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A Comparison of Stability Balls Versus Chairs in the Classroom: Student Preferences and
Effects on Classroom Management

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Abstract

The use of stability balls as chairs in classrooms is becoming more common. There has been a decent amount of research done involving students with Attention Deficit Hyperactivity Disorder (ADHD) and how this disorder affects an individual's attention and behavior in class. This study looks at a fifth grade classroom and asks the following: How does the use of stability balls as chairs affect the classroom management, and how do the students feel about them? The study is inconclusive as far as behavior goes, but seems to show a student preference in support of using stability balls.

Introduction

Movement has been proven to have an impact on learning. However, with high stakes testing and more rigorous academics, time for things such as recess and PE are being cut out of the schedule. Because of this, students are sitting for longer hours. This is affecting the students academically and physically and is making classroom management increasingly difficult (Stratuss, 2014). One way that educators are trying to solve this problem is by replacing normal chairs with stability balls, or exercise balls, for the students to sit on. The stability balls allow the students to move, on a small scale, while they are listening or working by either bouncing or rocking in place. Sitting on a stability ball also requires the children to sit up straight, which works the muscles in their core. This raises several questions. For the purpose of this study, we decided to look specifically at two things: When chairs are replaced with stability balls in the classroom, how does it effect classroom management as a whole, and how do students feel about the use of stability balls as chairs?

Literature Review

There is a strong connection between movement and learning. Movement helps to increase learner motivation and attitudes, and it helps with memory and recall (Jensen, 2005). Various methods have been experimented with by teachers to increase movement in the classroom, one of which is the use of stability balls, or exercise balls, as chairs. Students are able to make small movements while sitting on the stability balls in order to maintain balance and this helps them focus (Garvey, 2009). The number of classrooms using stability ball chairs, both in the United States and abroad, is increasing. In 2009, Wittfitt, a company that sells stability balls for use in classrooms, said that the demand has increased dramatically since 2004 (Garvey, 2009).

Many studies have been conducted on the use of stability balls with students who have been diagnosed with Attention Deficit Hyperactivity Disorder. The studies are encouraging and many show that student in-seat behavior increased while sitting on the stability balls (Schilling, 2003). In another study, increased levels of attention, decreased levels of hyperactivity, and increased time on task were also noted (Erwin, 2014).

Liberty Looney, a fourth grade teacher in Oregon, has been using stability balls as chairs in her classroom for seven years now. She describes them as, “a tool to help them to be able to focus.” Part of what makes the stability balls a success in Looney’s classroom are the clear rules that she has regarding the students use of the stability balls. Looney has posted the following rules in her classroom: “Balls are a privilege. Balls are not toys. Use the ball responsibly. Bottom on the ball – feet on the floor. Balls remain on the floor.” If a student finds himself or herself unable to follow these rules, they must return to a regular chair(Garvey, 2009) .

Donna Yehl, a fourth grade teacher in Chicago, switched to stability balls in her classroom in 2009. She came across the idea while looking for a way to help her fidgety students sit still in class. She has been pleased with the results, claiming that her students are now sitting upright and that they are more focused. According to the principal of Yehl’s school, there were originally concerns about the stability ball chairs being a distraction but they have not turned into a reality (Garvey, 2009).

Method

For the purposes of this study, a fifth grade classroom of twenty-four in a small, private school was observed over the course of two weeks. According to the teacher, this class had been known to have behavioral problems in the past and to be difficult for the teachers to manage. The class had been sitting on stability balls as chairs for the first two months of school before

this experiment was conducted. The experiment was conducted during a busy time in the school year, and there were many disruptions to the normal routine for the students. These included standardized testing, grandparents day, and substitute teacher.

We interviewed the teacher in the classroom multiple times throughout the study in order to discuss how to go about doing the research and how to practically implement it within her classroom, as well as to learn how she felt about the use of stability ball chairs. After our initial interview, we formed a plan for how to collect data based largely on the behavior management system already being used in the classroom. This system involved monitoring overall classroom, on-task, and non-disruptive behavior. When the teacher feels the class as whole is getting out of hand, the class loses a point. Individuals may also lose points for being off-task or disruptive.

Permission slips were then sent home to the parents, the students signed consent forms, and then we began to gather data (See appendix A, B). For the study, we gave the students normal chairs to sit on for a week. A record was kept of the number of times that individuals were noted as being disruptive or off task, as well as a record of classroom behavior as a whole. After the first week was completed, the students were given back the stability balls to sit on. The same information was collected for the second week.

At the end of the two weeks, the students were given a survey asking them their opinions of the use of the stability balls as chairs (See Appendix C). The students were asked if they found the stability balls helpful while listening and while doing seatwork. They were asked if they felt that the stability ball was a distraction for them, or if they thought their using a stability ball was a distraction for their classmates. They were also asked if they felt that they behaved better on a stability ball or a chair. Finally, the students were asked if they found it distracting when their classmates were using stability balls.

Results

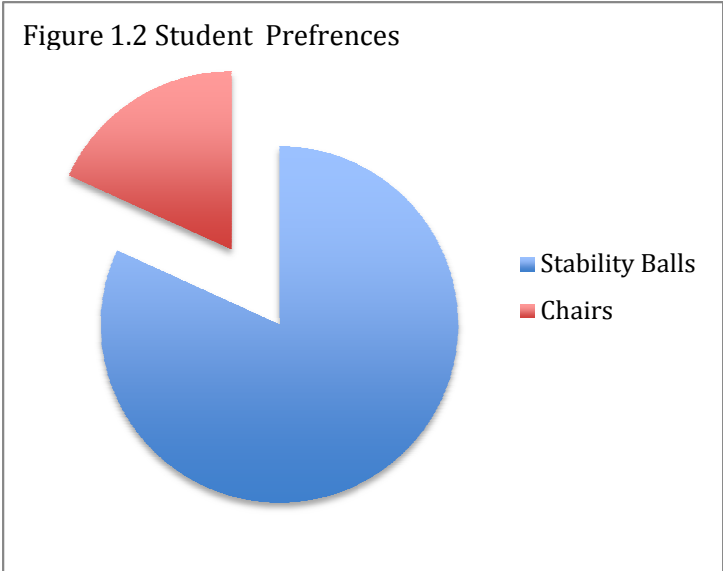
In the interviews with the teacher whose classroom we have been collecting data, she discussed with us her mixed feelings about the stability balls. After conferring with some of her colleagues and reading about other classrooms, who have had success with stability balls, she decided to try them in her own classroom. This is her first year using the chairs, and she has stated that she did not see the improvement in attention and behavior that she was hoping for. She also discussed with us some of the challenges presented by the stability balls. The balls must be tucked firmly under the desk when a student gets up or else they roll around the classroom. She discussed with us the fact that the stability balls have to fit the students height wise and that the students have preferences for how inflated or deflated his or her ball is.

Due to various disruptions to the normal schedule, data was collected three out of five days (Monday through Wednesday) in each of the weeks of the experiment. The teacher kept a record throughout the day of class points, and the students gained lost points based on their behavior. In the time that the students were being observed, overall classroom behavior was worse with the stability balls than it was with the chairs. When looking at individual students scores over the three days, there was not a consistent result. For some, they lost more points with the balls, others with the chairs, and others showed no difference at all. (See figure 1.1, See also appendix D).

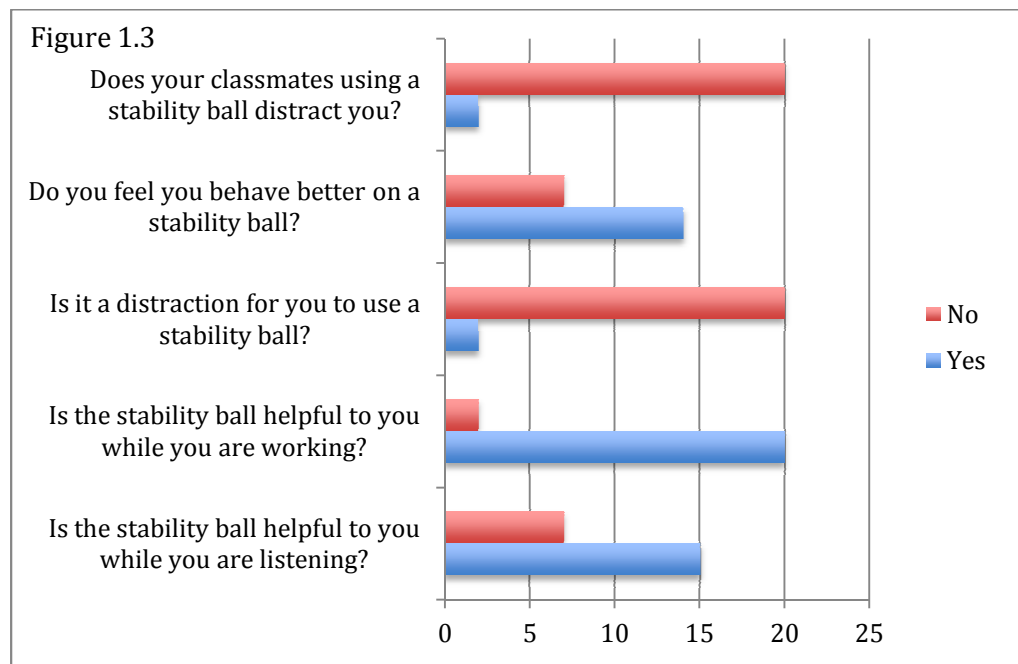
Figure 1.1 Student Behavior

Student	Monday with Chairs	Tuesday with Chairs	Wednesday with Chairs	Monday with Balls	Tuesday with Balls	Wednesday with Balls
1						
2						
3						
4	-1					
5	-1			-1	-1	
6		-1	-1	-1	-1	
7						
8						
9						-1
10				-1	-1	
11						
12	-1			-1		
13	-1	-1		-3	-1	
14						
15						
16	-1	-2				
17	-1			-1		
18						
19						
20	-1			-1		
21				-2		-1
22						
23		-1			-1	-2
24						

In the survey that the students filled out, there was an overwhelming majority of students who said that they preferred to sit on stability balls rather than regular chairs. Twenty-two of the twenty-four students in the class filled out a survey. Of those twenty-two, eighteen of them said that they would prefer to sit on a stability ball (see figure 1.2). Many students claimed that the stability ball was helpful to them either while they were listening, working, or both. Most also claimed that they did not feel that using the stability ball was a distraction for them or



for their classmates. However, there were much more mixed results for students who said that they feel that they behave better on a stability ball. Results from the survey can be seen below (figure 1.3).



Conclusion

The time period over which this study was conducted was very short. In this classroom, the majority of the students prefer to sit on the stability balls and feel that they are helpful to them in some way or another. However, the classroom behavior does not show a marked improvement when the students use stability balls in place of chairs and the teacher expresses that she does not feel that they have truly been beneficial.

Though we did not have conclusive results in this study, there are many who have experienced success with the use of stability ball chairs in their classrooms. There are many variables that go along with the use of stability ball in a classroom. The results of our study show that many students do prefer to sit on stability balls as opposed to regular chairs. Our study does not show an improvement in overall classroom behavior or consistent results for individual behavior. In order to judge the effectiveness of using stability balls in this classroom, more data would need to be collected over a longer period of time. Other considerations include the individual student and his or her needs, the set up of that particular classroom, and the personality and teaching style of the teacher.

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Appendix A

October , 2014

Dear Parent or Guardian,

We are presently involved in a research project on the use of stability balls as chairs in classrooms and their impact on classroom management and student ability to concentrate.

We would like permission for your child to participate in our study. Stability balls are already being used in your child's classroom and we will be observing the students and monitoring their behavior while they are using stability balls and while they are using traditional chairs. We will also be conducting a survey in which we ask the students how they feel about the stability balls and whether they feel that they help them to concentrate in class or if they are merely a distraction.

Your child and their responses will remain confidential. Neither the name of the school or the name of your child will be used in our research paper. The use of this information is primarily for our learning.

If you have any questions about our research or your child's participation please feel free to contact Erin Messinger at erinmessinger@southern.edu or Melissa Clayton at mmccauley@southern.edu .

Sincerely,

Melissa Clayton and Erin Messinger
Southern Adventist University
Department of Psychology and Education

Appendix B

October ,2014

Dear Student,

We are from Southern Adventist University and we are doing a research study on the use of stability balls as chairs in the classroom.

As a part of our study, we would like to ask you to complete a survey telling us about how you feel about using the stability ball chairs. We are looking specifically at how they affect classroom management and weather you, the student, feels they are helpful or not.

Being in this study will not harm you in any way. However, there are not benefits for you either. The study only helps us, as future teachers, to learn more about students and ways to increase their learning.

You are not required to participate in this study. At any time you have the right to say that you no longer want to participate.

Your parents have been asked if you can be in this study and even if they say yes, you still do not have to participate.

Your information and your responses to our questions will be kept private. We will not be using your names or the name of your school in our research paper.

If you have any questions, please let your teacher know and she can contact us.

Sincerely,

Melissa Clayton and Erin Messinger

Please mark one.

I understand the study and I agree to participate.

I do not agree to participate in the study.

Printed Name: _____

Signature: _____

Appendix C
Student Survey

Please circle your response.

1. Do you prefer to sit on the stability ball chair or a regular chair?

Stability Ball

Chair

2. Do you find the stability ball chair helpful to you while listening to you teacher?

Yes

No

3. Do you find the stability ball chair helpful to you while you are doing your schoolwork?

Yes

No

4. Do you think that the stability ball chair is a distraction for you?

Yes

No

5. Do you think that you using the stability ball chair is a distraction for your classmates?

Yes

No

6. Do you feel you behave better in class with a stability ball chair or a regular chair?

Yes

No

7. Do you find it distracting when your classmates are using the stability ball chairs?

Yes

No