Playworks Implementation in 17 Schools from 6 U.S. Cities

MATHEMATICA Policy Research

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Robert Wood Johnson Foundation

EVALUATION REPORT

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Executive Summary

Recess periods often lack the structure needed to support physical activity and positive social development (Robert Wood Johnson Foundation 2010). The Playworks program places full-time coaches in low-income elementary schools to provide opportunities for organized play during recess and throughout the school day. Playworks activities are designed to engage students in physical activity, foster social skills related to cooperation and conflict resolution, improve students' abilities to focus on class work, decrease behavioral problems and improve school climate.

The Robert Wood Johnson Foundation contracted with Mathematica Policy Research and the John W. Gardner Center for Youth and Their Communities at Stanford University to study the implementation and impacts of Playworks across multiple domains. Twenty-nine schools interested in implementing Playworks were randomly assigned to treatment and control groups during the 2010–2011 (cohort 1) or 2011–2012 (cohort 2) school years. This brief focuses on Playworks implementation in the 17 treatment schools and the ways that differing school contexts affected program implementation. The quality of implementation of a program affects the extent to which it is able to fully achieve the desired outcomes (Durlak and DuPre 2008). Therefore, examining implementation is essential for understanding why the program generates (or fails to generate) impacts on the outcomes it is intended to change.

The following key implementation findings emerged:

- We observed strong Playworks implementation in 8 of the 17 treatment schools, moderate implementation in 6 schools and weak implementation in 3 schools. At strongly implementing schools, recess was organized, students were engaged and Playworks coaches employed tools and strategies to promote conflict resolution, inclusion and positive messaging. Principals and teachers were supportive and knowledgeable about the program and the schools had policies in place that supported Playworks, including the junior coach program and class game time with the Playworks coach.
- A range of contextual factors influenced implementation and required program flexibility. Lack of recess in prior years and some school policies, such as withholding recess as punishment for poor behavior or missed schoolwork, were associated with weaker Playworks implementation. Other contextual factors, such as recess schedules, were not associated with implementation quality, although such factors did require coaches to be flexible in implementing Playworks.
- Teachers and principals expressed support for the changes that Playworks coaches implemented through recess, the junior coach program and class game time. Students regarded the program positively and reported that recess was safer and more fun since Playworks was introduced. School staff and students also agreed that students learned new skills through the program. School staff at all schools overwhelmingly reported that they valued play in a school setting and hoped to have the program return to their school in the following school year.
- Principals at all but one school were eager to retain Playworks, but 5 of 17 schools were unable to keep it for a second year, mostly due to funding limitations.

Students regarded the [Playworks] program positively and reported that recess was safer and more fun since Playworks was introduced.

Playworks Implementation in 17 Schools from 6 U.S. Cities

Introduction

School recess can be important to children's development, but can lead to negative experiences for students if not provided in a safe and organized manner. Recess is often the only time during the school day when children can engage in free or organized play, which is one way children learn and practice a range of social and emotional skills (Brotherson 2009). Play that occurs during recess helps students develop social relationships with their peers (Pellegrini and Bohn 2005; Ramstetter et al. 2010) and practice social skills such as self-control, sharing, problem solving, cooperation and conflict resolution (Hartup and Laursen 1993; National Association for Sport and Physical Education 2001; Zygmunt-Fillwalk and Bilello 2005). The importance of recess has been recognized by the American Academy of Pediatrics in a recent policy statement that asserts the benefits of safe and well-supervised recess on children's cognitive, social, emotional and physical development (American Academy of Pediatrics 2013).

[Prior research shows that] play that occurs during recess helps students develop social relationships with their peers...

In contrast, when recess is unsafe or not well supervised, it can be a time when students experience negative peer interactions. Recess periods that lack the structure needed to support physical activity and positive social development can lead to discipline-related problems (Robert Wood Johnson Foundation 2010). Although students spend only a small portion of the school day on the playground, recess time accounts for about half of all discipline incidents at many schools, with aggressive acts being the most common problem (Murphy et al. 1983; Todd et al. 2002). Indeed, bullying occurs nearly twice as often on the playground as in the classroom (Craig et al. 2000; Leff et al. 2004).

The Playworks program places full-time coaches in low-income elementary schools to provide opportunities for organized play during recess and class time. Eligible schools are those in which at least half of students receive federal free or reduced-price lunches. Coaches tend to be young adults in their 20s who have interest or experience in the fields of education, youth development or sports. Playworks staff train the coaches and then supervise them when they are stationed at schools. In the 2012–2013 school year, Playworks provided direct services to students in more than 300 schools in 23 cities around the United States. The organization operates through independent regional hubs, but with direction and vision provided by the Playworks central office in Oakland, California. Each regional hub recruits schools, raises funds, hires staff, provides coach and school staff training and oversees the day-to-day activities of Playworks coaches.

Playworks activities are designed to engage students in physical activity, foster their social skills related to cooperation and conflict resolution, improve their ability to focus on class work, decrease their incidence of behavioral problems and improve the school climate. The Playworks model includes the following components, all implemented by the coach:

- ***Organized Recess Activities.*** During recess, the coach encourages student involvement in organized and inclusive activities. The coach introduces a common set of game rules and teaches and models conflict resolution tools such as ro-sham-bo (rock-paper-scissors) with the goal of reducing the number of conflicts that arise, enabling youth to resolve their own disputes quickly and creating an environment of positive play.
- ***Junior Coach Program.*** The junior coach program engages 4th- and 5th-grade students (and some older students in K–8 schools) as role models and facilitators during recess. It also provides opportunities to develop leadership and conflict resolution skills.
- ***Class Game Time.*** Class game time is a period in which the coach meets with individual classes to lead games with the students. During this time, the coach uses games to foster team work and positive play while teaching students the rules to new games that they can play at recess. Teachers are required to be present and are encouraged to play alongside their students at class game time.
- ***After-School Activities.*** Playworks also includes an after-school program, sports leagues and school staff trainings.

We focus on the first three components in the current study because they involve in-school activities that serve all students at the school, whereas the after-school activities and sports leagues serve only a portion of students at each school.

Study Research Questions and Design

The Robert Wood Johnson Foundation contracted with Mathematica Policy Research and the John W. Gardner Center for Youth and Their Communities at Stanford University to study the implementation and impacts of Playworks across multiple outcome domains. Twenty-nine schools interested in implementing Playworks were randomly assigned to treatment and control groups during the 2010–2011 (cohort 1) or 2011–2012 (cohort 2) school years (see Appendix 1 for more detail on the school selection process). During the one-year study period for each cohort, treatment schools implemented Playworks and control schools were not eligible to implement Playworks. More information on the characteristics of the treatment schools is provided in Appendix 2, Table 1.

This brief focuses specifically on implementation findings in 17 treatment schools. The key implementation research questions guiding the study and the content of this brief include the following: (1) How was Playworks implemented in the treatment schools? (2) In what contexts was Playworks implemented and how does school context affect implementation? and (3) What were school staff and students' experiences with and perceptions of Playworks? We also discuss the schools' retention of the Playworks program in the year after the study year, as well as study participants' recommendations for Playworks.

Whereas other study briefs concentrate largely on the impacts of the program on a variety of outcomes, this brief focuses specifically on program implementation. Implementation research in education settings addresses questions about the ways the program is received and perceived by stakeholders and its integration into the school environment. Understanding program implementation is critical for interpreting student impacts (or lack thereof) as well as for documenting reasons for variations in implementation features and quality observed across schools. The quality of implementation affects the extent to which programs are able to fully achieve desired outcomes (Durlak and DuPre 2008). Therefore, examining contextual factors is essential for understanding why the program generates impacts (or does not) on the outcomes it is intended to change. Other briefs from the study (for example, Bleeker et al. 2012) address the impacts of the program on a variety of outcomes.

Playworks' Theory of Change Framework

The Playworks theory of change framework identifies a high-functioning recess as a key input to a positive overall school climate (see Appendix 3 for a visual representation of the Playworks theory of change). Specifically, it posits that a high-functioning recess can be achieved in schools with a high-quality Playworks program, a strong coach and robust school partnership. The model suggests that schools that achieve a high-functioning recess will be able to support a positive recess climate in which students are engaged and feel safe. This positive recess climate, in turn, is hypothesized to support a positive overall school climate in which students have strong social and emotional skills, positive relationships with adults and an increased sense of belonging and connectedness at school.

This theory of change and the ways that Playworks attempts to achieve its goals are consistent with the identified best practices for promoting positive youth development, including physical and emotional safety, appropriate structure, supportive relationships, opportunities to belong and positive social norms (Eccles and Gootman 2002). Playworks is unique relative to most other positive youth development programs, however, because it takes place in the school environment during the school day, whereas these features are most commonly studied in out-of-school time programs. As such, Playworks staff must work with school personnel and within established policies and practices of participating schools to implement the program. This context is important for understanding the quality of implementation (McLaughlin 2005).

Implementation Study Data Sources

The evaluation team designed the implementation study's data collection activities to document variations in program implementation across study schools and to identify the factors associated with different levels of program implementation. To that end, we collected data from principals, teachers, coaches and students at 25 cohort 1 schools in spring 2011 and 4 additional cohort 2 schools in spring 2012, as detailed below. The analysis presented in this brief focuses exclusively on program implementation at the 17 treatment schools across both cohorts. The data collection activities that are the focus of this brief include the following:

- ***Interviews with Principals, Teachers and Playworks Coaches.*** A total of 19 principals and assistant principals, 51 teachers and 17 Playworks coaches at treatment schools answered questions about students' opportunities for play and physical activity at school, discipline issues at recess and experiences with and perceptions of Playworks.
- ***Focus Groups with Junior Coaches.*** In 16 treatment schools, students who served as Playworks junior coaches answered questions about their experiences as junior coaches and their perceptions of Playworks.[1]
- ***Playworks Observations.*** Across the 17 schools, the study team observed 98 recesses (average of 6 per school) and 62 class game times (average of 4 per school) to examine coach involvement, Playworks strategies employed, student participation in Playworks games and playground monitor/teacher involvement during recess and class game time.

- ***Student Survey.*** A total of 1,329 students from 70 4th- and 5th-grade classrooms in 17 treatment schools participated in a survey that captured information across a variety of domains, including perceptions of Playworks and enjoyment of Playworks activities.
- ***Teacher Survey.*** A total of 175 teachers from 17 treatment schools participated in a survey that captured information across a variety of domains, including perceptions of recess, the junior coach program and class game time.

Additional information about the design, data sources and analysis methods is provided in Appendix 1.

Key Findings

Teachers, principals and other staff were knowledgeable about Playworks and supportive of its values and goals.

The following sections report findings related to the three key study research questions: (1) How was Playworks implemented in the treatment schools? (2) In what contexts was Playworks implemented and how does school context affect implementation? and (3) What were school staff and students' experiences with and perceptions of Playworks? We also report on two additional areas of interest: program funding and retention in the year after the study and respondents' specific recommendations to Playworks, organized by theme.

A. Research Question 1: Playworks Implementation in Treatment Schools

1. Overall Implementation Quality

Overall, we observed strong implementation of the Playworks program in 8 of the 17 treatment schools, moderate implementation in 6 schools and weak implementation in 3 schools. We defined schools as having strong implementation if they met the following criteria as observed during site visits (see Exhibit 1):

1. Recess was structured and organized, students were engaged in games and other play activities, coaches were engaged with students, junior coaches were helping to resolve conflicts and facilitate play, adults (coaches, teachers and recess playground monitors) used positive and inclusive language and conflicts were resolved peacefully.
2. Teachers, principals and other staff were knowledgeable about Playworks and supportive of its values and goals.
3. Principals scheduled regular class game times and allowed junior coaches to work at younger students' recesses.
4. School policies and structures supported Playworks activities and goals.

EXHIBIT 1.
Criteria for Discerning Overall Program Implementation Quality

	Overall Program Implementation Quality		
Criteria	**Strong**	**Moderate**	**Weak**
Organized and engaged recess with coach including positive and inclusive language and peaceful conflict resolution	✓✓	✓✓	—
Staff support for Playworks	✓✓	✓	—
Scheduled time for Playworks components	✓✓	✓	✓
School policy support for Playworks	✓✓	✓	✓

✓✓ = Criterion must be met
✓ = Criterion not required to be met, but may be met in some cases or among some staff
— = Criterion not met

Schools were categorized as having moderate implementation when most program components were in place and commitment was strong from some, but not all, staff members. The observation team determined that weak implementation occurred in schools where staff commitment to the program was not strong and key Playworks components were not implemented as intended. In the three schools with weak implementation, contextual factors—such as whether the school had a prior history of providing recess to students and the principal's buy-in for the program—made it challenging for the Playworks coaches to implement the program as intended.

2. Implementation of Playworks' Recess

Providing a high-quality recess experience for children is a key goal of Playworks, and the placement of the coach at recess is intended to help promote this goal. Other adults are also typically present at recess. These are generally playground monitors, who are paraprofessionals responsible for monitoring the children while they eat lunch and play at recess. In some schools, administrators also were present for all or part of recess, often when that recess period was problematic. It was less common for teachers to monitor recess, except in one study school that required teachers to do so. In two schools, there were two recesses per day, one monitored by a rotating group of teachers and the other monitored by playground monitors.

Playworks defines a high-functioning recess as having two key components. First is a safe and organized playground that includes the establishment of common rules and clear boundaries, equipment used as intended and appropriate supervision. Second is the development of students' pro-social skills through (1) inclusion (adults and students model healthy play; students are actively engaged in play; games promote inclusion); (2) positive language and behavior (adults and students use and promote positive language and behavior, such as giving high fives and saying "good job" or "nice try"); and (3) conflict resolution (adults promote use of ro-sham-bo and students involve adults to support conflict resolution).

Using these criteria, we observed strong recess functioning in 7 schools, moderate recess functioning in 8 schools and weak recess functioning in 2 schools. Recess functioning was related to overall Playworks implementation quality. Among the 8 schools with strong overall implementation quality, 6 had strong recess functioning and 2 had moderate

recess functioning. Among the 6 schools with moderate overall implementation quality, 5 had moderate recess functioning and 1 had strong recess functioning. Finally, among the 3 schools with weak overall implementation quality, 2 had weak recess functioning and 1 had moderate recess functioning. In schools in which overall program implementation quality was observed to be stronger than recess functioning, we found that principal and teacher buy-in for the program contributed to strong overall Playworks implementation.

We observed the following key Playworks strategies in use during recess:

- **Playworks coaches organized recess and supported positive play experiences by teaching students rules to games.** Principals reported that before Playworks many students had little knowledge of basic recess games, which hindered them from engaging in productive play at recess. Principals and teachers reported that coaches taught students the rules to many games and, consequently, students engaged in more constructive play at recess. As one principal described, "The kids are being taught to be more independent, [to understand] the rules [and gain] the skills needed to set up games."

- **Playworks coaches promoted the use of positive language at recess.** We observed coaches modeling positive messaging, such as saying "good job" or "nice try" at all schools and in an average of 67 percent of recesses (Appendix 2, Table 2). We also observed playground monitors using positive messaging in 14 of 17 schools (82 percent), although this was seen more frequently in schools with strong overall implementation quality (56 percent) than at schools with moderate (33 percent) or weak (7 percent) overall implementation quality. In interviews, teachers frequently commented that the emphasis on positive messaging had led to more camaraderie and positive interactions among students. As one teacher described, "[My students] have gotten a lot better about good sportsmanship, so if they don't win, they'll tell [the winners], 'Good job.'… That's a big difference from years before."

- **Playworks coaches modeled inclusive behavior at recess.** Inclusive behavior includes not only inviting nonparticipating students to join games, but also welcoming students who want to join games, even if they are not among those who typically play. We observed coaches modeling inclusive behavior at 16 of 17 schools and an average of 57 percent of recesses (Appendix 2, Table 2). We also observed playground monitors engaging in inclusive behavior in 15 of 17 schools and an average of 19 percent of recesses (Appendix 2, Table 2). One principal and three teachers reported that students acted more inclusively since Playworks had come to their schools. One teacher said, "[The coach] makes sure everybody gets involved at whatever level they can participate ... [he] levels the playing field and makes sure that everybody is included."

- **Coaches, and to a lesser extent playground monitors, played with students at recess.** At all schools, we observed coaches actively engaged with students during recess time. Playground monitors were also observed playing with students, although this occurred more frequently at schools with strong (54 percent) and moderate (54 percent) overall implementation quality than at schools with weak overall implementation quality (27 percent) (Appendix 2, Table 2).

Playworks coaches at 10 of the 17 (59 percent) schools required students arriving at recess to line up, check in with the coach or a junior coach and then be dismissed before they could begin playing. During check-in time at these 10 schools, coaches typically asked students to recite a list of agreements related to expected recess conduct and informed students about the games available that day. Lining up at the start of recess is not an official Playworks strategy, and students arriving to recess at the other 7 schools (41 percent) were allowed to begin playing immediately without having to first check in. Lining up was not associated with overall implementation quality, but during observations, we noted several drawbacks to the required check-in.

- **Required check-ins used time that students could have otherwise spent engaged in play.** In 6 of 10 schools (60 percent) that had students line up, check-ins were very quick, but at 4 of 10 schools (40 percent), check-ins lasted five minutes or more.
- **Check-ins sometimes led to negative interactions between the coach and students.** At 2 of 10 schools (20 percent) that required lining up, we observed coaches spending much of the check-in time struggling with negative behavior from students who had difficulty standing quietly in line because they were anxious to begin playing. At 1 school, we did not observe negative interactions during check-in, but a teacher reported that the coach occasionally withheld recess from students because they would not line up properly.
- **Lining up interrupted the flow of recess.** In 2 of 10 schools with lining up (20 percent), the recess periods overlapped and coaches had to leave games they were running in order to check in new student arrivals.

3. Implementation of Playworks' Junior Coach Program

Playworks coaches in each school selected older elementary students to participate in the junior coach program. Coaches provided monthly training in leadership and conflict resolution skills to junior coaches, so that they could act as role models and facilitators on the playground. In particular, junior coaches led other students in games and helped resolve student conflicts. Playworks coaches had a great deal of flexibility in tailoring the junior coach program to meet the needs of their schools. No single aspect of the junior coach program was associated with overall program implementation quality. However, all three schools with weak implementation lacked teacher buy-in or knowledge about the junior coach program.

The junior coach program was in place and operating in all 17 schools. At all schools, coaches selected and trained 4th- or 5th-grade students to serve as junior coaches. In 4 of the 8 K–8 schools (50 percent), Playworks coaches incorporated middle school students into the program as well. Junior coaches at 10 schools (59 percent) worked at one recess per week; in the remaining schools they worked two or more times per week. Overall, Playworks coaches reported working with an average of 18 junior coaches. This varied depending on the size of the school and was determined at the discretion of the Playworks coach. Most schools kept the same junior coaches for the entire school year, though 8 Playworks coaches reported having to remove one or two students from the program, typically in consultation with school staff, because of the students' poor behavior or academic performance.

Coaches used multiple approaches to select junior coaches. Playworks coaches selected junior coaches with support and input of teachers in 14 of 17 schools (82 percent). Principals were typically not involved in the junior coach selection process. Playworks coaches in 9 schools (53 percent) introduced the junior coach program to students and teachers by making classroom presentations. In 11 schools (65 percent), students interested in becoming junior coaches were asked to submit an application to the Playworks coach. Students selected to participate in the program were required to sign a contract in 4 schools (24 percent). In several schools, students were also required to include parent or teacher signatures of support as a part of the contract process. Eight Playworks coaches (47 percent) said they had difficulty choosing junior coaches because they were new to the school and did not know the students.

Junior coaches embraced their role at recess. We observed junior coaches during recess at all 17 schools, with a range of one to six junior coaches working at the same time. Junior coaches were present and actively engaged in most aspects of their job in 57 of 98 recesses (58 percent). According to Playworks coaches and junior coaches themselves, junior coaches played several roles at recess, including running and maintaining games, acting as positive role models and assisting with conflict resolution. One junior coach described his role in maintaining recess games on the playground: "It's our job to make sure that [the students] know the rules. Sometimes, I have to remind people who are playing foursquare to follow the rules because they're starting to make stuff up. We say, '[if it touches the] line, you ro-sham-bo,' and if someone wins a point we say, 'high-five!"

Conflict resolution by junior coaches was inconsistent. Junior coaches in 14 of 16 schools in which focus groups occurred (88 percent) described supporting their peers and younger students in resolving minor conflicts at recess by using ro-sham-bo. During our observations of recess, we saw junior coaches intervening in conflict in at least one recess at 12 of 17 schools (71 percent), and in at least half of the observed recesses at 4 schools (24 percent). At 5 schools (29 percent), we saw little intervention by junior coaches. In 4 schools (24 percent) with weak or moderate Playworks implementation, we observed junior coaches contributing to conflict or even using their junior coach status to yell at or punish others.

4. Implementation of Playworks' Class Game Time

Class game time is a regular period in which the Playworks coach meets with individual classes to lead games with the students. During this time, the coach uses games to intentionally foster team work and positive play while also teaching students the rules to new games that they can play at recess. Teachers are required to be present during class game time because the coach is not a certified teacher and, therefore, is not supposed to provide instruction during class time on his or her own. Playworks prefers that teachers play alongside their students at class game time, and this is suggested to teachers during their Playworks training.

Class game time schedules varied across schools. Five schools (29 percent) scheduled each class to participate in class game time once a week, eight schools (47 percent) had it every other week, and three schools (18 percent) had it every three weeks or monthly. The amount of time allotted to an individual class game time period ranged from 15 to 45 minutes per session.

Students were observed to be consistently engaged in class game time. Class game time was the Playworks program component most consistently observed to have a high level of student engagement. Across the 62 class game times observed in the study's 17 treatment schools, we observed that nearly all students were engaged in games. However, in 33 of 62 class game times observed (53 percent), one or two students were sitting out, mostly due to behavioral problems or students electing not to participate.

We observed high levels of positive messaging at class game times from coaches and, to a lesser extent, teachers. Coaches used positive messaging such as "good job" and "nice try" at 57 of 62 observed class game times (92 percent), and teachers used positive messaging at 19 of 62 class game times (31 percent). Positive messaging was most evident at strong and moderate implementing schools. We observed positive messaging from coaches in 29 of 30 class games times (97 percent) at strong implementing schools and 19 of 21 class game times (90 percent) at moderate implementing schools, compared with 8 of 11 class game times (73 percent) at weak implementing schools. Similarly, we observed positive messaging from teachers at 12 of 30 class games times (40 percent) at strong implementing schools and 7 of 21 class games times (33 percent) at moderate implementing schools, compared with 0 of 10 class game times at schools with weak implementation.

Teachers' participation during class game time was not always evident. Playworks intends for teachers to play along with students during class game time to help build a positive climate for play. In 26 of 41 teacher interviews (63 percent), teachers said that they consistently played with their students during class game time. However, we observed teachers playing alongside students in only 24 of 62 class game times observed (39 percent). Although teachers said during interviews that they enjoyed the opportunity to play, they noted that physical limitations kept them out of some games. Other reasons teachers gave for not playing included wanting to use the time to prepare for class, personal discomfort with playing and seeing their role as enforcing discipline, which we observed happening in 31 of 62 class game times (50 percent).

B. Research Question 2: School Context and Playworks Implementation

Because Playworks operates within schools during the school day, coaches are required to work with principals, teachers and playground monitors, as well as within existing school policies and practices, to implement the program. Schools varied in terms of these contextual factors (Appendix 2, Table 3), and coaches at schools with strong implementation adapted the program to fit the specific needs and constraints of their schools. This section describes these contextual factors and how they affected program implementation.

1. Principal and Teacher Knowledge and Buy-In

Principal leadership and messaging were critical to implementation. Principals were largely responsible for bringing Playworks to their schools (Appendix 2, Table 3) and had authority over many of the policies that governed Playworks' implementation, including recess schedules, whether junior coaches would be released to work at younger students' recesses and flexibility for scheduling class game time. In schools with strong implementation, principals supported each of these Playworks components as well as the integration of the coach into the school. This included participation in staff and other meetings and developing strong professional relationships between the coach and the principal and teaching staff. One principal even had the Playworks coach lead a professional development session partway through the year to have teachers play and remind the teachers that they were supposed to play at class game time. Overall implementation quality suffered when principals were not fully supportive of the program. In weak implementing schools, the coaches perceived the principals to be less available, less flexible and less willing to engage in planning or discussions about the program.

Teacher knowledge of and buy-in for the program supported strong implementation.

Nearly all principals and teachers agreed that providing opportunities for play during the school day is important. In interviews, 67 of 70 principals and teachers (95 percent) said that they value play in a school setting and agreed that "kids learn through play." Of the 67 staff members who reported valuing play, 66 percent described play as critical for promoting students' development of social skills and peer relationships. Seven of 18 principals (39 percent) and 13 of 49 teachers (27 percent) also viewed play as supporting physical activity and student health. Of teachers who valued play in schools, 24 of 49 (49 percent) reported that students need opportunities for play so that they can have needed breaks during the day to burn off energy and use their creativity outside the classroom.

Teacher knowledge of and buy-in for the program supported strong implementation. In interviews, we learned that teachers who understood the goals of Playworks and the strategies for achieving them were more likely to report reinforcing the positive messaging, inclusive language and conflict resolution strategies in their classrooms and felt that those practices aligned with their own classroom goals. Teachers who were less knowledgeable about Playworks were less likely to see value in releasing junior coaches to work at younger students' recesses and less likely to participate in class game time.

At some schools, teachers confused class game time with physical education, diluting the intended purpose and benefits of class game time. During our interviews, five teachers talked about class game time interchangeably with physical education or said that other teachers at their schools did. One school's principal used the Playworks coach to administer state-mandated physical fitness testing, which is normally the responsibility of physical education teachers and is not an activity that is part of Playworks programming. When teachers believed class game time was interchangeable with physical education, they saw it as a chance to drop the students off for a physical activity break but did not know about the other goals of class game time. At one school that conflated class game time and physical education, teachers had never heard of the term "class game time."

2. Balancing Playworks Participation with Academic Instructional Time

Class game time was sometimes canceled to focus on academics. Teachers and principals in nine schools talked about the pressure to get through curricula and meet adequate yearly progress (AYP) goals and expressed concerns that class game time took away from academic time needed to prepare students for standardized tests. One principal canceled all class game times for two months before testing to focus on test preparation. Another school withheld class game time for 5th-grade students for the entire year because the teachers were worried about getting students caught up academically before middle school. Of the eight schools that served kindergarten through grade 8, only 1 school scheduled class game time for students in the middle school grades because of a greater focus on academic time for these upper grades and Playworks' focus on younger students.

Participation in the junior coach program was contingent on academic performance and obligations. Teachers of upper elementary students described the junior coach program as a privilege and reported that students who did not maintain their school work were not allowed to perform the junior coach duties, either for the day or, in rare cases, permanently. Playworks coaches at four schools (24 percent) reported that junior coaches frequently missed their junior coach shift because of unfinished school work. Playworks coaches at eight schools (47 percent) reported that school policies about junior coaches missing class interfered with implementation of the junior coach program. Specifically, 5th-grade junior coaches in these schools were not allowed to miss any academic time to work at younger students' recesses.

History of recess affected students' recess participation. Of the 16 schools that had existed for more than one year, 2 (13 percent) had not provided recess in the year before Playworks. The principals at both of these schools said the previous decision to eliminate recess was made because of students' low academic performance. Both principals were new to their schools and had brought in Playworks to reintroduce recess in an organized and safe manner and to improve the school climate. The coaches and teachers at these schools reported that some teachers were inconsistent about letting their students out for recess during the study year. Both of these schools had weak overall implementation.

3. School Policies Related to Withholding Participation for Behavior Infractions

Moderate and weak implementing schools were more likely than strong implementing schools to have policies that took recess away from students for negative behavior. At 10 schools (59 percent), interviewees reported that teachers sometimes took recess away from students as a consequence of behavioral problems. In schools with policies that took recess away from students, teachers were less integrated into the program, and this practice was associated with lower overall program implementation quality. In all 3 schools with weak implementation and in 4 of 6 schools (67 percent) with moderate implementation, students sometimes had recess taken away from them. This practice was reported by staff in only 3 of 8 schools (38 percent) with strong overall implementation. In fact, one school with strong implementation had a verbal policy that teachers were not to take recess away from students.

Teachers, principals, or coaches in 8 schools reported withholding or threatening to withhold class game time in response to poor student behavior. In 8 of 33 class game times observed (24 percent) in which students sat out, nonparticipation was due to discipline issues—some of which occurred during class game time and some of which

occurred before class game time. In interviews, five teachers (from 5 schools) talked about using the threat of losing class game time to encourage students to get their work done or behave properly. Two principals, both at schools with strong implementation, discussed this policy and their support for it, and one coach talked about cooperating with teachers to implement this policy.

Coaches and teachers viewed good student behavior as a prerequisite for participation in the junior coach program. Playworks coaches at three schools (18 percent) reported that junior coaches frequently missed their junior coach shift and were held inside by teachers because of poor classroom behavior. In eight schools (47 percent), coaches reported removing at least one student from the program altogether because of consistently poor behavior at school. Upper grade teachers and coaches reported that coaches needed to communicate regularly with teachers to make decisions about which junior coaches continued to earn the privilege to participate in the program. Coaches also reported consulting with teachers when junior coaches struggled with behavior so that they could better support the student.

4. Scheduling and Recess Space

Recess schedules varied across schools. Three of 17 schools (18 percent) had multiple, overlapping recesses with different grades entering and exiting at different times. At the remaining 14 schools (82 percent), recesses were nonoverlapping, meaning that students who were in a given recess period all began and ended recess at the same time. In these 14 schools, 6 had multiple grade levels of dissimilar age groups at the same recess; 4 schools had multiple grade levels of similar age groups at the same recess; 3 schools had separate grade-level recesses; and 1 school had both separate grade-level recesses and grade levels of similar age groups at the same recess.

Nonoverlapping recesses offered the most support for Playworks implementation. Nonoverlapping recess periods grouped by dissimilar age groups facilitated the implementation of Playworks because, according to principals and coaches in the six schools that had this schedule, it (1) made it possible for junior coaches to support younger students at recess without having to miss class time and (2) reduced conflict because older and younger students tended to play different games. Nonoverlapping recess periods grouped by similar grade levels (three schools) had the advantage of keeping students of similar developmental levels together on the playground. Overlapping recess periods characterized by different grades entering and exiting at different times (three schools) offered no apparent advantages—at least from the perspective of the implementation of Playworks—and instead contributed to problems with sustaining games, as some players would leave in the middle of a game or coaches would have to run off to greet a new group of students.

Recess bell schedules affected the amount of time students spent in their junior coach roles each week. Coaches worked closely with principals and teachers to create a junior coach program that fit within the existing bell schedule at each school. In all schools, junior coaches had the opportunity to work at their own recess period and in 16 schools (94 percent), junior coaches also worked with younger students at recess at least once a week. Of those 16 schools, 8 adjusted their school policies to allow junior coaches to miss at least some class time in order to work during younger students' recess periods. In the other 8 schools, junior coaches worked at their own recess during the time it overlapped with younger students, or were sometimes allowed to miss part of their lunch period to join younger students' recess periods.

Playworks coaches and teachers reported difficulties scheduling class game times. One challenge coaches faced was scheduling class game times around existing school schedules. Teachers, principals or the coach at 9 schools (53 percent) said that existing activities built into the school schedule, such as prescribed blocks of reading instruction and enrichment courses, limited the time slots available for class game time. School size also raised a challenge in scheduling class game times, as coaches in larger schools with more classrooms had to rotate between more classes and, therefore, had to see each class less frequently. Coaches or teachers in 4 of the 6 schools that enrolled more than 500 students complained about not being able to have class game time as frequently as they would like, whereas no study participants raised this issue at the 10 schools with fewer than 500 students (enrollment data were not available for one school that was new in 2011–2012). Indeed, 5 of the 10 schools that had fewer than 500 students scheduled class game time every week compared with 1 of the 6 larger schools. A third challenge, reported by 4 teachers, was that their class missed class game time frequently because it was scheduled on Mondays or Fridays, when breaks and holidays tend to occur.

Despite these challenges, Playworks coaches were sometimes able to adapt their class game time schedule around existing school schedules. For example, at a school in which the principal required teachers to spend the morning in intensive core-subject instruction, the coach reported that the principal would allow only a 45-minute period each week to work with each grade level. Each grade level consisted of three classrooms, so the coach at this school opted to work with each class for 15 minutes every week instead of 45 minutes every three weeks. However, this meant that the coach was not able to take classes outside for games because time was too limited. Another coach who had teachers complain about fitting class game time into their schedules offered brief 5- and 10-minute slots to come and play quick games in the classroom.

Coaches reported working around their schools' space limitations. All schools had a blacktop area for playing during recess, and 9 of 17 schools (53 percent) also had a grassy field. The lack of a grassy field for all or part of the year posed some implementation challenges because many Playworks games are designed to be played on grass; coaches adapted the program in schools without a grassy field by moving games to the blacktop and encouraging students to "slow down their feet" in order to be safe.

Twelve schools (71 percent) had an outdoor play structure, but at least some students at 4 of those 12 schools (33 percent) were not allowed to play on these structures. At 1 school the play structure was deemed unsafe, and at other schools it was inaccessible during recess or designed only for the very youngest students. The lack of a play structure did not hinder the implementation of Playworks. At some schools, coaches limited the use of the play structure to encourage students to play the Playworks-organized games.

Indoor recess during inclement weather posed space challenges at many schools. Schools had different policies for what students were to do when inclement weather made outdoor recess impossible. At four schools (24 percent), students stayed in their classrooms during indoor recess. At two schools (12 percent), students gathered in a large space such as the gym or auditorium, but were only able to play board games or watch movies. At five schools (29 percent), space limitations meant that only a portion of the students were able to go to a large space to engage in games and activities with the coach while the rest of the students stayed in classrooms or were sent to other spaces to do quiet activities. Students had access to a physically active recess in a large space where they

engaged in games facilitated by the coach during inclement weather at just six schools (35 percent). But even at these schools, coaches complained that the space available for indoor recess felt cramped given the number of students.

5. Availability of Equipment

Coaches developed strategies for managing and obtaining equipment. Schools were not always able to purchase items specifically for the Playworks program, due to limited discretionary funding. In reflecting on the school year, coaches generally felt that they had access to enough equipment to run their program, although many commented that additional equipment would have been welcome. In order to meet their equipment needs, some coaches reported borrowing equipment from the physical education teacher. In at least one of these cases, the coach was reluctant to use the borrowed equipment for some games in order to avoid damaging it. At 2 schools, coaches who lacked equipment at the start of the year reported that parents donated equipment or money so that schools could buy equipment to support the Playworks program.

C. Research Question 3: Principal, Teacher and Student Perceptions of Playworks

The majority of principals, teachers and students across all schools reported that Playworks provided important benefits to their schools. Interview and focus group participants attributed a range of school-wide and student benefits to Playworks, and most teachers and principals felt that their schools needed Playworks again the next year. Teacher, principal and student perceptions of Playworks recess, the junior coach program and class game time are described below. A number of these findings rely on data from a teacher survey, described previously. Although teachers in most schools were not present during recess, they reported informally to us in interviews that they observed recess activities through windows (if available) while they ate lunch or by coming to pick up their students from recess a few minutes early. They also learned about students' recess activities through transitional conversations as they walked back to their classrooms. Teachers also had the opportunity to see skills students learned through Playworks recess when they took their students outside for free time or played Playworks games with their students in the classroom.

1. Perceptions of Playworks Recess

Nearly all teachers agreed that Playworks had strengthened recess activities, without taking away from academic learning. Among the 174 teachers surveyed, 97 percent agreed that Playworks helped their students learn new games, 95 percent felt it helped their students learn recess rules and 97 percent felt it was good exercise for their students (Appendix 2, Table 4). Although, as previously noted, teachers had expressed initial concern about Playworks potentially taking needed instructional time, very few teachers (6 percent) felt Playworks actually had taken away from their students' academic learning.

Students enjoyed Playworks activities at recess. A total of 89 percent of student survey respondents reported enjoying recess activities with the Playworks coach, but the percentage was substantially higher among those who had above-average participation in Playworks activities (97 percent) compared with those with below-average participation (78 percent) (Appendix 2, Table 5). In focus groups, most junior coaches said recess was more fun, included more activities and provided more support for resolving conflict than before Playworks. Overall, junior coaches in focus groups agreed that Playworks should be continued at their schools. One junior coach said, "I think they should keep Playworks … so when the little kids get older, like us, they get to experience Playworks, too."

Study participants reported that Playworks supported an increase in safety on the playground. At 12 of 17 schools (71 percent), at least one respondent group (principals, teachers or junior coaches) reported that recess was safer with Playworks. One principal said, "Now everybody can feel like they've had some fun doing something without, say, being attacked or knocked down or something and having it go unnoticed." A teacher said, "[With Playworks], I think the kids feel safe to play here, then they feel like they can be a kid here." In addition to physical safety, teachers, principals and students reported that students had a greater sense of emotional safety on the playground. For example, one junior coach expressed feeling emotionally safer at recess since Playworks had come to her school: "There used to be tons of bullies at our school.… A lot of times when I saw other kids getting bullied, I thought that the school wasn't as great as it is now because it didn't seem so safe then, and now it seems [a lot] safer … than it used to be." These findings reinforce the impacts described in our prior research, demonstrating that Playworks led to reduced bullying and exclusionary behavior at treatment schools (Bleeker et al. 2012).

Nearly all teachers agreed that Playworks had strengthened recess activities, without taking away from academic learning.

2. Perceptions of the Junior Coach Program

Teachers felt the junior coach program was a positive experience for junior coaches. Most surveyed teachers (88 percent) reported that junior coaches enjoyed their role at recess and 89 percent felt they gained leadership skills through their participation in the junior coach program (Appendix 2, Table 4). Specifically, teachers reported that junior coaches taught other students games (81 percent), resolved conflicts at recess (67 percent), included others at recess (78 percent), were good role models (76 percent) and improved their own recess conduct (70 percent).

Some study respondents reported that junior coaches gained skills through the program. A total of 30 percent of teachers, principals and Playworks coaches who were interviewed reported that students gained an increased sense of responsibility, leadership skills and improved behavior by participating in the program. Teachers at 6 schools (35 percent) noted improved classroom behavior in students who participated in the junior

coach program. Principals from 10 schools (59 percent) reported that the junior coaches in their schools had developed leadership skills. One principal related his experience with junior coaches supporting younger students at recess, "[The junior coaches] walk around and ask, 'Hey, do you need any help?' And little kids know that they can go to the big kids. We had a lot of instances at the beginning of the year where little kids would say that somebody was being mean to them, and it used to be that they would go to the yard duty, and the yard duty wouldn't listen. And now we tell them, 'Go find a big kid to help you.' And the [junior coach] will walk over and [help them]."

Study respondents in schools with moderate and strong implementation reported additional benefits for junior coaches. In schools with moderate and strong Playworks implementation, perceived benefits also included improved conflict resolution skills and an increased sense of self-confidence among students who participated in the junior coach program. In interviews, teachers also suggested that these new skills and positive attitudes were beginning to spill over into the classroom. All three schools with weak Playworks implementation lacked teacher buy-in and knowledge about the junior coach program, and only 11 percent of teachers interviewed at these schools cited any benefit of the junior coach program on students.

Junior coaches themselves believed they had benefitted from the program. The most common benefit cited by Playworks junior coaches was pride in improvements to their own behavior. One student stated, "I used to be bad in class, and [the Playworks coach] said maybe if I [become] a junior coach, I could do better. And I have changed a lot since the first time I came to school. I have been doing better ever since junior coaching came." Another reported, "As a junior coach … now, you think of yourself … as a good person that helps people."

3. Perceptions of Class Game Time

Teachers supported class game time for their students. The majority of teachers reported that class game time helped their students learn new games (90 percent) and recess rules (82 percent) (Appendix 2, Table 4). They also felt it was fun for their students (92 percent) and provided good exercise (88 percent). Teachers themselves reported learning from class game time, including 85 percent who said they learned new games and 61 percent who reported learning the recess rules. Just 13 percent felt that class game time took away from academic learning.

Students enjoyed class game time. A total of 90 percent of students surveyed reported enjoying class game time with the coach, with 96 percent of above-average participating students reporting they enjoyed class game time compared with 83 percent of those with below-average participation (Appendix 2, Table 5). Students in all junior coach focus groups were positive about their class game time experiences. When asked what class game time was like at their school, one junior coach exclaimed, "One word—awesome!" Other students reported that class game time was fun and provided them the opportunity to "get their energy out." Still others reported that class game time gave them a chance to play with their teachers, learn new skills and work together as a team.

D. Funding and Program Retention

Playworks provides a cost-sharing arrangement for schools; typically schools pay between $23,500 and $26,000 per year and Playworks covers the remainder of the program cost through a variety of funding sources. Schools also received an incentive to participate in the study. Still, in all schools, principals discussed their concerns about funding the program in the larger context of budget cuts that all schools faced.

Schools mainly funded Playworks through their own budgets. Ten schools (59 percent) funded their Playworks program with Title I funds. Three schools (18 percent) used funds raised by parent organizations at the school, 2 schools (12 percent) relied on district funds and another 2 schools (12 percent) relied on external grants (Appendix 2, Table 3).

Twelve of 17 schools retained Playworks in the year after implementation. Nearly all principals (16 of 17, or 94 percent) and the vast majority of teachers (97 percent) reported that they wanted to continue the program again in the year following the study (Appendix 2, Table 4). Yet, only 12 schools (71 percent) had Playworks the next year (Appendix 2, Table 6). Five of these 12 schools had the same coach and 7 had a different coach in the subsequent year (Appendix 2, Table 6). The one principal who was not supportive of having Playworks return was at a school with weak implementation during the study year; this principal felt that, given funding constraints, the limited funds available needed to be spent elsewhere. Three schools that wanted to continue the program did not implement Playworks after the study year because of financial constraints. One other school planned to continue with Playworks and had the funds set aside to support it, but was not offered the program due to high demand for Playworks in the city, which resulted in a limited number of schools served. Even among principals who ended up being able to pay for Playworks in the year after the study (according to records collected from Playworks), there was considerable uncertainty about whether they would have the funds when our interviews took place. Among the 12 schools (71 percent) with Playworks after the study year, 7 principals had reported in interviews that they were uncertain whether and how they would pay for the program in the future.

There was no relationship between program implementation quality and program retention. Six of 8 schools (75 percent) with strong implementation, 4 of 5 schools (80 percent) with moderate implementation and 2 of 3 schools (67 percent) with weak implementation continued the program in the subsequent year.

E. Recommendations from Study Respondents

In interviews, principals, teachers and coaches volunteered recommendations for future implementation of Playworks. This was an open-ended question that respondents could answer in any way they felt appropriate.

School staff training. Principals, teachers and coaches alike mentioned staff training as an area of potential improvement for Playworks implementation. Note, training occurred in different ways and at different times across schools, so these recommendations might not apply to all school settings.

- **Clarify teacher and coach roles.** A combination of four principals, teachers and coaches recommended that Playworks managers communicate clear expectations for the roles of teachers and coaches in Playworks implementation during training, including the expectation that teachers will play with students.
- **Be more specific about program details.** Three teachers and coaches further identified a need for the training to provide teachers and other school staff with a strong sense of how the program will look at their school, including schedules, types of activities and shared goals with Playworks and the schools.
- **Include recess playground monitors.** Three principals and teachers recommended including recess playground monitors in the training sessions so that they can be part of the implementation experience and adopt language and practices consistent with Playworks' goals.
- **Provide supplemental training or information to teachers.** Five teachers felt that they could use supplemental information throughout the year on both the strategies coaches use on the playground as well as specific games they can play with their classes.

Coach training. Respondent groups also felt that coaches could come a bit more prepared to work with the specific student populations at the schools. The following suggestions were offered during our interviews:

- **Ensure that coaches are prepared to work in inner-city environments.** Two principals in inner-city schools reported that coaches should be better oriented to the challenges of working with students from poor or violent neighborhoods in a way that retains the coaches' enthusiasm and energy.
- **Implement the program in a culturally sensitive way.** One teacher and one principal identified cultural sensitivity as important for implementation. Examples included hiring coaches who were familiar with the predominant language spoken at the school and asking coaches to refrain from using words in games that might trigger a negative response (for example, using the term *jail* when playing dodge ball).
- **Provide behavior management training.** Two teachers felt that coaches needed to have better behavior-management skills so that student conflicts did not escalate.

Overall implementation. Respondents had a variety of recommendations to improve the overall quality of implementation.

- **Improve communication.** Three teachers felt that communication between the Playworks coach and school staff could be improved. One teacher pointed out that she did not have the coach's email address or telephone number and did not know how to reach her. Others mentioned that scheduling time for teachers and the coach together would be helpful for teachers to learn more about the program and their role.
- **Teach older students to lose gracefully.** One teacher commented that older students especially should be taught how to respond gracefully when they lose a game in a competitive situation and that Playworks' emphasis on not winning does not allow for that.
- **Appeal to girls.** One teacher noted that it would be helpful to make concerted efforts to engage girls, especially older girls, in activities that appealed to them, but did not offer specific suggestions for what those would be.
- **Clarify the role of older students in K–8 schools.** Playworks was in eight K–8 schools for this study, and one principal noted that the program's role with students in older grades could have been better defined.
- **Have more than one coach.** Seven principals and teachers noted that it would be beneficial to have more than one coach at their school.

Junior coach program. Three teachers felt that the junior coach program should be better showcased across the school. One teacher of younger-grade students expressed a desire for staff throughout the school to be made aware of who the junior coaches were so that teachers would learn about the continued achievements of their former students.

Teachers also felt that junior coaches might need incentives to stay motivated when they were frustrated with their duties. For example, some junior coaches felt disrespected by their peers who did not always acknowledge their role as recess leaders. Many junior coaches found it easier to act in this capacity with younger students, who they felt looked up to them. Other junior coaches said they wished they had more time to play with friends, rather than working during their play time.

Class game time. The most common recommendation from teachers about class game time was to have it more frequently (eight respondents), which speaks to the value teachers placed on having this time with the coach. One teacher also recommended that the coach spend more time playing games, as opposed to explaining game rules.

Program cost. Nearly all principals identified the cost of the program as a challenge and recommended that Playworks continue to work to make sure it remains affordable to schools.

Elevate the status of Playworks. Two principals recognized the important contribution Playworks made to the implementation of other positive behavior intervention programs, such as the Positive Behavior Intervention and Supports (PBIS). They recommended that Playworks market itself as a school-wide program serving all students to support problem solving and positive behavior.

Conclusion

This study found that Playworks had strong overall implementation in 8 of 17 treatment schools studied and moderate implementation at 6 treatment schools. Recess at the strong implementing schools was organized, students were engaged, and Playworks' tools to promote positive messaging, inclusion and conflict resolution were employed. Principals and teachers supported and knew about the program, and the schools' recess and class schedules supported Playworks' activities and goals. For instance, teachers, principals and other school staff fully understood the Playworks model and agreed with its goals, were willing to implement aspects of Playworks in their own work with students and were willing to shift schedules to accommodate Playworks' needs. Schools with moderate or weak implementation had some but not all of these characteristics.

All schools faced a range of contextual factors that influenced implementation and required varying degrees of program flexibility. This study has demonstrated the importance of these contextual factors in influencing Playworks implementation and the ways that the program can be adapted to fit within a variety of school settings. Some school policies—such as withholding recess as punishment for poor behavior or missed schoolwork—were associated with weaker Playworks implementation, as was a lack of recess in prior years. Principal support and teacher buy-in were necessary for strong program implementation. Other contextual factors—such as recess schedules—were not, by themselves, negatively associated with implementation quality, although they did require coach flexibility in implementation strategies.

Teachers and principals expressed support for all Playworks components: recess, the junior coach program and class game time. Students regarded the program positively and reported that recess was safer and more fun since Playworks had arrived. School staff and students also agreed that students learned new skills through the program. School staff at all schools overwhelmingly reported that they hoped to have the program return to their schools in the following year.

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ENDNOTE

1. One school was unable to recruit junior coaches for participation in a focus group.

Appendix 1
Description of Study Design and Data Sources

School Selection

Twenty-nine schools from six cities across the United States were recruited for the Playworks evaluation. Twenty-five schools participated in the 2010–2011 school year (cohort 1) and an additional four schools participated in the 2011–2012 school year (cohort 2). Of the 29 schools, 17 were assigned to the treatment group and 12 to the control group. Random assignment of schools helped to ensure that there were no systematic differences between the treatment and control groups' observed and unobserved characteristics and that the differences in outcomes between the two groups could be attributed solely to the effect of Playworks (see Bleeker et al. 2012). To improve the statistical precision of impact estimates and reduce the chance of differences between the treatment and control groups in the characteristics of schools, random assignment was conducted within matched pairs (or trios) of schools that were similar in terms of observable characteristics. This brief focuses specifically on implementation findings in treatment schools.

Data Sources

The evaluation's implementation data collection activities were designed to document how the 17 treatment schools implemented Playworks. To that end, we collected data from Playworks coaches, principals, teachers, students and recesses in spring 2011 (cohort 1) and spring 2012 (cohort 2). Each implementation data collection activity is described next.

- **Interviews with Principals.** We interviewed one principal from each of the 17 treatment schools during the school day for about 60 to 90 minutes each. Assistant principals were also interviewed in two treatment schools. Interviews were designed to collect information about non-Playworks opportunities for play and physical activity, reasons for wanting to bring Playworks to the school, typical recess experiences of students and teachers, school context and student population and the principals' views of play. Interviews included questions about Playworks roll-out at the school; integration of the Playworks coach into the school; views of the Playworks model and its effects on students' recess time, physical activity, behavior and learning; implementation challenges faced and costs of implementing Playworks.

- **Interviews with Teachers.** We interviewed a total of 51 teachers from treatment schools for about 30 minutes each. We sampled one teacher from grade 5, one teacher from grade 3 or 4 and one teacher from grade 1 or 2 in each study school.[1] Teacher interviews focused on topics such as the typical recess experiences for students and teachers; Playworks implementation, including individual components; staff training and experiences; relationships with the Playworks coach; views of the Playworks model and its effects on students and challenges faced.

1 One school did not include 5th grade; in that school, we interviewed a 1st-grade teacher, a 2nd-grade teacher and a 3rd- or 4th-grade combination class teacher.

- **Interviews with Playworks Coaches.** We interviewed the Playworks coach in each treatment school for about 60 minutes each. Interview topics included reasons for working with Playworks; previous experience and training; Playworks roll-out at the school (including individual components); relationships with principals and teachers and integration of the Playworks coach into the school; views of the Playworks model and its effects on students' recess experience and physical activity and challenges faced.

- **Focus Groups with Junior Coaches.** We conducted focus groups with students who were junior coaches at 16 treatment schools. Focus groups took place after school in a secure room without Playworks staff present and lasted about 90 minutes each. Focus group facilitators asked students to describe their reasons for applying to become a junior coach, the training they received, experiences as a junior coach, other students' perceptions of Playworks and challenges faced.

- **Playworks Observations.** Across the 17 schools, we observed 98 recess periods (average of 6 per school) to assess Playworks coaches' involvement and strategies, students' participation in Playworks games, students' use of Playworks strategies and language, playground monitors' and teachers' activities and junior coach participation. We also observed 62 class game times (average of 4 per school) in order to assess the coaches' relationships with students in smaller groups and examine teacher and coach interactions and discipline styles.

- **Student Survey.** A total of 1,329 students from 70 4th- and 5th-grade classrooms in 17 treatment schools participated in a survey during the regular school day. A team of experienced survey administration staff conducted the 30-minute survey in each classroom. The survey captured information across a variety of domains, including students' perceptions of recess and class game time. In schools with five or fewer 4th- and 5th-grade classrooms, all 4th- and 5th-grade classrooms were asked to participate in the survey. In schools with more than five classrooms, we selected a random sample of five classrooms, balanced across the 4th and 5th grades. The response rate for the student survey in the 17 treatment schools was 82 percent.

- **Teacher Survey.** A total of 175 teachers from 17 treatment schools completed a 50-minute, self-administered, hard-copy instrument. This survey captured information across a variety of domains, including teacher perceptions of recess, the junior coach program and class game time. In schools with fewer than 15 teachers, all teachers were asked to participate in the survey. In schools with more than 15 teachers, we selected a random sample of 15 teachers to complete the survey, balanced across grade levels (grades 1 through 5). The response rate for the teacher survey in the 17 treatment schools was 85 percent.

Analysis Methods

We audiotaped and transcribed most interviews and focus groups for analysis using qualitative analysis software. We recorded observation data manually and then revised observation notes to be consistent across schools and observers.

We used qualitative analysis software to code the interviews, observations and focus groups for key concepts and findings. Together, the research team agreed on a set of descriptive and analytic codes and subcodes that represented the experiences of the schools broadly and individually. Four members of the team coded transcripts and notes

from interviews, observations and focus groups for both descriptive and analytic themes. We achieved an average Kappa rating of 0.60 across all documents coded by more than one rater.

Analytic themes fell roughly into three categories: program context, program implementation and play and settings that might influence play. Within each of these categories, we developed a variety of subcodes for more detailed analyses.

After coding the data, we analyzed the data to learn how schools shared implementation experiences and where experiences diverged. We compared experiences within and across schools, grouping findings by stakeholder (teacher, principal); data collection type (interview, focus group or observation); and by implementation quality (strong, moderate or weak).

Related Study Briefs

An earlier brief described impact and implementation findings based on the first cohort of 25 treatment and control schools (that participated during the 2010–2011 school year) (Bleeker et al. 2012); results from the first cohort showed that Playworks had positive impacts on some measures of school climate, student conflict resolution and aggression, students' learning and academic performance and recess experience, and showed no negative impacts of the program in any of the six assessed domains. Two additional briefs report impacts based on all 29 treatment and control schools, across both cohorts. Fortson et al. (forthcoming) describes impacts and implementation findings related to school climate, conflict resolution and aggression, learning and academic performance, youth development and student behavior. The other brief will describe impacts and implementation findings related to play, physical activity and recess.

Appendix 2
Tables

TABLE 1.
Characteristics of Treatment Schools in the Study

Outcome (mean unless otherwise noted)	**Sample Size** (data source)	**Treatment**
Percentage of Schools Receiving Title I	16 (CCD)	
Title I-eligible school		92.9
Schoolwide Title I		86.7
Percentage of Schools in the Following Areas:	16 (CCD)	
Urban		100.0
Suburban		0.0
Town		0.0
Rural		0.0
Number of Students Per Teacher	16 (CCD)	16.3
Number of Students Per School	16 (CCD)	494.0
Percentage of Students Eligible for Free or Reduced-Price Lunch	16 (CCD)	81.0
Percentage of Students that Are the Following Race/Ethnicity:[a]	16 (CCD)	
Black		40.7
Hispanic		25.6
White		17.0
Asian		14.2
Native American		0.8

Source: Common Core of Data (CCD) from the 2009-2010 school year (14 schools) and 2010-2011 school year (2 schools).

Note: Means are calculated from our difference estimation results. Difference models include random assignment block indicators as covariates and use multiple hypothesis testing; see Fortson et al. (forthcoming) for more details. CCD information was not available for one cohort 2 school that was new in 2011–2012.

a These percentages do not necessarily sum to 100 because they are calculated by averaging school-level percentages.

TABLE 2.
Coach and Adult Behavior During Recess in Treatment Schools

	Overall Program Implementation Quality		
	Strong (44 recess observations)	**Moderate** (33 recess observations)	**Weak** (21 recess observations)
Average Percentage of Recesses at Schools Where the Following Were Observed:			
Coach used positive messaging	68.6	75.7	63.4
Other adults monitoring recess used positive messaging	55.6	33.2	7.1
Coach modeled inclusive behavior	65.5	66.0	50.8
Other adults monitoring recess modeled inclusive behavior	27.8	19.4	24.6
Other adults played games with students	54.4	54.2	27.0

Source: Recess observations conducted in spring 2011 and spring 2012.

TABLE 3.
School Contextual Issues and Pre-Implementation Features in Treatment Schools

	Sample Size (data source)	**Treatment**
Percentage of Schools that:[a]	16 (principal interviews)	
Had recess in the prior year		87.5
Had a new principal in the study year		37.5
Did not make AYP in the year before the study year		43.8
Percentage of Schools in Which the Following Person Was Responsible for Bringing the Playworks Program to the School:	17 (principal interviews)	
Current principal		64.7
Another school staff member		11.8
School parent organization		11.8
Another person		11.8
Percentage of Schools in Which Playworks Was Funded by:[b]	17 (principal interviews)	
School budget/Title I funds		58.8
School district		17.6
External grant		11.8
Parent organization		17.6
Percentage of Schools in Which the Key Reasons Playworks Was Desired Was to:[b]	17 (principal interviews)	
Organize/formalize recess games		52.9
Improve sense of community, teamwork and school climate		35.3
Increase safety/decrease conflicts		23.5
Increase physical activity		23.5
Support the introduction of recess		17.6
Promote youth leadership		11.8

Source: Interviews with treatment school principals conducted in spring 2011 and spring 2012.

a One school was not in operation before the study year and therefore does not have prior-year recess, principal or AYP information.

b Percentages do not sum to 100 because each school could report multiple responses.

AYP = adequate yearly progress.

TABLE 4.
Teacher Perceptions of Recess, Junior Coaches and Class Game Time

	Sample Size (data source)	**Treatment**
Percentage of Teachers that Report Hoping that Playworks Is Implemented in the Future at Their School	173 (teacher survey)	96.9
Recess		
Percentage of Teachers that "Agree" or "Strongly Agree" that Playworks Recess Activities:	174 (teacher survey)	
Help their students learn new games		96.8
Help them learn new games		83.6
Help their students learn recess rules		94.7
Are fun for their students		98.9
Provide good exercise for their students		97.2
Take away from students' academic learning		5.7
Allow them to play with their students		58.1
Are an important part of Playworks		96.0
Junior Coaches		
Percentage of Teachers Reporting That They Have One or More Playworks Junior Coaches in Their Class	170 (teacher survey)	29.8
Percentage of Teachers that "Agree" or "Strongly Agree" that Junior Coaches:	135 (teacher survey)	
Enjoy their role at recess		87.9
Have gained leadership skills through their participation		89.0
Have improved their own recess conduct		69.6
Teach other students games		81.1
Help resolve conflicts at recess		67.4
Have reduced their own incidents of conflict with others		66.0
Include others at recess		78.1
Are good role models		75.7
Are eager to be junior coaches		82.1

TABLE 4. (continued)
Teacher Perceptions of Recess, Junior Coaches and Class Game Time

	Sample Size (data source)	Treatment
Class Game Time		
Percentage of Teachers that Report that Their Class Participated in Playworks Class Game Time 2 or More Times in the Past 30 Days	174 (teacher survey)	70.4
Percentage of Teachers that "Agree" or "Strongly Agree" that Playworks Class Game Time:	174 (teacher survey)	
Helps their students learn new games		90.2
Helps them learn new games		85.3
Helps their students learn recess rules		81.9
Helps them learn recess rules		60.7
Is fun for their students		92.3
Is good exercise for their students		88.1
Takes away from students' academic learning		12.8
Allows them to play with their students		70.3
Is an important part of Playworks		85.5

Source: Teacher surveys conducted in spring 2011 and spring 2012.

Note: Sample sizes based on the same data source might be different due to missing responses.

TABLE 5.
Student Perceptions of Playworks

	Sample Size (data source)	All Treatment Students	Treatment Students with Above-Average Participation[a]	Treatment Students with Below-Average Participation[a]
Percentage of Students that Report that They Agree "A Little" or "A Lot" with the Following:	1,268 (student survey)			
I enjoy recess activities with my Playworks coach		88.6	96.7	78.7
My Playworks coach does games with us that I like to play		86.9	93.8	78.4
I enjoy participating in class game time with my Playworks coach		90.3	96.3	83.0
I enjoy participating in Playworks games with my teacher		82.0	89.3	73.2

Source: Student surveys conducted in spring 2011 and spring 2012.

Note: Sample sizes based on the same data source might be different due to missing responses.

a The treatment students with above-average participation in Playworks were the students with a value above the overall unweighted mean score for the Participation in Playworks Activities Scale. The treatment students with below-average participation were the students with a value below the overall unweighted mean score for the Participation in Playworks Activities Scale. Each student belongs to one of these categories (above-average or below-average participation); no student has the mean Participation in Playworks Activities Scale score. The Participation in Playworks Activities Scale averages student responses to four items from the student survey: (I2) "During the last two weeks, how often have you participated in activities organized by your Playworks coach during recess?"; (I3) "During the last two weeks, how often has your class participated in games with your Playworks coach during class game time?"; (I4) "During the last two weeks, how often has your teacher led you in Playworks games during class?"; and (I5) "During recess, how often do you use 'ro-sham-bo' to resolve conflicts?." Responses are coded on a 4-point scale ranging from 0 (never) to 3 (many times). Higher values on the scale indicate greater participation in Playworks activities. The scale is coded as missing if responses were missing for two or more items.

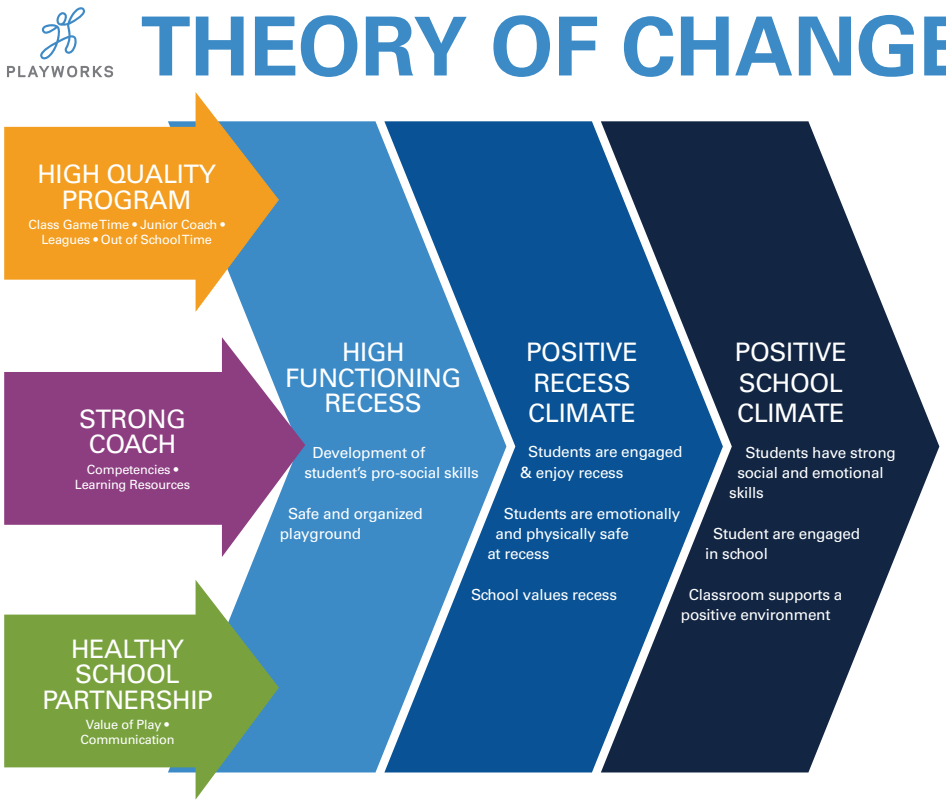
TABLE 6.
Program Retention After the Study Year

	Sample Size (data source)	**Treatment**
Percentage of Schools that:	17 (data provided by Playworks)	
Had Playworks in the year following the study year		70.6
Had Playworks in the year following the study year with the same coach		29.4
Had Playworks in the year following the study year with a different coach		41.1
Among Schools Without Playworks in the Year Following the Study Year, Reason for Program Loss:[a]	5 (data provided by Playworks)	
Inability to fund		60.0
Decided to use funds elsewhere		20.0
Playworks downsized and did not offer program to school		20.0
Lack of school support for Playworks		20.0

Source: Data provided by Playworks in fall 2012 and fall 2013.

a Responses do not sum to 100 because schools could report multiple reasons.

Appendix 3
Playworks Theory of Change



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