



Playworks: Supporting Play and Physical Activity in Low-Income Elementary Schools

Today, I am a child and my work is play.
Anita Wadley (1999)

Summary

Students' engagement in play has been associated with a host of pro-social outcomes. Playworks incorporates several program components designed to increase opportunities for healthy, positive play in elementary schools. Teachers and principals who were interviewed as part of this study unanimously agreed that Playworks led to improved structure and organization of the play yard at recess. Students learned how to play more games, and engagement in play during recess time increased dramatically. Engagement increased even though participation in Playworks activities was optional. However, participation was higher among younger students and boys, and lowest among older girls. The increase in structure at recess was accompanied by a focus on inclusion, using positive language, and conflict resolution – all of which led students to feel physically and emotionally safer at recess, which in turn enhanced and supported their engagement in play. Principals and teachers felt that engaged students were generally physically active. However, the benefits of increased engagement and physical activity were reduced at schools that experienced coach turnover. Further, school policies requiring students to complete homework or sit out for misbehavior during recess also limited students' play and physical activity.

Playworks is a national nonprofit organization whose mission is to improve the health and well-being of children by providing them with increased opportunities for physical activity and safe, meaningful play. To accomplish this, Playworks provides schools with full-time coaches who teach students games with a common set of rules; provide conflict resolution tools to help students quickly resolve their disagreements and get back to playing; and encourage positive language, inclusive behavior, and safe play so that all students feel comfortable engaging in games at recess. Ultimately, the goal is to create an emotionally and physically safe school climate that supports productive recess periods so that students return to class ready to learn.

Focus of This Brief

This brief is the first in a series of final reports from the *Study of Playworks Implementation in Six Bay Area Schools*. It examines the ways that Playworks changes play and physical activity opportunities at school and reports students', teachers', and principals' views of the program's effects on students and school climate. This brief builds on earlier study publications, including a literature review, a theory of change model, and an interim report.¹ A final set of reports from the project is forthcoming in December 2010.

¹ These publications can be found at: <http://www.rwjf.org/pr/product.jsp?id=63651>.

About the Study of Playworks Implementation in Six Bay Area Schools

During the 2009-2010 school year, the Robert Wood Johnson Foundation funded the John W. Gardner Center for Youth and Their Communities at Stanford University to conduct an implementation study of Playworks in San Francisco Bay Area schools. The study used mixed methods – including interviews, observations, focus groups, surveys, and teacher diaries – to address four key questions: (1) In what ways does Playworks affect students’ recess and classroom experiences? (2) In what ways does Playworks affect school personnel? (3) In what ways does Playworks affect the school climate overall? and (4) In what ways does Playworks implementation vary across the newly implementing schools and what factors contribute to this variation? Data were collected in the fall, winter, and spring at six schools that were implementing Playworks for the first year (“newly implementing schools”), and in the winter at two additional schools where Playworks had been operating for several years (“established schools”).

The Value of Play

Child development professionals have long stated that play is the work of children, and recent research supports the notion that children learn valuable skills through everyday opportunities to play. Within the school context, play that occurs during recess helps students develop social relationships with their peers (Pellegrini & Bohn, 2005) as well as interpersonal skills and self-regulation (National Association for Sport and Physical Education, 2001; Zygmunt-Fillwalk & Bilello, 2005). However, these opportunities have declined in recent years as recess has been reduced or eliminated in up to 40% of school districts across the United States (Zygmunt-Fillwalk & Bilello, 2005). Up to 25% of elementary schools no longer provide a regularly scheduled recess time for students in all grades (McKenzie & Kahan, 2008), and this decline has disproportionately affected poor and minority students in urban areas (Barros, Silver, & Stein, 2009). Although schools have often eliminated play and physical activity opportunities in favor of more instructional time, physical fitness – a correlate of physical activity – has been linked to achievement (Castelli, Hillman, Buck, & Erwin, 2007; London & Castrechini, forthcoming; Taras & Potts-Datema, 2005). But play alone may also support achievement separate from the effects of physical activity and physical fitness. Some scholars suggest that play provides students with a break from the rigors of their class work, allowing them to return to the classroom with renewed focus and attention (Pellegrini & Bohn, 2005; Robert Wood Johnson Foundation, 2007; Sibley & Etnier, 2003). Indeed, teachers rate the behavior of their students better if they have at least one 15 minute recess break per day (Barros, et al., 2009). Improvements in focus and behavior in the

classroom associated with play may lead to increased achievement, but there is not yet solid data to support this link.

Playworks Improves Recess Organization

One of Playworks’ key goals is to facilitate a safe, structured, and inclusive recess yard that engages students in constructive play. Three of the Playworks program components directly support this goal. The first is a well-run recess, which will be the focus of this brief. The second is class game time, during which the coach works with individual classrooms to teach students new games and help them master the rules of commonly played recess games. Coaches also use this time to model conflict



resolution tools and inclusive and supportive language, which are the hallmarks of Playworks' approach. The third component is the junior coach program, in which students in the older grades serve as leaders on the play yard to promote a structured, safe, and inclusive recess. Playworks' other components, an after school program and intramural sports leagues, support the overall goals of the program as well, but were not the focus of this implementation study.

According to teachers at the six newly implementing schools, Playworks implementation improved the structure and organization of recess. Exhibit 1 shows that 88% of teacher survey respondents reported that Playworks led to an improvement or substantial improvement in recess organization. In addition, four of the six principals at newly implementing schools and both principals at the established schools specifically reported that Playworks improved the structure of recess in the following ways:

- There were a variety of organized games available every day that were set out in different areas of the play yard,
- There was a coach to organize and lead games,
- There was equipment to support multiple games and activities,
- Students knew about and played by a common set of rules,
- Fourth and fifth grade junior coaches worked with the Playworks coach to keep recess organized, and
- Students had learned a way to work out their minor conflicts, using ro-sham-bo (rock-paper-scissors).

Exhibit 1. Teachers' Views About Changes Resulting from Playworks Implementation

<i>Indicate the degree of improvement you've seen in the following areas: (Using a Five-Point Scale from Much Worse to Substantial Improvement)</i>	<i>% Responding Improvement or Substantial Improvement</i>
Recess organization	88%
Students initiating games at recess	68%
Students' abilities to start and sustain games without adults	78%
Recess conflict	78%
Girls engagement in games and activities at recess	77%
Students' physical activity at recess	83%
<i>Indicate the degree of change you have seen or experienced in the following areas: (Using a Five-Point Scale from Much Less to Much More)</i>	<i>% Responding More or Much More</i>
Students feel emotionally safe at school	78%
Students feel physically safe at school	76%
Staff value play	76%

Source: JGC tabulations from the spring teacher surveys.

The combination of these improvements led the principal of an established school to remark, "Playworks came and just transformed the entire campus. It's amazing! Even on days when Coach isn't here, the junior coaches are out there...helping run the show." The principal at a newly implementing school concurred, "It's pretty simple...and the structure of it is already in place...it would take us years...to emulate the structure." The role of the coach was very important; many interview respondents reported that coaches could engage students in ways that the yard monitors

could not. One yard monitor explained that the coach did not focus on rule enforcement, but rather on engaging students and starting games.

One factor constrained improvements in recess organization and structure – coach turnover. Two of the six newly implementing schools and one of the mature schools experienced one or more coach changes, and the principals reported that Playworks could have led to improved structure if the original coach had stayed for the year. Teachers at the two newly implementing schools with coach turnover reported the least improvement in recess organization. About a third (34%) of teachers in these two schools reported that the organization of recess had substantially improved from fall to spring, compared to 59% in the four schools that did not experience coach turnover. Losing a coach mid-year also disrupted relationships between the coach and students. Two-thirds (65%) of teachers at schools with no coach turnover strongly agreed that students felt connected to the Playworks coach, compared to 29% of teachers at schools with coach turnover.

Recess Organization Supports Increased Student Play Increased Engagement

A common refrain among adults at the newly implementing schools was that prior to Playworks, students played a limited number of games during recess time and that even these were chaotic and disorganized. One principal explained, “At the beginning of the year when Playworks came, students weren’t really accustomed to playing any organized sports.” This changed very quickly at all six of the newly implementing schools. One teacher felt that Playworks had increased student participation in organized games in just the first two weeks: “From the very first week [the coach] was here...out of 120 kids or so, there was maybe a group of 10 kids that weren’t actually engaged in a game, which was so the opposite of what we’ve been seeing the last few years.” Indeed, even as early as our fall site visits, we observed several core games being played across nearly all of the newly implementing schools, including soccer, basketball, tetherball, four square, wall ball, jump rope, and hula hoop.

In interviews, principals and teachers overwhelmingly reported that students were more likely to be engaged in recess games since Playworks arrived at their schools. This was in part because there were more games available to play and sufficient equipment with which to play them. But equally important, students had learned a common set of game rules and how to effectively resolve minor conflicts in order to keep a game going. Additionally, games were instituted in such a way that students could initiate and play them on their own without needing help from the coach or junior coaches. Indeed, 68% of teachers surveyed stated that their students often or very often initiated games at recess without the aid of the coach or junior coach, and 78% reported an improvement or substantial improvement in students’ abilities to start and sustain games without adults (Exhibit 1).

Improved Safety: The Link Between Recess Structure and Student Engagement in Play

Teachers and principals established a clear link between the increased structure that Playworks brought to the school and an improvement in students’ recess engagement and enjoyment. Universally, the link between these was through an increased sense of safety at recess and throughout the school day. A number of teachers and principals at established and newly implementing schools reported that having a more structured and organized recess made the school feel safer to students, and furthermore, that student safety was key to promoting engagement in recess games and activities and also to academic success. One administrator remarked, “We’ve got to make sure the kids feel

welcome here, they feel comfortable, then we can teach them...Safety first and then academics." Prior to Playworks implementation, recess at one school had been so chaotic and unsafe that the principal had offered to pay teachers to keep students in their classrooms at lunch time. Comments about the increase in school safety were supported by the teacher survey, in which 78% of teachers believed that students felt emotionally safer at school and 76% believed students felt physically safer (Exhibit 1).

Playworks fosters this improved safety through a focus on positive language and conflict resolution. The program teaches students to be inclusive in their play and to use supportive language in dealing with each other (e.g., "good job, nice try" instead of "you're out!"). This teaching happens at recess and during class game time, where students observe the coach, junior coaches, and sometimes their teacher, modeling positive messaging. Two teachers noted that they appreciated the opportunity to share class game time with their students because having students learn the rules to the games and be inclusive in their play "helped with team building" and taught them to "play in a safe way."

Safety also stemmed from learning how to effectively resolve minor conflicts on the play yard using tools like ro-sham-bo. Coach and junior coach presence also supported conflict resolution. Indeed, 78% of teacher survey respondents reported a reduction in conflict at recess (Exhibit 1).

Participation is Optional but Encouraged

Although students had an array of Playworks games and activities to select from at recess, participation was optional. The optional nature of Playworks is important because although no child was required to play its games and activities, the majority opted to do so, indicating their desire for opportunities to join in organized play at recess. However, a number of students engaged in recess activities that were not Playworks-driven, including playing on play structures, engaging in imaginary or fantasy play, or walking and talking with friends. About half of fifth grade students reported sitting or standing at some point during recess and nearly all reported talking with friends (Exhibit 2). We did not survey younger students, but recess observations indicate that students in first and second grades were more likely than older ones to play on a climbing structure or engage in fantasy play.

Coaches made efforts to invite students who were not involved in any activity or seemed to be wandering aimlessly around the play yard to get involved in games. Still, at all schools we observed that some students were not participating. Teachers and students cited a number of reasons for this, including difficulties with social interaction, not finding anything of interest to play, feeling "too cool" to play games, or simply preferring to spend recess time walking and talking with friends. Non-participation in Playworks activities was higher among girls than boys. In the spring, 91% of fifth grade boys reported playing games and sports at recess compared to 77% of girls (Exhibit 2). Our observations indicated that these gender differences were more apparent among older students than among younger students. Conversely, girls reported spending more time than boys talking with friends during recess and standing or sitting someplace during recess. Despite this, 77% of teachers reported in the spring survey that girls' engagement in games and activities at recess had improved or substantially improved over the course of the year (Exhibit 1).

Enthusiasm for sports – particularly the more active ones like soccer – waned among the fourth and fifth grade girls who were more likely than boys to spend their recess time walking and talking in small groups with their friends. Even among those students that did participate, gender differences were noted in the types of games they chose to engage in. Thus, while both boys and girls seemed to

equally enjoy games like tetherball and four square, soccer was much more popular among boys and hula hoop and jump rope were generally more popular with girls.

Exhibit 2. Enjoyment of and Engagement in Play Opportunities By Gender

	Fall		Spring	
	Boys	Girls	Boys	Girls
<i>How much do you agree with the following statements? (Using a Five-Point Scale from Disagree A Lot to Agree A Lot)</i>	<i>% Responding "Agree A Lot" or "Agree A Little"</i>			
I enjoy recess	96%	91%	94%	90%
I like to play games and sports	97%	89%	97%	87%
I feel like I can join in a game on the playground	78%	69%	76%	63%
<i>At school, how often do you...? (Using a Five-Point Scale from Never to A Lot)</i>	<i>% Responding "A Lot" or "Sometimes"</i>			
Stand or sit someplace during recess	47%	58%	45%	55%
Talk with friends during recess	88%	93%	89%	92%
Play a game or sport with other students during recess	83%	72%	91%	77%
Stay involved in a game or sport during recess	81%	64%	83%	70%
<i>Number of Fifth Grade Students</i>	204	195	199	200

Source: JGC tabulations from the fall and spring fifth grade student surveys.

Attitudes About Play

One barrier to students' involvement in play stemmed from schools' policies. At all of the newly implementing schools, students who had not completed their schoolwork or who had misbehaved could have recess taken away. The research team frequently observed students sitting outside working on schoolwork during recess at the order of their teachers. At least one principal felt that this strategy was ineffective at changing student behavior, but did not forbid teachers from using it. Coaches reported frustration with this aspect of school policy and were unable to influence these policies so that more students could participate in recess.

Comments made during fall interviews indicate that Playworks entered schools where staff members already saw a great deal of value in play. Nevertheless, 76% of teachers surveyed in the spring said that their staff valued play more or much more than before Playworks had come to their schools (Exhibit 1). In interviews, every adult expressed the belief that play was important for students, especially in the following areas:

- Helping students practice social skills such as cooperation, teamwork, and conflict resolution,
- Building students' self-esteem, self-confidence, and body-awareness,
- Fostering self-regulation skills such as anger management and learning to lose gracefully, and
- Promoting physical activity and health.

Several principals changed their minds about play and recess during the course of the year. One previously considered recess and lunch recess to be little more than an hour of "dead time" or lost instructional opportunity, but saw new value in recess after Playworks was implemented. Another felt

that Playworks had been instrumental in allowing play to benefit to students, stating: “If you came to me and said ‘the value of play,’ I would just think of fluff. I was so worried about class game time... that’s an hour of instructional time that’s wasted.” But this principal later had a change of heart, stating: “No, it has enhanced whatever the students do in the classroom.”

Play Provides Opportunities for Physical Activity

In addition to supporting children’s social and emotional development, recess and play provide children with opportunities to be physically active. Research indicates that children are more likely to become physically active at recess when several conditions are met: (1) they receive prompts from teachers or their peers to get engaged, (2) have access to adequate space and equipment, and (3) are allowed to spend time outdoors. Children also tend to be more active when adults make direct attempts to structure recess games and activities (McKenzie & Kahan, 2008).

As illustrated above, Playworks aims to engage students of all ages and backgrounds in active play during recess, and all its components and strategies – from the junior coach program to class game time to ro-sham-bo as conflict resolution – are in support of this goal. Evidence suggests that Playworks implementation is associated with increases in active play, which has resulted in increased levels of physical activity for some students. It is important to note that the study did not measure students’ levels of activity and cannot conclude that the program made an impact in this area. Rather, evidence indicates that teachers and other staff perceive this as an effect of the program. Exhibit 3 illustrates the hypothesized relationship for how Playworks increases physical activity.

Exhibit 3. Theory of How Playworks Leads to Increased Physical Activity



Although teachers and principals unanimously agreed that Playworks had increased play at school, opinions were more varied on whether the increase in play had resulted in an increase in physical activity. A large but not unanimous percentage (83%) of teacher survey respondents indicated that there had been improvement or substantial improvement in students’ physical activity at recess (Exhibit 1). In interviews, principals and teachers were more mixed in their impressions of Playworks’ effects on physical activity, with some perceiving major improvements and others reporting smaller improvements or little change. More than two-thirds of teachers and principals at the newly implementing schools specifically mentioned physical activity in their spring interviews, and of these, 38% felt there had been a large improvement in student activity levels because of Playworks, 50% felt there had been a moderate improvement, or improvement for only certain groups, and the remainder (who were from different schools) felt there had not been much of a change. Those who reported increased activity credited it to Playworks due to: (1) the availability of organized games, (2) higher levels of inclusion in games, particularly in the more physically active games (e.g., soccer), and (3) reduced conflict at recess.

Fourth and fifth grade teachers were among those who felt there had not been a large improvement in physical activity. As reported above, girls in the upper grades were especially likely to feel they were too old to play games. At one school, the principal felt that girls of all ages were less likely to participate in the various games and activities with the exception of one variation of tag, hula hoops, and jump ropes. But in general, the fact that girls were less engaged in games affected their level of physical activity at recess. At several of the newly implementing schools, fifth grade teachers did not participate in class game time because their students had physical education (P.E.) taught by special P.E. teacher. This factor may also have contributed to the reluctance of older girls to engage in Playworks games at recess.

Our recess observations at the eight schools support this mixed conclusion with regards to physical activity. Although we also noticed an improvement in recess engagement from fall to winter and winter to spring, it was clear that this was not for all students at all schools. The types of activities students selected to play at recess influenced how active they were. For example, at some schools where there were new or larger play structures, we observed that fewer students were involved in Playworks games, and those who were playing on the play structure (both boys and girls) were less physically active than those engaged in Playworks games.

Perceived Effects of Increased Play and Physical Activity on Student Outcomes

This study was not designed to draw causal conclusions about the impact of play and physical activity on student or school-wide outcomes. Nonetheless, teachers, school administrators, and students perceived changes at their schools that they attributed to Playworks and the opportunities Playworks provided students to engage in constructive play and physical activity. Some of these perceived changes include:

- **Students are happier at school:** Principals and teachers felt that play paid dividends both in terms of making school more fun and in motivating students to attend. One principal explained, “[The coach] really went out there, sold the games to the kids, had everyone participate in the beginning...Our attendance has improved because the kids want to be here.”
- **Students feel safer at school:** Reported improvements in student safety, both emotional and physical, reverberated throughout the school, increasing the level of engagement in play among students.
- **Students are more respectful to one another:** By keeping students engaged in constructive play and teaching them more positive ways to interact with one another, both adults and students noted that students were treating each other with more respect.
- **Students have better inter-personal skills:** Teachers noticed that students had improved their inter-personal skills in the classroom, demonstrating better communication skills, better problem solving skills, improved sportsmanship, increased cooperation, and better turn taking.
- **Students are involved in less conflict:** Most teachers reported a reduction in conflict at recess and both teachers and principals stated that Playworks kept students productively engaged and provided them with conflict resolution skills that reduced the amount of conflict, fights, and discipline problems on the play yard.

Conclusion

Playworks is improving recess organization and structure at low-income schools, which in turn is increasing recess enjoyment and play, and for many students, also increasing physical activity. The one implementation condition that appears to hamper these outcomes is coach turnover, which had major implications for how the program operated at the two schools that experienced it. School policies that prevent students from participating in recess also constrain student engagement in productive play. Playworks might consider addressing this issue by providing a toolkit to participating schools about alternatives to using recess for punishment or completing schoolwork.

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