

Running head: DOES RECESS IMPROVE ACHIEVEMENT?

Does Recess Improve Achievement

Joshua Wayne Carty

Tarleton State University

Does Recess Improve Achievement

Introduction

The No Child Left Behind Act demands more of our educational institutions to improve achievement scores on the state-standardized tests. With this pressure, many school administrators have opted to reduce or eliminate recess time to increase instructional time (Jarrett, et al, 2001; Waite-Stupanski, 2001). “The term recess refers to a break during the day set aside to allow children the time for active, free play” (Recess and the Importance..., 2001; McClure & Kinnison, 1999). Recess has been deemed as “a waste of time” (Ramsberg, 1998). Child development researchers suggest that children are more attentive after recess (Pellegrini & Bjorklund, 1997).

Statement of Problem

The purpose of this study will be to assess if recess is necessary to improve achievement scores on the state mandated standardized test. The National Association of Early Childhood Specialists (NAECS) defines recess as a break during the school day to allow active, free play (Recess and the Importance..., 2001; McClure & Kinnison, 1999).

Review of Literature

Although “no research has been done to specifically study the effects of recess time and achievement” (Jarrett, et al, 2002), many studies suggest physical activity supports learning (Etnier, et al, 1997). By providing more physical activity and reducing instructional time, academic achievement increases, especially in the core areas such as mathematics, reading and writing (Bear & Richards, 1980; Shepard, et al, 1984; Shepard, 1997; Symons, et al, 1997). Students who receive daily physical education have better attendance records, have a more

positive attitude toward education, and perform better academically (NASPE, 2002; President's Council, 1999). Despite spending more than a third of the school day in physical education, attitudes improved as well as achievement scores in two studies (Jarrett, et al, 2002; Sallis, 1999).

The State Board of Education in Michigan states that “a child’s growth cannot take place if physical needs are not met first” (2000). Recess nurtures the imagination: “children must first learn to dream, imagine, and inquire” (Schultz, 1998). Science is learned as students experience wind, dirt, water, and the seasons (Recess and the Importance..., 2001). The seesaw, merry-go-round, and swings teach physics as well as math being used to keep score (Recess and the Importance..., 2001). Problem solving, creativity, and critical thinking are fostered by play (Sindelar, 2002), thus recess provides children with a deeper understanding of the material they have been taught (Flaxman, 2002) as well as improving vocabulary (Recess and the Importance..., 2001).

It has been stated that recess disrupts work patterns (Jarrett, et al, 2002). To the contrary, research proves that a break every 90 minutes helps us grow mentally as well as physically (Jarrett, et al, 2001). People perform better and learn easier when learning is distributed over time rather than being bombarded with continuous instruction (Pellegrini & Bjorklund, 1997; Waite-Stupianski, 2001). When people, especially children, are given continuous cognitive tasks, “cognitive interference occurs” (Pellegrini & Blatchford, 2002). When free time is granted, the mind and body have time to relax and store the information previously received (Recess and Elementary..., 2001; Pellegrini & Blatchford, 2002). During recess, oxygenated blood is pumped to a sluggish brain (Lindsay, 1994) which improves the ability to think (Waite-Stupianski, 2001). Studies show that as instruction time increases, fidgeting and restlessness also increase; (Jarrett,

et al, 2001) thus, instructional time is wasted (Chmelynski, 1998). To minimize fidgeting and restlessness, educators must provide sufficient breaks during the school day. In summation, we must conclude that recess improves academic achievement (Pellegrini & Blatchford, 2002) and the lack of recess negatively “affects [a child’s] brain development, health and physical development, attention, [and] memory...” (Waite-Stupianski, 2001).

Statement of Hypothesis

Due to the need for increased achievement, educators must make instructional time as efficient as possible. Therefore, it is hypothesized that there will be a more positive relationship between schools allowing recess time for elementary children (grades 3-6) and their achievement scores in the Mathematics and Reading portions of the Texas Assessment of Knowledge and Skills test (TAKS) as compared to schools not allowing recess.

Method

Participants

Public elementary school campuses within the state of Texas will be randomly selected as participants in this study. Only campuses including grades 3, 4, 5, and 6 will be included.

Apparatus

Since many administrators’ main concerns are scores on the TAKS test (Jarrett, et al, 2002), the researcher will use these scores to evaluate achievement for selected schools. The Spring 2007 TAKS scores will be used. The scores of schools allowing recess will be compared to the scores from schools disallowing recess using SPSS statistical analysis software. All grade level TAKS scores reported on the campus AEIS report for grades 3, 4, 5, and 6 will be utilized for comparison in order to consider any possible unforeseen issues, which may yet to be

considered or revealed. The researcher will abide by all rules and regulations set forth by the Texas Education Agency concerning the administration and examination of the TAKS test.

Research Design

This research project will examine the relationship of schools allowing recess time for elementary children (grades 3-6) and their achievement scores in the Mathematics and Reading portions of the TAKS test as compared to schools not allowing recess and their achievement scores in the Mathematics and Reading portions of the TAKS test.

Dependent Variable: Achievement scores on the reading and math portions of the TAKS for students in grades 3, 4, 5, & 6.

Independent Variable: One group of schools allowing recess and one group of schools not allowing recess.

Procedure

The researcher will randomly select elementary campuses to be included in the study. School campuses without grades 3, 4, 5, or 6 will be eliminated. Approximately 100 schools in the state of Texas will be used in this study. Data will be entered into SPSS statistical software by grade level, subject, ethnicity, gender, and socioeconomic status as reported on the campus AEIS report found for each Texas school campus from the Texas Education Agency (TEA) website. Data analysis will be used to determine areas of significance.

Data Analysis

The researcher will perform an independent t-test using SPSS statistical software to compare the TAKS scores of schools allowing recess to those disallowing recess.

References

- Bear, G. C. & Richards, H. C. (1980). An interdependent group-oriented contingency system for improving academic performance. *School Psychology Review*, 9, 190-193.
- Chmelynski, C. (1998). Is recess needed. *School Board News*, Dec. 67-68.
- Etnier, J. L., et al. (1997). The influence of physical fitness and exercise upon cognitive functioning: a meta-analysis. *Journal of Sport and Exercise Psychology*, 19(3), 249-277.
- Flaxman, S. G. (2000). Play: an endangered species. *Instructor*, 110(2), 39-41.
- Jarrett, O. S., et al. (2001). Impact of recess on classroom behavior: group effects and individual differences. *The Journal of Educational Research*, 92(2), 121-126.
- Jarrett, O. S., et al. (2002). Recess in elementary school: what does the research say? *Eric Digest*, [Electronic version] Retrieved April 14, 2005 from <http://ericece.org>
- Lindsay, D. (1994). The games children play. *Education Week*, 13(39), 37-38
- McClure, C. & Kinnison, L. R. (1999). Recess in elementary schools: implications for children who have disabilities. Denton, TX: Texas Women's University.
- National Association for Sport and Physical Education (NASPE). (2002). New study supports physically fit kids perform better academically. [Electronic version] Retrieved April 14, 2005 from http://www.ActionForHealthyKids.org/docs/pe_ba_jun.pdf
- Pellegrini, A. & Blatchford, P. (2002). The developmental and educational significance of recess in elementary schools. *Early Report*, 29(1), 1-6.
- Pellegrini, A. D. & Bjorklund, D. F. (1997). The role of recess in children's cognitive performance. *Educational Psychologist*, 32(1), 35-40.
- President's Council on Physical Fitness and Sports. (1999). Physical activity promotion and school physical education. *Physical Activity and Fitness Research Digest*. [Electronic

version] Retrieved April 14, 2005 from

http://www.ActionForHealthyKids.org/docs/pe_ba_jun.pdf

Ramsberg, D. (1998). No-recess policies being implemented in U.S. school districts. *Library Adoption*, [Electronic version] Retrieved April 14, 2005 from

<http://library.adoption.com/print.php?articleid=3811>.

Recess and the Importance of Play. (2001). *Recess and the importance of play: a position statement on young children and recess*. Denver, CO: National Association of Early Childhood Specialists.

Recess in Elementary Schools. (2001). *Recess in Elementary Schools*. National Association for Sport and Physical Education, [Electronic version] Retrieved April 14, 2005 from

http://www.aahperd.org/naspe/pdf_files/pos_papers/current_res.pdf

Sallis, J. F., et al. (1999). Effects of health-related physical education on academic achievement: project spark. *Research Quarterly for Exercise and Sport*, 70(2), 127-134.

Schultz, K. (1998). On the elimination of recess. *Education Week*. 17(39), 38.

Shepard, R. J., et al. (1984). *Required physical activity and academic grades: a controlled longitudinal study*. Berlin, IN: Limarinan and Vilamaki, 58-63

Shepard, R. J. (1997). Curricular physical activity and academic performance. *Pediatric Exercise Science*. 9, 113-126.

Sindelar, R. (2002). Recess: is it needed in the 21st century? [Electronic version] Retrieved April 14, 2005 from <http://www.geocities.com/recessplease/>

State Board of Michigan. (2000). Policies for creating effective learning environments.

[Electronic version] Retrieved April 14, 2005 from

http://www.Michigan.gov/documents/bdpolicy001214_16470_7.pdf

Symons, C. W., et al. (1997). Bridging student health risks and academic achievement through comprehensive school health programs. *Journal of School Health*. 67(6), 220-227.

Waite-Stupianski, S. (2001). The fourth r: recess and it's link to learning. *Educational Forum*. 66(1), 16-25.