



**Evaluation Report:
*Case Study of the
First Year of Sports4Kids at the
Ohrenberger Elementary School
in Boston, Massachusetts*
2006–2007 School Year**

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EXECUTIVE SUMMARY

Program Overview

Sports4Kids is a school-based program that aims to improve children’s health and well-being by increasing opportunities for physical activity and safe, meaningful play at elementary schools in low-income areas. Sports4Kids places full-time site coordinators in schools to implement a five-part curriculum Monday through Friday: (1) recess/lunch, (2) class game time, (3) after-school program, (4) junior coach program, and (5) interscholastic leagues.

Evaluation Overview

Harvard Family Research Project (HFRP), a research and evaluation organization at the Harvard Graduate School of Education, conducted a case study evaluation of one Boston site in its first year of Sports4Kids. Data were collected throughout the 2006–2007 school year from multiple sources, at multiple points in time, using multiple and mixed (qualitative and quantitative) methods.

The evaluation studied Sports4Kids’ implementation and outcomes at three levels: school, classroom, and youth.

- **School:** Sports4Kids aims to influence the entire school environment and culture, therefore it was important to focus at the school-level, particularly during the initiative’s launch year when changes are most visible.
- **Classroom:** The evaluation drilled down to examine specifically what Sports4Kids looks like in classrooms and after school. The evaluation focused on two classrooms—one fourth grade and one fifth grade—selected by the site coordinator.
- **Youth:** Within the two classrooms selected, the evaluation examined the experiences of four youth (two from each classroom) over the school year. We interviewed an additional group of comparison youth (those that were less involved or who had a different experience with Sports4Kids) once in the spring.

Data Collection Methods

Level	Methods
School	surveys of all teachers
	interviews with the principal
	recess observations
Class room	interviews with 2 teachers
	observations of class game time in 2 classrooms and of the after-school program
Youth	surveys of youth in the after-school program
	interviews with 4 youth over time
	comparison interviews with 5 other youth
	Interviews with 4 parents

Evaluation questions focused on Sports4Kids’ implementation and outcomes.

IMPLEMENTATION QUESTIONS	<ul style="list-style-type: none"> • How are program components being implemented and what lessons exist about improving implementation? • Are stakeholders satisfied with the program?
OUTCOME QUESTIONS	<ul style="list-style-type: none"> • Do children have improved physical health? • Do children have improved emotional health? • Is the school culture supportive of healthy development? • Are adults supportive of physical activity?

Major Outcomes

Sports4Kids’ theory of change specifies two major goals: (a) physically and socially healthy children; and (b) physical and social environments in schools supporting children’s healthy development. Although these goals are long-term, and unlikely to be fully realized in

Sports4Kids' first year at a given school, we saw strong evidence that Sports4Kids was making progress toward these goals at the school, classroom, and youth levels.

At the school level, Sports4Kids provided structured physical activities for students that had not previously been available to them. Stakeholders overall felt that recess was much more organized and that participation in organized physical activity at the school increased. For example:

- The principal and teachers reported fewer playground fights and conflicts than in years past. Additionally, while in past years, many youth would request to stay inside during recess, they no longer did so.
- The playground environment's level of organization increased at recess, resulting in increased physical activity and opportunities for play that did not exist before. Teachers said the playground was much less chaotic and more organized than the previous year, with more equipment available for playing games.
- Youth reported that most adults at the school were supportive of physical activity.

At the classroom level, youth improved teamwork and cooperation skills, which transferred to the classroom. Teachers reported enjoying participating in sports and games with their students during class game time. The after-school program provided additional opportunities for a select group of fourth and fifth graders to participate in a structured environment after school, where they had time both to play and to finish their homework. Specifically:

- The Sports4Kids site coordinator worked hard to instill the use of positive, supportive, and non-competitive language among the children, as well as conflict management techniques. Teachers reported that these methods transferred into the classroom. According to the two teachers interviewed, youth increasingly used phrases like, "good job!" and "nice try" to encourage one another in the classroom. In addition, their students frequently used "Ro-Sham-Bo" (rock, paper, scissors) to resolve conflicts in the classroom peacefully.
- During classroom observations immediately following class game time, students consistently settled down quickly and focused on their schoolwork.
- Teachers reported program benefits. The teachers in the two classrooms we observed participated in most class game time activities, playing alongside their students. The program encouraged teachers both to value physical activity for their students and to enjoy it themselves.

At the youth level, data revealed that youth improved their abilities to resolve conflicts, cooperate, and handle competition. In addition, data suggested that more youth enjoyed sports and games, and felt safe physically and emotionally to play at school. Further, the site coordinator provided much needed support and structure. Specifically:

- The Sports4Kids site coordinator was the adult that many youth turned to when they needed help resolving a conflict. She built strong relationships with youth and served as a caring and consistent support.
- The junior coach program fostered leadership skills. The coaches enjoyed the leadership roles and responsibilities, while teachers praised the individualized attention coaches received from the site coordinator.
- Evening basketball and volleyball leagues for fourth and fifth graders fostered athletic skills in a non-competitive environment.

Lessons

Two main lessons emerged: (1) Sports4Kids exhibited key elements of program quality that are crucial to positive youth development settings; and (2) Sports4Kids provided benefits overall to the school.

Elements of Quality. The National Research Council¹ identifies eight features of positive developmental settings for youth: (a) physical and psychological safety; (b) appropriate structure; (c) supportive relationships; (d) opportunities for meaningful youth involvement; (e) positive social norms; (f) learning-oriented, with skill-building activities; (g) balance of autonomy and structure; and (h) connections with school, home, and community. In our observations, all of these quality elements were present (to varying degrees) in Sports4Kids' activities at Ohrenberger, and all were crucial to the program's success.

Overall Benefits to the School. Beyond the benefits to individual youth, Sports4Kids aims to make the school a more positive environment in general. Overall, we saw evidence that Sports4Kids promoted a culture that was non-competitive and supportive. Sports4Kids helped youth to feel safe on the playground and in the classroom. In addition, we saw some evidence that Sports4Kids contributed to a more positive academic environment for youth. Specifically, when youth have a productive outlet for their physical energy, they are better able to focus in the classroom, which in turn promotes better academic performance. As we observed and teachers confirmed, youth were better able to settle into their classroom routines quickly following Sports4Kids games. While this alone is unlikely to translate into higher test scores or better grades, Sports4Kids may be one factor that contributes to improved academic outcomes.

Recommendations for Future Evaluations

We suggest that for the near future, Sports4Kids consider a two-tiered evaluation strategy. *Tier 1* would consist of ongoing data collection across all sites to assess Sports4Kids' outcomes and implementation broadly, using a combination non-experimental/quasi-experimental design. *Tier 2* would be a short-term quasi-experimental evaluation in select Sports4Kids and comparison sites to rigorously test and explore the Sports4Kids model. Tier 1 data would be collected internally (by Sports4Kids staff), and Tier 2 data would require an external evaluator.

¹ Eccles, J & Gootman J. (2002). *Community programs to promote youth development*. Washington, DC: National Academy Press.

I. OVERVIEW

Sports4Kids is a school-based program that aims to improve children’s health and well-being by increasing opportunities for physical activity and safe, meaningful play at elementary schools in low-income areas.² This report offers evaluation results on Sports4Kids’ first-year implementation and outcomes at a Boston elementary school.

A. Program Setting

William H. Ohrenberger Elementary School

The evaluation assesses the first year implementation of Sports4Kids at the William H. Ohrenberger Elementary School. Below are statistics on the Ohrenberger School during the 2005–2006 school year.³

Snapshot of the Ohrenberger School, 2005–2006 School Year

School

- located in West Roxbury, an annex of the city of Boston
- part of the Boston Public School System
- the mission is “to nurture and develop the competence of our children in a collaborative environment”
- services include: advanced work classes for grades 4 and 5; an instrumental music program for grades 3–5; art, computer, music, physical education, and science classes; and a community center after-school program
- facilities include: a computer lab and classroom computers; specialists in art, music, physical education, and more; a full-sized gym, playground, and athletic field; and a daily home reading program
- the school’s No Child Left Behind designation was “corrective action” for English Language Arts and “needs improvement” for math

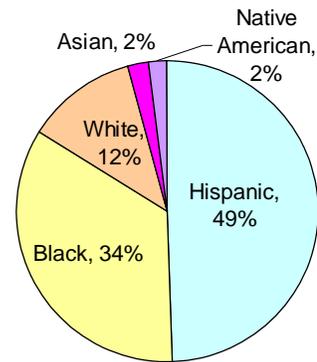
Students

- 449 students in grades k–5
- primarily Hispanic and Black (see chart to the right)
- 22% received special education
- 14% received bilingual education
- average daily student attendance was 94%
- students were promoted to the next grade at a rate of 94%
- the student mobility rate was 18%
- 29 students were suspended during the year

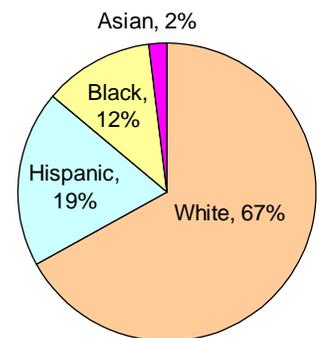
Staff

- 52 staff members, including 39 teachers
- the majority were White (see chart to the right)
- 95% of teachers were licensed to teach in Massachusetts and classified as “highly qualified” teachers
- the staff to student ratio was 1:9

Student Ethnicity



Staff Ethnicity



² Sports4Kids launched its first programs in two Berkeley, California schools in 1996. As of the 2006–2007 school year, Sports4Kids operated in Baltimore, Boston, Washington DC, and throughout the San Francisco Bay Area, serving nearly 50,000 youth in 115 schools, with plans for further expansion.

³ The most recent year for which data are available. All school data in this section are from: Focus on Children, Boston Public Schools. (2006). *William H. Ohrenberger Elementary School profile*. Boston: Author. Available at: boston.k12.ma.us/schools/RC376.pdf.

Snapshot of Sports4Kids at Ohrenberger

Sports4Kids places full-time site coordinators in schools to implement a five-part curriculum Monday through Friday: (1) recess/lunch, (2) class game time, (3) after-school program, (4) junior coach program, and (5) interscholastic leagues. The text box below describes these components as implemented at Ohrenberger. Appendix A provides details of each component as intended by the Sports4Kids program model.

SPORTS4KIDS CURRICULUM AT OHRENBERGER

Recess/Lunch. Sports4Kids activities took place directly following lunch, during the recess period. Lunch and recess were divided into three periods by grade: kindergarten/first grade (*K–1 recess*), second/third grade (*2–3 recess*), and fourth/fifth grade (*4–5 recess*). After lunch, “lunch mothers”^{*} dismissed youth to go out to the playground. The Sports4Kids site coordinator, who organized the playground space into distinct game areas (see Appendix B for a diagram of the playground at recess), oversaw at least one activity per recess period and sometimes moved between two or three activities. Junior coaches (described in more detail below) also helped to organize activities. See Appendix C for details on the rules and procedures for “core” playground games. The school schedule allowed 20 minutes for each recess period, but based on when lunch mothers dismissed students for recess, the period tended to last only about 15 minutes.

Class Game Time. Teachers had the option to sign their class up for this activity. Each class that chose to participate had a 50-minute slot (although the actual activity time was closer to 30-minutes) once every three weeks during which the site coordinator taught Sports4Kids games to the class. Teachers had to be present and were encouraged to participate in all activities.

After-School Program. This component included an hour of physical activity and games and an hour and a half of homework and snack time immediately following school (2:30–5:00pm), Monday through Thursday. Homework and snack time took place in one of the classrooms, while physical activity and games took place on the playground. Fourth and fifth graders were enrolled in the after-school program based on teacher recommendations, parent consent, and a mix of grades and genders. Once enrolled, youth were expected to attend every day that the after-school program was in session. The site coordinator used a waiting list to fill program openings.

Junior Coach Program. With teacher approval, the site coordinator selected 12 fifth graders to participate as junior coaches each semester. They assisted the site coordinator with the K–1 and 2–3 recess periods by organizing and coordinating games four days a week (every school day except Wednesdays).

Interscholastic Leagues. Fourth and fifth graders were eligible to participate in 12-week evening sports leagues on a first-come, first-served basis. These leagues included a girls’ basketball team in the winter and a co-ed volleyball team in the spring.

^{*}School staff—often parents of students—whose main responsibility was to supervise lunch and recess activities.

Sports4Kids Activity Space at Ohrenberger

All Sports4Kids physical activity components took place on the school’s playground, weather permitting. The playground area consisted of an asphalt lot directly outside the school’s cafeteria. While most of the play area was paved, a grassy area by the side of the school tended to be reserved for kickball. The school building bordered the play area on one side, and a low fence bordered the play area on the other three sides. When cold or rainy weather prevented outdoor play (as was often the case, especially in the winter when temperatures frequently dropped below freezing), activities were held indoors, either in the cafeteria (during the first part of the year) or in the hallway outside the cafeteria (during the latter part of the year).

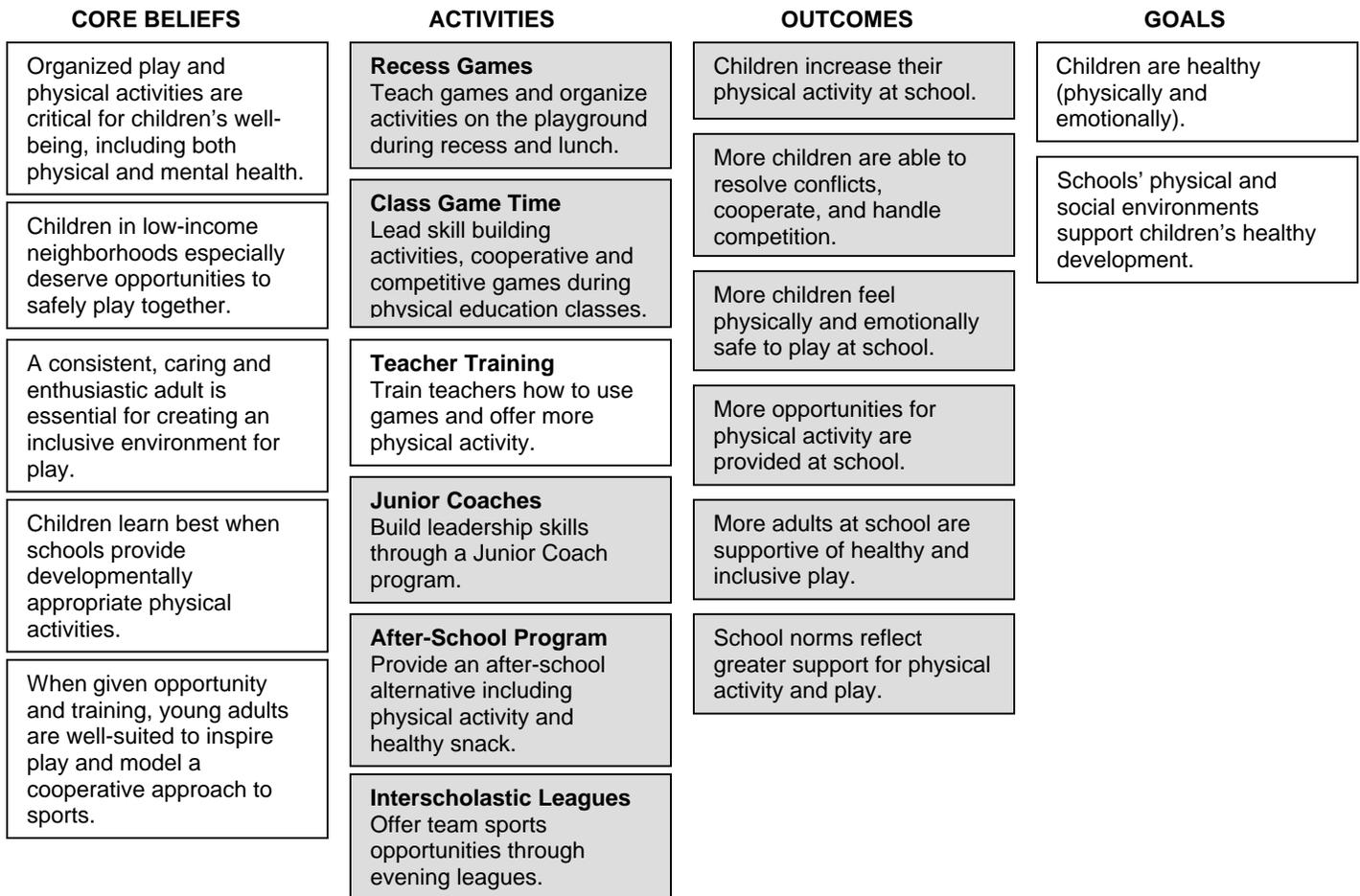
B. Evaluation

Purpose

The evaluation's goal was to document Sports4Kids' implementation and outcomes in one school over an entire school year and to identify potential ways to scale up evaluation efforts in Sports4Kids sites across the country. Guided by the Sports4Kids theory of change (shown below), the evaluation provided data to test whether a *plausible* and *credible* case could be made that Sports4Kids was implemented as planned and achieved its intended outcomes. Specifically, the evaluation assessed the shaded activities and outcomes below. Activities included the five Sports4Kids components discussed in the previous section. Teacher training, which is a major program component, but not part of the weekly curriculum, was not an evaluation focus, since we were most interested in examining the components of the Sports4Kids curriculum that specifically dealt with youth.

Sports4Kids Theory of Change⁴

Areas covered by the evaluation are shaded



⁴ Note that we added the bolded headers under "Activities" to the theory of change to help highlight these components.

Evaluation Questions

The evaluation questions directly connect to the theory of change, with implementation questions assessing theory of change activities, and outcome questions assessing theory of change outcomes.

IMPLEMENTATION QUESTIONS	<u>ACTIVITY</u> MEASURED FROM THEORY OF CHANGE
How are program components being implemented and what lessons exist about improving implementation?	<ul style="list-style-type: none"> • Recess Games • Class Game Time • Junior Coaches • After-School Program • Interscholastic Leagues
Are stakeholders satisfied with the program?	Overall program
OUTCOME QUESTIONS	<u>OUTCOME</u> MEASURED FROM THEORY OF CHANGE
Do children have improved physical health?	Children increase their physical activity at school.
Do children have improved emotional health?	<ul style="list-style-type: none"> • More children are able to resolve conflicts, cooperate, and handle competition. • More children feel physically and emotionally safe to play at school.
Is the school culture supportive of healthy development?	<ul style="list-style-type: none"> • More opportunities for physical activity are provided at school. • School norms reflect greater support for physical activity and play.
Are adults supportive of physical activity?	More adults at school are supportive of healthy and inclusive play.

Note that we did not measure academic outcomes (e.g., grades and test scores) or physiometric outcomes (e.g., obesity measures), as they do not relate directly to Sports4Kids' theory of change.

Design and Methods

The evaluation used a case study design. We collected data throughout the 2006–2007 school year (Fall 2006 through Spring 2007) from multiple sources, using multiple and mixed (qualitative and quantitative) methods. Select data were collected at multiple points to assess consistency/progress over time.

The evaluation studied program implementation and outcomes at three levels: school, classroom, and youth. The table on the next page summarizes the data collection methods associated with each level.⁵

⁵ We also planned to collect discipline records as part of the school-level data. However, these records were not available.

- School: Sports4Kids aims to influence the entire school environment and culture, therefore it was important to focus at the school-level, particularly during the initiative’s launch year, when changes tend to be most visible.

Data Collection Methods

	Data Collected	Time(s) Collected
School	surveys of all teachers (N = 18)	spring
	interviews with the principal	fall and spring
	monthly recess observations	fall through spring
Class room	interviews with 2 teachers	fall, winter, and spring
	monthly observations of class game time in 2 classrooms and of the after-school program	fall through spring
Youth	surveys of youth in the after-school program (N = 17 in the winter; N = 20 in the spring)	winter and spring
	interviews with 4 youth over time	fall, winter, and spring
	comparison interviews with 5 other youth	spring
	Interviews with 4 parents	spring

- Classroom: The evaluation drilled down to examine specifically what Sports4Kids looked like in classrooms and after school. The evaluation focused on two classrooms—one fourth grade and one fifth grade—selected by the site coordinator as those that she felt were making the most progress.

- Youth: Within the two classrooms selected, the evaluation examined the experiences of four youth (two from each classroom) over the school year. We interviewed an additional group of comparison youth (those that were less involved or who had a different experience with Sports4Kids) once in the spring.

Appendix D provides more specifics about the data collection methods and timeframes. Data are mainly descriptive, and tell a story about the Sports4Kids program at Ohrenberger. For qualitative data we used content analysis to identify themes and patterns that addressed the evaluation questions. This approach also revealed useful themes and issues that often went beyond the central evaluation questions.

Findings are described using data gathered through observation, surveys, and interviews. For survey data, the number of respondents for a given question is included in parenthesis, since not all survey respondents answered every question. Further, we excluded “I don’t know”/“not sure” responses from the analysis. Note that we do not use data collected at multiple time points to gauge change over time, but rather, to see how stable these features are throughout the year, given that a number of intervening factors are likely to affect the environment in which Sports4Kids takes place, including seasonal variation in weather that affect outdoor play, changes in school policy (e.g., whether and how often youth are allowed to participate in recess), etc. Note also that the youth surveyed in November were not necessarily the same ones surveyed in May, since Sports4Kids staff administered the survey to all after-school participants who attended the day of the survey administration. This prevents conclusions about changes in *individual* youth responses over time.

II. RESULTS: IMPLEMENTATION AND OUTCOMES

Results are organized around the following evaluation questions.

A. Implementing the Program

1. How are program components being implemented and what lessons exist about improving implementation?
2. Are stakeholders satisfied with the program?

B. Assessing the Outcomes of Sports4Kids

1. Do children have improved physical health?
2. Do children have improved emotional health?
3. Is the school culture supportive of healthy development?
4. Are adults supportive of physical activity?

A. Implementing the Program

Before we can examine Sports4Kids' progress in achieving its intended outcomes at Ohrenberger, it important to determine whether the program was implemented as planned, and the program characteristics that helped or hindered the program's progress toward its outcomes (e.g. the degree to which key stakeholders (the principal, teachers, youth, and parents) were satisfied with the program). This section focuses on the two evaluation questions related to program implementation.

IMPLEMENTATION QUESTIONS	ACTIVITY MEASURED FROM THEORY OF CHANGE	MAJOR FINDINGS
How are program components being implemented and what lessons exist about improving implementation?	<ul style="list-style-type: none"> • Recess Games • Class Game Time • Junior Coaches • After-School Program • Interscholastic Leagues 	<p><u>Successes</u></p> <p>(a) Program components were successfully implemented.</p> <p>(b) Two factors were key to program implementation across components: level of "active" youth participation required (e.g., whether or not all youth participate for the entire activity) and adult presence.</p> <p>(c) The site coordinator was well liked and respected at the school, and was key to the program's successful implementation.</p> <p>(d) The site coordinator promoted strategies that encouraged positive behavior amongst youth.</p> <p>(e) Where one component failed to engage youth, another would pick it up.</p> <p><u>Challenges</u></p> <p>(a) Not all adults at the school were supportive of the goals of Sports4Kids.</p> <p>(b) Limited access to appropriate activity space and equipment sometimes impeded implementation.</p> <p>(c) During recess, small groups of youth disrupted organized activities.</p>
Are stakeholders satisfied with the program?	Overall program	<p>(a) Both the principal and teachers reported that Sports4Kids met or exceeded their expectations.</p> <p>(b) In general, youth enjoyed Sports4Kids activities.</p>

IMPLEMENTATION QUESTION 1: How are program components being implemented and what lessons exist about improving implementation?

The Sports4Kids theory of change identifies six activities that are central to program implementation. Our data collection and analysis focused on five of these activities: recess games, class game time, the after-school program, the junior coach program, and interscholastic leagues.⁶ Our own observations and the site coordinators' monthly observations were the data sources for most of the analysis in this section, supplemented by relevant survey and interview data.

Five broad conclusions can be drawn about what worked (successes) in implementation across activities:

- (a) Program components were successfully implemented.
- (b) Two factors were key to program implementation across components: level of "active" participation required (e.g., whether or not all youth participate for the entire activity) and adult presence.
- (c) The site coordinator was well liked and respected at the school, and was key to the program's successful implementation.
- (d) The site coordinator promoted strategies that encouraged positive behavior among youth.
- (e) Where one component failed to engage youth, another would pick it up.

We also identified several challenges:

- (a) Not all adults at the school were supportive of the goals of Sports4Kids.
- (b) Limited access to appropriate activity space sometimes impeded implementation.
- (c) During recess, small groups of youth disrupted organized activities.

SUCCESSSES

(a) Program components were successfully implemented.

The structured activities implemented across the Sports4Kids curriculum consistently reflected competent planning and organization. Below are brief snapshots of major implementation successes by Sports4Kids components.

RECESS. When our observations began, the playground already reflected the effects of the Sports4Kids curriculum: youth knew where to play activities that had designated areas, such as kickball and four-square. Our observations revealed that the playground sustained this level of organization through the end of the school year. The site coordinator was consistently organized and prepared with equipment for recess. She often repeated the same games for each recess period on the same day, but the games varied over time. According to the site coordinator, the Ohrenberger strategy of dividing recess periods by grade worked better than the strategy at her previous site (she worked as a Sports4Kids site coordinator at a school in California the year before), where age groups were mixed, resulting in disparate needs and difficult-to-manage recess periods. Recess offered a variety of activities for youth each day. Recess was distinct from other Sports4Kids components in that youth were free to play group games such as

⁶ The only activity that we do not address at all is teacher training.

kickball or double dutch, or engage in more individual activities such as jump rope. Group activities, however, were generally more popular. Some youth who did not play Sports4Kids games engaged in other games or physical activities like cheerleading or tag, which varied greatly in their levels of organization and structure. For example, cheerleading was well-organized, with a leader and team members, while tag was fairly disorganized.

AFTER-SCHOOL PROGRAM. The after-school program enrolled up to 20 fourth and fifth graders throughout the school year. While there was some turnover, a core group remained throughout the year. Attendance fluctuated during the year, but an average of 18 youth attended on our observation days, except during April and May, when 15 and 12 youth attended, respectively.⁷ While 25 youth enrolled at the beginning of the school year, by November the presence of less than 20 youth was typical despite the waiting list that went into effect each time a spot opened. The site coordinator accurately predicted that a core group of youth who enrolled at the beginning of the year would remain through the end, but she noted that having several youth drop out in a short period was disappointing. Before beginning the homework period, the site coordinator dispensed snacks (with youth participants' assistance). Some youth started their homework right away during snack time, while others spent their time socializing. During homework time, some youth focused on their homework or another quiet activity such as reading, while others were less focused. The site coordinator often assisted youth with their homework. While the amount of chatting varied from day to day and from individual to individual, noise levels consistently rose near the end of homework time.

CLASS GAME TIME. We observed two classes' game time activities: one "advanced" fourth grade class, and a fifth grade class.⁸ A "special education" class made up of youth with behavioral problems often joined the fifth grade class for class game time. In our observations, an average of 17 youth (12–14 girls and 2–5 boys) attended each fourth grade class game time, and an average of 20 youth (12–14 boys and 3–9 girls), including the additional youth from the special education class, attended each fifth grade class game time.

GAMES DURING CLASS GAME TIME AND THE AFTER-SCHOOL PROGRAM. Compared to recess, class game time and the after-school program afforded a closer view of how youth responded to Sports4Kids activities. Given the smaller number of youth, whole-group involvement, and participation of the site coordinator and at least one other adult, youth were more focused than during recess. The site coordinator's strategy of playing three to five different games during class and after-school game time also offered little chance for youth to become bored. While group games were the norm, sometimes during the after-school program youth had the choice of several small group activities such as four-square or jump rope. Youth paid close attention to the site coordinator when she explained the rules for a new game and often were intolerant of classmates who fooled around or were disruptive. Throughout the games observed, youth cheered on their classmates even if they were on another team, and rarely expressed boredom or dissatisfaction.

*JUNIOR COACH PROGRAM.*⁹ The junior coaches effectively organized and managed games in a way that kept youth focused and the games moving. The site coordinator's observations attested to the junior coaches' helpfulness at recess: "It's difficult to have just me at the 4th/5th grade recess, as opposed to having the junior coaches out at the younger recesses. I don't want

⁷ In May, some youth who missed the after-school program had a test preparation period after school on that day.

⁸ Due to Christmas vacation and an in-school event in April, we observed the fifth grade class two fewer times than we observed the fourth grade class.

⁹ Due to scheduling conflicts between the days the junior coaches worked and the days we were able to observe recess, we only saw the junior coaches in action on two occasions.

JCs at their own recess, but boy it would be helpful to have another set of hands at the very least directing traffic to the proper areas.” Late in the year, she started scouting for the next year’s potential junior coaches among the fourth graders, looking to see which ones took on leadership roles during class game time.

INTERSCHOLASTIC LEAGUES: GIRLS BASKETBALL AND COED VOLLEYBALL. Both the girls’ basketball team and the co-ed volleyball team were more concerned with developing skills and sportsmanship than with competition. The site coordinator began each game by going over techniques with players from both teams. Additionally, no score was kept, families were encouraged to cheer for both teams, and players shouted out Sports4Kids “rules” like “Respect the game!” and “Have fun!” The site coordinator said that Sports4Kids selected volleyball because the playing field was likely to be even for all youth since they were unlikely to have had previous exposure to the sport, resulting in less competitive behavior from youth and families. The volleyball team exceeded expectations: the waiting list quickly went into effect and the site coordinator reported that the team was “two times bigger than it should have been.” The basketball league had mixed success. The site coordinator experienced only a 50% turnout at the first basketball game despite her efforts to secure a ride for every player, but noted that turnout improved with each successive game.

OTHER EXTRACURRICULAR ACTIVITIES. The site coordinator planned activities such as a double dutch club, field trips for junior coaches and after-school program participants, and fundraisers for field trips (e.g., bake sales). The field trips were successful, but the fundraisers had mixed results. For example, a January bake sale left the site coordinator impressed with the maturity, eagerness, and responsibility of the after-school program youth; but that same group did not bring any goods for a March bake sale, forcing the site coordinator to supply the sale.

(b) Two factors were key to program implementation across components: level of “active” youth participation required (e.g., whether or not all youth participate for the entire activity) and adult presence.

Across program components, two factors were key to successful implementation of sports and games: the level of participation that activities required and adult presence during activities.

Level of “active” youth participation required. Games where players got “out” or had to wait in line tended to result in a loss of focus, with youth who were “out” or waiting for a turn sometimes running around, yelling, or otherwise being disruptive and distracting to those still in the game. Games requiring continuous participation from everyone most successfully kept youth focused.

Adult presence. Having an adult present and/or participating in an activity sometimes made a visible difference in how smoothly a game went. Teacher participation in class game time motivated youth, but at recess the only other adults present besides the site coordinator were lunch mothers. While lunch mothers’ involvement in activities was usually minimal, the few activities that we observed where a lunch mother got involved (e.g., turning a jump rope or, as we witnessed on one occasion, playing duck-duck-goose with a group of youth) tended to run smoothly. Overall, though, we observed a number of youth-initiated, self-supervised activities that were organized and cooperative, even without adult intervention.

(c) *The site coordinator was well liked and respected at the school, and was key to the program’s successful implementation.*

Although interview questions did not ask specifically about the site coordinator, the principal, parents, and teachers all went out of their way to praise her in interviews. The principal commented that she felt that the site coordinator did “a wonderful job.” The teachers reiterated throughout their interviews the great admiration they had for the site coordinator, and how crucial she was to Sports4Kids’ success. As one teacher put it, “she works so hard, in the junior coaching she’s done, and class game time... I just love her... She’s just done an amazing job.” The other teacher felt that the program’s success was largely attributable to the site coordinator, and felt that: “She’s definitely got it together, and got the respect of everybody.”

Similarly, in surveys, in response to the question, “anything else you’d like us to know?,” several teachers used this space to praise the site coordinator (see text box to the right). Lunch mothers also commented on the excellent job the site coordinator did. One lunch mother said the playground environment this year was quite different because the site coordinator had organized it.

Teacher Survey: Praise for the Site Coordinator

- does a fantastic job!
- works hard and connects well with teachers about the students.
- is the BEST!!!
- is excellent, a good role model not only for students but for adults.

Youth also tended to speak highly of the site coordinator in interviews; for the most part, they viewed her as a trusted adult figure and a mediator of conflict. For example, one youth reported that the site coordinator “will explain it to us if we don’t get something and she won’t get aggravated.” However, youth were also somewhat fickle in their perceptions. Among the comparison youth, one girl commented that the site coordinator was too strict, while another countered that she was not strict enough. In addition, according to the site coordinator, some youth did not like her and considered it “uncool” to be associated with her, which came as a surprise as our observations suggested she was almost universally admired by Ohrenberger students. The site coordinator felt that since youth viewed her as separate from the games, their dislike of her did not necessarily affect how they felt about Sports4Kids or their participation in the games. However, it was far more common for youth to like both the site coordinator and the games. A number of youth played wherever and whatever the site coordinator played, which she found encouraging because it made youth break out of their usual recess routine to try something new.

(d) *The site coordinator promoted strategies that encouraged positive behavior amongst youth.*

The site coordinator employed a number of strategies to promote positive social norms in the program, a key element of quality in developmental settings for youth. She encouraged inclusive play by avoiding clique formation (she usually assigned youth to teams instead of letting them choose themselves, thus avoid popularity contests) and by making sure everyone got a turn during games. She also consistently gave feedback to youth, making positive statements like “That was the best game of circle dodgeball we’ve played” or pointing out when the time wasted talking could have been spent playing games.

The site coordinator used a variety of tactics, from incentive systems to attention-grabbing phrases, to promote positive behavior and resolve behavioral problems during structured activities. Disagreements, such as whether a youth was “out” in a game, were often resolved

using Ro-Sham-Bo (also known as “rock, paper, scissors”). She also instituted reward systems for good behavior (paying attention, being quiet during instructions, etc.) among junior coaches and after-school program youth at both the individual and the group level. When youth did not pay attention, she used different strategies to restore their focus. For example, she often paused until everyone was quiet, saying, “I can’t talk if you’re talking.” She also got youth’s attention by saying, “match me,” then doing various things (.e.g., touching her nose) that the youth would then mimic.

Examples of the Site Coordinator’s Behavior Management Techniques

- **Ro-Sham-Bo (rock, paper, scissors)** – used to resolve disagreements
- **Earning “marbles” and “stars”** – used as rewards for good behavior; accumulating these rewards could earn special privileges
- **“Match Me” and “Clap once if you can hear me”** – used to get youth’s attention

Further, the site coordinator used strategies to promote cooperation and teamwork instead of competition. For example, participants did not keep score during games, and there was no winner or loser—the site coordinator told participants that they could “keep score in your head,” but that she did not want to hear it. In our observations, youth adhered to this rule consistently, without complaint. If youth *were* keeping score “in their heads,” it was not apparent, and the lack of score keeping did not affect their enthusiasm—youth were actively engaged without the incentive of winning.

While arguing or fighting were rarely observed, youth at times talked to each other when they were supposed to be listening or focused on an activity, which wasted time, distracted others, and made understanding the rules of a new game difficult. The after-school program could be particularly challenging for the site coordinator since she was the only adult supervising. Despite the effectiveness of her behavioral strategies, she sometimes had to resort to other means, such as having youth sit out or taking youth aside to talk individually. Overall, though, youth were sufficiently engaged by the games and respectful of the site coordinator.

(e) *Where one component failed to engage youth, another would pick it up.*

Most youth were involved in Sports4Kids activities in some way, although not necessarily across all program components. For example, a youth might have been active in Sports4Kids activities in the after-school program or the interscholastic leagues, but rarely participated in Sports4Kids recess activities. The site coordinator’s own observations best capture this phenomenon (see text box to the right). Based on our own observations, this was especially true for older youth who were generally less enthusiastic about recess games than the younger grades, but sometimes more excited about class game time, after-school activities, or interscholastic leagues.

Site Coordinator Observations of Engaging Youth in Specific Sports4Kids Components

- This basketball team is roping in kids that aren’t normally super-duper involved at recess...
- A girl who normally chases boys at recess signed up for basketball! This is a major victory.
- Two girls who are in the sheltered English immersion class, a class I rarely see and have not bonded with at all, are signed up for basketball. Drawing them in!
- Two boys who have started getting more involved, they are now both junior coaches and also are both on the volleyball team.
- One boy has been disengaged for months at recess. He’s now on the volleyball team as well as playing games consistently at recess.
- A “cool” kid in 5th grade, I got him to be a junior coach. Feels like a victory.
- [There] are two 5th grade boys that I’ve tried to get involved in Sports4Kids all year and finally they joined the volleyball team.

CHALLENGES

(a) Not all adults at the school were supportive of the goals of Sports4Kids.

Active support from school staff for Sports4Kids' implementation was apparent at Ohrenberger. For example, one teacher offered the use of her classroom for the after-school program's homework time, which greatly assisted the site coordinator in accomplishing the after-school program's goals. However, the site coordinator reported that her biggest frustration was the lack of support from other adults, especially when youth misbehaved.

The site coordinator reported lunch mothers' lack of involvement in recess activities as a major implementation barrier. As the only adults at recess beside the site coordinator, lunch mothers were responsible for supervising and keeping peace on the playground, or as one lunch mother put it, acting as "referees" and keeping youth from "harassing" each other. Although some lunch mothers were on the lookout for conflicts and intervened when they saw disruptive behavior, they generally did not get involved in youth activities or conflicts. The site coordinator felt that since she did so much to organize the playground and keep youth engaged in structured activities, she was able to mitigate the lunch mothers' lack of involvement. When there were conflicts on the playground, the site coordinator often resolved them. If she was busy, conflicts often did not get resolved until they escalated and lunch mothers had to intervene. The principal recognized that lunch mothers were not as effective as they could be in assisting with recess. "We probably need to do a better job, probably from the start of the year, in training the lunch staff to help work with [the site coordinator] or the Sports4Kids coaches so that they're more supportive, and not always taking a step back and waiting for them to initiate and to keep things going."

Teachers were also sometimes not as supportive as the site coordinator would have liked. While both youth and adults overwhelmingly enjoyed class game time, some teachers did not bring their classes on time, and sometimes classes did not show up at all, despite the site coordinator's reminder system for teachers every three weeks.

Further, while the principal spoke very highly of Sports4Kids, she was not always supportive of recess activities. On some rainy or cold days, rather than allowing recess activities indoors, the principal required youth to remain at their lunch tables where they were sometimes provided with books, flash cards, or board games. On some winter days, youth were required to work on "skills" in the cafeteria during recess time, in an attempt to boost academic performance. Further, in February the principal instituted a school-wide punishment that eliminated recesses; one teacher said, "it started as a punishment and then because it was so cold they stayed inside," but stressed that the punishment was not related to recess behavior.

The physical education (PE) teacher seemed similarly unsupportive of Sports4Kids. Although on a few occasions the PE teacher allowed the Sports4Kids site coordinator to use the gymnasium for class game time on days with inclement weather or for basketball league practices, for the most part, the PE teacher was not at all engaged in Sports4Kids activities. There was little communication between the PE teacher and the Sports4Kids site coordinator in terms of coordinating activities, nor was there very much sharing of resources (e.g., activity space and equipment). The site coordinator expressed an interest in greater coordination with the PE teacher, but felt that he was resistant to working with her.

(b) Limited access to appropriate activity space and equipment sometimes impeded implementation.

Activity space was only a problem when recess took place indoors due to inclement weather. For indoor recesses, the site coordinator set up games in the cafeteria or in the hallway and they played as best they could in the limited space. Unfortunately, these spaces were too small to accommodate all youth during a given recess period, so the lunch mothers decided who could participate. Another challenge with cafeteria space for recess activities was that sometimes the janitor would agree to move cafeteria tables to create activity space, and sometimes he would not. To avoid this inconsistency, the site coordinator began holding activities in the hallway outside of the cafeteria, but people passing through the hall space caused disruptions and distractions.

Further, lack of appropriate equipment served as a barrier to Sports4Kids activities, especially for the interscholastic leagues' practices. For example, the basketball league did not have enough basketball hoops and practice space at the school. The principal did not want to purchase nets for the playground's basketball backboards because she said that neighborhood residents would come in at night and destroy them, as had happened in the past. The site coordinator compensated for the lack of hoops by focusing on passing and dribbling techniques, and sometimes was able to use the basketball hoops in the school's gymnasium to practice shooting. The lack of hoops also made basketball-related activities during recess and class game time challenging, although not impossible, since many of the youth were content with throwing the basketball at the backboards. The volleyball league also faced equipment challenges. The site coordinator commented that youth initially did not understand what a volleyball net was, since the school did not have any. Mitigating these challenges to team practices, however, the community center where Sports4Kids games took place had all the requisite basketball and volleyball equipment.

(c) During recess, small groups of youth disrupted organized activities.

The primary challenges during recess were games of "tag" and disruptive youth who were not engaged in organized activities. Tag was a non-Sports4Kids activity that could cause significant chaos. It typically featured youth simply chasing each other, often with girls chasing boys or vice versa. The site coordinator attempted to limit tag to a far area of the playground, but this was more successful on some observation days than others. One of the main problems with tag was that youth playing tag tended to be less respectful of other children's activity space than those who simply walked around or chatted during recess. During the observation day in April, less than half of youth at the K-1 recess were playing Sports4Kids activities and instead played tag, running through the basketball and jump rope areas and disrupting these activities. That same day, the second and third graders showed a similar disregard for Sports4Kids activity space. One month later, we observed very little tag or chasing (partly due to the principal prohibiting this practice). Recess periods without tag were very organized.

A more serious but less prevalent problem was youth who purposefully disrupted games or harassed others. We observed this behavior on few occasions, but the site coordinator found it to be a major challenge when it did occur. For example, the site coordinator reported that a group of boys that went around purposefully and systematically disrupting activities was tough to handle. Involving previously unengaged youth in games was a small victory, because a child engaged in a game would have less opportunity to disrupt others.

IMPLEMENTATION QUESTION 2: Are stakeholders satisfied with the program?

Two main themes arose in findings related to program satisfaction:

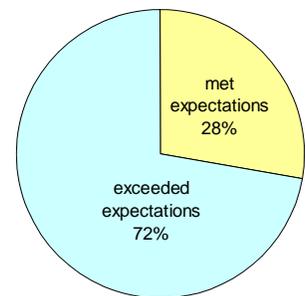
- (a) Both the principal and teachers reported that Sports4Kids met or exceeded their expectations.
- (b) In general, youth enjoyed Sports4Kids activities.

Data in this section mostly come from stakeholder reports in interviews and surveys.

(a) Both the principal and teachers reported that Sports4Kids met or exceeded their expectations.

The principal and teachers had almost entirely positive feedback about Sports4Kids and felt that the site coordinator had very successfully implemented Sports4Kids at their school. All 18 teachers who completed a survey reported that Sports4Kids met their expectations, with the majority (72%) reporting that the program had exceeded their expectations; none reported that Sports4Kids did *not* meet their expectations (see chart to the right).

Teacher Survey—This year, Sports4Kids has: (N = 18)



Similarly, teachers and the principal provided positive feedback in interviews. In November, the principal described expectations for Sports4Kids that were in line with the program's goals:

One of the outcomes is to teach [the youth] that they can use their own time constructively; that they can use and learn games, skills, and activities, and just bring them along with them no matter where they are... that they learn sportsmanship, learn how to be able to talk to each other, solve problems without getting into a fight. And just being able to be physically fit, to increase their fitness and use some of their free time to do physical activity besides structured phys. ed. classes. To be able to do that and enjoy it and take it with them for many years as they go on.

The principal and the two teachers interviewed said they were very pleased with Sports4Kids and had no major concerns. However, the fourth grade teacher admitted to having some doubts at first: "When I first heard about the program last year, I was a little bit skeptical, thinking, how is one person going to come in and change recess and improve the climate out here?" She added that,

... now that I have seen it in action, I have no worries at all, I just am hoping that it is infectious and that it gets the rest of the school, the rest of the children, thinking about others and not being so competitive and being in a better mind-set to help one another and be more of a community together. I think [the Sports4Kids site coordinator] is going to do that – I'm very excited about it.

The fifth grade teacher also noted that the teachers had really pushed to get Sports4Kids at their school, in the hopes of improving the playground environment at recess:

We fought for this for such a long time as teachers because we just felt like the playground was so chaotic. There was recess but it was just running around and there isn't enough equipment, especially for the older kids... and consequently they didn't really know how to play with each other... I think a lot of times they interact with family at home but don't necessarily have "play dates" or anything like that, so I think they don't always understand how to interact with each other and how it looks differently than maybe how you would interact with a brother or sister. So I feel that having [the site coordinator] and having Sports4Kids has helped them to understand how to play with each other better, and take turns, and not argue, and be calm, enjoy it, so it's definitely been a really good addition.

The principal reported that she was satisfied with the recess environment, noting that it brought the playground environment “mostly into organized.” She was also impressed by class game time, junior coaching, and the after-school program. She noted that class game time “worked well in introducing the children to the activities for recess time.”

Teachers and the principal felt that the program met, if not exceeded, their expectations. During an end of school year interview, the fifth grade teacher commented on specific Sports4Kids aspects that she felt were especially valuable: “I loved the fact that the games didn’t have a winner or a loser, that they encouraged everyone to play, that making teams was done in a really fair, equitable way.” The fourth grade teacher reported that she especially appreciated the variety of games played during class game time: “...every time we went out for class game time, [the site coordinator] was doing a new game with us, which I thought was really cool. So we got to do lots of different types of games, not the same thing over and over.”

Neither the teachers nor the principal reported any *negative* unanticipated outcomes in interviews. According to the principal, Sports4Kids “pretty much did what I expected it to do—it fulfilled expectations.” One of the teachers noted, “I have no complaints.” Similarly, only 6 of the 18 teachers provided comments on the teacher survey when asked what they would change about Sports4Kids, all of which suggested the program’s benefits (see text box to the right).

Teacher Survey: What would you change about Sports4Kids?

- Bring another coach and have more activities with the individual classrooms.
- Rotation of games: same kids play same games every day. It would be nice to see them rotated.
- More frequent sessions.
- I thought Sports4Kids was an excellent program to have at our school.
- Nothing.
- Sports4Kids classes should be once a week just as P.E. class would be.

Both teachers interviewed noted *positive* outcomes that they had not anticipated. They expected the impact on recess, but had not considered the benefits of other program components. Both teachers emphasized class game time as working particularly well, which makes sense given that they were most directly involved in that Sports4Kids component. In addition, the fifth grade teacher was particularly impressed with the junior coach program: “...I didn’t realize that there was going to be that kind of individualized attention to those kids.” The fourth grade teacher had similar praise for the after-school program and the interscholastic leagues.

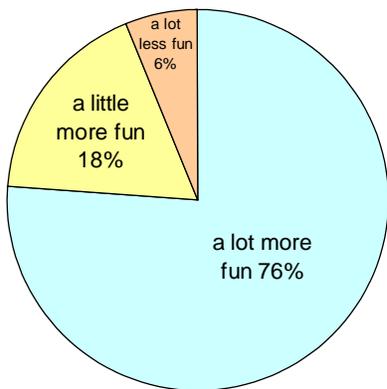
(b) In general, youth enjoyed Sports4Kids activities.

Youth feedback indicated a general satisfaction with Sports4Kids. Among both the four youth tracked over time and the comparison youth, the majority reported that their favorite part of Sports4Kids was having fun and playing games. There were few complaints about Sports4Kids. One girl in the comparison group offered a “complaint” that was actually praise for Sports4Kids: “When it’s time to go, we want to stay longer outside with [the site coordinator].” Further, all three youth interviewed in May (the one time we asked this question) reported that they looked forward to participating in Sports4Kids the following year. Youth mostly reported that the games available were sufficient, but they also reported new activities that they wanted to try or activities they wanted to play more often. The four youth tracked over time wanted less kickball, soccer, hula-hoop, double dutch, and basketball. One boy felt that the games were too repetitive and he wanted more variety. Comparison youth wanted less four-square, wall ball, and circle dodgeball.

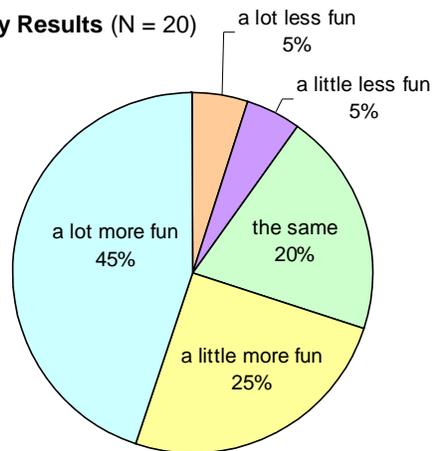
In surveys, most youth felt that recess was more fun since the Sports4Kids site coordinator arrived.

Youth Survey: Since the Sports4Kids coach came to our school, recess is:

December Survey Results (N = 17)

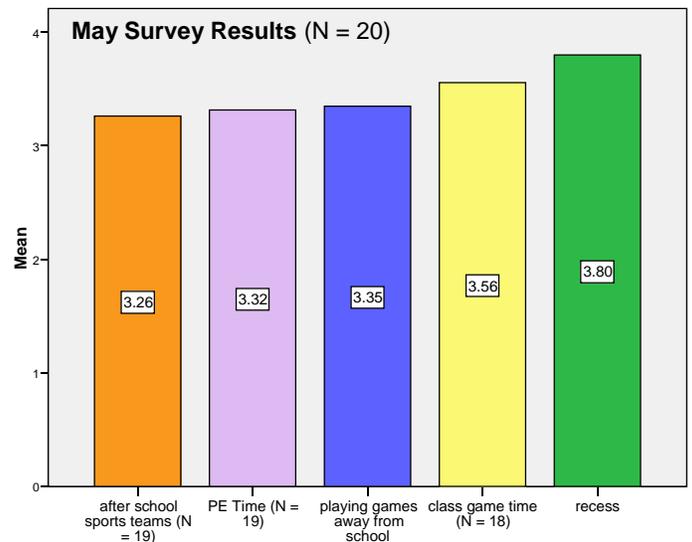
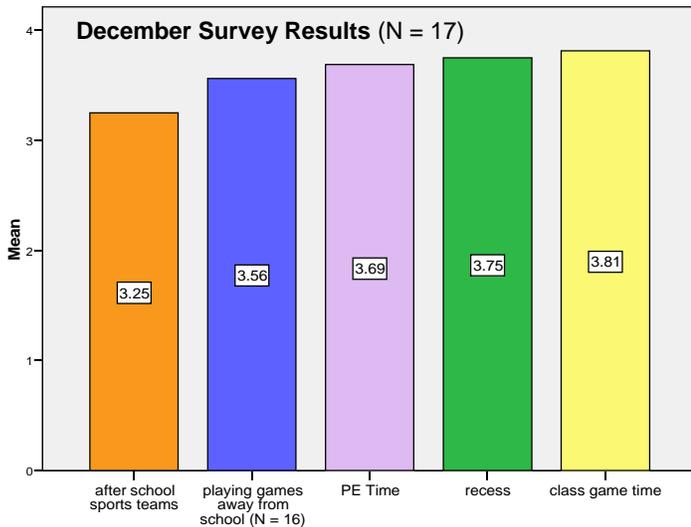


May Survey Results (N = 20)



The survey also asked youth about their enjoyment of different types of physical activities. In both December and May, ratings for all activities were fairly high, above an average rating of 3, which indicates “I like it,” and did not vary much between the two time periods (although ratings tended to be slightly lower in May). Two of the activities associated with Sports4Kids—recess and class game time—tended to rate the highest, while after-school sports teams rated the lowest. The two activities not associated with Sports4Kids—playing games away from school and physical education class (PE) time—rated somewhere in the middle

Youth Survey: How much do you like doing these activities? Scale of 1 (I don't like it) to 4 (I like it a lot)



Our observations corroborated youth's high satisfaction levels. During class game time and the after-school program, the site coordinator commonly asked youth if they had fun or otherwise liked the game just played, especially if it was new. When she specifically asked what they thought of a game they often described it in superlatives. We also observed how much youth enjoyed the games through the way they cheered when the site coordinator would announce that they had lots of time left or that they would be playing a favorite game. In contrast, it was normal to hear disappointed groans when class game time ended.

B. Assessing the Outcomes of Sports4Kids

In this section, we examine the evaluation questions related to Sports4Kids' outcomes at Ohrenberger:

OUTCOME QUESTIONS	OUTCOME MEASURED FROM THEORY OF CHANGE	MAJOR FINDINGS
Do children have improved physical health?	Children increase their physical activity at school.	<ul style="list-style-type: none"> (a) Participants had positive attitudes about physical activity and games. (b) For the most part, youth were engaged in and enthusiastic about Sports4Kids activities and other organized games. (c) Older youth were more likely to be engaged in organized physical activity than were younger ones. (d) Boys were more likely to be engaged in organized physical activity than girls. (e) Of the hard-to-reach youth, youth who lacked confidence were more likely to be engaged in organized physical activity than were youth labeled as "troublemakers." (f) Levels of engagement in Sports4Kids activities varied by program component.
Do children have improved emotional health?	<ul style="list-style-type: none"> • More children are able to resolve conflicts, cooperate, and handle competition. • More children feel physically and emotionally safe to play at school. 	<ul style="list-style-type: none"> (a) Youth's ability to resolve conflicts, cooperate, and handle competition improved. (b) More children felt physically and emotionally safe to play at school.
Is the school culture supportive of healthy development?	<ul style="list-style-type: none"> • More opportunities for physical activity are provided at school. • School norms reflect greater support for physical activity and play. 	<ul style="list-style-type: none"> (a) Stakeholders reported increased opportunities for physical activity at school. (b) The school's recess and classroom environments improved. (c) Evidence as to whether the school environment overall was supportive of Sports4Kids activities was mixed.
Are adults supportive of physical activity?	More adults at school are supportive of healthy and inclusive play.	<ul style="list-style-type: none"> (a) Youth felt that teachers and other adults at the school encouraged them to be physically active. (b) Teachers reported enjoying participating in activities with their students during class game time and increasing their own physical activity because of Sports4Kids.

OUTCOME QUESTION 1: Do children have improved physical health?

Sports4Kids hopes that, over time, the youth that participate in Sports4Kids activities will continue to engage in and enjoy physical activity. Given the short-term nature of our evaluation, we were unable to ascertain whether youth would sustain the practices implemented by Sports4Kids for a long enough period to demonstrate measurable health results (e.g., reduced obesity). Even though the program may have little effect on strict health measures in the short-term, youth who participate are likely getting more exercise and enjoying it more than they would in the absence of Sports4Kids. Increased exercise and play can improve children's health outcomes in both the short term and long term. Research has shown benefits may include maintaining increased levels of physical activity through childhood, adolescence, and even into adulthood; lower body fat than sedentary peers; and the clustering of generally more health-promoting behaviors.¹⁰

Specifically, we identified the following themes related to youth's improved behaviors and attitudes about physical activity:

- (a) Participants had positive attitudes about physical activity and games.
- (b) For the most part, youth were engaged in and enthusiastic about Sports4Kids activities and other organized games.
- (c) Older youth were more likely to be engaged in organized physical activity than were younger ones.
- (d) Boys were more likely to be engaged in organized physical activity than were girls.
- (e) Of the hard-to-reach youth, youth who lacked confidence were more likely to be engaged in organized physical activity than were youth labeled as "troublemakers."
- (f) Levels of engagement in Sports4Kids activities varied by program component.

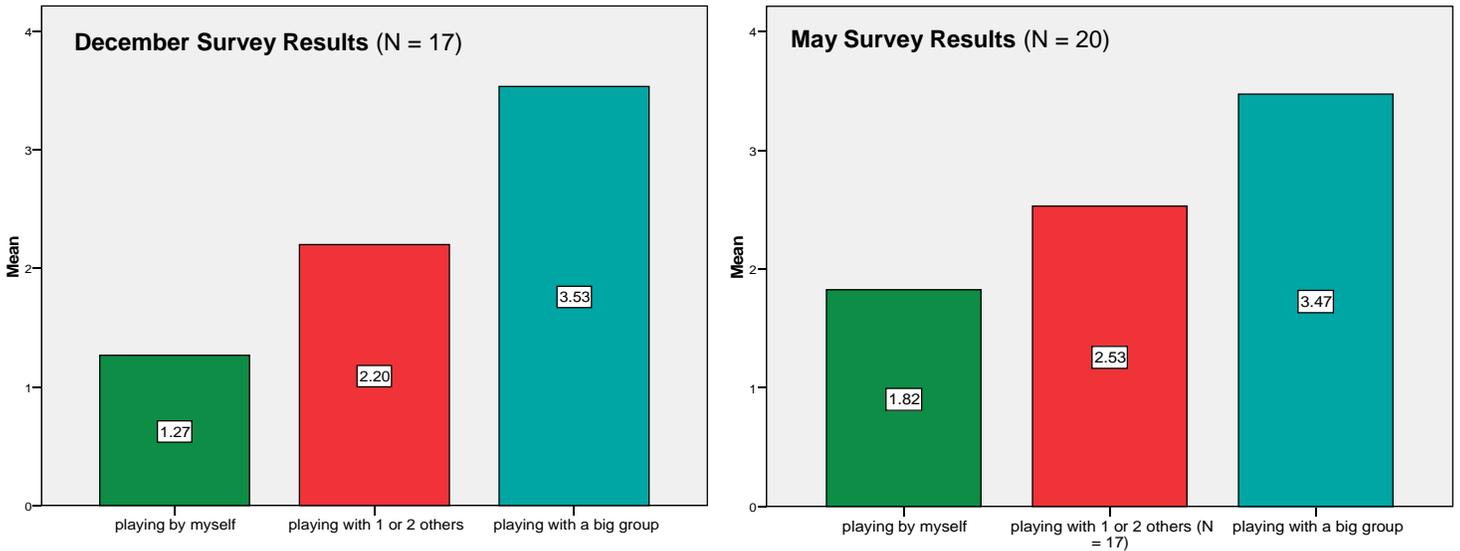
Data in this section come from surveys, interviews, and observations.

(a) *Participants had positive attitudes about physical activity and games.*

Part of the challenge of increasing youth's physical activity levels is making activities enjoyable so that youth will want to participate. Teacher and parent comments suggested that youth enjoyed being physically active. According to one parent, "My children, they're very excited about the sports activities." In addition, surveys asked youth how much they liked playing—by themselves, in small groups, or in large groups—to assess how much youth enjoyed participating in the large group activities that Sports4Kids promotes to build cooperation and teamwork. As the results below show, "playing with a big group" rated as the most enjoyable, with "playing by myself" receiving the lowest ratings.

¹⁰Stone, E.J., McKenzie, T. L., Welk, G. J., & Booth, M. L. (1998). Effects of physical activity interventions in youth: Review and synthesis. *American Journal of Preventive Medicine* 15(4):298–315.; and McKenzie T. L., Li, D, Derby, C. A., Webber L. S., Luepker. R. V., & Cribb, P. (2003). Maintenance of effects of the CATCH physical education program: Results from the CATCH-ON study. *Health Education & Behavior*; 30: 447–462.

Youth Survey: How much do you like these activities? Scale of 1 (I don't like it) to 4 (I like it a lot)

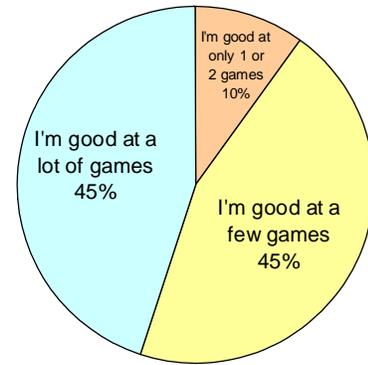
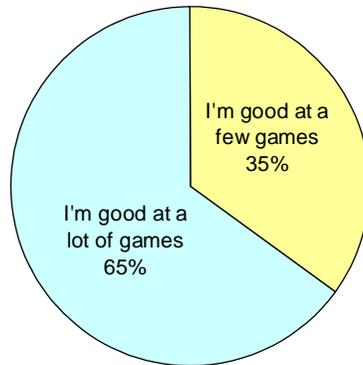


Another element related to youth attitudes towards physical activity is a sense of competence; if youth feel skilled at specific games and sports, they are more likely to participate enthusiastically and to benefit from their involvement. According to the youth survey results, almost all youth felt that they were good at either “a few” or “a lot” of games. Youth were slightly more confident in their abilities in December than in May. However, no youth at either time responded that they were not good at any games.

December Survey Results (N = 17)

May Survey Results (N = 20)

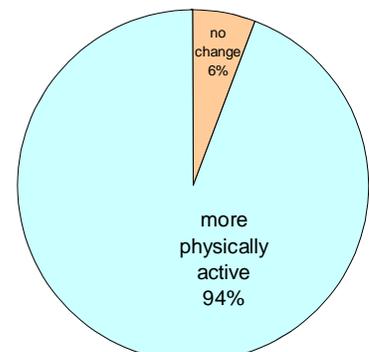
Youth Survey: Which of these sentences best explains how you feel?



(b) For the most part, youth were engaged in and enthusiastic about Sports4Kids activities and other organized games.

Across the various components of Sports4Kids that involved structured physical activities, our observations suggest that the majority of youth were active and enthusiastic. Teachers also felt that youth were more physically active; all but one teacher surveyed reported that youth were more physically active since Sports4Kids came to the school. None reported a decrease in physical activity (see chart to the right).

Teacher Survey: Since having Sports4Kids, youth are: (N = 17)



Further, engaging new or previously uninvolved youth in organized games and sports happened consistently each month. One teacher interviewed commented that Sports4Kids “has helped kids that may not have ordinarily gotten involved now start to get engaged.” In October, the site coordinator observed:

Kids who have spent two months roaming the yard at recess are finally getting more engaged—even a group of fifth-grade girls who normally go around pulling boys’ hats off—they are now loyal Steal the Bacon basketball players. This feels like a real victory to me, to get them off the sidelines and into a game... There is one fifth grade girl who had a sort of silent attitude from the first day I was here and she is playing the Steal the Bacon basketball now. Two other really quiet girls who speak mostly Spanish are also playing Steal the Bacon.

In November, she noted new youth, especially fourth and fifth grade girls, became involved in games. In March, she observed that “One boy [that] has been disengaged for months at recess [is] now on the volleyball team as well as playing games consistently at recess.”

Parents also felt their children’s physical activity had increased. One parent felt that Sports4Kids filled a need for his daughter: “The level [of physical activity] has increased immensely. It’s something we’ve been wanting to increase at home— it’s harder because of schedules. Sports4Kids has provided that outlet that she needed.” The principal noted seeing improvements not only in quantity of activity, but quality: “The kids are more actively involved in games, but it isn’t that they weren’t active before—they were just running in circles. They are more constructively participating in things.”

(c) Older youth were more likely to be engaged in organized physical activity than were younger ones.

With the exception of recess, Sports4Kids program components are targeted to the older elementary grades (fourth and fifth grade), due to the belief that older youth developmentally are better able than younger children to benefit from Sports4Kids and to incorporate the program’s lessons into their behavior. Perhaps for this reason, during our observations the K–1 recess tended to be the most chaotic. K–1 students were easily distracted. During most of our observations, the junior coaches’ presence was associated with greater organization of activities. If only the site coordinator was present, the games she was not directly involved in were more chaotic and fewer youth tended to participate in structured activities.

However, engaging older youth were sometimes hesitant to participate (especially the girls). The site coordinator summed up the major differences among the age groups in January when discussing changes in enthusiasm and eagerness to play at school:

K–1st are mostly eager to play, just that they struggle to fit into the structure offered. 2–3rd are on the money—they LOVE recess. They can’t always make their games suit me, but they love to play. I can’t fault them for that. The 4–5th kids, while being the most skilled, are also close to puberty and are experiencing a lot of pressures to be “girly” and to NOT play. To sit at the fringes.

(d) Boys were more likely to be engaged in organized physical activity than girls.

Of the youth who did not participate in Sports4Kids activities, especially among the older youth, the majority were girls. We observed this tendency in November, and the site

coordinator noted this fact many times over the months. She said it was difficult to get girls interested in being junior coaches, and she attributed the fifth grade girls' sluggish participation to puberty and sexual maturation issues: they did not want "to play as kids play anymore because their perception of themselves has totally changed." The fourth grade teacher interviewed echoed this sentiment: "Some of the girls, as they are getting older, we're noticing that they are not participating, and they are getting themselves in a little bit of trouble... they're just getting older—hormones and puberty's hitting..."

When the site coordinator led a game, participants tended to be a mix of boys and girls, but certain regularly played games were gender-segregated as well. For example, girls rarely played basketball or kickball at recess despite playing enthusiastically during class game time, and mostly girls played jump rope. Even four-square, a game popular with both boys and girls, had at least one game largely made up of a single gender every observation month at most recess periods (although mixed gender four-square games were just as common). However, the interscholastic leagues helped to mitigate this problem: girls who would not participate at recess were active and enthusiastic members of the basketball and volleyball teams.

(e) Of the hard-to-reach youth, youth who lacked confidence were more likely to be engaged in organized physical activity than were youth labeled as "troublemakers."

Sports4Kids specifically targets two types of youth: those lacking confidence for sports participation, and those with behavioral problems. In our observations, Sports4Kids had greater success in engaging the former, and the site coordinator commented that she felt that she was more comfortable working with the hesitant youth than with the troublemakers. The fourth grade classroom that we observed was an "advanced" class, made up of youth labeled as academically gifted. This type of youth often do not feel as comfortable participating in sports or games, but the teacher of this class reported that the site coordinator helped to make such activities accessible and enjoyable for these youth:

In years past, I had, especially some girls, who didn't feel comfortable trying to catch a ball, or throw a ball... they're not into sports, and they didn't feel comfortable in that situation... I myself am not very coordinated or that great at sports, and even I feel with [the site coordinator] that it's fine, no big deal, if I drop the ball, and I think that the kids feel the same way. So I see 100% participation now... In past recess games or whatnot, there would be some kids, usually some girls, and a boy here and there, who did not want to participate at all because they were embarrassed. You don't see that anymore at all.

However, teacher and principal comments suggest that many troublemakers were also more engaged in structured sports and games. Further, in our observations, fights at recess were extremely rare, suggesting that troublemakers were staying out of trouble, if not engaged in structured activities.

(f) Levels of engagement in Sports4Kids activities varied by program component.

Participation and enthusiasm levels differed across recess, after-school, class game time, and interscholastic leagues. Since we had few opportunities to observe the junior coaches, we do not include this component here, although feedback on this element was positive. For example, the fifth grade teacher noted that the youth really enjoyed the junior coach program: "...they really love the leadership roles, and the whole responsibility that comes

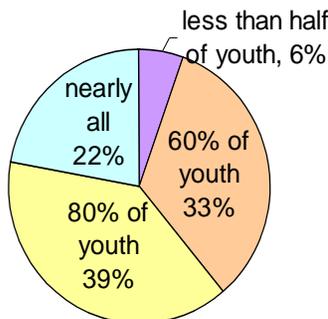
along with it.” Most participation data refer to the recess period, since recess allowed youth the most activity choices.

RECESS: Of youth who participated in Sports4Kids games during recess, enthusiasm levels varied during our observation periods. We classified enthusiasm into three major categories: actively enthusiastic, mildly enthusiastic, or hesitant. Mildly enthusiastic youth played or waited to play a game but were not entirely focused on the game (e.g., chatting with a friend instead of paying attention or cheering on classmates). Over the school year, anywhere from 50% to 95% of youth who participated in Sports4Kids activities were actively and enthusiastically engaged or at least “enthusiastic.” According to our observations, a smaller percentage was mildly enthusiastic or hesitant, except in December when a quarter to half of recess participants were hesitant to engage in activities.

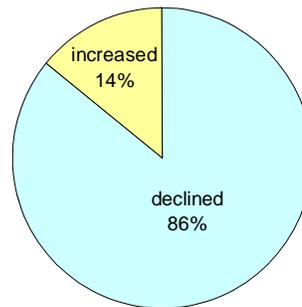
Youth participation in physical activities during recess was generally high. The majority of teachers surveyed reported that the number of youth sitting or standing at the edge of the playground decreased during the year (none reported that it had stayed the same). Further, all but one of the 18 teachers surveyed reported that over half of youth engaged in organized games at recess, and almost two-thirds of teachers reported that 80% or more of youth participated in such games.

Teacher Survey:

On the playground, the percentage of youth typically playing in games/sports is: (N = 18)



Since having Sports4Kids, the number of youth standing or sitting at the edge of the playground during recess has: (N = 14)



Data suggest that the majority of youth played sports and games during recess. In our recess observations, participation levels varied over the months and by recess period, but over the school year we saw from about a third to nearly all youth participating in Sports4Kids activities. Most months, a majority of youth in all grade levels played Sports4Kids games at recess. The table below provides the percentages of youth that we estimated participated in organized games during our recess observations.

Percentages of Youth Observed Participating in Organized Recess Activities by Day and Month

Grades	Nov	Dec	Jan	Feb	Mar	Apr	May
K-1	most	some	some	no recess (too cold)	some	few	most
2-3	many	most	most		most	some	many
4-5	most	most	most		most	many	many

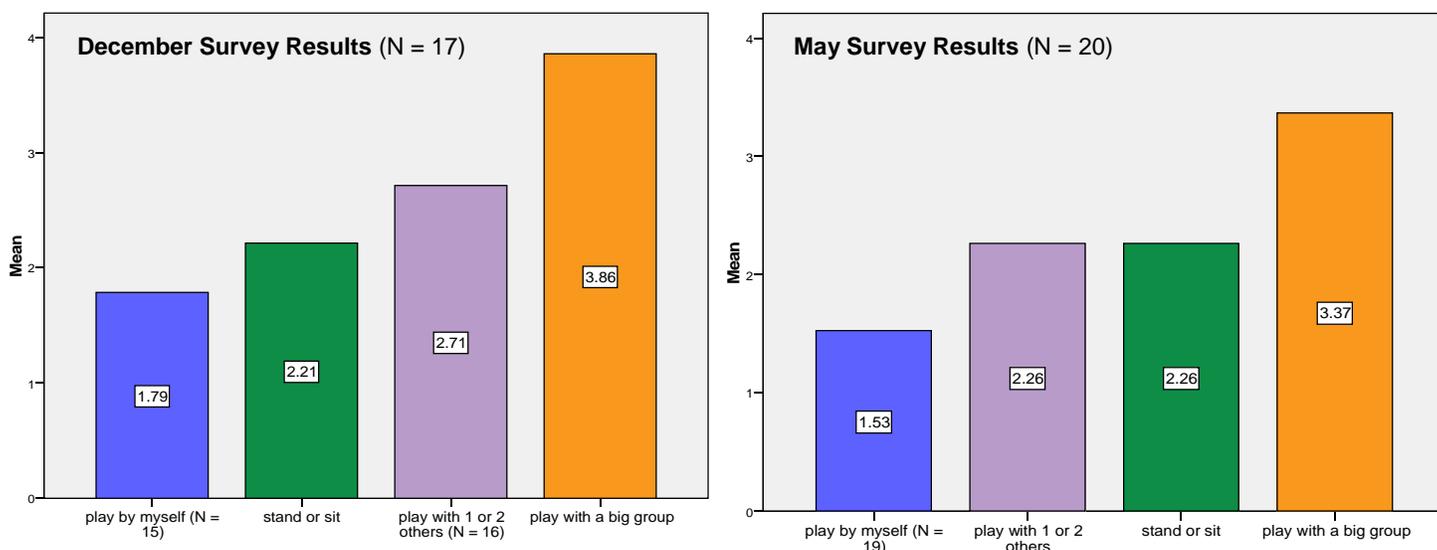
Key:
 most = three quarters or more
 many = two thirds to three quarters
 some = half to two thirds
 few = less than half

In September, the site coordinator estimated that 80–95% of youth participated in structured activities at recess. In November, the principal estimated that 85–90% of the younger children and 75% of the older youth participated in games, with the remainder just “hanging out.” Further, based on data collected by Sports4Kids staff during a grades 2–3

recess in December, under a fifth (19%) of youth at that recess were *not* participating in organized physical activity, suggesting that an average of over 80% of youth were engaged in physical activity at any given time.

Youth reports on activities they participated in at recess provide further evidence of their high levels of involvement in sports and games. The four youth tracked throughout the year said they engaged in organized activities at recess, especially four-square, which was mentioned by almost all at each time point, as well as dodgeball. The girls often mentioned jump rope/double dutch. While the comparison youth also participated in organized activities, they were more likely to participate in non-structured activities. Non-structured activities included getting into fights, walking around, talking with friends, and playing tag. As one fifth grade girl noted, “Sometimes I walk around with friends—it’s kind of fun just to relax.” Further, survey results indicate that youth on average reported most often playing with a big group (typically organized games) rather than playing on their own.

Youth Survey: At recess, how often do you do these activities? Scale of 1 (never) to 4 (a lot)



Parents and teachers also reported that they saw increased physical activity levels amongst youth at recess. According to one parent, “[My children are] more involved in playing at recess than before.” Both teachers interviewed felt that youth activity levels had increased tremendously at recess. According to one teacher: “Kids are now getting involved at recess. I think that before, because we don’t have a lot of gym equipment, especially for the older students, there was just a lot of gathering around and talking, and not really moving around or being physical.” The other teacher had similar feedback:

At recess, before most of them would walk around doing pretty much nothing, maybe jump rope if you were lucky. A few boys might chase each other. But for the most part, they weren’t getting much physical activity, except one day of gym a week... Now they’re coming back from recess and they’re all sweaty, and they participate, run around, which is good, because I don’t think at home that many of them go out in the afternoons and run around to get exercise, so they really need it.

AFTER-SCHOOL PROGRAM: During the hour of the after-school program dedicated to playing games, we observed 70% to 95% of youth actively engaging over the months; it was most common for 90% or more to fall into this category. The fourth grade teacher interviewed reported that about half of her class participated in the after-school program,

and she commented, “They love it.” Behavioral issues were more influential on youth engagement, rather than the desire to participate. Since nearly every game was a group game, youth who did not want to participate had to sit out or refuse to participate while everyone else played. This was uncommon for the most part; occasionally, one or two youth chose not to play a particular game, but usually re-joined at some point during the game period. Youth more often lost focus during the less-structured time when they could choose among several small group activities than when they played a game with the entire group. For example, during one after-school session, we observed youth wandering off from small group games, which we never observed in whole-group activities.

Activities such as bake sales and field trips tended to renew youth’s enthusiasm for the after-school program. The site coordinator noted that one long-time after-school program participant was “a little down on after-school in December, but January brought new enthusiasm. We had a bake sale to raise money for a field trip to the bowling alley and he was just so excited and enthusiastic and helpful. He said over and over how much he loves after-school.” The following month, she noted again the renewed eagerness shared by the entire group: “We took a field trip in early February and it really restored the kids’ love of playing and of after-school and for what it was possible for us to do.”

CLASS GAME TIME: Over the school year we estimated that at least 95% of youth in the fourth grade class observed were on task and enthusiastic during class game time. For the fifth grade class observed, we estimated that nearly 100% of youth were on task during class game time and 70% to 100% actively and enthusiastically participated on the days observed. Youth rarely chose to sit out or not participate. On the contrary, youth were excited to come to class game time, participated enthusiastically during the games—often smiling, laughing, and yelling excitedly. Judging from our observations and from teacher comments, youth usually were disappointed when class game time was over. The teachers we interviewed confirmed the popularity of class game time. In fact, the fifth grade teacher viewed it as a kind of reward: “They love class game time... It’s something that we all kind of work towards all week long, and we have to finish certain assignments or certain things before we can have class game time, and they’re really focused on it because they really want to come.” The site coordinator also noted that youth “are always asking when they get to come play with me.”

INTERSCHOLASTIC LEAGUES: We did not observe the sports leagues on a regular basis, but stakeholders’ feedback suggest that this component successfully engaged the youth who participated. One parent, whose daughter participated on the volleyball league, lamented that she wished the leagues lasted longer: “She likes sports, but it’s unfortunate that it’s such a short period of time. She wants to go for another sport because of [Sports4Kids].” The site coordinator also commented on the volleyball league’s success in engaging youth: “...everyone was super enthusiastic and there were girls and boys of different ages and from different classes engaged and playing together and actually becoming friends.”

OUTCOME QUESTION 2: Do children have improved emotional health?

Sports4Kids aims not only to improve youth's physical health, but their emotional health as well, in terms of their ability to resolve conflicts, cooperate, and handle competition, as well as their feelings of safety to play at school.

Two major outcomes surfaced in the evaluation that support Sports4Kids' positive influence on youth's emotional health:

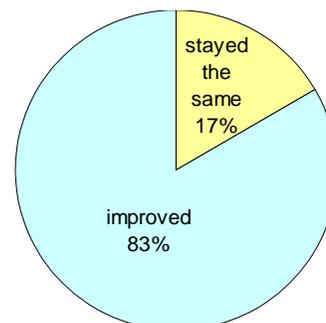
- (a) Youth's ability to resolve conflicts, cooperate, and handle competition improved.
- (b) More children felt physically and emotionally safe to play at school.

(a) Youth's ability to resolve conflicts, cooperate, and handle competition improved.

Parents, teachers, and youth all reported seeing improvements in youth's ability to negotiate problems, work as a team, and be less competitive. In addition, our own and the site coordinator's observations provided evidence for positive behaviors in this regard.

In teacher surveys, all but one teacher felt that youth improved their ability to resolve conflicts since having Sports4Kids (see chart to the right). The remaining teacher saw no change; none felt that their ability to resolve conflicts had worsened.

Teacher Survey: Since having Sports4Kids, our students' abilities to resolve conflicts with each other have:
(N = 13)



We witnessed a number of positive conflict resolution techniques used during recess. In September, youth had already begun to use Ro-Sham-Bo unprompted as a conflict resolution technique. Throughout the school year, we observed Ro-Sham-Bo used to decide who was out, who was next to play, etc. on the playground many times. Frequent arguments occurred over who was out in four-square as well, but other activities did not seem to cause much conflict. Junior coaches were effective at initiating conflict resolution techniques at the younger recess periods.

Comments made in teacher interviews also reflected that youth were better able to handle their problems. When asked what changes they saw in their students' behavior, the teachers cited a number of social and behavioral outcomes. The fifth grade teacher said:

Every time I pick them up from recess now, they seem to be calmer, they seem to be able to problem solve a little better. We always do Ro-Sham-Bo in the classroom, so that's been really helpful. I think they've also gotten a little bit more of the message that it's not about a winner or a loser, but just playing, and playing for the sake of just having fun, and being active and getting out there. I think that's different. I see them focused less on a winner and a loser, and more on just enjoying themselves...

The fourth grade teacher emphasized the benefit to the boys in particular:

The boys are much less aggressive and competitive. Even if they could organize themselves well enough to play kickball or something at recess before, it would turn into a fight over everyone wants the ball, or to be in charge, or arguing over who got out. There's none of that at all. It doesn't happen at all – it's a really wonderful thing! It caused a lot of problems before.

All four parents interviewed felt that their children learned teamwork and conflict resolution skills. One parent was particularly impressed with the spill-over of the positive outcomes from the games into the classroom: “She’s learned a lot about conflict resolution... they not only practice it here during the games but they practice it during school, too—rock, paper, scissors and all that.” This parent also reflected more specifically on the benefits of the volleyball sports league: “We’ve really enjoyed sharing with her the camaraderie and sportsmanship, even if it’s for the other team, and that’s something she’s learned from being in Sports4Kids.” Another parent also commented specifically on the volleyball league, feeling that her daughter had learned teamwork. A third parent reported that her children had improved their ability to resolve conflicts: “Now they are comfortable to resolve issues between each other.” The fourth parent felt that Sports4Kids helped her son to better deal with criticism: “Him being the only boy, it was very difficult for him before to accept that he was wrong or any type of criticism. I think he’s grown and developed and matured because of it.”

The positive social outcomes seen in the youth were also echoed by the principal in an interview: “You see a kind of confidence in the children who participated in those things, so that’s a big plus for the kids, particularly the girls, who sometimes tend to lose it at this age, and tend to take a step back. That’s a nice thing to see.”

In addition, youth reported a number of strategies for handling problems with others at school, most of which involved telling an adult. Of the four youth we tracked over time, the most common response on how they would handle a problem at school was to tell the Sports4Kids site coordinator, a lunch mother, a teacher, or another adult. However, a couple of youth suggested that teachers and lunch mothers were not always responsive, as one boy put it: “Sometimes telling the teacher really doesn’t work, because when you tell a teacher, the teacher doesn’t really do anything.” Youth saw the Sports4Kids site coordinator as the more reliable source to resolve the issue; as one girl said, “she knows how to fix it.” However, on only on occasion was there a mention of using Ro-Sham-Bo to resolve a conflict: “Sometimes I do rock paper scissors/Ro-Sham-Bo, and sometimes I tell [the site coordinator] because they don’t want to do Ro-Sham-Bo then she does the rest.” The comparison youth tended to report more confrontational strategies, such as fighting and then apologizing later.

In our observations, we also witnessed positive social norms at recess, especially in terms of inclusive play. Playing group games as opposed to individual games was very common, both for activities organized by the site coordinator and by the youth themselves. Four-square was an exemplary activity for inclusion play, as was jump rope; both games could include a large number of children who took turns rotating through. Each participant had to interact with others, be willing to admit mistakes, and play fair. Further, the use of encouraging language was prevalent. We heard very little negative language during class game time sessions. In contrast, youth regularly used Sports4Kids language such as “nice job” and “good try,” and were very active in cheering on their classmates whether or not they were on the same team. On the other hand, we observed mixed success in recess games. If the site coordinator was not present, youth were much less likely to use Sports4Kids language.

Further, based on our observations, competition did not seem to be an issue during class game time or the after-school game time, and cooperation was consistently high as well, as evidenced by the games “silent line” and “human knot,” both of which required good communication and cooperation. Ability to handle competition was most apparent through

the basketball and volleyball leagues. The site coordinator wrote of the basketball team, “I actually had not a single incident of competition bear on an issue the whole season. The girls, as far as I could tell, could have cared less about scores or competing. They were so fully there to have a good time.” One month later, she took the girls on a field trip and noted that the non-competitive aspects had spilled over to that activity as well:

We went bowling for an end-of-season party and while the girls were curious about the scores of everyone else, they were really supportive of each other – holding the next ball out, pats on the back, tips, pointing out a good roll, etc. It was adorable, heart-warming, and made me see that they had been at least a little affected by the Sports4Kids experience.

While acknowledging the fluidity of youth’s skills in cooperation and resolving conflicts day to day, in March the site coordinator felt that “something had shifted” since the beginning of the school year.

(b) More children felt physically and emotionally safe to play at school.

Stakeholders generally believed that youth felt safe while they were at school. Teachers especially had positive feedback on this issue. While parents also felt youth were safe, they were less willing to attribute this sense of safety to Sports4Kids, expressing that youth already felt safe. Youth feedback was somewhat mixed, with some feeling less safe over time.

Both teachers interviewed strongly expressed that they felt that more youth felt physically and emotionally safe to play at school because of Sports4Kids, and both commented on youth who previously might have been hesitant to get involved in games starting to do so enthusiastically. As one teacher put it:

I see kids getting involved in games that they ordinarily would not have, whether it be because they have low self-esteem or generally just lower activity levels, I think that they get encouraged by other friends, and there’s all different sorts of games that appeal to all different sorts of kids. Everyone’s involved, and I think that’s had a positive effect.

The principal echoed these sentiments:

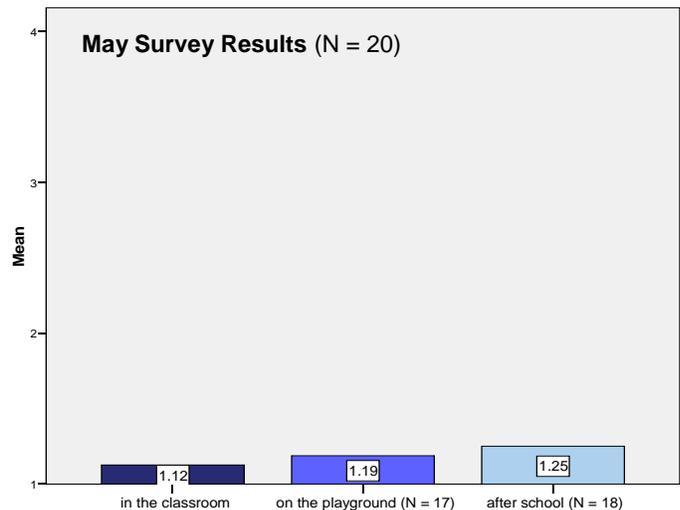
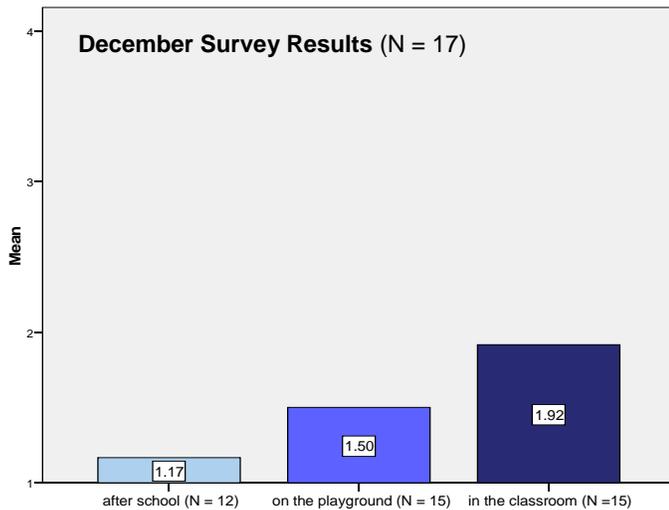
[Youth are] not afraid to just go in and join a group of people who may not be in their class, or of the table who they sit with at lunch. It makes more of freedom for them to move around... they get to be with more people and get to have conversations with more people than the ones they are in classrooms with all day long.

All four parents interviewed reported that their children felt physically and emotionally safe to play at school, although parents tended to express that their children already felt safe before Sports4Kids. One parent felt that he instilled this sense of safety at home: “I know of other students that, because of what they’ve learned in Sports4Kids, feel safe to try to resolve conflicts. But we teach that to our daughter at home – you could say it’s been enforced.” Another parent felt that although her son already felt safe, Sports4Kids helped those feelings: “he’s always very safe to play at the school, but I think, I believe it’s made him a stronger person.” Another parent commented that having the site coordinator and lunch mothers present at recess helped to increase the feelings of safety.

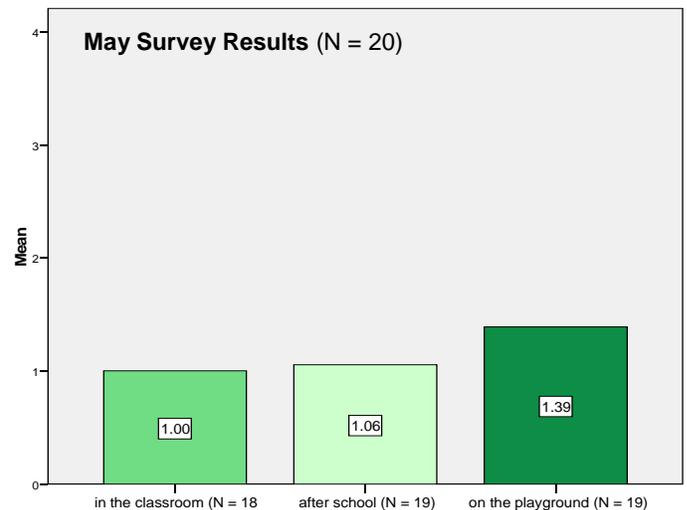
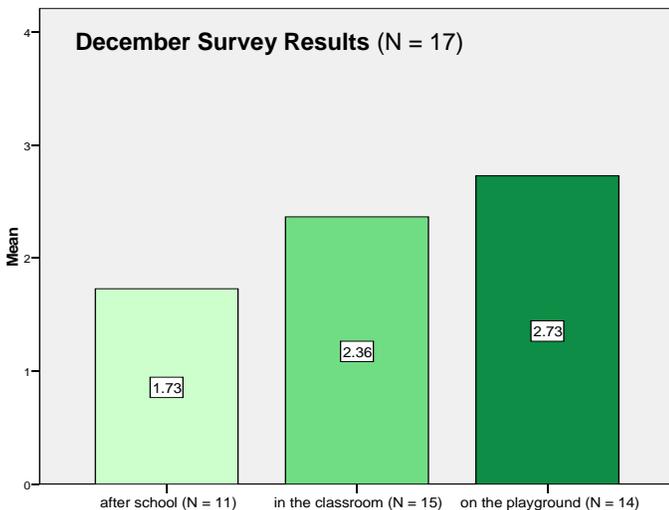
On surveys, youth tended to report little fear of verbal and physical harassment on the playground, in the classroom, and after-school, and less so in May than in December.

Youth Survey: How often are you afraid of being [Scale of 1 (never) to 5 (all of the time)]

a) teased or made fun of:



b) hit, kicked, punched or spit at:



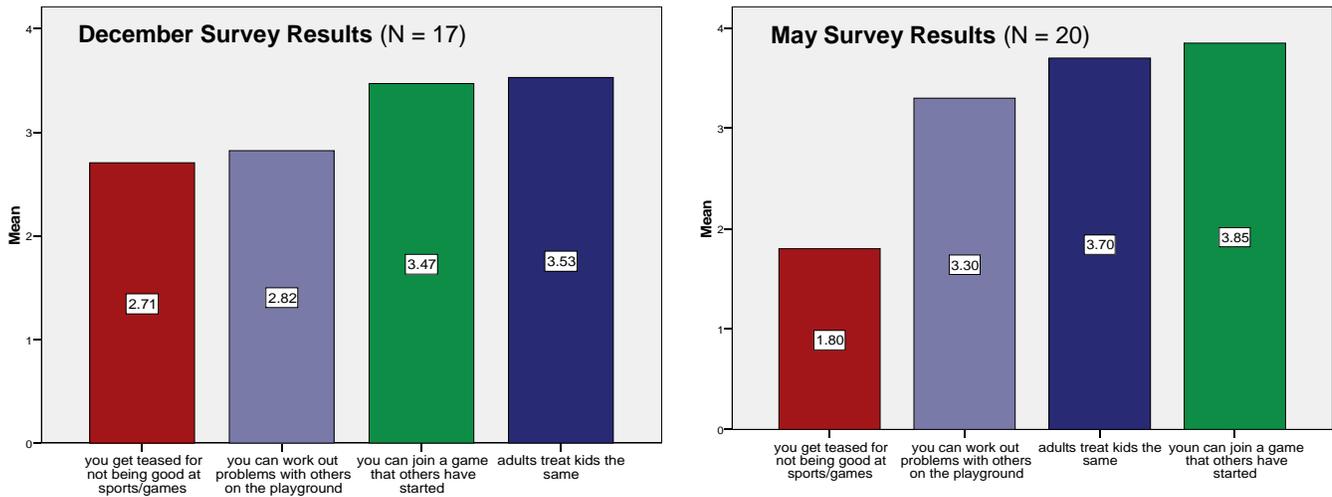
All youth interviewed reported feeling safe from teasing and physical assault (getting hit, kicked, punched, spit at, etc.) in their classrooms and after-school, regardless of whether they participated in the Sports4Kids after-school program.¹¹ The four youth tracked over time expressed some concerns about their safety at recess, although it was less of a concern during the final interview. One boy said that sometimes other youth would push him. A couple of youth noted that reporting a troublemaker to a lunch mother or other adult was not always effective—they felt that the troublemaker would just do it again, since there were often no consequences. There was also a sentiment that it was difficult for lunch mothers to monitor the entire playground. According to one boy, “it’s all of us and then just a few lunch mothers, so they really can’t handle all of them, so a bunch of children get away with things that they shouldn’t have done.” The comparison youth did not seem concerned about fights or teasing at recess—not because it did not happen, but because they

¹¹ Of the four youth interviewed over time, two participated in the after-school program and two did not.

contributed to it, or just saw fights as a normal occurrence. One girl even admitted that she was usually the one doing the teasing.

Youth survey items also asked how often youth felt that: (a) they got teased for not being good at games/sports, (b) they could work out their problems with others on the playground, (c) they could join a game on the playground that others had started; and (d) adults treated all youth the same. Items were rated on a scale of 1 (never) to 4 (all the time). Youth on average were not afraid of being teased; many felt that they could work out problems on the playground; most felt comfortable joining in other youth’s games; and most felt that adults treated all youth the same. These findings further suggest that the youth at Ohrenberger tended to feel safe at school.

Youth Survey: How often do you feel that: Scale of 1 (never) to 4 (all the time)



Youth and parent reports that youth mostly felt safe from being teased or physically harmed while playing at school were supported by our observations. We saw very few fights at recess and none during the other program components during seven months of observations. Additionally, during games across all program components, it was rare to witness participating individuals teasing or otherwise making fun of other youth. Even when someone tripped, fell down, or ran slower than other youth, no one laughed or teased.

OUTCOME QUESTION 3: Is the school culture supportive of healthy development?

Findings on whether the school culture was supportive of healthy development fell into three categories:

- (a) Stakeholders reported increased opportunities for physical activity at school.
- (b) The school’s recess and classroom environments improved.
- (c) Evidence as to whether the school environment overall was supportive of Sports4Kids activities was mixed.

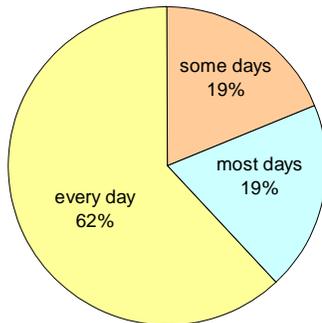
(a) Stakeholders reported increased opportunities for physical activity at school.

Just by virtue of having Sports4Kids in the school, opportunities for physical activity at the school were expected to increase. Stakeholders implied that this was the case and said that the site coordinator provided opportunities for physical activity that did not previously exist, and would not exist without such a program.

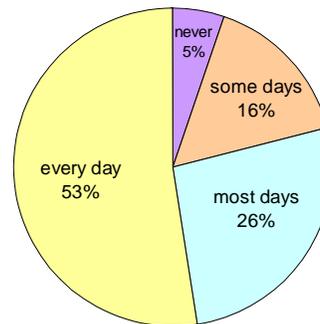
Youth survey data provided further support for this assertion. The majority of youth reported that they had opportunities to engage in sports and games “most” to “every day.”

Youth Survey: How often do you get to play games and sports at school?

December Survey Results (N = 16)
(There were no responses of “hardly ever” or “never”)



May Survey Results (N = 19)



The four youth tracked over time also all reported that they had enough opportunities for physical activity at school. However, during the first interview, two youth noted that before Sports4Kids, they did not have enough opportunities. The comparison group gave less positive responses. One girl noted that the principal sometimes would not let them have recess, while two other comparison youth noted that play time was contingent on their completing their school work. Another girl in the comparison group noted that the physical education class allowed them sufficient physical activity.

(b) The school’s recess and classroom environments improved.

Stakeholders reported that both the environment on the playground at recess and in the classroom had improved since Sports4Kids had come to the school, as the results that follow indicate.

RECESS. While teachers do not participate in recess (lunch mothers monitor this time), students reported to them afterward how the period went. Thus, we asked teachers in interviews to reflect on the recess environment. In November, the teachers already noted major improvements. According to the fifth grade teacher:

Last year I would pick my kids up and it was bedlam. There would just be a lot of fighting and disorganization and I don't think there were enough options for the kids, so I would wind up coming out after recess to pick them up and trying to be a referee, not knowing what had transpired during recess. But this year is very different, they're excited to go out, they know exactly what they're going to be doing when they get out. I find that when I pick them up there have been few, if any, negative issues that have taken place at recess. And I get the sense that they're all participating in things. Last year, especially with my girls, they would stand off to the side, but this year is very different, they're all involved in things.

The fourth grade teacher echoed the sentiment that recess in the past had been a much less positive environment, and that Sports4Kids had helped to improve it:

I've been here for seven years, and recess was always the time that the teachers would come to get our kids after lunch and we were frightened of what we would find when we would open the door... There would be numerous fights and things like that. In the very beginning [of this year] it took them a while to realize what was going on and what they were expected to do on the playground, and within about three weeks, they knew the games, they knew where to play, what to do, and we haven't come out and found very many problems at all this year at recess. They don't want to leave—they are enjoying themselves. They used to, in years past, ask if they could stay in the classroom during lunch; they didn't want to come to recess. No one asks that anymore—they all want to come.

During the winter interviews, teachers had a harder time gauging the recess environment, since recess often took place inside due to the extremely cold weather (or sometimes rain) or occasionally due to school-wide behavioral problems that prompted the principal to revoke recess. However, interviews at the end of the school year again revealed that teachers felt that recess improved due to Sports4Kids: "I feel like the kids are constantly engaged in different activities, so I think we see a lot less chaos or confusion. When I pick the students up, the kids generally come back and say that they've been participating in different games and activities planned by [the site coordinator]." She further commented: "Our expectation, our hope, as teachers was just that recess would improve, that there would be less fighting, less arguing... that definitely happened." The other teacher also felt that youth were more willing to work together and to participate in activities with youth in other classes, not just their own:

[There is] lots of team building, not just within classes but between classes—my class and another class working together to play four-square or whatever other game, and that we never used to see. They used to stay very much by themselves, with their own classmates and their own friends, and sometimes there would be competition between the two classes. I think that's been a really great outcome that I wouldn't have necessarily expected.

Teacher survey responses also supported the improved recess environment. Of the teachers who responded to a question about the number of fights on the playground during the school year (N = 14), all reported there were fewer fights than the previous year. Similarly, of the teachers who responded to a question about the number of children sent to the office from the playground for discipline during the school year (N = 13), all reported seeing a decrease from the previous year.

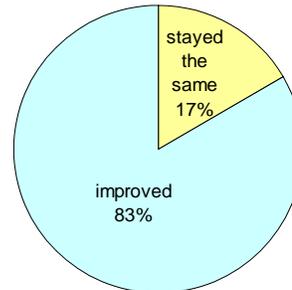
The principal also reported that in past years, recess was not a very positive experience. She commented, "I have had a great view [from my office] for a number of years of recess and the activities that kids would do, which is basically running around in circles until somebody gets caught and somebody falls down and somebody has to go to the nurse." She further

commented that, in the past, “There were some games but not a lot of organization, maybe a kickball game going on every day but that might have been it in terms of consistency. A lot of pockets of kids walking around, running and chasing.” She commented that this year, she saw the majority of the school children participating in organized activities.

In addition to the percentage of youth participating in structured activities, another characteristic of the well-organized playground was organized game playing, with youth waiting their turn in line, accepting when they were out, minimal arguing, and minimal transition time between players and activities. The site coordinator observed, “What is also important is the kind of play that more youth are engaged in—more organized, more constructive, healthier. Space is divided logically and the games are safer by a) defining boundaries and b) defining rules that had never been there before.” This characteristic was important because given the short amount of time youth had for recess, transitioning from activity to activity could waste time. The activities organized and run by the site coordinator held participants’ attention and remained organized for longer than other activities.

CLASSROOM. Teacher and principal feedback indicated positive classroom changes because of Sports4Kids. In teacher surveys, the majority reported that their students’ classroom behavior had improved since having Sports4Kids (83%), while the rest felt that it had stayed the same (17%). None of the teachers felt that students’ classroom behavior worsened (see chart to the right).

Teacher Survey: How has students’ classroom behavior changed since having Sports4Kids at your school? (N = 12)



Surveys also asked teachers to report any other behavioral changes that they had seen, as well as the overall impact of Sports4Kids on their classroom. The text box to the right provides teachers’ responses. Overall, these comments reflect positive changes because of Sports4Kids.

Further, surveys asked teachers to reflect more specifically on the changes they saw in their students’ behaviors, in terms of their focus, cooperation, and ability to listen, as well as the impact of playground conflicts on the classroom. The majority of teachers saw improvements in students’ ability to listen (55%) and cooperation (91%). The majority also felt that playground conflicts were less likely to continue into the classroom (75%). Just under half of teachers reported that students were more focused (45%). No teachers reported that students were less focused, less able to listen, or that there was less cooperation between students. One teacher did report that

Teacher Survey:

Other Behavioral Changes

- The junior coach program has helped students to be more responsible and mature.
- Students are able to resolve differences without my help.
- Students encourage each other more, are less competitive.

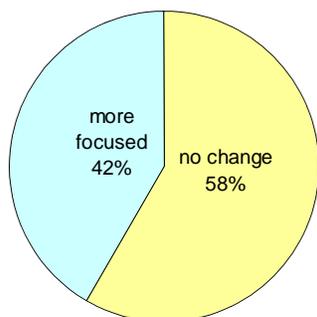
What impact has Sports4Kids had in your classroom?

- It provided me time to participate in the activities and use the language and activities learned at recess (butterfly touch, etc.)
- The students really enjoy the games and conflicts have declined.
- The students enjoy and benefit from class game time. It also reinforces the games played at recess for the students and the teachers get to learn the games, too.
- Better problem resolution techniques.
- I refer to the purpose of the Sports4Kids activities many times; but I have to do this over and over.
- My second graders are playing and getting along better than ever before at recess time.
- Student encourage each other more, are more cooperative.
- Positive both socially and physically.

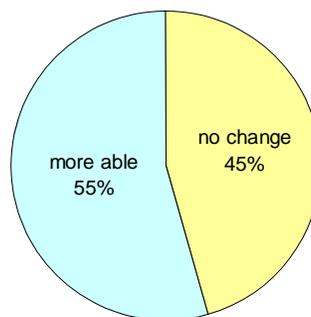
playground conflicts were more likely to continue into the classroom (although the teacher may have checked the wrong box, since this teacher otherwise provided positive feedback about Sports4Kids).

Teacher Survey: What kind of changes in classroom behavior you have observed since having Sports4Kids at your school:

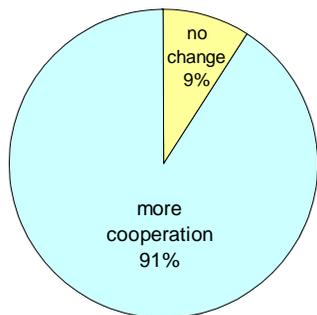
students' level of focus (N = 12)



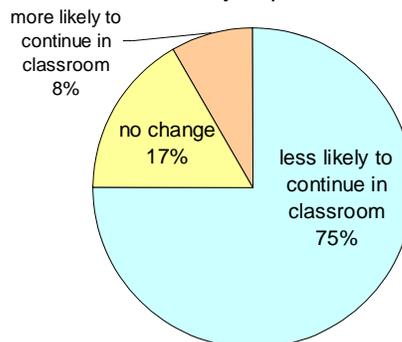
students' ability to listen (N = 11)



students' cooperation with each other (N = 12); "no change" represents 1 response



how playground conflicts impact the classroom (N = 12); "more likely" represents 1 response



Teacher interview data also supported Sports4Kids' positive influence on the classroom environment. In November, both teachers interviewed commented that they saw improvements in their classroom environments since the school year started, and felt that their classrooms were now better organized. The fifth grade teacher reflected on the changes she had already seen a couple months into the year: "Thinking back to September, this is a nice group. They've always demonstrated nice routines but they're definitely stronger now and I see it carrying into all kind of aspects of the school day." She was especially excited about the influence that she felt Sports4Kids was having on her students' ability to resolve conflicts and to work together as a team:

I spend a lot of time in September trying to build a community and having the kids have a mutual respect for one another, and I feel like especially with the class game time and with the different things that [the site coordinator] does with them... it really fosters that sense of looking out for each other and being positive with each other.... They've learned a better language of respect, and they'll solve problems using Ro-Sham-Bo now... No drama, and I don't have to get involved, and they can solve it for themselves.

The fourth grade teacher also commented on changes in her classroom since September:

They come together more as a community. They're more caring about each other. In the beginning of the school year I didn't really see much camaraderie or really looking out for each other, caring about each other, but I see that much more as the year is progressing, that they have even the same attitude that [the Sports4Kids site coordinator] has in the sports. When one of them shares their writing, they all rally

around, and say “oh great job!” ... I see the same kind of qualities that she is doing out here transferring to the classroom, which is nice.

This teacher felt that this attitude differed from the year before: “...I think it sometimes takes the kids until June before they feel like a family or like each other, and I think I’ve seen that happen a lot faster, and they really support each other’s learning in the classroom.”

In the winter, these teachers noted that their classrooms remained organized, with one teacher noting some additional improvements: “...they’re almost a little bit nicer to each other than they were before...They’re just less argumentative.” At the end of the year, teachers felt that their positive classroom environments had sustained, if not slightly improved even further. According to one teacher, “I have a wonderful group this year, so they really respect each other. We have all of our routines and schedules in place – they can do them backwards and forwards at this point.” The other teacher described the environment as “pretty encouraging.”

At the end of the school year, these teachers also made similar observations about the positive influence that they felt Sports4Kids was having on their classrooms. The fourth grade teacher was especially impressed with the team building engendered during class game time: “The value has been in the team-building activities and the non-competitive aspect, because some of them can get really competitive academically and it’s hard to turn that off, in academics, and have them do things for fun.” She also had positive feedback about the influence that she felt that the Sports4Kids after-school program was having on her classroom:

Maybe four or five of my kids go to the after-school program and I’ve noticed in them even more than the rest that they are much more encouraging, cheering each other on, saying things like “good job” – things that [the site coordinator] modeled for them. And I think that being in the after-school program, it’s ingrained in them now, where the rest of them, they do it [in class game time], but it doesn’t always carry over into the classroom.

When asked at the end of the school year what changes they saw in their classroom overall, both teachers noted better behaved and more considerate students. According to one teacher, “I think the kids function as a unit, more so than just as group of individuals... I think that they have different problem-solving skills that they didn’t have before, and for me, it reinforces a lot of the community building activities we did in the fall.” The other teacher also noted, “I think that in general that they are calmer, a lot more encouraging, more caring, more sensitive to others’ feelings... In general, it’s just a safer environment for kids to take risks, whether it’s academically or sports.” Further, the principal commented in an interview that she felt that class game time was especially helpful in building a sense of camaraderie among the youth.

Although the program did not aim explicitly to influence academic outcomes, one teacher noted that the students in her class who were in the after-school program were “getting their homework done better than they did before.” Further, based on our observations, Sports4Kids likely had a positive influence on students’ ability to focus in the classroom. After our class game time observations, we followed at least one class each month back to their classroom to see how quickly the youth settled back into the classroom routine. Without exception, youth settled into their classrooms and focused on their school work within a couple of minutes, with little hassle. However, on the survey, none of the teachers felt that Sports4Kids had an influence on school attendance – either in decreasing or increasing attendance. Of the eight teachers who responded to this question, all reported seeing no influence of Sports4Kids on attendance.

(c) Evidence as to whether the school environment overall was supportive of Sports4Kids activities was mixed.

When asked what changes she had seen in the school due to Sports4Kids, the principal reported that the program promoted ideas that were in line with the school's mission.

...the inclusiveness of the model of the program lends itself to what we're doing here at the Ohrenberger in that, making sure that all the kids are able to be included, all the kids want to be included, all the kids are comfortable being part of this community and any group within the community where they go. So that lends itself to what I'd like kids to be able to leave here with.

On the survey, teachers reported a number of ways that Sports4Kids had affected the school as a whole (see the text box at right). Their feedback generally praised Sports4Kids and highlighted outcomes that were in line with Sports4Kids' goals. Further, one teacher who completed the survey said: "As a teacher, I was pleased to see this program – Sports4Kids has become a part of our school curriculum. I think it has definitely helped in the areas of good sportsmanship, exercise, following rules, making good choices, cooperation, and being responsible."

Teacher Survey: What impact has Sports4Kids had on your school as a whole?

- The children are doing more physical activities! They like it.
- Most of the students are talking about [the site coordinator] all day waiting to get to recess.
- Very positive.
- I think Sports4Kids has had a positive impact on our school with its many facets – support at recess, class game time, the junior coach program, and the after-school program.
- Less fighting, more of a community feel schoolwide.
- Better discipline, problem resolution, students are more active!
- It has had a positive impact.
- I think students are learning to play and work out their differences better.
- There are less conflicts at recess and therefore no spillover into teaching time.
- Positive – students are learning to "Listen" and "Cooperate."

However, teachers and youth reported that the school culture was not always supportive of physical activity. For example, the principal decided to forego recess on more than one occasion, either to serve as punishment or to dedicate that time to academics. One teacher reported that the principal berated a teacher for allowing her class to stay outside longer after recess, thereby barring that behavior from happening again. Teachers reported a desire to take their students outside to play more, but that school policies prohibited them from doing so. According to these teachers, because the school culture was not particularly supportive of additional physical activity time, teachers were somewhat limited in what more they could do. At the same time, the principal's "no tag" rule may have been instrumental in helping the site coordinator achieve an organized playground.

OUTCOME QUESTION 4: Are adults supportive of physical activity?

There were two major findings related to adults' support of healthy and inclusive play:

- (a) Youth felt that teachers and other adults at the school encouraged them to be physically active.
- (b) Teachers reported enjoying participating in activities with their students during class game time and increasing their own physical activity because of Sports4Kids.

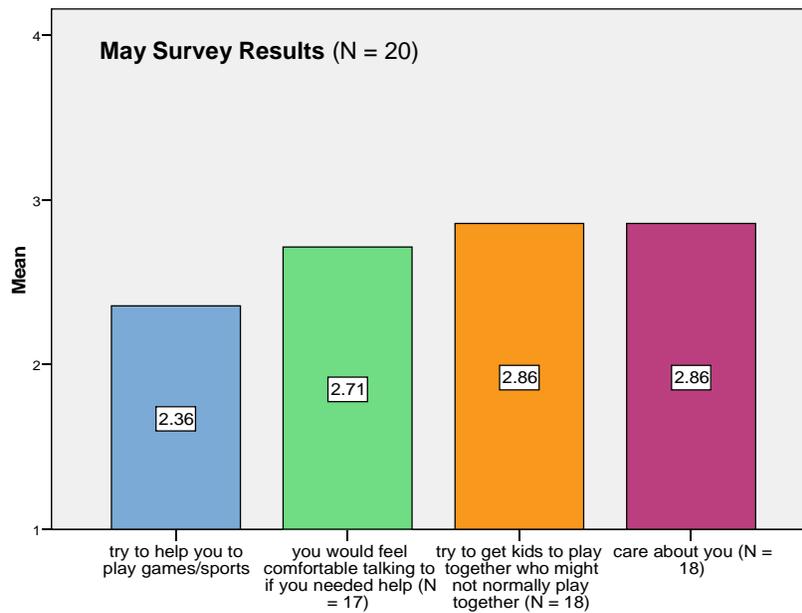
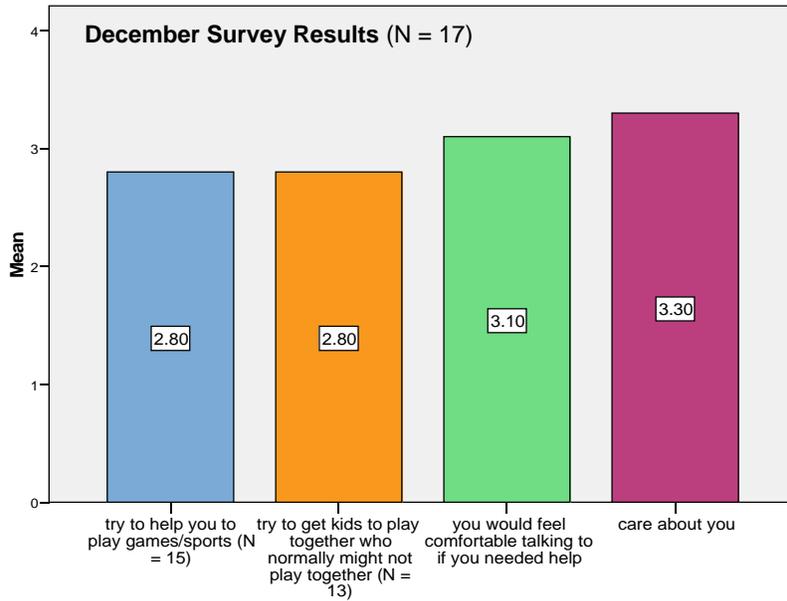
(a) Youth felt that teachers and other adults at the school encouraged them to be physically active.

All four youth tracked over time felt that adults gave them encouragement to participate in physical activity. However, in the December interview, a couple of the youth qualified this finding, saying that some adults were supportive, and some were not. Specifically, they felt that their teacher was supportive, but that lunch mothers were not. One girl felt that the policy of having lunch mothers dismiss youth from their lunch tables for recess based on good behavior during lunch was not consistently enforced: "Some lunch mothers will be like, 'you deserve to stay in [from recess],' when we aren't making noise and there are other tables that are making lots of noise that get to go out." In addition, a couple of youth reported that adults could do a better job in telling youth about activities that were happening and in encouraging youth to participate in these activities. However, by the second and third interviews, youth did not see any areas for improvement in the support they received from adults in terms of physical activity. During the third interview, one boy noted, "They're already perfect." The comparison youth were less positive, with three girls reporting a lack of support from the principal, who would not allow extra play time, even when their teachers allowed it.

We found that actions did not always match up with words when it came to adult support of Sports4Kids-style play. Throughout the school year, several lunch mothers explicitly stated that they approved of the program and that the site coordinator did a great job. However, we did not witness much involvement or support of Sports4Kids activities. With the exception of one or two lunch mothers who were more actively involved, it was difficult to determine whether lunch mothers overall were supportive of healthy and inclusive play.

Youth survey data suggest that youth had mixed feelings about the degree of support that they received from adults at the school, both in terms of encouraging physical activity, and in their levels of caring and accessibility to youth. Youth were asked to rate how many adults at the school: (a) tried to help them to play games and sports, (b) tried to get youth to play together who might not otherwise do so, (c) they felt comfortable talking to if they had a problem, and (d) cared about them, on a scale of 1 (none) to 4 (all). Average ratings hovered just above "some" (2) and "most" (3), with lower ratings in May. The lower ratings in May have been related to greater pressure on adults at the school toward the end of the year to prepare youth for state standardized testing, which may have taken away from their support for non-academic activities. The two items related to support for physical activity ("try to help you to play games/sports" and "try to get kids to play together who might not normally play together") all had average ratings below 3 ("some" adults).

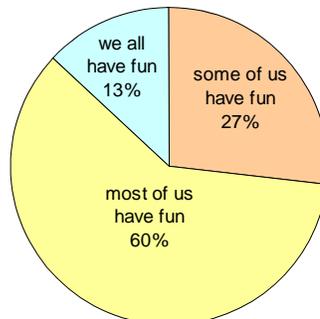
Youth Survey: How many of the grownups at your school: Scale of 1 (none) to 4 (all)



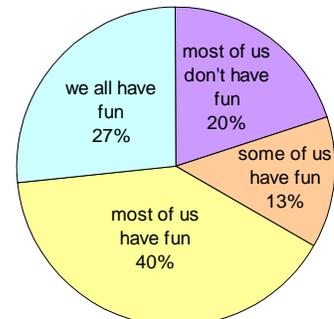
When adults did get youth to play together at school, the majority of youth surveyed felt that most youth had fun, and none responded that adults did not try to get youth to play together.

Youth Survey: When one of the grown-ups at your school gets youth to play together, how many of the youth playing together have fun?

December Survey Results (N = 16)



May Survey Results (N = 15)



(b) Teachers reported enjoying participating in activities with their students during class game time and increasing their own physical activity because of Sports4Kids.

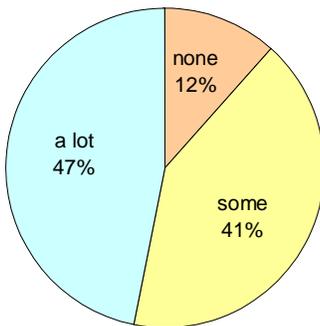
In the fifth grade class that we observed, the teacher participated very enthusiastically during every class game time, and her excitement rubbed off on her students. When the class with behavioral issues joined the fifth grade class, those teachers (which included several teacher aides) joined in the games as well, so there would be up to four or five adults participating along with youth. The fifth grade teacher commented in an interview:

[I learned] the importance of being out there with my kids, participating with them. I think they got to see me in a different light...Watching them interacting with each other was really important to me, but I would say that the biggest thing that I took from [class game time] was the need to participate, the need to be active with them, and experience those kind of things with them—not just watching.

The teacher in the fourth grade class also participated in the majority of class game time activities or cheered from the sidelines and/or acted as a referee. She reported that she was surprised to see how much she enjoyed class game time: "...the teachers love participating in doing the activities with the kids, and it brings the kids closer to us, which I didn't expect the impact on the teachers. The kids definitely love playing against me in a game, and other teachers are the same."

In surveys, the vast majority of teachers (88%) reported that Sports4Kids had influenced their involvement in playground activity at least to some degree. Their explanations of how their involvement had increased also provided evidence of the positive benefits of Sports4Kids on the teachers' own behavior.

Teacher Survey: How much has Sports4Kids' impacted your involvement in playground activity or other physical activity at school? (N = 17)



Please explain (sample of teacher responses):

- I play in active games with my students.
- My class and K II are integrated for this activity and it has been a positive social, academic, and physical experience...
- Teachers participate more with the students.
- I notice my kids applying what they learn in the program to resolve differences.
- I enjoy working with my students during [class game] time.
- I love to play 4 square.
- Since I am familiar with the games I can utilize them when I take my class outside.
- The students like going out to play the structured games.

III. LESSONS

This section identifies lessons about characteristics that are critical to Sports4Kids' success. Further, it examines the bigger picture of how the Ohrenberger School benefited from Sports4Kids, and by extension, what value it may have for other schools, beyond the theory of change outcomes. To help distill lessons, we used a process/outcomes matrix, a form of logical analysis used to link implementation activities and results (see Appendix E).

Lessons in this section address two broad issues:

1. Sports4Kids exhibited key elements of program quality that are crucial to positive youth development settings.
2. Sports4Kids provided benefits to the Ohrenberger School that went beyond the Sports4Kids theory of change.

LESSON 1: Sports4Kids exhibited key elements of program quality that are crucial to positive youth development settings.

The National Research Council¹² identifies eight features of positive developmental settings for youth (see text box to the right). In our observations, all these features were present (to varying degrees) in Sports4Kids activities and were crucial to the program's success. Below, we outline the role of these quality elements in our observations.

Features of Positive Youth Development Settings

1. physical and psychological safety
2. appropriate structure
3. supportive relationships
4. opportunities for meaningful youth involvement
5. positive social norms
6. learning-oriented, with skill-building activities
7. balance of autonomy and structure
8. connections with school, home, and community

Physical and Psychological Safety. One Sports4Kids theory of change outcome is that “More children feel physically and emotionally safe to play at school.” Thus, the role of physical and psychological safety is central to the Sports4Kids model. Our observations combined with stakeholder feedback revealed that the Sports4Kids site coordinator at Ohrenberger worked hard to ensure that all youth felt included and comfortable in playing games. A big part of this sense of safety was creating a non-competitive culture with a language of respect, in which youth were not afraid to make mistakes. The site coordinator provided constant positive feedback, and encouraged youth to provide similar feedback to one another. A major part of the program, then, was instilling a culture of safety, where youth could feel comfortable trying new things, making mistakes, and taking risks.

Appropriate Structure. Sports4Kids emphasizes the need for *structured* physical activity for youth. It is not just a matter of getting youth active—it is getting youth active in a structured way that promotes positive outcomes. As school staff at Ohrenberger pointed out, youth previously were engaged in physical activity, but mostly just disorganized games of “tag” that often led to fights and injuries. By imposing a structure to the playground, Sports4Kids aims to create order to playground environments that are often disorderly.

At Ohrenberger, different types of structure appealed to different types of youth, and Sports4Kids activities accommodated these needs. For example, while some Sports4Kids activities involved large groups of youth, especially those involving teams (e.g., kickball), others

¹² Eccles, J & Gootman J. (2002). *Community programs to promote youth development*. Washington, DC: National Academy Press.

involved smaller groups (e.g., four-square) or could be done individually or in pairs (e.g., jump rope). In this way, youth received exposure to different levels of structure; larger group games required greater structure to ensure that they ran smoothly, while smaller group activities allowed for greater flexibility. Further, the different context in which activities took place (recess, after-school, class game time, and interscholastic leagues) also allowed for variations in the type and degree of structure. Interscholastic leagues involved the greatest amount of structure, since they required youth to commit to participation (practices and games) over a 12-week period. The team depended on youth to participate regularly and consistently. Recess, on the other hand, was the least structured activity, allowing youth to choose from a number of activities each day, and they were free to enter and leave activities throughout the period at will.

The site coordinator was careful to explain the game's rules to youth before each activity. She often "quizzed" youth on these rules, and allowed youth to ask questions about these activities. In this way, the site coordinator instilled the rules and structures that govern the activities.

Supportive Relationships. A key Sports4Kids component at Ohrenberger was the site coordinator's relationship with the youth. All stakeholders we spoke to (the principal, teachers, youth, and parents) gave glowing feedback on the site coordinator and the role she played in Sports4Kids' success. Based on our observations and youth feedback, youth often felt more comfortable talking to her than to other adults at the school. Given the negative feedback about lunch mothers during recess, the site coordinator filled a much needed role in providing positive adult support during this time. Because the youth trusted and respected the site coordinator, they felt comfortable seeking her out when they needed help.

In addition to the extensive Sports4Kids training that the site coordinator received, she brought a number of personal qualities to the program that enhanced her chances of success. For example, she had a genuine rapport with and sense of caring for the youth. The youth, in turn, picked up on this, which helped to create a bond between the site coordinator and these youth.

Opportunities for Meaningful Youth Involvement. Inclusiveness is a key Sports4Kids ingredient. For team activities, all youth participants were seen as valuable. This made youth who otherwise might be hesitant more willing and even eager to participate. The site coordinator instilled a custom of regular encouragement, and since it was not about winning or losing, youth were quick to praise each others efforts, whether successful or not. Youth who were less skilled at a given activity did not feel bad or sit on the sidelines. In our observations, youth were almost universally enthusiastic about activities, and their different skill levels were mostly indistinguishable. However, we found that of the two "hard to engage" groups—youth labeled as troublemakers and those less confident in their abilities—troublemakers were harder to engage. In fact, these two groups may require different engagement strategies.

Positive Social Norms. At Ohrenberger, we witnessed the Sports4Kids site coordinator put into place a series of rules and procedures that helped activities to run smoothly, and with little conflict. When conflicts did occur, a system was in place to resolve such issues peacefully and efficiently (usually through Ro-Sham-Bo). In addition, the site coordinator introduced supportive language for youth to use in their interactions. For example, the site coordinator taught youth to use phrases like "good job!" and "nice try!" As a result, youth who participated in organized and structured activities at recess were less prone to fighting.

The teachers we interviewed emphasized that these norms often translated into the classroom with youth using these terms of encouragement to support one another's school work. Parents also echoed these sentiments, feeling that their children were better able to resolve conflicts

and get along. As noted earlier, one teacher felt that the after-school program was especially effective in instilling these norms. Since after-school program participants were exposed to these positive norms four days per week for 2.5 hours each day, this teacher felt that the norms were more ingrained than for youth only exposed through class game time or at recess.

Learning-Oriented, with Skill-Building Activities. Many Sports4Kids activities are incremental; youth work up to “full” games and activities, with early activities focused on building the skills needed to participate. These activities also have benchmarks for youth. For example, Sports4Kids’ *Sports and Games/Class Game Time Handbook* instructs site coordinators to lead “skill-building” activities at the beginning of the year, before working up to full games. The handbook provides the following instructions in preparing youth for circle dodgeball:

When students play this game for the first time they may need some practice keeping the ball in the play area. Have the class form a circle and push the ball back and forth, keeping the ball both moving steadily and staying close to the ground, as a practice. It helps if you as the leader get in the game and demonstrate, showing how the ball should be handled.

We frequently saw the site coordinator teach such skills incrementally.

Balance of Autonomy and Structure. The Sports4Kids site coordinator often gave youth a choice in activities. While she organized and ran activities, she often let youth choose from a menu of options. Furthermore, she made it known that the youth were responsible for their actions; for example if youth were talking instead of paying attention to the rules, she would inform them that they were wasting time that they could use to play games. Older youth had opportunities to lead activities, especially through the junior coach program. These leadership roles allowed youth to participate actively and help shape these activities and take responsibility for what happened in them. Older youth, then, served as role models for younger children, and earned respect from the children who participated in their activities.

Connections with School, Home, and Community. Interscholastic leagues seemed to effectively engage and involve families; family members attended volleyball and basketball games, and seemed enthusiastic about their children’s participation. Moreover, families seemed to embrace the non-competitive nature of the games. However, as described earlier, the Ohrenberger school culture was not always supportive of Sports4Kids and its goals. The principal on occasion revoked recess privileges, or had students focus on academic work during recess time to prepare for state-mandated standardized tests. The tenuous connection of Sports4Kids with other school contexts was probably the biggest challenge that Sports4Kids faced at Ohrenberger. Part of this challenge may be because Ohrenberger, like other low-income schools that Sports4Kids targets, struggles to meet the required academic standards, and thus school staff and parents may be wary of activities that are not focused exclusively on academics. Although Sports4Kids communicates Sports4Kids’ goals and progress to school staff, further efforts may be necessary to gain greater program support.

LESSON 2: Sports4Kids provided benefits to the Ohrenberger School that went beyond the Sports4Kids theory of change.

Beyond physical and emotional benefits to individual youth, Sports4Kids aims to create a more positive school environment in general. We saw major benefits to the school in two areas: (a) an improved school environment overall, and (b) improvements in students’ focus in the classroom.

Improved school environment overall. We saw evidence in our observations at the Ohrenberger School that Sports4Kids promoted a non-competitive and supportive culture. Sports4Kids helped youth to feel safe not only on the playground, but also in the classroom, and perhaps in other contexts as well. Youth valued responsibility and flourished in leadership roles in the junior coach program and in other contexts such as taking charge during fundraisers for field trips.

Further, as mentioned above, the site coordinator effectively created positive, supportive relationships with youth, which gave youth a role model, and someone to help resolve conflicts in a productive way. This positive social culture extended into the school's classrooms and hallways. Based on our observations, the support and positive feedback engendered during Sports4Kids activities was becoming institutionalized across the school. Major changes in the school environment are likely to take longer than a year, but the expectation is that over time, Sports4Kids will contribute to sustained changes in the school environment.

Improvements in youth's focus in the classroom. We also saw some evidence that Sports4Kids may have contributed to a more positive academic environment. When youth have a productive outlet for their physical energy, they are better able to focus in the classroom, which in turn promotes better academic performance. As we observed and as teachers confirmed, students were able to quickly settle into their classroom routines following Sports4Kids games. Further, one teacher noted that her students were more eager and willing to get their school work done when their participation in class game time depended on it – they saw class game time as a “reward.” While this may not directly translate into higher test scores or better grades, Sports4Kids may be one factor that contributes positively to academic success.

In fact, a strong research base links increased physical activity with improved academic performance. As one research synthesis commented: “Studies demonstrate that when children’s basic nutritional and fitness needs are met, they attain higher achievement levels.”¹³ Other research connecting physical activity and academic outcomes concludes: “Studies suggest a connection between physical activity and increased levels of alertness, mental function and learning.”¹⁴ Even if direct measures of academic performance such as grades and test scores do not change, programs with physical activity components have improved variables that affect academic outcomes. For example, a study of a multifaceted after-school program for middle-school students found improvements for time spent on homework and higher education aspirations related to program participation.¹⁵ Furthermore, school attendance and time spent on homework were better among youth who attended the program more frequently. Another study found that reading achievement and expectancy of success were higher at the end of the school year for children in after-school programs compared with other patterns of care.¹⁶ Again, higher engagement in program activities accentuated differences. Regardless, no link between increased physical activity and *decreased* academic performance has been found, a fear that seems to be prevalent among educators. Further, the learning experiences in Sports4Kids that may translate into skills for academic success should not be underestimated. Sports4Kids teaches discipline, cooperation, and focus—all skills linked to positive academic outcomes.

¹³ Action for Healthy Kids. (2004). *The role of sound nutrition and physical activity in academic achievement*. Skokie, IL: Author.

¹⁴ California School Boards Association and California Project LEAN (Leaders Encouraging Activity and Nutrition). (2006). *Student wellness: A healthy food and physical activity policy resource guide*. West Sacramento, CA: Author.

¹⁵ Lauer, S. C. (2002). *Assessing the benefits of an after-school program for urban youth: An impact and process evaluation*. Philadelphia: Author.

¹⁶ Mahoney, J. L., Lord, H., & Carryl, E. (2005). An ecological analysis of after-school program participation and the development of academic performance and motivational attributes for disadvantaged children. *Child Development* 76(4): 811–825.

IV. RECOMMENDATIONS FOR FUTURE EVALUATIONS

We suggest that for the near future, Sports4Kids consider a two-tiered evaluation strategy. *Tier 1* would consist of ongoing data collection across all sites to assess Sports4Kids’ outcomes and implementation broadly, using a combination non-experimental/quasi-experimental design. *Tier 2* would be a short-term quasi-experimental evaluation in select Sports4Kids and comparison sites to rigorously test and explore the Sports4Kids model. Tier 1 data would be collected internally (by Sports4Kids staff), and Tier 2 data would require an external evaluator. The table below provides an overview of the two tiers.

Recommended Two-Tiered Sports4Kids Evaluation Strategy

	Purpose	Sample	Type of Data	Who would collect data?	Time Frame
TIER 1	Capture outcome and implementation results across all sites	All Sports4Kids sites	Quantitative and qualitative	Sports4Kids staff	Ongoing
TIER 2	Rigorous and exploratory examination of the Sports4Kids model’s impacts for youth	Select Sports4Kids & comparison sites	Quantitative	External evaluator	1–2 years

Our recommendations do not lay out all of the specifics of what these designs entail, but instead provide a rough sketch along with some specific suggestions to consider.

TIER 1: Cross-Site Data Collection

Tier 1 data collection would take place in all Sports4Kids sites. Its purpose would be to offer a comprehensive view of outcomes and implementation tied specifically to the Sports4Kids’ theory of change. The audience for Tier 1 data is both external (for accountability) and internal (for learning and continuous improvement). Primary considerations for Tier 1 data collection are:

- Identifying the data that if aggregated, will provide a powerful picture of Sports4Kids’ presence across the country and its results
- Minimizing the data collection burden for Sports4Kids sites as much as possible
- Eliminating the need for an external evaluator

With any evaluation involving cross-site data collection, data integrity is critical. Quality assurance across sites can be a challenge, and having a little high quality (i.e., valid and reliable) data is better than having a lot of low quality data. Sports4Kids should think about the data collection that is *most* essential because it is the most useful and powerful to Sports4Kids audiences; and that has the best chance of being reliably collected across sites.

Data collection would occur every year on an ongoing basis, allowing for an accumulation of data across both sites and years. While modifications may be made to what is collected over time, a core set of data should be maintained to allow for some longitudinal assessment.

Sports4Kids staff at all sites should be clear on evaluation requirements upfront and have an evaluation “toolkit” with all of the instruments, a schedule for when they must be completed, directions on how to collect data (e.g., instructions for survey administration), and what to do with the data once collected (including how to use it). Sports4Kids will need to determine which staff will be responsible for which data collection. For example, site coordinators may be asked to collect some data for their own sites, while area directors would collect other data across the sites that they oversee. Training on how to use this toolkit during Sports4Kids staff training prior to the school year can go a long way in ensuring that data collection happens and is reliable.

Methods

Below we suggest possible data collection methods (some of which are already in place).

Surveys

The surveys that Sports4Kids collect from youth, teachers, and principals tend to be very informative, and we encourage continuing collection of such data across all sites. Further, youth and school staff feedback can give valuable insights into the program. Survey results can be examined both within and across schools.

If feasible, Sports4Kids should collect surveys from all students at each school. However, if this is not realistic, we recommend continuing to collect youth surveys from after-school program participants only, since surveys can easily be administered during the after-school program. Teacher evaluations of trainings should also be included as part of the evaluation, to assess how well the teacher training component of the program is working.

While Sports4Kids’ existing surveys are well suited to Tier 1 data collection, we suggest some minor modifications to these survey instruments:

- ➔ Align questions for different stakeholders so that answers can be easily compared. When appropriate, question wording on select questions should be as similar as possible to allow for comparison.
- ➔ Add a section for youth survey respondents to note which Sports4Kids components they are involved in, to better link participation in specific activities with outcomes.
- ➔ Create pre-test surveys that include items from existing surveys to be able to measure pre-test to post-test changes in attitudes and behaviors. This survey could then be administered at the beginning of the year, while the existing surveys could be administered at the end of the year.
- ➔ Collect data on youth demographic variables through the survey to examine whether some types of youth have better outcomes than others. As we observed, youth interests and engagement varied based on gender, age, and disposition (those that lacked confidence and “troublemakers”).

School data

Schools already collect a tremendous amount of data on their students that may be of use in examining Sports4Kids. Some data may be more useful than others in addressing Sports4Kids’ theory of change. We recommend that at a minimum, Sports4Kids pursue discipline data for each school at a whole school level (since schools are unlikely to be willing or able to provide discipline records for individual students), as such data are directly relevant to Sports4Kids’ behavioral outcomes. These data requests might be built into the agreements Sports4Kids signs with schools to ensure that schools know upfront what they need to provide.

Structured Observation

We suggest using a structured observation tool to examine program implementation. We know Sports4Kids already uses observation tools, especially to collect quantitative data (e.g., counts of students not participating in organized physical activity). These data are valuable to examine in aggregate. Sports4Kids may want to consider collecting additional observational data that is qualitative but also standardized across sites. These data can give a sense of how Sports4Kids looks and feels across sites, and in what ways the program may differ (weighing this option with the goal of keeping Sports4Kids staff burden manageable). We developed two observation tools (one that we ourselves used, and one that the site coordinator used, for our observations at the Ohrenberger School – see Appendix F for an abbreviated version). Sports4Kids might consider using these instruments as a starting point, adapting them as necessary.

A Note on Analysis

One issue to consider in cross-site data analysis is program scale-up. As Sports4Kids expands into more cities across the country, there may be growing pains. As such, Sports4Kids might focus some attention on examining differences between new and older sites or based on location (e.g., whether cold and warm weather climates make a difference).

TIER 2: A Quasi-Experiment

As a program that takes place in schools and has a physical activity focus, Sports4Kids faces pressures to demonstrate measurable health and academic impacts on youth. Understandably, Sports4Kids has resisted assessing the program's impact at those levels, as Sports4Kids is positioned to *contribute* to those impacts rather than assume full responsibility for producing them. As such, Sports4Kids' evaluation efforts have focused on assessing the outcomes that connect to and contribute to those impacts, outcomes on which Sports4Kids has a more direct effect. For example, Sports4Kids assesses whether children increase their physical activity at school rather than whether their body mass index (BMI) changes. This approach is consistent with the Tier 1 approach described above.

However, given that Sports4Kids will likely face continual pressures to show health and academic impacts, it might be worthwhile to consider a small-scale quasi-experimental evaluation that includes a carefully chosen array of independent and dependent variables that include health and academic achievement. This approach carries risks, but framed as an exploratory study or test of Sports4Kids' model, it could have major payoffs as well.

Design

We recommend a quasi-experimental design that pairs Sports4Kids schools to comparison schools, with data collected over the span of 1–2 school years. Steps involved in setting up the quasi-experiment would include:

1. *Identify an external evaluator.* Sports4Kids will want to engage an experienced researcher, possibly from a university, with public health expertise. The researcher will set up the design and manage the data collection.
2. *Identify independent and dependent variables to measure.* The unit of analysis for this design is youth. That is, measures should directly assess outcomes at the youth-level (e.g., improved youth behavior) rather than the school-level (e.g., improved playground organization).

Independent Variables

The design would feature independent variables about youth's participation in Sports4Kids (e.g., their level of participation and which components they participate in). Independent variables might also include other factors that Sports4Kids does not directly control, but that may affect Sports4Kids' ability to achieve its results, such as youth demographic variables like age and gender.

In fact, Sports4Kids might want to engage in a "system mapping" exercise to identify what those variables might be by thinking broadly about the whole school as a system designed to produce positive outcomes for children. Sports4Kids is part of that system, but so are other things such as their participation in school-sponsored physical education classes. Identifying the parts of the system that link to or that may affect Sports4Kids' success may help to identify other important independent variables.

Dependent Variables

Dependent variables would include Sports4Kids outcomes from the theory of change, like increased physical activity at school; ability to resolve conflicts, cooperate, and handle competition; and feeling physically and emotionally safe to play at school.

Dependent variables would also include a variety of outcomes or impacts that Sports4Kids has not previously captured, such as academic, physiometric, and behavioral measures. Measures for assessing these variables abound in the literature, as shown in the table on the next page. Be careful in selecting instruments to ensure that they are appropriate (e.g., measures what Sports4Kids intends to measure, targets a similar population, etc.), and that modifications made do not make the instruments less valid or reliable.

3. *Select treatment schools.* Select at least one and preferably several Sports4Kids sites as the treatment group.
4. *Select comparison schools.* Select a comparison group of non-Sports4Kids schools that are willing to participate and that are matched to treatment schools on key school-level demographic variables (e.g., student characteristics, size, academic performance). As an incentive, Sports4Kids might give these comparison schools a reduced rate the next year if they agree to participate in the evaluation.
5. *Collect data related to independent and dependent variables.* Data on independent variables should be collected at the beginning of the year for the treatment and comparison group, so that existing group differences can be controlled for. Data on dependent variables should be collected at the beginning of the program year (pre-test) and again at the end of the year (post-test) from both the treatment and comparison group. Identifying variables should be used to connect youth on their pre-test and post-test assessments.
6. *Collect data related to breadth and depth of exposure.* At treatment schools, consider examining whether youth who are more involved tend to have better outcomes than those who are less involved. In addition, certain program components may be more effective than others—for example, does participation in the interscholastic leagues provide greater benefits than participation in class game time? Knowing what is working particularly well and what level of exposure to program activities seems to be optimal can be crucial to shaping effective program practices moving forward.

7. *Evaluate program impact.* Statistical analysis comparing the treatment group’s pre-test to post-test changes on the dependent variables to those of the comparison group (controlling for any pre-test differences between the two groups) can help determine whether there was a measurable program impact.

Possible Academic, Physiometric, and Behavioral Measures

Area Assessed	Possible Measures	
Physical activity	<ul style="list-style-type: none"> ➤ Physiological and biomarkers <ul style="list-style-type: none"> • Body composition (fat mass, bone mineral content/density) [3, 8] • Percent body fat [2, 3, 5] • Blood pressure [3] • Cholesterol [3] • Anthropometry (body mass index/BMI, waist circumference) [2, 3, 5, 8] • Heart rate (direct measure and heart rate monitoring device) [3] • Insulin, glucose, lipid levels [5] • Flexibility tests [2, 6] ➤ Other quantitative fitness assessments <ul style="list-style-type: none"> • Amount of exercise done in certain period (e.g., running, push-ups) [2] • Peak oxygen uptake [8] • Computer Science Application (CSA) device (measures physical activity over 3 days) [5] • Pedometer, accelerometer 	<ul style="list-style-type: none"> ➤ Student self-report [5] ➤ Parent report [5, 6] ➤ Moderate-vigorous physical activity (MVPA) through direct observation [9] ➤ Specific instruments <ul style="list-style-type: none"> • Physical Activity Self-Concept [5] • Physical Activity Preference [5] • Physical Activity Outcome Expectancies [5] • Self-Efficacy for Physical Activity [5] • Physical Activity Home Environment [5] • GEMS Activity Questionnaire [5] • 2-Day Physical Activity Recall [8] • Stanford Usual Physical Activity Scale [8] • System for Observing Fitness Instruction Time/SOFIT [9] • System for Observing Play and Leisure Activity in Youth [12]
Academic performance	<ul style="list-style-type: none"> ➤ Teacher report [7] ➤ Student self-report ➤ Academic expectation and motivation [2, 7, 11] ➤ Standardized test scores <ul style="list-style-type: none"> • TAAS math, reading, and writing scores [1] • SAT-9 [4] • Developmental Reading Assessment [11] 	<ul style="list-style-type: none"> ➤ Grade point average [4] ➤ Subject-specific grades [1, 7, 11] ➤ Subject-specific tests [1] ➤ School attendance [1, 4, 7] ➤ Time spent on homework [4] ➤ Academic Subscale of the Social Skills Rating System (SSRS) [13]
Youth development	<ul style="list-style-type: none"> ➤ Interaction with adults ➤ Time spent watching TV [4, 9] ➤ Time spent in self-care [4] 	<ul style="list-style-type: none"> ➤ Motivational attributes (expectancy of success, effectance motivation, etc.) [4] ➤ EZ-Yale Personality Questionnaire [11]
Psycho-social and affective	<ul style="list-style-type: none"> ➤ Student self-report [1, 2, 8] ➤ Parent report [1, 7, 9] ➤ Behavior (in-school and at home) [1, 2, 4] ➤ Social support [8] ➤ Self-efficacy [5, 8] ➤ Self-esteem [1] ➤ Self-confidence [7] ➤ Ability to get along with others [7] ➤ Social acceptance/peer status [2, 10] ➤ Physical appearance [2, 5] ➤ Competitiveness of climate [10] ➤ Acquisition of new friends [4] 	<ul style="list-style-type: none"> ➤ Specific instruments <ul style="list-style-type: none"> • Behavior Rating Profile (home scale and school scale) [1] • Culture-Free Self-Esteem Inventory (general and academic) [1] • Self-Perceived Profile for Children (cognitive self-perceptions) [2] • Perceived Barriers to Physical Activity scale [8] • Physical Activity Enjoyment Scale/PACES [8] • After-School Student Questionnaire/ASSQ [9] • 10-item ASP engagement scale [11]

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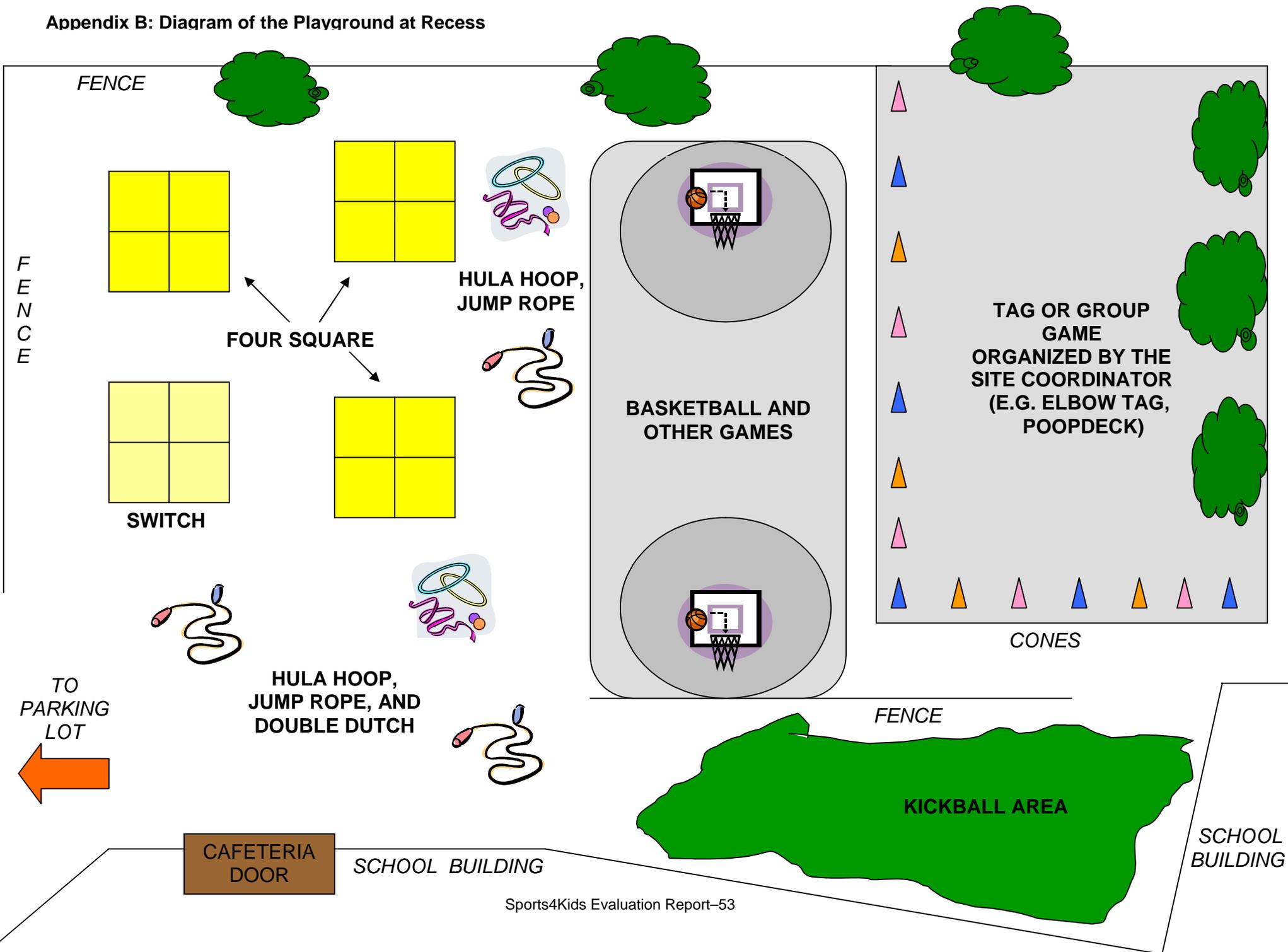
V. APPENDICES

Appendix A. Sports4Kids Program Components

From the Sports4Kids website: www.sports4kids.org/index.php?option=com_content&task=view&id=24&Itemid=15

Component	Description
Recess/Lunch	Site Coordinators teach and lead games during recess on a daily basis. This includes establishing game areas on the playground, distributing balls and sports equipment, teaching the rules and strategies to games, resolving conflicts, and encouraging children to participate.
Class Game Time	Site Coordinators establish a weekly schedule of 30-45 minute time slots for classes. Each teacher brings their class to the playground or gym where the Site Coordinator delivers a structured, play-based curriculum based on youth development principles.
Junior Coaches	Site Coordinators work with teachers to identify 9- to 13-year-olds to participate in leadership development activities. After receiving training, Junior Coaches assist Site Coordinators during recess by leading games, encouraging youth to resolve conflicts positively and managing equipment.
After-School Program	Site Coordinators provide homework support, a healthy snack and physical activities for 9- to 13-year-olds who attend on a daily basis.
Interscholastic Leagues	Site Coordinators work with volunteer coaches to coach teams during practice and games with other Sports4Kids' schools. The teams are open to 9- to 13-year-old students and emphasize learning basic sports skills, teamwork, and healthy competition.

Appendix B: Diagram of the Playground at Recess



Appendix C: Rules for “Core Playground Games”

Excerpts from Sports4Kids' *Sports and Games/Class Game Time Handbook* (www.sports4kids.org/images/stories/sportsgamescgt.pdf)

4-SQUARE

1. A standard 4-square area is one large square 10' x 10' divided into four smaller squares (5' x 5'); each box is labeled A,B,C,D or 1,2,3,4. The box labeled A or 1 contains a smaller *service box* (1.5' x 1.5') located in the far outside corner of the square.
2. 4 – 8 players per playing group. One player is in each square and the others wait in line. The player in square A or 1 is the *server*. The goal is to get to box A or 1 and stay there.
3. The server controls play of the game. Play begins when the server drops the ball once into his/her square then hits it into a different square (*serves* the ball) with both feet in the service box. The server must keep both feet in that box until the serve is completed.
4. The ball can only bounce once in any square.
5. Each player needs to hit the ball with any part of their hand into an opposing player's square after it has bounced only once in their own square.
6. If the ball lands on a line, or goes out of bounds before it bounces, the player who hit the ball is *out*. If a play hits the ball and it bounces again in his/her own square, s/he is out.
7. If the ball bounces more than one time before it is hit into another, the player who let the ball bounce is out.
8. If the ball is returned before it is allowed to bounce, the player who returned the ball early is out.
9. An out player moves to the end of the line. The person in the front of the line advances to square number 4 or D, and the remaining players advance to close the gaps between square 1 or A and 4 or D.

DODGEBALL

1. 10 – 15 players on each team; each team has one or two playground (or soft) balls and is assigned one-half of the court.
2. A standard dodgeball court is a 40 yard x 20 yard rectangle with a center line dividing the length. An additional 5 yard end-zone is located on each end of the rectangle. Scale down the size of the court accordingly. An approximate court size for kindergarten is 20 yards x 10 yards; increase as students' age, skill level improves, and space allows.
3. When the whistle blows, players throw the balls back and forth across the center line.
4. All players try to avoid being hit with the ball from the waist down while trying to hit the opposing teams' players from the waist down.
5. If the ball hits an opposing player from the waist down (including a hand or arm that is below waist level) before the ball hits the ground, the hit player must go into the opposite teams end zone.
6. If a player catches a ball thrown by an opposing team player before that ball hits the ground, the player who threw the ball must go to the opposing team's end zone.
7. If a player attempts to catch an opposing team's throw and drops it, the player who dropped the ball has to go to the opposing team's end zone.
8. Players trapped in the end zones cannot go outside the set boundaries but can be released back into team play if they can get possession of a ball (without leaving the end zone) and strike an opposing player below the waist. If they succeed, they get a free walk back to their teams' side and the hit player must go into the other end zone.
9. If a player who is supposed to be in the end zone steps outside the boundaries of the end zone, a player who is trapped in the opposite team's end zone is automatically released.
10. Active players cannot step into an end zone to keep balls out; however, players can run through the end zone to retrieve balls that have gone out of bounds.
11. A ball which has gone out of bounds can only be retrieved by the players on the side which the ball went out on.
12. The game is over when one team has all the players from the other team trapped in the end zone.

JUMP ROPE/DOUBLE DUTCH

1. For group play, a minimum of 3 people participate at one time: 2 *turners* and 1 *jumper*.
2. A standard jump rope, for double dutch or single rope jumping is 15' long; 2" thick, medium density climbing rope or plastic phone cord works as a rope. Any pavement or solid floor surface will work for a jumping surface.
3. Waiting players should form a line, or designate and follow a jumping order.
4. The turners each hold one end of the rope and face each other; the rope should be arced and touch the ground at one center point.
5. The jumper stands in front facing one turner with the outside of one foot touching the rope at the center point of the rope.
6. At a recess: 1 rope grants one jumping turn, 2 ropes (double dutch) grant two jumping turns. After a jumper has completed her/his turn s/he takes the place of a turner, and the turner goes to the end of the line. Make this clear so there is not confusion about people coming in from the line.
7. No *do-overs* are allowed; once a turn has happened, the player needs to follow sporting behavior and fair play by taking his/her turn turning the rope.
8. Jump rope is the most common and widely played cooperative playground game - all active participants (turners and jumpers) need to be aware and be paying attention for the jumper to do the best job s/he can.

KICKBALL

1. 9 players on each team. Field Positions: 3 *base-players* (1st, 2nd, 3rd), 3 *outfield* (left, center, right), 1 *short-stop*, 1 *pitcher*, 1 *catcher*
2. A regulation kickball field is 60' x 60' between the bases. An approximate size for kindergarten is 30' x 30' between the bases; increase as students' age, skill level advances, and as space allows. A *base line* marks the running path between the bases.
3. The team who wins a coin toss or rock, paper, scissors between the captains, gets to choose whether to kick or field first. The kicking team then settles into their *kicking order*; the fielding team takes the field in their positions.
4. The pitcher controls the play of the game. Play begins with the pitcher rolling (*pitching*), the ball to the person up to bat, the *kicker*. Play stops when the ball is thrown to the pitcher.
5. Teams switch sides after three *outs* or nine *runs* are scored. Outs are granted when:
 - The kicker kicks a *fly ball* and it is caught before it touches the ground. Note: when a fly ball is in the air, the base runners must remain on base until after the ball is caught (called *tag-up*) before they can advance to the next base.
 - The base-player has control over the ball and a foot on the base before the kicker (now *base-runner*) reaches the base.
 - The base-runner is tagged on his or her body by a *fielder* with the ball before s/he arrives at the base. Note: if the base-runner must advance because of another runner or kicker behind, it is called a *force-out* and the fielding team only has to tag the base to call an out. If there is no runner or kicker behind, it is not a force and the fielder with the ball must tag the base-runner.
 - One base-runner passes another.
 - A base-runner intentionally interferes with a fielder who is trying to recover the ball.
6. The runner advances one base on an *overthrow* to the base player.
7. A *run* is scored for the kicking team when a base-runner touches all 4 bases, in order, without being called out at any time.
8. If the ball is kicked but does pass first or third base inside the base lines, it is called a foul. Three fouls by an individual kicker equal an out.

Appendix D: Data Collection Methods and Timeframe

	Instrument/ Method	Data Collected/Purpose	Sample/Response Rate	Timeframe: Sept. 2006–June 2007 (interim measures are in gray)											
				Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun		
School	Teacher Surveys	Reflections on program outcomes and satisfaction, changes in youth's physical activity and negative behavior on the playground, changes in adults' involvement in playground activity or other physical activity, and changes in youth's classroom behavior	completed by 18 teachers								▶				
	Principal Interviews	Impressions of Sports4Kids and its influence on the school	completed by the principal			▶							▶		
	Recess Observations	Provide a snapshot of what the playground looked and felt like and what was working or not working	recorded by the site coordinator during recess	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	
recorded by the HFRP team during recess					▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	
Classroom	Teacher Interviews	Impressions of program influence on their classroom	completed by both teachers in the 2 in-depth study classrooms			▶				▶			▶		
	Classroom Game Time (CGT) Observations	Provide a snapshot of what CGT looked and felt like in the 2 in-depth study classrooms and what was working or not working; the HFRP team also observed a few minutes of class time following CGT each month to observe how quickly students settled back into the classroom after CGT	recorded by the site coordinator	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶		
			recorded by the HFRP team			▶	▶	▶	▶	▶	▶	▶	▶	▶	
	After-School Program (ASP) Observations	Provide a snapshot of what the ASP looked and felt like and what was working or not working	recorded by the site coordinator	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	
recorded by the HFRP team					▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	
Youth	Youth Surveys	Physical and socio-emotional health, as they link to key aspects of program goals	completed by youth in the after-school program: 17 in December (7 boys and 10 girls) and 20 in May (12 girls and 8 boys)				▶						▶		
	In-Depth Youth Interviews	Attitudes, behaviors and their impressions of Sports4Kids	2 youth from each in-depth classroom (4 total) – 1 boy and 1 girl in each fourth and fifth class; 2 participated in the ASP and 2 did not				▶			▶			▶		
	Comparison Youth Interviews		completed by 5 youth: 3 fifth graders (1 boy and 2 girls) and 3 fourth grade girls									▶			
	Parent Interviews	Changes in their children's: (a) level of physical activity; (b) ability to resolve conflict, cooperate, and handle competition; and (c) feelings of safety to play at school	completed by 4 parents ¹⁷ : <ul style="list-style-type: none"> • 1 father and 3 mothers • 3 each had 1 child in grades 4- 5)and 1 had 1 child in each kindergarten and grade 2 • 1 was a lunch mother • 3 were done in-person (2 at a volleyball league game and 1 at recess), and 1 was done by phone • mix of sons and daughters 									▶	▶	▶	

¹⁷ While our original intention had been to interview parents of the same youth who were participating in interviews, the logistics of getting parent contact information necessitated a less targeted strategy to this interview sample.

Appendix E: Process/Outcomes Matrix* for Sports4Kids

		OUTCOMES FROM THEORY OF CHANGE					
		Children increase their physical activity at school.	More children are able to resolve conflicts, cooperate, and handle competition.	More children feel physically and emotionally safe to play at school.	More opportunities for physical activity provided at school.	School norms reflect greater support for physical activity and play.	More adults at school are supportive of healthy and inclusive play.
ACTIVITIES FROM THEORY OF CHANGE	Recess	<i>More youth spend their time at recess playing structured games instead of standing or sitting</i>	<i>Ro-Sham-Bo is used to resolve conflicts Fewer fights on the playground</i>	<i>The site coordinator is a trusted adult youth can turn to for help on the playground More students playing structured games means less opportunities for harassing or fighting</i>	<i>Organized recess games and sports conducted during recess encourage youth involvement</i>	<i>The playground setup is conducive to playing Sports4Kids games, and youth know designated areas for activities Janitor helped provide activity space during indoor recesses</i>	<i>Adults at the school are pleased with improvements in the recess environment Non-cooperation of lunch mothers was a major barrier</i>
	Class Game Time (CGT)	<i>During CGT, youth are especially engaged and positive about physical activity Youth are not hesitant or embarrassed to play</i>	<i>Youth are taught positive language and methods for handling conflict Some games stress communication skills</i>	<i>Games encourage all youth to participate, and foster a feeling of inclusiveness Teasing/making fun is very uncommon</i>	<i>CGT provides additional time during the school day for physical activity</i>	<i>Qualities learned from CGT carry into classroom: teamwork, a sense of community, verbal support for classmates</i>	<i>Some teachers participate enthusiastically in CGT Teachers are impressed by CGT's influence on their students</i>
	Junior Coach (JC) program	<i>JCs participate in, and encourage other youth to participate in, sports and games at recess</i>	<i>JCs work with youth to help resolve conflicts and to better cooperate in games on the playground</i>	<i>JCs provide an extra level of supervision during recess</i>	<i>JCs organize additional games during recess</i>	<i>That the school allows students to be JCs shows support for physical activity and play</i>	<i>Teachers are impressed by the leadership roles taken on by JCs</i>
	After-school program (ASP)	<i>Kids in the ASP get more physical activity than youth in the other ASP at the school</i>	<i>The site coordinator teaches youth techniques to resolve conflicts and enforces rules that encourage orderly play</i>	<i>Youth in ASP report feeling safe after school Teasing/making fun is very uncommon</i>	<i>The ASP includes an hour of physical activity</i>	<i>Qualities learned from the ASP carry into classroom</i>	<i>One teacher offered her classroom for ASP Teachers are impressed by the ASP's influence on their students</i>
	Interscholastic leagues (IL)	<i>ILs provide an additional opportunity for physical activity in a team setting, outside of the school day</i>	<i>Games de-emphasize competition by not keeping score Teamwork is instilled in players</i>	<i>Youth build camaraderie with their teammates in a safe environment</i>	<i>IL practice and evening games provide extra time for youth to engage in physical activity</i>	<i>Poor infrastructure and lack of equipment require resourcefulness and adaptation by the site coordinator</i>	<i>Teachers are impressed by the ILs' influence on their students</i>

*Source: Patton, M.Q. (1987). *How to use qualitative methods in evaluation*. Newbury Park, CA: Sage Publications.

Appendix F: Evaluation Instruments

Evaluation instruments follow. Note that the formats have been condensed for this report to take up less space.

A. INTERVIEW QUESTIONS		Fall	Winter	Spring
YOUTH	How do you usually spend your time at recess?	✓	✓	✓
	If you have a problem with somebody at school (another student or an adult), how do you handle it? Can you give any examples?	✓	✓	✓
	Do you feel like you are safe from being teased or made fun of when you are in your classroom? What about on the playground during recess? Are you safe from being teased after-school? In what situations do you feel the least safe?	✓	✓	✓
	Do you feel like you are safe from being hit, kicked, punched or spit at when you are playing on the playground during recess? What about after-school? In what situations do you feel the least safe?	✓	✓	✓
	Do you think you have enough opportunities for physical activity at school, for example, sports, or other activities that involve running around or moving a lot? What would you like to see more of? What would you like to see less of?	✓	✓	✓
	Do you think teachers and other adults at school encourage you to be physically active? What could they do better? PROBE: For example, do you think your teacher would prefer that you and your classmates spent time learning in class rather than playing outside?	✓	✓	✓
	What's your favorite part of Sports4Kids?		✓	✓
	What do you like the least about Sports4Kids?		✓	✓
	Are you looking forward to participating in Sports4Kids next year? Why or why not?			✓
TEACHER	What do you expect from Sports4Kids in terms of its impact on your classroom? What are you looking forward to? What are you worried about?	✓		
	How would you describe your current classroom environment? E.g., chaotic, organized, etc.	✓	✓	✓
	How would you describe the current playground environment at recess? E.g., chaotic, organized, etc.	✓	✓	✓
	Is the program meeting your expectations? (Did the program meet your expectations this year?)		✓	✓
	Are you seeing program outcomes that you did not expect? (Did you see program outcomes that you did not expect?)		✓	✓
	What aspects of the program do you think are working well? (What aspects of the program did you think worked well?)		✓	✓
	What aspects of the program are not working well? (What aspects of the program did not work well?)		✓	✓
	What have you learned from class game time, if anything?			✓
	What changes, if any, have you seen in the children's behavior?			✓
	Do you think more children feel physically and emotionally safe to play at school as a result of Sports4Kids? Why or why not?			✓
	How would you say youth's levels of physical activity have changed at the school since Sports4Kids?			✓
	Have you seen any changes in your own behavior, for example, in terms of how often you take the kids outside to play, and how often do you play with them? Are you more physically active since Sports4Kids? In what ways?			✓
	What changes have you seen in your classroom environment overall?			✓
PRINCIPAL	How would you describe the current playground environment at recess? E.g., chaotic, organized, etc.	✓		✓
	What do you expect from Sports4Kids, in terms of the overall school environment and outcomes for kids? What are you looking forward to? What are you worried about?	✓		
	Did the program meet your expectations this year?			✓
	Did you see program outcomes that you did not expect?			✓
	What aspects of the program did you think worked well?			✓
	What aspects of the program did not work well?			✓
	How would you say youth's levels of physical activity have changed at the school since Sports4Kids?			✓
	Do you think more children feel physically and emotionally safe to play at school as a result of Sports4Kids? Why or why not?			✓
FAMILY	What changes have seen in your child's levels of physical activity, if any, as a result of the Sports4Kids program?			✓
	What changes have seen in your child's ability to resolve conflicts, cooperate, and handle competition, if any, as a result of the Sports4Kids program?			✓
	Do you think your child feels more physically and emotionally safe to play at school as a result of Sports4Kids? Why or why not?			✓

B. OBSERVATION PROTOCOLS

HFRP OBSERVATIONS: CLASS GAME TIME

Activity

Description of activity/task _____
 Duration: Start Time _____ End Time _____
 # of Youth Present _____ Adults Present _____
 Youth Groupings _____
 Youth Interactions _____ Adult Interactions _____
 Activity Space _____ Resources _____

Youth

Number and gender of youth; number of minorities/ majority; record any social groupings by gender/race/ ethnicity _____

Circle one:

most youth off task-----mix of on and off task-----most youth on task

If most youth on/off task, estimate the percentages of each:

on task ____% off task ____%

If a mix of on/off task, describe the observed behavior in more detail: _____

Circle one:

youth are hesitant -----youth mildly enthusiastic-----youth actively and to enter into the about participating enthusiastically participate in activity in the activity the activity

If youth are hesitant to enter in to the activity or actively and enthusiastically participate in the activity, estimate the percentages of each:

hesitant ____% enthusiastic ____%

If youth are mildly enthusiastic, describe the behavior in more detail: _____

Estimate the % of youth interacting with each other around procedural issues: ____%

Estimate the % of youth interacting with each other around content issues: ____%

HFRP OBSERVATIONS: RECESS

Activities (multiple activities recorded each recess period)

Activity/Task

Description of activity/task _____
 # of Youth Present _____ Adults Present _____
 Activity Space _____ Resources _____

Playground Environment

Description of the playground _____
 Record any social groupings by gender/ race/ethnicity _____
 Sketch playground: _____

Youth

Circle one:

youth are hesitant -----youth mildly enthusiastic-----youth actively and to enter into the about participating enthusiastically participate in activity in the activity the activity

If youth are hesitant to enter in to the activity or actively and enthusiastically participate in the activity, estimate the percentages of each:

hesitant ____% enthusiastic ____%

If youth are mildly enthusiastic, describe the behavior in more detail: _____

HFRP OBSERVATIONS: CLASS TIME

Youth

Number and gender of youth; number of minorities/majority; record any social groupings by gender/ race/ethnicity _____

Circle one:

most youth off task-----mix of on and off task-----most youth on task

If most youth on/off task, estimate the percentages of each:

on task ____% off task ____%

If a mix of on/off task, describe the observed behavior in more detail: _____

Estimate the % of youth interacting with each other around procedural issues: ____%

Estimate the % of youth interacting with each other around content issues: ____%

HFRP OBSERVATIONS: AFTER-SCHOOL PROGRAM

Activity

Description of activity/task _____
 Duration: Start Time _____ End Time _____
 # of Youth Present _____ Adults Present _____
 Youth Groupings _____
 Youth Interactions _____ Adult Interactions _____
 Activity Space _____ Resources _____

After-school Program Setting

Description of the program setting _____

Youth

Number and gender of youth; number of minorities/majority; record any social groupings by gender/ race/ethnicity _____

Circle one:

most youth off task-----mix of on and off task-----most youth on task

If most youth on/off task, estimate the percentages of each:

on task ____% off task ____%

If a mix of on/off task, describe the observed behavior in more detail: _____

Circle one:

youth are hesitant -----youth mildly enthusiastic-----youth actively and to enter into the about participating enthusiastically participate in activity in the activity the activity

If youth are hesitant to enter in to the activity or actively and enthusiastically participate in the activity, estimate the percentages of each:

hesitant ____% enthusiastic ____%

If youth are mildly enthusiastic, describe the behavior in more detail: _____

Estimate the percentage of youth interacting with each other around procedural issues: ____%

Estimate the percentage of youth interacting with each other around content issues: ____%

HFRP OBSERVATIONS: REFLECTIONS AND INTERPRETATIONS

Overall, what happened during today's observation? _____
 Characterize youth and their attitudes toward the activities and the teacher. _____

Notable non-verbal behavior _____

Surprises/concerns, especially related to the program goals _____

Other notes _____

SITE COORDINATOR OBSERVATIONS

- Based on your observations, how have the following changed over the last month overall at the school?
 - children's physical activity levels _____
 - children's ability to resolve conflicts, cooperate, and handle competition _____
 - children's eagerness and enthusiasm to engage in play at school _____
 - opportunities for physical activity provided at the school _____
 - the number of adults (teachers and other school staff/ volunteers) actively engaging (participating in class game time, leading games on own, and/or using Sports4Kids language) _____
 - school norms regarding physical activity and play _____
- Please provide details on any specific stories of individual kids or teachers during this month that demonstrate progress or program impact. _____
- What type of barriers, if any, did you encounter this month in implementing the program, and how did you handle these challenges? _____

