
The Recess Debate

A Disjuncture between Educational Policy and Scientific Research



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Some devalue recess because they assume it to be a waste of time. There is no theory or empirical evidence to support this point of view. There is, however, abundant and clear evidence that recess has beneficial effects on children's social competence and academic performance. The author tells how his interest in standardized tests led him to years of recess study, compares recess survey findings in the United States to those in the United Kingdom, and summarizes the benefits of recess for school performance.

RECCESS HAS BEEN PART OF the school day for as long as we can remember. Typically, most people have considered what children do during recess as merely “playful.” Adults usually regard it as a break from the serious work of the day—reading, writing, and arithmetic—while kids often say, perhaps only half-jokingly, that it is their favorite time. Because what goes on at recess does not appear serious, some claim it interferes with the “educational” mission of schools. This perception has led many districts to question the need for recess.

Since I explored this trend in considerable detail three years ago in *Recess: Its Role in Education and Development*, recess has remained under attack in both the United States and the United Kingdom. The debate over recess began around the same time (the early 1980s) in both countries and revolves around similar issues in both places. The onslaughts against recess persist today, even in the face of significant research supporting its educational value, a lack of research supporting a contrary view, and a rising awareness of the importance of play in general. Thus, it is useful to look anew at the arguments for and against recess and to be reminded of what the evidence does and does not show.

The Argument against Recess

Breaks during the school day, like breaks from work on the factory assembly lines, have existed for nearly as long as each of those institutions has existed. Indeed, the rationale for breaks in both is very similar: after a reasonable amount of work, you need a break, if for no other reason than it may help you to be more productive. If you have never worked on an assembly line or do not remember your primary school days, perhaps you can remember driving on a long trip. You probably recall that the longer you drove the less attentive (and less safe) you became. If you pulled over for a rest or a break, you were more attentive (and safer) after you started again. This explains why many states have laws governing the length of time truckers and airline pilots can drive or fly without a break.

This rather simple but powerful and widely understood benefit of breaks has not deterred a group, generally comprised of school administrators, from reducing recess time or eliminating recess all together from the school day. The reasons these “no nonsense” school superintendents and principals, as well as many politicians, most often give are twofold. First, they claim that recess is a waste of valuable time that could be more profitably used for instruction. Second, they claim that during recess kids get bullied and that on the playground they learn aggression.

Politicians and school administrators often use the first argument—recess is a waste of instructional time—to demonstrate that they “mean business” in making schools more effective. A number of years ago, then Atlanta Public Schools superintendent Benjamin Canada and I discussed the role of recess in schools on the *Good Morning America* TV show. I was touted as the “expert” on recess, whereas Canada had made national news for proudly eliminating recess in Atlanta schools and replacing it with physical education. He claimed that by eliminating recess from the whole school system he had raised achievement scores. Recess, he said, was a waste of time, and kids did not learn by “hanging on monkey bars.” They could just as easily “blow off steam” in physical education while at the same time learning useful skills. When pressed by both me and the TV host for evidence of how achievement had gone up as a result of eliminating recess, Canada did not provide supporting data, and to my knowledge no one has ever presented data to uphold such a claim.

The evidence is exactly the opposite of Canada’s claims. As I shall summarize below, in numerous controlled experiments children’s attention to school

tasks decreased the longer they were deprived of a break and, correspondingly, children were significantly more attentive after recess than before. It is very much like taking a break on a long highway trip.

Contrary to popular belief, physical education classes do not provide such a benefit. In 2001, the Council on Physical Education for Children, a national organization of physical education teachers, denounced the idea of replacing recess with physical education, although the council had a vested interest in promoting physical education. As the council members would surely agree, physical education—like other instructional disciplines—rightfully imposes rigorous demands on children and adolescents so as to stretch their skills. Therefore, it seems clear, the demands of a physical education class do not constitute a break.

The second argument—that during recess, especially playground recess, kids get bullied—also has flaws. It is true that kids get bullied on playgrounds, but they get bullied in cafeterias, too, and in hallways, in bathrooms, in locker rooms, just about anywhere with little or no adult supervision. Even so, the base rate of aggression on playgrounds is incredibly low. Specifically, of all the behaviors observed on preschool and primary school playgrounds in many countries, physical and verbal aggression account for less than 2 percent of the total (Pellegrini 1995; Smith and Connolly 1980).

The fact that rates of aggression are low at recess does not mean there are no incidents that damage kids. Aggressive behavior can be intense even when its rates of occurrence are low, and where there is intense aggression, people get hurt. However, adult supervision of recess periods, like adult supervision of the cafeteria and the hallways between classes, has a potent effect on dampening aggression (Pellegrini 2002).

Contrary to the negative-behavior argument, recess remains one of the only times during the school day when children have time and opportunities to interact with their peers on their own terms. Through interaction at recess, children learn social skills, such as how to cooperate and compromise and how to inhibit aggression. Eliminating or reducing recess destroys these learning opportunities.

Why Study Recess? One Researcher's Journey

Before examining the research in favor of recess, I should note how I came to it. As an academic psychologist, I should be concerned with the ways in

which children learn and develop in school. Studying recess and how children become socially competent seems a more legitimate venue for an educational psychologist. However, having investigated the role of children's play in their social and cognitive development for many years, especially play fighting (Pellegrini and Smith 1998; Pellegrini 2002, 2003) and the games of boys and girls on school playgrounds (Pellegrini et al. 2002), the study of recess seemed a logical extension.

My interest in school recess was really piqued by the debate over the role of recess in Georgia in the early 1990s (well before Benjamin Canada's claims on *Good Morning America*) and the simultaneous use of standardized tests as the sole criterion for the promotion of children from kindergarten to first grade. As part of this—in my view, very questionable—venture, there was talk of eliminating recess so kids could spend more time on the “important skills” necessary to pass the tests. The argument went like this: test scores are declining, and so given the limited number of hours in the school day, it makes sense to eliminate or minimize a practice that is trivial at best and, in any case, antithetical to more serious educational enterprise.

My first reaction to the testing question was disbelief. We have known for decades that kindergarteners are unreliable test takers (Messick 1983). Kids tend not to perform consistently across time. For example, they could score in the 99th percentile on Tuesday, but if they retook the very same test on Wednesday, they could score in the 65th percentile. If they took it a third time on Thursday, they could score in the 99th percentile again. The different scores could be due to something as simple as a swing in motivation related to a change in the testing environment. (I observed this particular example in my own daughter's experience.)

Because children are unreliable test takers, it is important for educators to use a number of different assessment strategies. Tests can and should be used, but in conjunction with other measures, such as attendance, grades, teacher evaluations, and observations of behavioral competence. When all of these things are aggregated, we get a more valid picture (Cronbach 1971).

When the testing question arose in Georgia, I had been studying rough and tumble play on the school playground during recess for several years. As part of this research I had access to test scores from kindergarten through at least first grade. I knew that what kids did on the playground required pretty high levels of social cognitive competence, and I knew that kids were motivated to implement those skills on the playground because they enjoyed interacting with

their peers. So I wondered if what kindergarten children did on the playground could be a valid predictor of their first-grade achievement, as measured by a standardized test. That is, does kindergarten playground behavior predict first-grade test scores, even after we control statistically for academic achievement in kindergarten? In essence, I wanted to know if there was predictive academic value in what kindergarteners did at recess, beyond that information provided in their kindergarten academic achievement, as measured by a standardized test score. How much did recess activities tell us, beyond test scores, about how well kindergarteners would do in first grade?

My hypothesis was that the recess behavior would tell us a great deal. After all, when kids are on the playground they are typically interacting with their peers, and to do so takes some pretty sophisticated skills. For example, to play cooperatively with their peers, children have to be able and willing to see things from the perspectives of their peers, use compromise to resolve conflicts, follow the rules of play and games, and use language to negotiate all of this. Indeed, we know that the types of language kids use to negotiate conflicts and compromise are very similar to the language of school instruction (Heath 1983) and the language of literacy (Pellegrini and Galda 1982).

Further, when kids manipulate and build with playground materials and when they play games—such as tag—with their peers, they are motivated to marshal their social cognitive resources. Children generally like to interact with their peers at recess, so they try their best to initiate and sustain play. For instance, one may have to compromise (share a toy or a turn) in order to continue to play with one's best friend. One typically does this because one is motivated to do so, perhaps more so than to perform on an achievement test. Tests, at least for most young kids, are not very motivating.

These kindergarten behavioral measures that I developed and administered did indeed predict first-grade achievement, beyond the kindergarten test scores. That is, these playground behaviors were correlated with first-grade test scores, even after kindergarten test scores were statistically controlled. This reinforces the notion that multiple measures should be used in "high-stakes" assessments.

In an effort to change policy in the state of Georgia, my friend and colleague Carl Glickman and I wrote articles for such publications as the *Atlanta Journal Constitution* and *Principal* to publicize our finding to the general public and educators of young children. Afterward, testing policies changed in Georgia, but efforts to minimize or eliminate recess continued to grow, both in the United

States and the United Kingdom, where I was also conducting research. Policy makers, teachers, parents, newspapers, and radio and television stations in both countries began contacting me and asking about recess.

The Reduction of Recess in the United States and the United Kingdom

An important barometer of prevailing perceptions of the importance of recess is the way in which recess time has eroded across the last fifteen years. One of the first surveys of recess in the United States was conducted in 1989 by the National Association of Elementary School Principals (NAESP), which kindly sent me their findings. The survey went to school superintendents in all fifty states and the District of Columbia. Responses were received from forty-seven states and showed that recess existed, in some form, in 90 percent of all school districts. Generally, individual schools (87 percent of those reporting) set recess policy. Consequently, there was significant variation both within school districts and within states. Ninety-six percent of the schools with recess had it once or twice per day. In 75 percent of the schools with recess, it lasted fifteen to twenty minutes. The survey did not report what form that recess took or whether organized physical education was counted as recess. Indeed, about one-half of the districts with recess had “structured” times.

Regarding recess supervision, the survey indicated that teachers assumed responsibility in 50 percent of the cases and teachers’ aides in 36 percent. Among the aides, 86 percent had no formal training for supervision. This is not a trivial finding. A well-trained supervisor can both support the positive social interactions of children and guard against aggression and bullying.

Ten years later, the U.S. Department of Education surveyed recess in kindergarten. According to a summary provided to the author by Ithel Jones, Associate Professor of Early Childhood Education at Florida State University, 71 percent of surveyed kindergartens reported having a daily recess period; 14.6 percent had recess three to four times per week; 6.7 percent had recess one to two times per week; and 7.7 percent had no recess. Regarding the duration of recess, 27 percent had thirty minutes; 67 percent had sixteen to thirty minutes; and 6 percent had less than fifteen minutes. Children attending private kindergartens were twice as likely to have recess as children attending public schools: 48.3 percent vs. 22.2 percent.

While a direct comparison with the 1989 survey is not possible, there are some interesting points to consider. Most interesting is that in kindergarten only 70 percent of the children had daily recess. If there is one grade where we would assume that all children would have recess daily, it would be kindergarten.

In the late 1990s, British psychologist Peter Blatchford and colleagues (Blatchford and Sumpner 1998) conducted a national survey of recess (called “break time” in England) in primary and secondary schools across the United Kingdom. Their 60 percent return rate produced a sample of 6 percent of all English schools. Importantly, recess in the United Kingdom is uniform compared to recess in the United States. In the United Kingdom, schools have a morning, lunch, and afternoon break. The Blatchford survey showed that while students across all grades had breaks, the duration decreased with age. Children in infant school (five to seven years of age) had ninety-three minutes; children in junior school (seven to eleven years of age) had eighty-three minutes; and children in secondary school (eleven to sixteen years of age) had seventy-seven minutes. Clearly, English children had much more recess than their American counterparts, and the duration of the periods seemed more sensitive to the maturity of the students.

There is, however, a movement against recess in the United Kingdom as well. The issues propelling this movement are very similar to those in the United States and have been very evident in the media. There, too, pressure has resulted in a reduction in break time. Within the five-year period from 1990–1991 to 1995–1996, 38 percent and 35 percent, respectively, of junior and secondary schools reduced the lunch break. Among infant schools, 26 percent reduced the lunch break and 12 percent eliminated the afternoon break. Twenty-seven percent of the junior schools and 14 percent of the secondary schools eliminated the afternoon break.

One would think that such drastic change should be directed by empirical support, but, no, on the contrary, research supports keeping recess in schools.

Benefits of Recess for School Performance

There are two main arguments for the continued presence of recess in primary schools. The first is evidence of how learning benefits from “distributed practice” (like the example of taking a break during highway driving noted earlier), which recess affords. The second concerns the development of cognitive efficiency and how recess may especially facilitate learning in younger and

cognitively immature children. Both of these arguments propose that benefits associated with recess are immediate, that is, they occur almost simultaneously with the recess behaviors themselves.

Massed vs. distributed practice

We have known for many years (e.g., Ebbinghaus 1885; James 1901) that children learn better and more quickly when their efforts toward a task are distributed rather than concentrated or when they are given breaks during tasks (Hunter 1929). As psychologist Frank Dempster pointed out (1988), the positive effects of distributed effort have been seen specifically in the ways children learn how to conduct numerous school-like tasks, such as mastering native- and foreign-language vocabularies, text materials, and math facts. Laboratory studies have yielded reliable and robust findings, documenting the efficacy of task spacing on learning. Indeed, the theory has been supported by research with humans across the life span and with a variety of other animals.

Classroom studies have been less frequent, and generally the results less supportive of the theory. Factors associated with the nature of a task (e.g., simple vs. complex) seem to influence the effects of distributed practice on classroom learning. However, when the nature of the criterion variable is changed from material learned to attention to the task at hand, the results of the classroom research match those of the laboratory. Spacing of tasks may make them less boring and correspondingly facilitate attention. Attention to a task, in turn, may be important to subsequent learning (Dempster 1988).

Given the positive effects of distributed practice on children's attention to school tasks, it seems puzzling that it has not been more readily used in classrooms. One possibility, as suggested by Dempster (1988), is that the complicated contingencies of running a school may not readily accommodate the added complexities of a distributed practice regimen. The solution to this conundrum is simple—use a well-established school institution, recess. Recess provides a break between school tasks, thus distributing practice.

Developmental differences in cognitive efficiency

Psychologist David F. Bjorklund and I have suggested previously (Pellegrini and Bjorklund 1997), based on Bjorklund's theory of "cognitive immaturity" (Bjorklund and Green 1992), that the facilitative effects of breaks between periods of intense work should be greater for younger than for older children. From our position, young children do not process most information as effectively

as older children. The immaturity of their nervous systems and their lack of experiences render them unable to perform higher-level cognitive tasks with the same efficiency as older children and adults, and this directly influences their educability. As a result, young children are especially susceptible to the effects of interference and should experience the greatest gains from breaks between focused intellectual activities, which recess provides.

Evidence in support of this hypothesis can be found in the literature on memory and cognitive inhibition. Research using a wide range of tasks has shown that children are increasingly able, as they get older, to inhibit task-irrelevant thoughts and to resist interference from task-irrelevant stimuli, and that such skills contribute significantly to overall cognitive functioning (e.g., Bjorklund and Harnishfeger 1990). Inhibition abilities have been proposed to play a significant role in attention, permitting children to focus on task-relevant information and not to be distracted by task-irrelevant, peripheral information. Such abilities have also been proposed to be of central importance to functional working-memory capacity. Young children have a difficult time keeping extraneous information from entering short-term store. As a result, their working memories are often cluttered with irrelevant information, leaving less mental space for task-relevant information or for the execution of cognitive strategies (Bjorklund and Harnishfeger 1990).

From this perspective, there may be a general increase in interference when children perform a series of highly focused tasks, regardless of the nature of those tasks. Although one would predict that changing from one type of focused activity to another would yield some cognitive benefit, children (especially young children) may experience a continued buildup of interference with repeated performance of even different highly focused tasks, and thus experience greater benefit from a drastic change in activity, such as is afforded by recess. This is consistent with the evidence that younger children may require a greater change in activity or stimulus materials before they experience a release from interference (e.g., Pellegrini and Bjorklund 1996). This should make school learning particularly difficult for young elementary school children, and opportunities to engage in non-focused, nonintellectual activities should afford them the needed respite to re-energize their nervous systems so that they can continue to learn in school. Consistent with this reasoning, recess periods across the school day should minimize cognitive interference. Importantly, instructional regimens, such as physical education, would not serve the same purpose.

Conclusion

Some devalue recess because they assume it to be—as they assume play in young children to be—a waste of time, time that could be otherwise more efficiently spent. There is no theory or empirical evidence to support this point of view. The counter-argument, that recess is good, is backed by a large body of theory and empirical research. Those who advocate the elimination of recess should present sound theoretical and empirical support for their arguments or give them up and recognize the abundant and clear evidence that recess has beneficial effects on children's social competence and academic performance.

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