researcher will create two permission slips, one to be a part of the action research and another to obtain permission to be videotaped in the classroom. The permission slip will be sent home the week of open house so that parents can ask questions regarding the research at that time. Finally, the researcher set up a time to meet with area kindergarten teachers to define what at-task behavior would be in kindergarten.

- October 5th – 8th: The researcher will begin implementing “Transformers,” movement exercises. The class will participate in the exercises at 7:50AM, 8:30AM, 9:00AM, 9:30AM, and 10:00AM or 11:45AM, 12:15PM, 12:45PM, 1:15PM and 1:45PM. These
times are natural transitions during our schedule. Parent helpers and/or intermediate students will have the at-task protocol explained to them. This week they will practice recording information so that the researcher can correct any problems with the recordings.

- **October 12th – 16th:** The video camera will begin recording one day a week. The researcher will review the recordings and make anecdotal notes regarding student on-task behavior. Parent helpers and/or intermediate students will begin weekly observations based on the protocol information. The researcher will review these weekly and add any events that may have occurred during that time.

- **October 19th – 23rd:** The video camera will continue recording one day a week. Parent helpers and/or intermediate students will continue weekly observations based on the protocol information. The researcher will also create surveys for parents and students. Protocols for the intermediate students to give the survey to the kindergarteners will also be given at this time.

- **October 26th – November 30th:** The video camera will continue recording one day a week. Parent helpers and/or intermediate students will continue weekly observations based on the protocol information. Surveys will be given to kindergarten students by the intermediate students following the protocol. Parents will receive a survey during parent-teacher conferences that they will be asked to complete at that time.

- **December 1st – 18th:** The video camera will begin recording twice a week. Parent helpers and/or intermediate students will continue weekly observations based on the protocol information. The researcher will complete the midterm progress report.
• January 4\textsuperscript{th} – 29\textsuperscript{th}: The video camera will continue to recording twice a week. Parent helpers and/or intermediate students will continue weekly observations based on the protocol information. The researcher will stop using the “Transformers” movement exercises during the breaks. The researcher will note any differences in the at task behavior of the students with the removal of the Transformer movement exercise.

• February 1\textsuperscript{st} – 5\textsuperscript{th}: A final survey will be sent home to parents. Intermediate students will give the kindergarteners the survey using the protocol. All observations will end at this time.

• February 8\textsuperscript{th} – 26\textsuperscript{th}: The researcher will analyze and compare the results of the action research project. She will organize the information to help her see patterns themes that emerge from the results.

• March 1\textsuperscript{st} – 29\textsuperscript{th}: The researcher will write Chapter Five. The final action research project will be completed and turned in to the researcher’s faculty advisor by March 29\textsuperscript{th}.

The researcher is interested in the results of the action research. Although the observations will be time consuming, the researcher is interested in the results to help her teaching practice and student achievement grow.
The purpose of this action research was for the researcher to find a way to help kindergarten students stay focused on their learning activities. While helping students stay on task and learn is one of the goals of a teacher, the researcher is especially interested in helping her young students due to the scripted, direct instruction that her students are receiving. The researcher used simple movement experiences named *Transformers* to answer the following question: “How can kindergarten teachers help their students to stay on task?” The *Transformers* include “Early Morning Big Breaths,” “Late Morning Spins,” “Marshmallow Marching,” “Rock and Roll,” and “Finger Smushers.”

During the second month of school, the researcher began implementing the use of *Transformer* movements (Appendix A) in the classroom. This gave students with no prior school experience an opportunity to become aware of classroom expectations and routines. Five specific movements were scheduled during natural transitions. The first movement, “Early Morning Big Breaths” took place directly after the pledge of allegiance, 15 minutes into the student day. The second movement, “Late Morning Spins” took place prior to small group reading. The third movement, “Marshmallow Marching” took place during the transition from small group reading to specials. The fourth movement, “Rock and Roll” took place prior to writing. The final movement, “Finger Smushers” took place prior to math. The *Transformer* movements were scheduled at 30 minute intervals. The classroom participated in these movements daily from October through January. After January, all *Transformer* movements ceased.
Research was conducted using video observations, parent volunteer observations, student surveys and parent surveys. All data reflects the morning kindergarten class at the researcher’s school. Due to conflicts with the afternoon kindergarten class, the Transformer movements were implemented but data was not collected. Videotaped observations took place while the students were receiving whole group instruction on the carpet. Parent volunteer observations documented students’ ability to stay on task during whole group instruction as well as independent work at their tables. Surveys were administered to students to see what they thought would help them learn and if they found the Transformer movements beneficial. Parent surveys were used to determine if a student stayed on task at home and if their responses were similar to how they stayed on task at school.

Video Observations

During the month of October, the researcher began video recording kindergarten students during the first hour of their day on Wednesdays. Initially, the researcher planned on video recording during the entire kindergarten day; however, the small lens of the camera did not allow recording the students working at their tables. During the month of December, video recording increased to twice a week, taking place on Mondays and Thursdays.

The videotaping began directly after the “Morning Big Breaths.” After the students completed the morning big breaths, they would sit on the carpet to participate in calendar activities. They would then continue to sit on the carpet during the 30 minute whole group reading instruction. At the end of the day, the researcher would view the videotape and record student behavior on an At Task Recording Sheet (Appendix B). The following are results of the video observations on the floor (Appendix C).
Twenty-two of the 29 students were able to stay on task during the first five minutes after morning Big Breaths throughout all the observations. Of the seven students who were distracted after five minutes, three were girls and four were boys. The initial distraction of the three girls occurred on three separate occasions for one student, and two separate occasions for another student. The boys only showed distraction once during the first five minutes throughout the study.

Ten minutes after the big breath movements, 19 of the 29 students were able to stay on task. Of the ten students who were not on task, four were girls. Three of the four girls had also had prior difficulty staying on task during the initial five minutes after the movements; the other girl only had difficulty ten minutes into the lesson when Transformer movements were not occurring. Of the seven boys who had difficulty staying on task after ten minutes, four also had difficulty during the initial five minutes. One boy, who was able to stay on task during the initial five minutes, was not able to stay on task 30% of the time after 10 minutes.

Fifteen minutes after the big breath movements, 48% of the students showed being distractible during the study. Two of the 14 distracted students were distracted twice, once while the movements were taking place and the other time when there were no movements. Four of the ten students were girls. Of the 14 students who were distracted, 71% had been observed being distracted once prior to the fifteen minute interval.
Twenty minutes after the big breath movements, 17 of the 29 students were observed being on task. The twelve students who were observed not being on task at this time included 25% girls, all of which had prior experiences in being off task after the Big Breaths in the past. The eight boys observed off task included three who were off task when the Transformer movements were not being implemented in the classroom. Two boys had their first observed distraction at the twenty minute mark.

Twenty five minutes after the big breath movement, 90% of students were observed being on task. Three students were distracted at that time. One of those students, a Hispanic male with low language skills, was observed being distracted multiple times on different days at each of the five minute intervals after the big breath movement. The other boy is an English speaking male with below level skills; his distractions began to be observed after 15 minutes. The last student is a girl who is at grade level. She was observed distracted while Transformer movements occurred and after they had ceased. Her first observed distraction began at the ten minute interval.

Thirty minutes later, the students would transition to their table spots and participate in “Late Morning Spins.” Upon completing the spins, they would be dismissed to their small groups for reading. Videorecording of the students working with the researcher would continue while a small group of children would sit at a table to receive reading instruction through a scripted program. The small groups of children rotated daily. Therefore the same group of children was not always documented. Group size varied from a small group of four to a larger group of eight. At the end of the day, the researcher would view the videotape and record student behavior on an At Task Recording Sheet (Appendix B). The following are results of the small group observations at the tables (Appendix D).
Two children were observed being distracted five minutes into small group instruction. Both children were boys. One child was in a group of seven children who are reading at grade level, his distraction occurred when *Transformer* movements were not taking place in the classroom. The other child’s distraction occurred five minutes after the “Late Morning Spins” had occurred in the classroom. He was reading slightly above grade level and was placed in a group of five students.

Ten minutes after the “Late Morning Spins,” three children were seen as being distracted. One was also observed being distracted five minutes into instruction. This boy was in a small group of five students. The two other children who were observed being distracted at this time were in the same small group with eight students. Their distractions were observed on the same day. No *Transformer* movements took place on that day.

Fifteen minutes after “Late Morning Spins,” three students were seen as being distracted. Two other them were girls and one was a boy. Two of the students were in a small group of eight below grade level. One is a girl and the other is a boy. The girl was distracted after the *Transformer* movements had taken place in the classroom that day, the boys were distracted when no *Transformer* movements took place. The other child who was distracted was part of a
group of seven who reads at grade level. Her distraction took place on a day when Transformer movements did not take place.

Students were not observed as being distracted during the 20 or 25 minute mark.

Unfortunately, there were no data or observations regarding students’ abilities to stay on task after Marshmallow Marching. These movements took place directly after small groups. The children would participate in music, physical education, library check out or a hands-on science experiment.

Parent Observations

During the month of October, the parent helpers began recording at task behavior of the students while the students sat at their assigned table seats. The researcher would help parents who had questions during that time. In November, the goal was to have different parent helpers, who volunteered daily in the classroom record at task behavior; unfortunately, the majority of parent helpers forgot to record the behaviors. The parent observations took place on four separate Thursdays, one in November, one in December and two in January. The same parent recorded all the observations.

After the students completed the morning rock and roll, they would sit at their assigned table seat to work independently on writing. The researcher would be working in small groups with students on a rotating basis. Parent helpers would record student behavior on an At Task Recording Sheet (Appendix B) in five minute intervals. The following are results of the parent observation of students at their tables. (Appendix E).
Twenty-six of the 29 students in the class were distracted at some point in time during writing. Of those students, six students only showed distraction after the Transformer movement of “Rock and Roll” occurred. The other twenty students were observed being distracted while the Transformer movements were not being implemented in the classroom.

The first five minutes after the beginning of writing, 19 students were observed as being distracted. The initial five minutes of independent writing at the tables included students getting their old work out and finding any supplies they need at that time (space man, word wall words, and new paper). Ten of the students showed distraction after the Transformer movements occurred, that group includes two girls and eight boys. The girls who showed distraction have been observed during small group instruction and on the floor as being distracted. Nine students showed being distracted when Transformer movements were not taking place. That group included three girls and six boys. The three girls had not been observed as being distracted at other times in the study.

Ten minutes after the rock and roll movements, 15 students were observed being distracted. Five of those students were only distracted after the rock and roll movement took place, 80% of those students have been observed being distracted after previous Transformer
movements (Early Morning Big Breaths, Late Morning Spins). Four boy students were observed being distracted both while Transformer movements took place and when it was being withheld. Six students were observed being distracted when the Transformer movements were not being implemented.

Fifteen minutes after the rock and roll movements, 13 students were observed being distracted. All of these students had been observed being distracted during the independent writing time in the past. Twelve of the students are boys and one is a girl. Two boys were viewed as being distracted while the Transformer movements were in place. One boy was monitored being distracted once while the Transformer movements were in place, and once when they had been withheld. Ten students were monitored being distracted when the Transformer movements were withheld. Three students were observed being distracted on both occasions the rock and roll movement was withheld.

Twenty minutes after the rock and roll movements, nine students were monitored as being distracted. Six students were distracted when the movements were being withheld, that group included all boys. The three students who were distracted while the Transformer movements were in place include two girls and a boy.

Twenty-five minutes after the rock and roll movements, four students were monitored as being distracted. None of these distractions occurred while the Transformer movements were in place. This group included all boys who were observed being distracted more than once in prior intervals after the rock and roll movement.

Thirty minutes later, the students would put away their writing supplies and participate in “Finger Smushers.” Upon completing the finger smusher movement, students would sit at their
table spots and receive a scripted math lesson. Most of the time this lesson would include
manipulatives for the children to use during guided practice. The parent helpers would record
student behavior on an At Task Recording Sheet (Appendix B) in five minute intervals. The
following are results of the parent observation of students at their tables (Appendix E).

Twenty-eight of the twenty-nine students were observed being on task during the
duration of the math lesson. The boy who was observed being distracted, was only viewed as
distracted on days when the Transformer movements had not been integrated into the classroom.
This boy also showed being distracted at the ten minute interval into math while the finger
smusher movements were not part of the classroom. He had been previously observed being
distracted frequently after big breaths and rock and roll movements.

Summary of Observations

Observations noted that students were most on task after participating in “Late Morning
Spins,” and “Finger Smushers.” After completing “Late Morning Spins,” 76% of students were
able to remain on task during the duration of small group reading. Results were similar during
math time, when students had participated in “Finger Smushers,” they were observed on task
100% of the time.
Twenty-eight percent of students who participated in *Transformer* movements prior to writing were on task; compared to ten percent of students who were observed on task when there was no planned movement. The percentage of student’s small group and whole group reading instruction did not show a difference in their ability to be on task with or without the *Transformer* movements.
Student Survey

After Transformer movements have ceased, the researcher had an educational assistant administer a survey to the kindergarten students (Appendix F). The researcher wanted to see what the students thought helped them learn while they were in Kindergarten. Additionally, the researcher wanted to see if the Kindergarten students thought the Transformer movements helped them learn. The researcher had planned on administering a survey during the implementation of the Transformer movements; however, while creating the survey she realized that the questions would be the same and did not think that having an additional survey would enhance the action research project. The following are the results from the student survey (Appendix G).

The majority of the class felt that it was hard to sit for a long period of time. Fifteen students surveyed said that it was hard to sit during calendar. One of their comments was, “My legs get hot sitting criss-cross applesauce.” Fourteen students said it was hard to sit during reading. Responses were mixed for sitting during small groups. During this time students are sitting in chairs with a group of less than eight. Thirteen students felt that it was hard to sit during small groups, while 11 felt it was not. Of the thirteen students who felt it was hard to sit during small groups, four included girls who were reading above grade level text. Sixteen of the children who felt it difficult to sit were English Language Learners. Fifteen students felt it was hard to sit during writing time. Fifteen students also felt that it was difficult to sit during math instruction.
Students dictated many examples of things that make it hard to pay attention at school. On student said “To not listen, to do the wrong things.” Another student said, “Playing and talking.” A girl who was observed being off task often during the parent and video observations said, “When I wear my jingle bell necklace.” Some children referred to “Other kids try to distract you,” “When someone is bothering you,” and “The boys.”

On the student survey, the students were asked if they liked the movement breaks (Transformers). Eighteen students said that they did like them, while four said they did not. Two students liked them sometimes and one student was unsure. When the students were asked if they thought the movement breaks (Transformers) helped them learn, twenty-five students said yes to the Big Breaths that were done before calendar, while 28 said yes to the Late Morning Spins that happened prior to small group reading. Eighteen students like Marshmallow Marching. Rock and Roll movement had 13 children who thought it helped them learn and 13 students who did not think that it helped them learn. One of the students said, “It [the marshmallow marching] hurt me though.” Sixteen students thought the finger smushers helped them learn.
Besides the movement breaks (*Transformers*), students were also asked if they liked other parts of their day that involved moving. Twenty-five of the students liked physical education, including one child who said they “love it!” Twenty-five students also said that they liked recess. One student who said they did not like physical education or recess is a Hispanic boy. All twenty-six students said they liked free choice. Students also gave other examples of things they like in kindergarten. Some include: getting some books, being the helper, Play-Doh, extended day kindergarten, my friends, art and lunch.
In addition to the specific question regarding the Transformer movements and if it helped them learn at school, the students were asked what they think makes it easier to learn. Students listed: listening to the teacher, having a teacher tell you what to do, hear with your ears and listen, and paying attention to the teacher. Some students listed subject areas such as: math, reading, and drawing/sketching.

Parent Survey

After Transformer movements have ceased, the researcher sent home a survey to parents in English (Appendix H) and Spanish (Appendix I). The researcher wanted to see what parents thought helped their children pay attention while they were in Kindergarten and at home. Additionally, the researcher wanted to see if the Kindergarten students thought the Transformer movements helped them learn. The following are the results from the student survey (Appendix J).

Thirteen parents returned the parents survey. Eight parents had boys who attended the morning class and five were the parents of girls. One of the 13 parents responded in Spanish, which was translated by two separate teachers at the researcher’s school.

Two of the parent surveys showed that their child had no prior school experiences before kindergarten. Parents were requested to state all of their child’s previous school experiences. Surveys showed that five students had attended Head Start, five had attended daycare and six had attended a private preschool.

All 13 parents stated that their child was capable of following one step directions. Examples of one step directions given included: please clear your plate off, pick up your toys, close the door and empty your folder. Additionally, all parents surveyed said that their child was
capable of following two step directions. Examples of the two step directions included: go upstairs and get the binkie, please take off your sweater and put it in the basket, and please get your folded clothes and put them away.

When asking parents, “When you speak with your child, do they pay attention to what you are saying? For how long? If not, what do they do?” most parents said that they do pay attention. The length of time that students paid attention varied from three minutes up to ten minutes. A parent said that it depends on whether their child is interested in what they have to say. To help their child pay attention to what they are saying, parents repeat what they want done, say that it is important or tell them to look into their eyes. One parent stated that when their child is not paying attention, they will try to ignore them or pretend that they didn’t hear. Another parent said that their child turns back to what they were previously doing.

Twelve parents felt that their children stayed with activities for an extended period of time while playing. One parent felt that their son changed activities frequently. Another parent said that their child does not always choose the same activity to do over an extended period of time.

Parents showed mixed answers on “How well does your child listen after sitting for a long period of time?” Six parents felt that their child was able to listen after sitting for a long period of time; however, one person stated the amount of time as 10 minutes. Another person said that they listen well, but sometimes it is harder to capture their full attention. A different parent said that they noticed a problem long play; it appears this parent meant a long duration of play. One parent said that they noticed their child getting fidgety and whiny after sitting. Two
parents gave mixed results; they said they can listen if they give their child directions with movement.

Five parents felt that their child focused better after playing. One parent said, “Much better after physical activity, we have three hours of church. Towards the end of the 1st hour he is antsy, and then he gets up to go to his primary class and get to wiggle on the way and do silly songs right away. He is ready to sit a bit and listen then.” Three parents said that their child listened better after sitting. One of those parents felt that their son was too hyper after playing to listen. One parent said that they haven’t noticed a difference in focus after playing or sitting.

Finally, the researcher asked parents if they felt their child would benefit from movement breaks, physical education, recess, and/or free play. Three of the thirteen parents felt that their child would benefit from movement breaks. Ten parents felt that their child would benefit from physical education. Six parents felt that their child would benefit from recess and five parents felt that their child would benefit from free play.

**Do you think your child would benefit from?**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Parents who agreed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Movement Breaks</td>
<td>3</td>
</tr>
<tr>
<td>Physical Education</td>
<td>10</td>
</tr>
<tr>
<td>Recess</td>
<td>6</td>
</tr>
<tr>
<td>Free Play</td>
<td>5</td>
</tr>
</tbody>
</table>

**Conclusion**

Based on the researcher’s observations, the ability for her students to stay on task has an impact on the information they retain. It was obvious through video and parent observations that
students, who were distracted, had difficulty regaining the ability to focus after being distracted. It was also noted through video and parent observations that most students were able focus the same or better when the Transformer movements were being implemented in the classroom, than when they were not.

Video observations of the students sitting on the floor after “Big Breaths” showed that their ability to pay attention decreased as time evolved. The majority of the class was distracted at some time during the 30 minute whole group reading instruction on the floor. The percentage of students on task did not change whether the students were participating in Transformer movements or not. Over half of the class reported that it was hard to stay on task during whole group reading in their surveys. The researcher knows from previous readings, that it is not developmentally appropriate for the kindergarten students to receive Direct Instruction for more than 8 minutes (Jensen, 2005). That would explain why students’ ability to stay on task decreases as time evolves. The big breath movements, while providing oxygen to the students, do not provide much physical movement prior to their sedentary learning environment.

Video observations showed that students were able to stay on task the best after the “Late Morning Spins.” This was also the movement that most children felt helped them learn and during a period of time that many children felt it easy to sit. This was also a time when the students were in smaller groups, sometimes 75%-87% smaller than their whole group setting. While the video observations show that the students were paying attention, this study does not show if the students were able to retain the information taught to them in this setting. Longitudinal research would be indicated to ascertain the usefulness of this strategy for long-term information retention. The “Late Morning Spins,” provided lots of physical movement and opportunities for the students to cross the body/brain midline.
The students’ ability to stay on task during independent writing was low according to parent observations. Student surveys also identified this as a difficult time to be sitting. It is the researcher’s observation that the students’ lack of social opportunities and ability to build physical stamina prohibit them from being successful during independent work time. Without an adult to keep them on track, they prefer to talk with their neighbors. Additionally, the “Rock and Roll” movement did not provide a lot of moving around for the students.

“Finger Smushers” also reflected a time when the students were engaged in what they were doing. Although students said that they found it hard to sit during math time, 100% of students were observed being on task while “Finger Smushers” were being implemented. While the math program that is provided is a scripted program it does allow for discovery learning, and includes manipulatives that the students are able to use. The researcher observed that this helps the students stay on task. The “Finger Smusher” movements did not provide a lot of moving around; however it did allow opportunities for the students to cross the body/brain midline and move their hands from head to toe.

Parent and student surveys both expressed interest in other nonacademic activities such as recess, physical education and free play. Parents felt that their child would benefit from these activities; while a majority of the students expressed that they liked these activities. The researcher feels that recess and physical education experiences would provide more gross motor movement opportunities and then be beneficial to helping the students stay on task. The researcher also observes that the ability to allow the children to have free play opportunities would enhance their ability to be social with their peers. This may deter them from choosing to be social during independent work activities, although this may be a developmentally appropriate response, according to Church, (2005).
Suggestions for Further Study

There is a need for further study with how to help students pay attention or perhaps with how to help incorporate more movement and social activities during learning time (Curwood, 1999; Church, 2005). A recommendation for further study would be to continue using the Transformer movements, but find a way of video recording all subject areas after the movements took place. If there was video data showing students during independent work, would they be shown as being on task?

Having students use only the “Late Morning Spins,” as a movement at 30-minute intervals could be another study. The students were most on task after late morning spins in small groups; would they continue to be on task after morning spins in other areas?

Another suggestion for further study would be to see if changing the type of instruction the students received would impact their ability to pay attention. Other possibilities for instructional practices could include: project-based learning, workshop style, hands-on, or constructivist.

As the researcher, has observed and research has indicated, anything a teacher can do to help students pay attention and learn is beneficial to the success of their students’ educational journey (Sylwester & Cho, 2007; Lee, et al…2005: Goldstein, 2008). The researcher also invites teachers to ponder Estrada’s assertion: “If students can’t learn the way we teach, maybe we should teach the way they learn” (Estrada, n.d. in Tabar-Gaul, 2009).
References


http://www.pdx.edu/sites/www.pdx.edu.prc/files/media_assets/PopRpt08c2.pdf


Appendix A

Transformer Cards

**Early Morning Big Breaths**

1. Stand tall with your core strong.

2. Place your hands on your rib cage.

3. Breathe slowly and deeply.

4. Breathe deeply again, raising your arms overhead as you inhale and puffing out your cheeks and lowering your arms as you exhale.

5. Inhale slowly and exhale, making a quiet sound: Shhhhhhhhhhh.

**Late Morning Spins/Helicopters**

1. Stand tall with knees soft, but keeping the core strong.

2. Breathe slowly and deeply.

3. Stretch out your arms to the sides, with feet apart.

4. Twist your arms and torso from side to side, like a helicopter blade, keeping one foot slightly lifted to prevent back discomfort.

5. Next, have children reach up with alternating hands, as if climbing a ladder.

6. They complete the experience by taking deep breaths.

**Marshmallow Marching**

1. Stand tall with knees soft, keeping the core strong.

2. Breathe slowly and deeply.

3. March in place as if in slow motion, with quiet feet.

4. Swing arms across your body in sync with your marching feet, tapping the hand to the opposite knee with each step.

**Rock and Roll**

1. Stand tall, keeping knees soft (slightly bent) and the core strong.

2. Breathe slowly and deeply. Focus your eyes on something not moving.

3. Rock back and forth: forward to toes and backward to heels.

4. Rock forward and stop, then backward and stop.

5. Stand, with knees still soft, and roll forearms in front of the body. Reverse the direction of the roll.

6. Continue rolling arms and move them downward toward the earth and upward toward the sky. (Variations: slow/fast, stop/go.)
**Finger Smushers**

1. Tap the fingertips together.

2. Pat the hands together, and then pat each arm.

3. Pat the stomach, sides, and back.

4. Pat the thighs, knees, shins, and ankles.

5. Pat your hair, wiggle the ears, lift the eyebrows, and wrinkle the nose.
Appendix B – At Task Recording Sheet

I = off task during instruction
I after the “/” indicate no Transformer movements occurred
Appendix C – Video Observation Results

I = off task during instruction
I after the “/” indicate no Transformer movements occurred
Appendix D – Small Group Observation Results

I = off task during instruction
I after the “/” indicate no Transformer movements occurred
Appendix – E – Parent Observation Results

I = off task during instruction
I after the “/” indicates no Transformer movements occurred
Appendix F

Student Survey

Dear survey administrator,

Listed below are questions regarding kindergarten students’ ability to pay attention and focus. Resist the temptation to respond as you believe they should.

Below each question is additional space for you to provide examples and/or comments.

Begin survey by telling the student “Try your best to answer these questions about kindergarten.”

1. I am a boy ______ girl_______

2. I am in the morning class _______ I am in the afternoon class ______

3. What are your favorite parts of kindergarten?

4. What are the worst parts of kindergarten?

5. What makes it hard to pay attention at school?

6. What makes it easier to learn?

7. Is it hard to sit for a long period of time?
   a. During Calendar
   b. During Reading
   c. During Small Groups
   d. During Writing
   e. During Math
8. Do you think movement break help you learn?
   a. Big Breaths before calendar
   b. Helicopters/Spins and ladder climbs before small groups
   c. Marshmallow marching after small groups
   d. Rock and Roll before Writing
   e. Finger Smushers before Math

9. Do you like:
   a. Movement Breaks
   b. Physical Education (P.E.)
   c. Recess
   d. Free Choice
   e. Other

10. Is there anything else you want Mrs. Woolworth to know so she can help you learn.

Please return this survey as soon as possible to Mrs. Woolworth. Thank you for your time.
Appendix G

Student Survey Results

1. I am a boy XX = 20
   Girl VII = 7

2. I am in the morning class

3. What are your favorite parts of kindergarten?
   Math = 3
   Puzzles
   Books = 3
   Free Choice = 6
   Reading = 2
   Counting
   Like 6 months. Nothing else
   I forgot.
   School
   Learning. When your brain gets bigger. = 2
   The helper
   Art = 2
   Writing = 2
   Going home on the bus
   Small Groups = 2
   Play Doh
   Play with my friends
   Recess = 2
   PE = 2
   Santa Claus Card
   Slinkies = 2
   Lunch
   Margaret Scott. Do good.
   The class. My friends
   Read stories
   When I don’t have to change my stick
   Coloring
   Extended Day – making letters = 2
   Go in the pick up line
   Mrs. Woolworth, Mrs. Biggar, Mrs. Keltner
   Kindergarten
Learning

4. What are the worst parts of kindergarten?

Nothing/None/I don’t know = 5
Math
Counting on the Floor
No worst parts
I forgot that too.
Bad choices
Changing my stick to red = 6
I don’t like to sit on the floor.
I don’t like to play with playdoh because I don’t like the smell.
When we do words
I don’t like when there is no balls
Taking time outs
Have to wake up in the mornings
Sometimes when we do our letters, it gets a little boring.
Seven
Fire
When I do have to change my stick
Time outs
Sounding.
Books
Playing with trains.
Being in trouble
When I didn’t get to play

5. What makes it hard to pay attention at school?

I don’t know = 6
Always pay attention because you have to listen to the teacher
Your mouth needs to stay closed
When I’m not paying attention, I’m not doing what I’m supposed to do.
To not listen, to do the wrong things.
Being bad and changing your stick. = 2
At home, I broke my glasses. Everytime my mom gets me new glasses, the look pretty awesome
Playing and talking
When I wear my jingle bell necklace
Other kids try to distract people
Sometimes when other people talk, I can’t say anything.
The boys
Good. No running.
Being distracted by something. If my mom comes I get distracted
When someone is bothering you
I can’t close my eyes. Everyone changing sticks, I keep hearing a click up there.
Read
Paying attention at school.
You can’t do it. You can do something if you don’t know what to do and you are not here.
To not pay attention

6. What makes it easier to learn?

I don’t know
Listen to the teacher
You have to have a teacher to tell you what you want to do
My whole job and 16.
Hear with your ears and listen.
Math
Reading
Drawing / Sketching = 2
Paying attention to my teacher
To do the right things and listen
Paying attention
Listening
Be Quiet. Pay attention.
To listen to the teacher
Other kids like it too. Gotta pay attention
If they pay attention and don’t talk
Teacher
Hard
Not being distracted
I need to learn
Listening
When I pay attention
Playing, I like to go outside
Play bears. Presents. Starting
Doing the correcting
If you get all of the stuff in your brain you can write and you can do some more writing.
If you listen to your teacher

7. Is it hard to sit for a long period of time?
   f. During Calendar
      - Yes XV = 15
        ■ “My legs get tired”
        ■ “My legs get hot sitting criss-cross applesauce.”
      - No X = 10
      - Maybe I = 1
   g. During Reading
h. During Small Groups
   - Yes  XIII = 13
   - “A little hard”
   - No  XI = 11
   - Kinda I = 1
   - A little bit I = 1

i. During Writing
   - Yes  XV = 15
   - No  XIII = 9
   - A little I = 1
   - I don’t think so I = 1

j. During Math
   - Yes  XV = 15
   - No  VIII = 9
   - A little II = 2

8. Do you think movement break help you learn?
   f. Big Breaths before calendar
      - Yes  XXV = 25
      - No  III = 3
      - I don’t know I = 1
   
g. Helicopters/Spins and ladder climbs before small groups
      - Yes  XVIII = 28
      - No  VI = 6
      - I don’t know I = 1
      - A little I = 1
   
h. Marshmallow marching after small groups
      - Yes  XVIII = 18
      - No  V = 5
      - I don’t know I = 1
      - A little I = 1
      - My feet get tired I = 1
   
i. Rock and Roll before Writing
      - Yes  XIII = 13
        - “It hurts me though”
      - No  XIII = 13
j. Finger Smushers *before Math*
   - Yes  XVI = 16
   - No   VI = 6
   - I don’t know II = 2
   - I’ve never even heard of that one.  I = 1
   - My fingers kinda hurt  I = 1

9. Do you like:
   f. Movement Breaks
      - Yes  XVIII = 18
      - No IIII = 4
      - Sometimes II = 2
      - I don’t know I = 1
      - A little bit  I = 1
   g. Physical Education (P.E.)
      - Yes XXIII = 24
      - Love it  I = 1
      - No  I = 1
   h. Recess
      - Yes XXV = 25
      - No  I = 1
   i. Free Choice
      - Yes XXVI = 26
      - No = 0
   j. Other
      - Go to the park
      - Get some books
      - I like Cynthia.  I like to learn.  I like to count how many days we’ve been at school
        and I like to be the helper.
      - Book Look
      - Playdoh
      - When I am at lunch, I still learn
      - Doing Math
      - I want to learn about 1st graders and 5th graders and stuff like that.
      - Toys
      - Extended day kindergarten
      - My friends
10. Is there anything else you want Mrs. Woolworth to know so she can help you learn.

Do Writing
I don’t know/No  XVII = 17
Like it.
Have to do drawing
Learning how to do 10+10 or 11+11. I don’t know how to do these.
Thank you tickets
Help me to turn the lights on. Help me with money.
Help Kids
Appendix H

English Parent Survey

Dear Parents,

Listed below are questions regarding your child’s ability to pay attention and focus. Please try to answer as honestly and as objectively as you can. Resist the temptation to respond as you believe you should or ought to think or behave.

Below each question is additional space for you to provide examples and/or comments.

1. My kindergarten student is a boy ______ girl_______

2. My child attends the morning class _______ My child attends the afternoon class ______

3. Before kindergarten, which of the following school experiences had your current kindergarten student attended? (Circle all that apply)
   a. Head Start
   b. Daycare
   c. Private pre-school
   d. No prior school experiences
   e. Other: ______


5. Does your child follow two step directions? (Ex. Please open your backpack and take out your folder) Give examples of types of directions.

6. When you speak with your child, do they pay attention to what you are saying? For how long? If not, what do they do?
7. When your child is playing, do they stay with that activity for an extended period of time or change activities frequently? How do those activities differ?

8. How well does your child listen after sitting for a long period of time?

9. Does your child focus better after playing? Or does he/she focus better after sitting for a certain amount of time? Please describe.

10. Do you think your child would benefit from:
    k. Movement Breaks
    l. Physical Education (P.E.)
    m. Recess
    n. Free Play
    o. Other

11. Please share any additional comments or opinions you have.

Please return this survey as soon as possible to Mrs. Woolworth. Thank you for your time.
Queridos Padres,

Más abajo, encontrará una lista de preguntas en cuanto a la capacidad de su niño de prestar la atención y concentrarse. Por favor trate de contestar tan francamente y tan objetivamente como usted pueda. Resista la tentación de responder como usted cree que debería o le gustaría comportarse idealmente.

Debajo de cada pregunta es el espacio adicional para usted para proporcionar ejemplos y/o comentarios.

1) Mi estudiante de jardín de infancia es niño ______ niña ______

2) Mi niño/a asiste a la clase de mañana ______ Mi niño/a asiste a la clase de tarde ______

3) ¿Antes de venir al Kinder, a cuál de las siguientes experiencias escolares había asistido su estudiante antes? (Círculo todo lo que se aplica)
   a) Head Start
   b) Guardería
   c) Jardín de infantes privado
   d) Ningunas experiencias escolares previas
   e) Otro: ________

4) ¿Obedece su niño/a a una sola órden? (Ejm. Por favor abra su mochila.) De ejemplos de tipos de instrucciones que usted le da.

5) ¿Sigue su niño/a instrucciones de DOS paso? (Ejm. Por favor abra su mochila y saque su carpeta) De ejemplos de este tipos de instrucciones.
6) ¿Cuándo usted habla con su niño/a, le presta atención a lo qué usted dice? ¿Cuánto? ¿Si no, qué hacen ellos?

7) ¿Cuándo su niño/ao juega, se quedan ellos con aquella actividad durante un período amplio del tiempo o cambia de actividades con frecuencia? ¿Cómo se diferencian aquellas actividades?

8) ¿Qué tan bien escucha su niño/a después de sentarse durante un período largo del tiempo?

9) ¿Se concentra su niño/a mayor, después de jugar? ¿O se concentra él/ella mejor después de sentarse por una cierto período de tiempo? Por favor describa.

10) Piensa usted que su niño se beneficiaría de:

   a) Periodo de descanso con movimientos
b) Educación Física (P.E).

c) Recreos

d) Juegos libres

e) Otros

11) Por favor comparta cualquier comentario adicional u opiniones que usted tenga.
Dear Parents,

Listed below are questions regarding your child’s ability to pay attention and focus. Please try to answer as honestly and as objectively as you can. Resist the temptation to respond as you believe you should or ought to think or behave.

Below each question is additional space for you to provide examples and/or comments.

My kindergarten student is a

Boy VIII

Girl - V

1. My child attends the
   morning class XIII
   afternoon class

2. Before kindergarten, which of the following school experiences had your current kindergarten student attended? (Circle all that apply)
   f. Head Start V
   g. Daycare V
   h. Private pre-school VI
   i. No prior school experiences II
   j. Other: __________

3. Does your child follow one step directions? (Ex. Please open your backpack) Give examples of types of directions.
   - Yes, please clear your plate off
   - Yes, Go brush your teeth
   - Yes, Get dressed
   - Yes, Put your coat away, pick up “x”, Clean your toys, Get dressed
   - Pick up your toys
   - I ask him to please give me his red folder
   - Yes, Please take off your sweatshirt
   - Please close the door
   - Please put away your shoes
   - Yes
   - Go wash hands, bring plates to the sink, turn off the lights
   - He empties his folder
4. Does your child follow two step directions? (Ex. Please open your backpack and take out your folder) Give examples of types of directions.

- Yes, Please brush your hair and brush your teeth
- Yes, Brush your teeth and get a flosser
- Yes, Get your backpack and coat on
- Go upstairs and get the binkie, clean bathroom counter, take the bathroom garbage out
- Put your shoes where they go, put your toys in the toy box, put your plate on the counter and clear your spot.
- Please give me your folder and put backpack away
- Yes, Please take off your sweatshirt and put in your basket
- Yes, he can do
- Please get your folded clothes and put them away.
- Yes
- Brush and floss, fold his clothes and put them in drawers, when painting – rinsing and drying before using a new color.
- Go brush your teeth, put your clothes on.

5. When you speak with your child, do they pay attention to what you are saying? For how long? If not, what do they do?

- Yes, although sometimes she tries to ignore me or pretend like she didn’t hear. Usually she has a good attention span
- Yes, 3-5 minutes
- Yes, long periods of time or short periods of time
- Most of the time, turn to finish what they were doing ex. toys, tv, coloring, playing
- He pays attention but may linger a bit but after being repeated he will get it done.
- He pays attention sometime, but I can sometimes ask him to get something and he will say OK. Then I say what did I tell you to get and he says I don’t know
- Yes, but it depends if it’s his interest or not. For how long depends on the subject. Overall, he does pay attention if I tell him that it’s important.
- He can pay attention about 5 to 10 minutes.
- Depends on if she is looking at me. She is a very busy child and if I want her to hear more than 10 words, I need her to look at me and sometimes repeat what I say.

- Yes
- Yes, he usually pays attention to what I say, he also is pretty good with staying attentive until I finish talking, sometimes initially his attention from the TV takes a couple of attempts
- Yes, he looks at you in the eyes.
- SP –Pays attention
6. When your child is playing, do they stay with that activity for an extended period of time or change activities frequently? How do those activities differ?
   - Plays dollhouse, barbies, dolls for extended periods of time
   - Usually extended periods of time, most of time he plays make-believe for awhile then wants to do playdoh or color
   - He will stay with the same activity unless he finds something more exciting.
   - He can play for along time before he changes.
   - He changes activities
   - Extended time 30-90 minutes from interactive to passive
   - He stays with the activity for a long time. I sometimes tell him to move on to something else. He does not always choose the same activity for those long periods.
   - Things that he likes to play for a long time.
   - SP – is given ample time

7. How well does your child listen after sitting for a long period of time?
   - Not very well – gets fidgety, whiny
   - The same I think, except I need to give him instructions that include movement
   - He does very well with this
   - He does pretty good at listening after sitting
   - 10 minutes
   - Listens well, but sometimes harders to capture full attention
   - He listens well. I’ve noticed a problem particularly after long play.
   - Listens better
   - SP – Yes, he can listen for a long period of time if he moves a lot

8. Does your child focus better after playing? Or does he/she focus better after sitting for a certain amount of time? Please describe.
   - Focuses better after periods of play
   - Much better after physical activity, we have 3 hours of church. Towards the end of the 1st hour he is antsy, then he gets up to go to his primary class and get to wiggle on the way and do silly songs right away. He is ready to sit a bit and listen then.
   - After sitting
   - I think after sitting because he is not hyper
   - Focuses better after sitting for an amount of time.
   - Playing
   - I haven’t noticed a difference in focus after play vs. sitting.
   - Listens better after playing
- SP – Its better to play

9. Do you think your child would benefit from: can I pick all
   p. Movement Breaks III
   q. Physical Education (P.E.) X
   r. Recess VI
   s. Free Play V

   More time to eat lunch 😊

10. Please share any additional comments or opinions you have.
Appendix K – English Permission Slip

Dear Parents,

As you know, I am your child’s kindergarten teacher. I am also a graduate student working on completing my Master’s Degree in education through Concordia University. An important part of my degree is a research project. The purpose of this letter is to get your permission for your child to participate in my project.

The project that I have designed studies the effect of movement breaks on student’s attention and focus. The study does not require any change in instruction or teaching methods, but is simply looking into the effects of current practices. During this study, various adults will observe our class over the next four months.

I will be videotaping some lessons to reflect on my teaching. I will be the only one who views these tapes. I will report study results either as a group’s statistics or in tables. No real names will be used. Complete confidentiality will be maintained. Your child’s name or identity will not be used in any place during the reporting of this study, and there are not potential risks to the students involved.

I have received approval for my study from the Graduate School of Education at Concordia University and from the Reynolds School District. My study will be described in my final paper, called a capstone. It will be catalogued and shelved at the FWJ Sylwester Library, Concordia University. My results might also be included in an article for publication in a professional journal or in a report at a professional conference. In all cases, your child’s identity will be kept confidential. Please return the bottom portion of this page to indicate your permission for your child to participate in this study. If you have any questions for me about this study, please do not hesitate to ask.

Thank you,

Emily Woolworth

I give permission for my child _________________________ to participate in this research project from October 2009 to January 2010. I understand that the study involves observation of the effects of movement breaks on student attention and focus. I understand that there are no potential risks to my child. I understand that at no time during the study will my child's name be used in connection with the results. All personal data and results will be kept confidential. I understand that my child’s participation is voluntary and that I am free to withdraw my child from the project at any time without any negative consequences.

Parent Signature ____________________________ Date ________________
Appendix L – Spanish Permission Slip

Estimados padres,

Como es de su conocimiento, soy la profesora de su hijo(a) en Kinder. También soy graduada de la Universidad y estoy estudiando para completar mi masterado en educación a través de la Universidad Concordia. Una parte importante de mi título es un proyecto de estudio. El propósito de esta carta es de tener su permiso para que su hijo(a) participe en mi proyecto.

El proyecto que he designado, estudia el efecto del movimiento cambia la atención y la concentración del estudiante. El estudio no requiere de ningún cambio en la instrucción o los métodos de de enseñanza sino simplemente observar los efectos de la enseñanza actual. Durante este estudio, varios adultos vendrán a observar nuestra clase, durante los siguientes cuatro meses.

Estaré grabando un video de las lecciones que reflejan mi enseñanza. Yo seré la única persona que mire estos videos. Los resultados serán reportados ya sea como estadística de grupo o en cuadros. No se utilizarán nombres verdaderos. Se mantendrá absoluta reserva. La identidad de su hijo(a) o su nombre no será utilizado en ningún lugar, durante el reporte de este estudio y no hay riesgos potenciales para ninguno de los estudiantes involucrados.

Tengo la aprobación para mi estudio de la Escuela de Educación para graduados de la Universidad de Concordia y del Distrito Escolar de Reynolds. Mi estudio será descrito en mi trabajo final, llamado “capstone” (toque final). Este será catalogado y guardado en la Biblioteca FWJ, de la Universidad de Concordia. Mis resultados puedan que sean publicados en un diario profesional o como reporte en alguna conferencia profesional. Te doy maneras, la identidad de su hijo(a) será mantida de manera reservada. Por favor, devuelva la porción inferior de esta hoja donde indica su autorización para que su hijo(a) participe en este estudio. Si tiene preguntas al respecto de este estudio, por favor, no dude en preguntarme.

Gracias,

Emily Woolworth

Autorizo para que mi niño(a) _____________________________ participe en este proyecto de estudio de octubre 2009 a enero 2010. Entiendo que este estudio involucra el observar cómo el movimiento afecta la atención y concentración en el estudiante. Entiendo que no hay riesgos potenciales para mi hijo(a). Entiendo que a ningún momento, durante este estudio el nombre de mi hijo(a) será utilizado en conexión con los resultados. Todos los datos personales serán manejado con absoluta reserva. Entiendo que la participación de mi hijo es voluntaria y que soy libre de retirar a mi hijo(a) del proyecto, en cualquier momento sin ninguna consecuencia negativa.

_________________________  ________________________
Firma del Represent  Fecha
### Appendix M – Other Teacher Definitions of At Task

<table>
<thead>
<tr>
<th></th>
<th>Years Taught</th>
<th>On Task</th>
<th>Off Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>K.S.</td>
<td>27</td>
<td>• engaged in whatever they are supposed to be doing at the time</td>
<td>• nose picking</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• rolling around on carpet</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• poking others</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• picking little things off the rug at circle time</td>
</tr>
<tr>
<td>H.F.</td>
<td>3</td>
<td>• Staying in the room</td>
<td>• hurting other students</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• students are engaged with their work</td>
<td>• screaming when the teacher is talking.</td>
</tr>
<tr>
<td>B.A.</td>
<td>10</td>
<td>• actively engages with the task/topic</td>
<td>• actively engaging with the learning environment in a way that is</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• paying attention listening,</td>
<td>appropriate to what is being taught and allows each learner to learn</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• hands/feet to self</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• eyes on the teacher</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• actively engaging with the learning environment in a way that is</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>appropriate to what is being taught and allows each learner to learn</td>
<td></td>
</tr>
</tbody>
</table>