

## A Research-Based Case for Recess

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**The recess issue.** Recess has traditionally been an important part of the day for school children, a time when they organize their own games, play on playground equipment, run and chase each other, carry on cultural traditions of clapping games or jump rope rhymes, dig in the dirt, investigate nature, or talk with their friends. Compared to the rest of the school day, recess is a time when children have more freedom to choose what they want to do and with whom. For many children, recess is their favorite time in the day. The speaker of my state's General Assembly agreed to co-sponsor legislation mandating recess admitting: "I would not have survived elementary school if it hadn't been for recess."

But over the past 20-25 years, recess has been cut back in some schools and completely cut out in others. On a 1989 survey of state superintendents conducted by the National Association of Elementary School Principals (NAESP), 96% of school districts reported they had recess.<sup>1</sup> However, in the next 10 years, the number of schools with recess had decreased. By the late 1990's, the lack of recess in many schools received considerable notoriety. A front page article in *The New York Times* pictured a school built without a playground and quoted Atlanta Public School Superintendent Benjamin O. Canada as saying: "We are intent on improving academic performance. You don't do that by having kids hanging on the monkey bars."<sup>2</sup> No Child Left Behind's (NCLB) focus on test scores has resulted in cutbacks in both the arts and in physical activity. According to official figures provided by school systems since the enactment of NCLB, 20% of U.S. school systems decreased recess time, averaging recess cuts of 50 minutes per week.<sup>3</sup> In National Center for Educational Statistics data from 173 randomly selected school districts, 5.3% reported increases in recess while 32.3% reported decreases.<sup>4</sup>

**Who gets recess?** Article 31 of the UN Convention on Rights of the Child states children have the right to play. Many other countries, some of them top-ranking in international tests, give their children more frequent or extensive play breaks than does the United States. English primary children have breaks in the morning and in the afternoon as well as a long lunch break. Japanese chil-

dren get 10-20 minute breaks between 45-minute lessons or five-minute breaks and a long lunch. Finnish and Turkish children have 15 minutes to play after each 45 minutes of work. Ugandan students have an eight-hour school day, but they have a half hour of play in the morning, one hour for lunch and play, and 1.5 hours of activity time (sports, music, art, free-choice playtime) in the afternoon.

In the U.S., policy and practice vary considerably from state to state and from school to school. The probability of children having 150 minutes a week of PE and at least 20 minutes a day of recess was more likely in states with laws requiring PE and encouraging recess.<sup>5</sup> A study conducted in 2006 indicated 57% of school systems required regularly scheduled recess in elementary school.<sup>6</sup> However, according to a study published in 2011, only 40% of school systems had an explicit recess policy. Figures may vary in these studies, depending upon who is being surveyed and whether questions involve recess policy or recess practice.

School systems may claim on surveys they have recess when they *sometimes* have it. But who actually gets recess is another matter and appears to be a social justice issue. With a randomly selected sample of children on a

### What do elementary school principals say?

*Principals overwhelmingly believe recess has a positive impact not only on the development of students' social skills, but also on achievement and learning in the classroom.<sup>7</sup>*

randomly selected school day in 2002, researchers found that 79% had recess.<sup>8</sup> But only 61% of the African American students and 75% of other minority students had recess compared to 85% of white students. Also, only 56% of those living below the poverty line had recess compared to 83% of those above the poverty line.

In a survey of 1,055 schools, the Robert Wood Johnson Foundation found similar disparities between the recess haves and have-nots.<sup>9</sup> Length of recess was affected by school size, location, region, minority enrollment, and eligibility for free and reduced-price lunch.

Large, urban, Southeastern schools with high poverty and high minority populations had the least recess, sometimes none at all. In the Atlanta area, school systems with high percentages of white suburban children had recess at much higher rates than school systems with high percentages of African American urban children.<sup>10</sup>

On a positive note, some school systems have recently reinstated recess. Chicago public schools lengthened the school day to allow for 20 minutes of mandated recess. Some Atlanta area school systems with policies against recess in 2003 have since changed their policies to allow recess. How this policy change has affected individual schools and individual classrooms is not known since my recent informal surveys of teacher interns and new teachers in high poverty schools suggest recess deprivation is widely used for punishment. According to these surveys, in approximately half the schools with recess, individual children, primarily African American and Hispanic males, are regularly deprived of recess as punishment for a range of misbehaviors, including noise in the hall, talking back, tantrums, not finishing homework, and not finishing class work.

**Academic benefits of recess.** Employees, from factory workers to long distance truck drivers, have breaks built into their schedules to promote mental alertness. Do students also require breaks to promote mental alertness? Brain research on attention suggests why breaks are needed: (a) the brain cannot maintain attention for long periods of time, requiring contrast (such as a new location or novel stimuli) to regain focus; (b) for information to be processed, down time is needed to recycle chemicals crucial for long-term memory formation; and (c) attention is cyclical, involving 90-110 minute rhythmical patterns throughout the day.<sup>11</sup>

Teachers, parents, and community leaders often wonder whether recess has an effect on test scores. There is little research that compares the same children with and without recess, and there is no longitudinal research that examines the long-term effects of recess deprivation. It would be unethical to deprive children of recess over the years just to examine the long-term effects. Hopefully, children who are deprived of recess one year might have recess the next year. So, conclusions about recess need to be pieced together from a variety of studies.

In research with fourth-graders, children were less

fidgety and more on-task when they had recess.<sup>12</sup> Also, children with hyperactivity were among those who benefited the most. These results are consistent with the findings of a meta-analysis of nearly 200 studies on the effect of exercise on cognitive functioning that suggest physical activity supports learning.<sup>13</sup> Research indicates children perform better on literacy tasks after they have had recess<sup>14</sup> and that children raise their hands more often after recess breaks.<sup>15</sup> The Centers for Disease Control and Prevention issued a report in 2010 that explored the associations between school-based physical activity and academic performance. Of the eight recess studies they reviewed, six tested the effect of interventions on various aspects of academic performance (attention/concentration), and two explored relationships between recess and on-task behavior. All eight studies found at least one positive relationship between having recess and some aspect of classroom behavior. None found negative effects of recess.<sup>16</sup>

Improvements in on-task behavior and attention after breaks strongly suggest recess might improve achievement. At the very least, it suggests that abolishing recess to include more instructional time in the school day might be counter-productive. A Canadian study compared attitudes, achievement, and fitness before and after the school system decided to devote a third of the

#### What do pediatricians say?

*Safe and properly supervised recess offers children cognitive, physical, emotional and social benefits. It should be used as a complement to physical education classes, not a substitute, and whether it's spent indoors or outdoors, recess should provide free, unstructured play or activity. The AAP recommends that recess should never be withheld as a punishment, as it serves as a fundamental component of development and social interaction that students may not receive in a more complex school environment. Study authors conclude that minimizing or eliminating recess can negatively affect academic achievement, as growing evidence links recess to improved physical health, social skills and cognitive development.*

— American Academy of Pediatrics<sup>17</sup>

school day to physical activity, art, and music.<sup>18</sup> Though there was less time for academics, student test scores increased slightly and attitudes and fitness increased significantly.

A few recent studies have examined relationships between recess and behavior or achievement, but their conclusions are confounded by socio-economic status. Researchers found teachers rate children's behavior as better when they have at least 15 minutes of recess per day,<sup>19</sup> but the schools with less than 15 minutes of recess

## POLICY RECOMMENDATIONS BY ORGANIZATIONS

- **Children should have 60 minutes of physical activity a day.**  
(Centers for Disease Control and Prevention<sup>20</sup>; American Academy of Pediatrics<sup>21</sup>)
- **Recess is an essential component of education and should be part of the curriculum for preschool through elementary school.**  
(National Association of Early Childhood Specialists in State Departments of Education<sup>22</sup>)
- **All elementary school children should be provided at least one daily period of recess of at least 20 minutes.**  
(National Association for Sport and Physical Education<sup>23</sup>)
- **Children need both Physical Education and Recess.**  
(National Association for Sport and Physical Education<sup>23</sup>; National Association of Elementary School Principals<sup>24</sup>; National Association of State Boards of Education<sup>25</sup>)
- **Recess should not be taken away as punishment.**  
(American Academy of Pediatrics<sup>21</sup>; National Association for Sport and Physical Education<sup>23</sup>)
- **Principals should promote the development and maintenance of appropriately supervised free play for children during the school day.**  
(National Association of Elementary School Principals<sup>24</sup>)

a day tend to be high-poverty schools where teacher turnover and economic deprivation are correlated with behavior issues. Another study found two schools that abolished recess subsequently had lower test scores than a school that kept recess,<sup>26</sup> suggesting that abolishing recess does not raise scores. However, the two schools that abolished recess served more children in poverty, making comparisons difficult. Clearly, more controlled research is needed.

**Need for Physical Activity and Benefits of Recess.** The obesity of children ages 2-19 increased three-fold between 1980 and 1999. In a 2008 ethnic comparison of children ages 2-19, 20.8% of Mexican American children, 20% of black children, and 15.3% of white children were found to be obese.<sup>27</sup> Although cause and effect cannot be assumed, the ethnic groups with the highest incidence of childhood obesity are also the groups least likely to get recess.

The Robert Wood Johnson Foundation concluded from the body of research on activity in various settings that *opportunity* for physical activity is higher during recess than at other times of the day, with 42% of the activity occurring at recess, 32% during physical education (PE), and 26% during after-school programs/activities.<sup>9</sup> Of great concern is the finding that children who do not have the opportunity to be active during the school day do not tend to compensate after school. Experimental research has found that children were less active after school on days when they had no recess and PE classes in school, suggesting that inactivity breeds inactivity.<sup>28</sup>

**Recess and Social Competency.** According to Jambor, “The playground during recess is one of the few places where today’s children can actively confront, interpret, and learn from meaningful social experience.”<sup>29</sup> Much of what children do during recess, including the sharing of folk culture,<sup>30,31</sup> making choices, and developing rules for play, involves the development of social skills. Educators and counselors have asserted that in organizing their own games, children learn respect for rules, self-discipline, and control of aggression;<sup>32</sup> develop problem solving and planning strategies;<sup>33</sup> practice leadership, resolve conflicts; develop an understanding of playing by the rules;<sup>34</sup> and associate with children of other ethnicities.<sup>35</sup> Using a checklist to explore what children did on an urban elementary school playground, researchers noted that they played games they learned in PE, made up their own games, used the playground equipment constantly, and exhibited very little negative behavior.<sup>36</sup> Using the same checklist with middle-schoolers (playing on a strip mall parking lot) researchers found creative use of the space and very little negative behavior.<sup>37</sup> Using similar methodology on an urban parochial school “playground” without playground equipment, another study found comparable results, including children chasing one another, playing games, and engaging in little negative behavior.<sup>38</sup> In a separate study, one researcher noted that the only negative behavior occurred, not during play, but during lining up.<sup>30</sup> Ethnographic studies found rich discourse and opportunities to negotiate moral dilemmas during recess.<sup>39,40</sup>

Game playing can occur in the classroom as well as on

### Supporters of Recess

The Alliance for Childhood, the U.S. Play Coalition, and the American Association for the Child's Right to Play (IPAUSA) are strong supporters of recess. The following organizations, representing PE teachers, elementary and middle school principals, early childhood specialists, and pediatricians, have made major pro-recess statements:

- \* American Academy of Pediatrics
- \* National Association for Sport and Physical Education
- \* National Association of Early Childhood Specialists in State Departments of Education (NAECS/SDE)
- \* National Association of Elementary School Principals
- \* Ranger Rick's Recess Campaign (from the National Wildlife Federation)

the playground. However, according to some researchers, game playing in the classroom is typically in a "closed setting" where the children cannot withdraw from the game.<sup>41</sup> Recess provides a more "open setting" where children are free to leave the play situation. In open settings, children must learn to resolve conflicts to keep the game going, resulting in low levels of aggression on the playground.<sup>41, 36</sup> Interviews with fourth-graders suggest recess may be the only opportunity for some children to practice their social skills with other children.<sup>42</sup> Many classrooms allow very little interaction. Furthermore, latchkey children, who lock themselves at home after school with TV and computer games as companions, often have no peer interactions once they leave school.

An important aspect of play is the ability to choose and make decisions. One study found that 8-9 year-olds were able to set goals for their recess experience that included achievement, social relationships, and the need for fun and challenge.<sup>43</sup> In interviews of fourth-graders on the difference between PE and recess, the dominant response was recess involved choice of activities and play partners, whereas in PE they were told what to do and with whom. Some of the children noted recess was the only time of the day when they could make choices and that the ability to choose made them feel respected.<sup>42</sup>

Recess provides an excellent opportunity for learning social skills. Students who have been long deprived of recess may not know how to behave when recess is reinstated. In an urban Boston public school, researchers noted many children with challenging behaviors on the

playground made dramatic progress over the year, becoming happier and easier to get along with due to the attention and support of the staff.<sup>44</sup> Some schools train peer coaches as conflict managers<sup>45</sup> and play partners to help individual students manage their own behaviors.<sup>46</sup> There is evidence these playground interventions generalize to better behavior in other settings. Peaceful Playgrounds ([peacefulplaygrounds.com](http://peacefulplaygrounds.com)) and Playworks ([playworks.org](http://playworks.org)) are two programs that provide structure designed to teach social skills. A recent Stanford study found that Playworks schools, compared to control group schools, reported fewer incidences of bullying and more vigorous physical activity at recess as well as smoother transitions to the classroom.<sup>47</sup> Teaching children games and how to play fair can be useful especially for children not experienced with recess, with the caveat that structured activities should not be required.

**Recess Policy.** Decisions about recess are made at many levels. A few states have mandated recess (e.g., Virginia and Hawaii), and others recommend (Michigan), urge (Arkansas), or encourage (California) daily recess. Most states have no recess policy. The National Association of State Boards of Education lists the PE and recess policies of all the states in its State School Healthy Policy Database ([http://www.nasbe.org/healthy\\_schools/hs/bytopics.php?topicid=3120&catExpand=acdnbtm\\_catC](http://www.nasbe.org/healthy_schools/hs/bytopics.php?topicid=3120&catExpand=acdnbtm_catC)). In some cases, local school boards have established their own recess policy. Whether or not the school board mandates recess, it is often the school principal who either allows it or discourages it for a variety of reasons, including test scores or playground safety. Even where schools encourage recess, teachers sometimes keep the whole class or individual children in from recess as punishment. Recess advocates can often find out where decisions are made through a Google search using *school recess policy* and the *name of the state* and *school system* as descriptors. Advocates can collect data on their school by surveying teachers, parents, and/or children on how they feel about using recess deprivation as punishment. Teachers are often open to ideas for alternative consequences for misbehavior. Reward for good behavior and discipline alternatives to recess deprivation are found on the Peaceful Playgrounds website.

**Next Steps.** Based on the research, the following next steps are recommended:

**Researchers:** More research, especially of student learning and test-taking success with and without recess would be helpful.

**Parents and concerned citizens:** Recess advocates have changed recess policy through letter-writing campaigns, petitions, visiting school board meetings, and talking with many people. The individual who con-

vinced the Virginia Board of Education to require recess did not have a child in the public school system. The common good requires people be concerned not only about their own children but also about other people's children. Being a recess advocate benefits society. For recess advocacy strategies, see Ranger Rick's Recess Campaign (National Wildlife Federation).<sup>49</sup>

**Teachers:** Be aware of what the research says about recess and share that research with your principal. Rather than deprive misbehaving students of recess, consider more appropriate consequences for misbehavior, consequences that do not restrict active play.

**Principals, superintendents, and policy makers:** In-

form yourself on what the research actually says about the values of recess. Make research-based decisions on recess policy.

**Students:** Children can make a difference on an issue like recess that affects them personally. By taking action through debates, petitions, making signs, and writing articles/letters in the school/community newspapers, children can learn about political action and empowerment. As part of special Problem-Solution Projects in their classrooms, children collected data on their playground and convinced their principal to let them have recess.<sup>48</sup> Children's data collection could even become a science fair or social studies fair project.

### In Conclusion

Advocates for the wellbeing of all children need to be concerned about the number of children deprived of recess. Given the strong evidence suggesting recess meets so many physical, social, emotional, and academic needs, recess for *all* is a goal worth pursuing.

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