The Impact of Recess

on

Student On-Task Behavior

by

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**ABSTRACT**

The purpose of this study was to discover if a break period had an impact on the on-task behavior of elementary school students. The measurement tool used was an observational checklist during a one-hour period after a 20-minute break was given. This study involved use of a one-group pre-post-test design. Results indicated that the break period helped to significantly increase on task behavior. More research must be conducted before these results can be generalized to other students.

**CHAPTER I**

**INTRODUCTION**

**Overview**

 Recess can be defined as a break period, a time when students can pause from academic learning. A break provides students a period to run, plan, think, and dream (Zygmunt-Fillwalk & Teresa, 2005). Students are given the opportunity to choose their activities and interact socially during an unstructured and undirected time. According to Riley and Jones (2007), play times offer both genders opportunities to test and refine their developing social, language, and physical skills, which leads to academic achievement and a lifetime of success. It is an essential component of the day because it allows elementary-school aged students to develop physically, mentally, and emotionally.

 In order to focus on more time for teaching and learning, breaks, recess, and/or physical activity are being cut back or eliminated from the elementary school schedule. Teachers and administrators are feeling pressure from state standards and mandatory testing and are trying to maximize academic learning time. Many feel that the extra time spent in an academic setting would improve test scores required by *No Child Left Behind*. They also fear for student safety and behavior during these academically unstructured times. After research, Jarrett and Waite-Stupiansky (2009) found no research to support that taking away recess for more academic learning time could improve test scores.

 Despite the pressure for increased teaching and learning, a break period provides many benefits to students, which include brain development, childhood obesity, and the social and emotional well-being of students. It may also benefit student on-task behavior, which would cause students to do well academically and perform to their best abilities in the classroom. According to Pellegrini and Bohn (2005), children who are given frequent breaks throughout the day show stronger classroom performance. Not only can a break increase classroom performance, it could also help students control aggression, resolve conflict, and decrease behavioral issues (Waite-Stupianskly and Findlay, 2001). If recess were eliminated in order to reduce the pressure related to teaching and learning, students would be missing out on meaningful and beneficial unstructured time.

This researcher is interested in the positive effect that a break period has on on-task behavior. As a 5th grade teacher, the researcher can see first-hand accounts of how students can benefit positively from a break in instruction. Students in the researcher’s morning class receive 120 minutes of English language arts instruction each day. This is a long period and, typically by the end of the class, they feel tired and unfocused.

**Statement of Problem**

The purpose of this study is to see if a break period (recess) has an impact on on-task behavior. The study will look at on-task behavior during a language arts block and compare it to on-task behavior after a break during the same block.

**Hypothesis**

 The null hypothesis is that a 20-minute break during a language arts block will have no impact on student on-task behavior.

**Operational Definitions**

 The independent variable for this study was the 20-minute break during the language art block. The type of physical activity that the students participated in each day varied, however it consisted of students watching videos from the website “Go Noodle.” The videos were chosen from the workout category of the site, and included physical activities such as body awareness, gross motor skills, coordination, and fitness skills.

 The dependent variable in this study was student on-task behavior using an observational checklist. From 11:20-12:20, the observer sat in the back of the room filling out a checklist for every ten minutes of instruction.

**CHAPTER II**

**A REVIEW OF THE LITERATURE**

This literature review will explore the topic of recess and on-task behavior at the elementary school level. Section one provides an overview of recess. Section two discusses how recess has been eliminated or reduced in some schools. In section three, the advantages of recess, with a focus on on-task behavior, is discussed.

**Recess Defined**

 Recess, in an elementary school setting, is a time when students can have a break from classroom routine. It benefits both children and teachers; children can play with their peers freely while teachers can observe their students in a less directive and controlling environment. According to Waite-Stupiansky and Findlay (2001), a recess period can range from one 20-minute break to as much as 90 minutes of small breaks throughout the school day. It provides young students a time where they can run, plan, think, and dream (Zygmunt-Fillwalk & Teresa, 2005). An essential component of recess is that it is unstructured and undirected and allows children to choose their activities, level of activity, and degree of social interaction.

A recess period allows girls and boys to learn about themselves and begin to establish their own identities. According to Chaille (2001), “there is both theoretical and empirical evidence that allowing time for recess or playground activities can yield immediate and long-term benefits for children of all ages, throughout their school careers” (p. 319). Researchers have found differences in the way girls and boys interact during play. Goodwin (2001) conducted a study pertaining to how children use directives and forms of exclusion when organizing play. The study indicated that fourth grade boys tend to form social structures and determine leadership based on athletic ability while girls have multiple leaders. Girls were also more likely than boys to exclude others during this time. Despite gender, all children are working to develop their social, language, and physical skills. Riley and Jones (2007) reviewed research on gender differences during play and commented:

While some adults dismiss play as mere fun, much growth and development

occurs during play times. As children play they gain knowledge of the world and an

understanding of their place in it. Although play may differ generally for girls and boys,

 it offers both genders opportunities to test and refine their developing social, language,

and physical skills, which leads to academic achievement but also to a lifetime of

success. Thus play does benefit children.” (p. 42)

Boys and girls may play differently during periods of unstructured time but, overall, recess is an essential part of the school day that promotes learning.

The activities during elementary recess also vary depending on the age of students. According to Chaille (2001), it is typical that primary students engage in vigorous play such as climbing, running, skipping jumping rope, and playing with sporting equipment. Students in the intermediate grades typically engage in cooperative games and social conversation. Despite recess activities differing by age, it is consistent that recess may be the only time where students can interact with others on their own terms (Chaille, 2001). There is a need for recess for all elementary-school aged students in order for them to develop physically, mentally, and emotionally.

**Elimination of Recess**

 While researchers have found that there are benefits of recess, many schools are beginning to cut back or eliminate recess periods. According to the American Association for the Child’s Right to Play (2004), 40% of school districts in the United States are reducing or taking away recess in order to focus on more time for teaching and learning. According to Jarret and Wait-Stupiansky (2009), this trend began in the late 1980’s and accelerated with the No Child Left Behind Act that was passed in 2001. They continued to state that, “The arguments against recess involved both academic and safety issues. Some administrators believe their school’s test scores would improve if children spent more time on schoolwork. Some feared lawsuits from playground injuries” ( p. 66). Riley and Jones (2007) mention that there is a recent emphasis on standards and testing and many teachers and administrators are feeling pressured to spend more time on structured learning. They feel that the extra time spent in the classroom will benefit the students academically. After careful research, Jarrett and Waite-Stupiansky (2009) have found no research to support that taking away recess could improve test scores required by No Child Left Behind.

The fear for children’s safety during recess is also a big concern for administrators. Simon and Childers (2006) created an 11-item survey for 95 elementary school principals. The results of this study showed that, although safety of the students is a huge concern, there needs to be more understanding and training on the advantages that recess offers. Lewis, Colvin, and Sugai (2000) suggest that students should be taught pre-corrective strategies such as continuously reviewing playground expectations and rules while providing active supervision. This would work to reduce the safety concerns that many administrators fear and would also teach students how to follow rules and expectations in an unstructured setting. The results showed that corrective intervention and supervision reduce the rate of problem behavior during unstructured activities, which can eliminate the argument of recess not being safe.

**The Advantages of Recess**

With the elimination or reduction of recess, many researchers are now focusing on many benefits of recess and why it is an essential part of the elementary school schedule. Chaille (2001) states that, at first glance, reducing recess may seem like a logical decision that adds time to the instructional day, but that assumption is not based on empirical evidence. Chaille (2001) continues to state:

High-quality recess experiences have immediate and deferred positive effects on

children’s learning and development. Administrators, teachers, and parents should work

together to create environments that promote quality recess experiences for students in

elementary and middle schools. Let the recess bells ring, along with the laughter of

children on the playground. (p. 320)

School recess can provide opportunities for children to practice recently learned skills and learn new ones during unstructured time. Waite-Stupiansky and Findlay (2001) discuss the fact that recess is not only important for physical activity, it also is essential for proper brain development and function. They also noted that children can develop social and emotional skills, increase imagination and creativity, increase reasoning and manipulation skills, control aggression, resolve conflicts, and develop problem-solving skills. According to Murray and Ramstetter (2013):

 After recess for children, or after a corresponding break time for adolescents, students are

 more attentive and better able to perform cognitively. In addition, recess helps young

 children to develop social skills that are otherwise not acquired in the more structured

 classroom environment (p. 183).

When looking at physical activity and the brain, there is a link between movement and thinking; physical activity can benefit brain function (Waite-Stupiansky and Findlay, 2001). Play also helps language skills, and, according to Riley and Jones (2007), “language in the context of play provides children with the ability to develop strategies for cooperation, engage in varied and complex play themes, and share perspectives about their world” (p. 40). Another need for recess in schools is to help decrease childhood obesity. Murray and Ramstetter (2013) also note that minor movement during recess counter-balances sedentary time while at school and home. This helps the child achieve the recommended 60 minutes of moderate activity per day that can help lower the risk of obesity. If students have the ability to play outside for recess, regular physical activity will promote aerobic endurance, muscular strength and motor coordination (Waite-Stupiansky and Findlay, 2001). Castelli, Hillman, Buck, & Erwin (2007) researched the relationship between physical fitness and academic success. Their studies showed that physical fitness and staying active throughout the day has a strong connection to mathematics and reading achievement. Recess is essential to the school day because of its many benefits.

Not only does recess benefit brain development, childhood obesity, and the social and emotional well-being of students, it also plays a role in on-task behavior in a structured setting. Jarrett, Maxwell, Dickerson, Hoge, Davis, and Yetley (1998) spent several weeks observing the classroom behavior of fourth grade students before and after recess periods. The purpose of the research was to see if recess would affect classroom behavior, specifically working, fidgeting, and listlessness. In the research, students were observed six times and were randomly assigned to having recess or no recess. The researchers used three different codes for classroom behaviors, which included W (work), F (fidgety), and L (listless). “W” meant on task behavior, doing assigned work, and attending to the teacher. “F” meant excessive movement, tapping, arm or leg swinging, and partly out of chair. “L” meant head on desk, staring out the window, slumping and eyes shut. Each time the students were observed their codes were written down on a checklist. After the six sessions, the researchers wrote down a cumulative percentage for each of the students. The findings from Jarrett et al., (1998) support the hypothesis that classroom behavior will improve after recess is implemented into the day’s schedule. Sixty percent of the participants benefited considerably from having recess; they worked more and/or fidgeted less. The researchers continued to state that:

“The finding that children in both classes were less on task and more fidgety when they

had not had a break, suggests that children think and work less efficiently when engaged

in uninterrupted instructional time. That finding also calls into question a policy that

assumes that children learn more when they have long periods of instruction”. (p. 125)

Pellegrini and Bohn (2005) researched classroom performance when students are given breaks. They noted that Asian schools, where children are given frequent breaks throughout the day, show stronger classroom performance. The researchers also stated that unstructured breaks from demanding cognitive tasks tend to facilitate school learning, social competence, and adjustment to school. Waite-Stupiansky and Findlay (2001) suggest that recess is also needed for academic purposes:

 ---younger children need a more pronounced change in activity before they are ready to

 focus on another cognitive task. Pellegrini and Bjorklund (1996) asserted that school

 learning would be more effective if children are afforded opportunities to engage in non-

 focused, non-intellectual activities, such as recess periods occurring throughout the day.

 (p. 18)

Students need breaks in order to perform to the best of their abilities in the classroom.

**Summary**

Recess plays an immense role in the school day. Although teachers and administrators are under pressure to maximize academic time, a recess period provides many benefits to the students. This study will delve deeper into the research that has already been completed. It will use several recess periods to determine if recess plays a role in on-task behavior. Participants from the researchers’ 5th grade class will be involved in this study. It is hypothesized students who are provided with recess in the middle of the language arts block will demonstrate fewer off-task behaviors compared to students who do not have recess during the language arts block.

**CHAPTER III**

**METHODS**

**Design**

This quasi-experimental study utilized the one-group pre-post test design with a convenience sample to determine whether a break period (recess) had an impact on on-task behavior. The independent variable was a 20-minute break that occurred in the middle of a language arts period. The dependent variable was student on-task behavior, which was tracked by an observational checklist. The study was conducted for two weeks in the spring 2018 semester.

**Participants**

Participants in the study consisted of twenty-three 5th grade students from the same class at a suburban elementary school in Baltimore County. Of the participants, 14 were Hispanic, 5 were Caucasian, and 4 were African American. There were 14 female and 9 male participants. The student population at the school comes predominantly from lower to lower/middle class socio-economic households.

**Instruments**

 The researcher used an observational checklist for this study. The researcher created the format for the checklist and the codes to record the classroom behaviors were adapted from Jarrett, Maxwell, Dickerson, Hoge, Davies, and Yetley (1998). The checklist was used for five days during the pre-test period and for five days during the post-test period. Student on-task behavior was recorded every ten minutes for an hour.

**Procedure**

 The study was conducted for two weeks. During the first week, the students did not receive a break from instruction. During the second week, a 20 minute break was given to the students before starting their independent work, which occurred from 11:00-11:20. The break consisted of watching videos from [www.gonoodle.com](http://www.gonoodle.com). The videos used were chosen from the workout category on the site. They were designed to get the students out of their seats and moving. Some of the workouts included guided dances, running in place, and jumping jacks. The students were told that after their break, they would have to go back to their seats quietly and focus on their independent work. From 11:20-12:20 the observer sat in the back of the room filling out a checklist every ten minutes of instruction. The students could receive three different codes for classroom behaviors, which included W (work), F (fidgety), and L (listless). W meant on task behavior, doing assigned work, and attending to the teacher. F meant excessive movement, tapping, arm or leg swinging, and partly out of chair. L meant head on desk, staring out the window, slumping, and eyes shut. A new checklist was used for each day.

**CHAPTER IV**

**RESULTS**

 This study aimed to determine whether a break period had an impact on on-task behavior. One 5th grade class at an elementary school was chosen for the study. The null hypothesis stating that a 20-minute break during a language arts block would have no impact on student on-task behavior was rejected.

 A paired samples *t*-test was used to determine whether the amount of student on-task behavior without a break was significantly different from on-task behavior with a break. As referenced in Figure 1, there was a mean of 20 instances of on-task behavior without a break which significantly increased to a mean of 27 instances of on-task behavior after a break t(22)= -4.84, p <.05.

 A second paired samples *t*-test was used to determine whether the amount of student off-task behavior without a break was significantly different from off-task behavior with a break. As referenced in Figure 1, there was a mean of 5 instances of off-task behavior without a break which significantly decreased to a mean of 2 instances of off-task behavior after a break t(22)= 3.97, p <.05.

**Figure 1**

**On-task and Off-task Behavior per Students Before and After Recess**

**CHAPTER V**

**DISCUSSION**

 The researcher set out to determine whether a break period had an impact on 5th grade on-task behavior. The null hypothesis stating that a 20-minute break during a language arts block will have no impact on student on-task behavior was rejected. The null hypothesis was rejected.

**Implications of Results**

These results suggest that elementary students benefit from a 20-minute break period during the school day. There was an increase in the number of students displaying on-task behavior, and a decrease in the number of students displaying off-task behavior. Looking at the results, a break period may increase the quality of instructional work. It also increases behavior and instructional outcomes and decreases disruptions in the classroom. Although the break takes 20 minutes of valuable instructional time, the benefits may outweigh this loss of time.

**Threats to Validity**

 One factor that threatened the validity of the study was the upcoming state mandated PARCC test. Students were reminded through the announcements, by the staff, and by their parents about the importance of focusing and working hard on the upcoming tests. There were several behavioral incentives put into place in order for students to receive a school-wide reward for trying their best on PARCC. By hearing these reminders on a daily basis, the students may have increased the amount of on-task behavior because they internalized the expectations.

 During the ten-day window of research, the assigned independent work varied however the expectations remained the same. The students knew that after finishing their independent work they must read to self, work on writing, work on word work, or do a lesson of I-ready. The independent work assignments included narrative writing, PARCC prep worksheets, perspective writing, practice tests, and other worksheets. The classroom consists of diverse learners, and due to the many different types of assignments. Student engagement could have been affected.

 Throughout the year the ESOL students receive services at the same time. The first group gets pulled from 11:00-11:20 and the second group gets pulled from 11:20-11:40. During the time frame of the study, the schedule was not consistent. Some days the ESOL teacher had to proctor for PARCC, which means the students did not receive any ESOL services. Other days the students were pulled, but for a shorter time also due to the state mandated test.

 The last and potentially biggest threat to validity was the differential selection. There was no random selection. The entire class was chosen out of convenience. This also led to bias because the researcher knew the students and had a strong relationship with them. The participants were aware that the researcher had high expectations for them.

**Connections to Previous Studies/Existing Literature**

Consistent with the findings of the current research that students displayed significantly more on-task behavior when given a break, other studies have also linked a break to positive effects on behavior. According to Murray and Ramstetter (2013), students are more attentive and better able to perform cognitively. Jarrett et al., (1998) used the same codes as the current research to examine the effects of recess on on-task behavior. The researchers found that sixty percent of the participants benefited from having recess. These students worked more and/or fidgeted less. The researchers stated that their findings suggest that children think and work less efficiently when engaged in uninterrupted instructional time. Pellegrini and Bohn (2005), who researched classroom performance when given breaks, saw that students show stronger classroom performance. They noted that unstructured breaks from demanding cognitive tasks tend to facilitate school learning.

 Many schools are eliminating recess due to the No Child Left Behind Act along with the pressure of standards and state mandated testing. School administrators feel that unstructured breaks are taking away from daily learning and achievement. Jarrett and Waite-Stupiansky (2009) have found no research to support that taking away recess could improve test scores required by No Child Left Behind.

**Implications for Future Research**

The results of this research have implications for future research relating to breaks and student behavior. Data was only collected for ten days. Future research should be conducted over a longer period of time to give more validity. Also, a bigger sample size should be used. More students should be included from various age groups and classes. This study could be conducted at various schools across the county in order to include rural, urban, and suburban school settings. Lastly, the type of break should vary. Future research should also explore the potential benefits of outdoor recess.

**Conclusions/Summary**

 The researcher found a significant increase in on-task behavior and a significant decrease in off-task behavior after given a break. Based on these findings, it can be concluded that a break period plays an important role in the school day. Future research is recommended to continue to explore the significance of a break period.

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