

**San Diego County Consortium (SDCC) Physical Education For Progress
Evaluation Report**

Prepared for

U.S. Department of Education, Safe and Drug Free Schools Unit

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Objective II describes the Peaceful Playgrounds Program

findings.

The San Diego County Consortium (SDCC) was designed to provide standards-based curriculum, equipment and instructional support for physical education programs in elementary schools without physical education specialists. This goal was accomplished through three core objectives. SDCC: (1) implemented a research-based curriculum (SPARK), provided systematic professional development and appropriate physical education equipment to schools; (2) improved student use of playground space during non-instructional playground time; and (3) provided support and professional development for administering the state mandated Fitnessgram.

Schools and districts in the SDCC were selected because they lacked physical education curriculum, staff development and equipment for physical education and non-instructional times such as recess. The majority of the selected elementary schools (8 of 14) were identified Title I schools and were additionally identified as low performing schools by California's Public School Accountability Act. The schools represented 8,000 students from kindergarten through grade five, 360 teachers, and approximately 28 school site and district administrators that were served by the SDCC plan. Needs assessments were conducted to establish that all sites did not currently have programs established to address the plan goals.

Ongoing systematic evaluation was conducted for each of the three objectives within SDCC. Data sources included pre- and post-evaluations, open ended questionnaires, focus groups, observations, and various quantitative measures (i.e., SOFIT, pedometer).

Each objective has been identified and the results from evaluation presented in response to the objective. Appendices have been included to clarify data collection instruments and various aspects of the systematic evaluation.

Objective One: To impact overall school-wide physical education through initiating and sustaining SPARK research-proven curriculum into 12 low performing elementary schools by providing curriculum notebooks, systematic professional development and physical education equipment necessary to implement SPARK.

Implemented Activities and Evaluation:

Twelve sites were supported to improve their physical education infrastructure and to institutionalize SPARK concepts and methods. (Two sites withdrew from this aspect of the grant due to site complications.) Each site was provided with SPARK curriculum (lesson plan) books, equipment specific to grade level, and workshops. All sites successfully documented the receipt of lesson plan books and equipment.

SPARK trainers conducted workshops at varying times and dates decided upon by each site (Appendix A). Over thirty SPARK workshops were conducted in six different districts between February and September 2004. Upon completion of the workshop schedule, all K-5 staff had an opportunity to participate in nine training hours of workshops that were planned, executed, and followed up on by the SPARK team and SDCC evaluators. Workshop participants completed a pre-SPARK evaluation prior to the first workshop and post-SPARK evaluation after follow up workshops (Appendix B). Content of this evaluation focused on perceived satisfaction with the current physical education program, barriers to

implementing physical education and number of days students were receiving physical education. Site specific evaluation data were compiled by SPARK personnel and submitted to the SDCC evaluation team for compilation and analysis.

Workshop evaluation data from teacher participants were reviewed both individually and together for trends. Pre-SPARK evaluation queries, concerning teacher satisfaction with their current physical education program in meeting student outcomes, produced data reflecting a majority of responses as neutral, dissatisfied or very dissatisfied. (Appendix B provides a specific list of the outcomes assessed in the evaluation.) After participation in SPARK workshops and implementation of the curriculum with students, post-SPARK evaluations were conducted with teachers. Post-SPARK evaluations revealed a positive trend, with a majority of responses recorded as satisfied & very satisfied in all outcomes. One school showed a significant shift in their evaluations, initially there were no satisfied or very satisfied responses with meeting the current program outcomes. However, after training and implementation of the SPARK curriculum over 55% of the teachers responded as satisfied or very satisfied in each of the eight outcomes. While no statistical measures were conducted an attitude shift toward greater satisfaction is encouraging. Typically, teachers who are satisfied with their student outcomes will continue to deliver the successful curriculum and it would be important to maintain the positive attitudes established through the SDCC supported workshops.

A second section of the SPARK pre- post-evaluation tool focused on perceived barriers toward implementing a quality PE program. The scale ranged from 'not a barrier' to 'insurmountable barrier' for each of four categories (see Appendix B). The two greatest pre-evaluation perceived barriers were (1) lack of equipment, and (2) need for special training

for classroom teachers. It is important to note that the teachers were all classroom teachers with very little formal preparation in the area of physical education. After the workshops both of these items were perceived as either “not a barrier at all” or “little bit of a barrier” in a majority of responses. Again this positive trend toward minimizing perceived barriers is a desired outcome of the SPARK curriculum. Perceived barriers were reduced as each SPARK site was provided a significant amount of physical education equipment, and the teachers were supported through workshops and lesson plans. This reinforces the notion that a curriculum that provides professional development, support and equipment will help to empower teachers and make them feel that most barriers can be overcome.

A final area queried on the pre- post-SPARK evaluation was number of days in a typical week that students receive physical education. A time base of at least 28 minute bouts were provided to the teachers as a guide to determining this number. A positive trend emerged as most school settings increased from providing one or two days of physical education weekly to three to four days per week. This data may be linked to the reduction of perceived barriers and curriculum materials. It can be hypothesized that as more barriers were minimized teachers were more apt to include physical education in their daily activities for students, especially since they had pre-developed curricular materials and equipment. If each bout represents at least 28 minutes then it can be assumed that as a result of SPARK curriculum students are receiving more physical activity time each week, another positive result of SDCC.

Toward the end of the grant cycle, final SPARK overall evaluations were conducted at each site. Data were compiled and percentages obtained (Appendix C). Teacher responses were very positive on the final evaluation. Teachers responded that SPARK was beneficial

for students (82% extremely beneficial). Other aspects that rated high on the final evaluation included clarity of SPARK instructional materials (94% very clear) and benefit of the SPARK workshops (94% extremely beneficial).

Overall SPARK implementation was very successful in these schools with a positive impact on meeting outcomes, reducing barriers, and increasing student physical activity minutes. Follow-up evaluations would be valuable to determine if this positive trend will continue with extended use, or if “wash out effect” occurs resulting in teacher dissatisfaction again. SPARK “booster” workshops should be encouraged at each site to assure continued implementation.

OBJECTIVE TWO: Increase students’ physical activity levels, improve students’ use of playground space during non-instructional playground time and reduce playground conflict incidences, through implementing the Peaceful Playgrounds program for the 14 SDCC schools.

Implemented Activities and Evaluation:

The Peaceful Playground program was implemented at fourteen elementary schools. Each site received a Peaceful Playground kit, materials, and training aimed at reducing conflicts, reducing injuries and encouraging a positive social environment. The Peaceful Playgrounds program included strategies for conflict resolution so children learned to get along in movement environments, including unstructured recess, lunch and after school.

A Peaceful Playground trainer conducted a two-hour workshop for one teacher representative from each site. Teacher trainers were provided with overheads, a script and a video to utilize at their school trainings. The school site supported the implementation of the program by facilitating workers to paint up to 100 stencils of game designs on the playground and field areas (Appendix D). The site teacher trainer assisted teachers in instructing all students in the games and activities included in the program, and taught a consistent set of game rules. During grade level meetings teachers had time to strategize about changes to be supported and infused into the playground curriculum.

Peaceful playground activity levels were coded using SOPLAY (System for Observing Play and Activity in Youth) during recess, and categorized into: sedentary, walking, and vigorous. Walking and vigorous categories were combined to become MVPA (Moderate to Vigorous PA). Trained observers collected playground data at five schools to assess children's activity levels before and after implementing Peaceful Playgrounds. Observers sampled 10 areas at 5 school sites during morning recesses and lunch recesses totaling approximately 500 data gathering episodes and documented activity levels and other events pre and post implementing Peaceful Playgrounds. The Peaceful Playground program was found to increase children's activity levels through more children in activity areas, which resulted in more active children. *Combined data for morning and lunch recess for the five schools indicated the following:*

- (1) Increased numbers of students participated in marked activity areas, which resulted in more active children.*

(2) Mean number of students per day at recess in activity areas pre and post:

Girls : pre 161; post 209 (47 increase)

Boys: pre 196; post 244 (48 increase)

(3) Students in MVPA Range at lunch and morning recess pre and post:

Girls: 63% pre and 67% post MVPA range (4% improvement)

Boys: 67% pre and 73% post MVPA range (6% improvement)

(4) Larger spaces produced more active children and differences in MVPA by area:

1-2999 sq feet= 66% of children in MVPA

3000-5999 sq feet= 67% of children in MVPA

6000+ = 76% of children in MVPA

(5) Different areas produced different activity levels. Of the ten most popular

playground markings, the following generate the highest activity levels:

Girls: Grass fields, basketball and four square

Boys: Grass fields, basketball, and handball courts

A component of Peaceful Playground is conflict resolution for students, typically through discussion or the implementation of “rocks, paper, scissors”. Data obtained from school sites indicated a decrease in referrals after implementation of the Peaceful Playground. Additionally, students reported fewer incidents of bullying during lunch and recess times. Data from Peaceful Playgrounds can be summarized into three implications for schools; (1) Recess affords schools an opportunity to contribute to children’s overall goal of 30-60 minutes a day of moderate to vigorous physical activity; (2) More kids are more active with game markings; and (3) Larger spaces produce more activity.

OBJECTIVE THREE: Improve the safety, preparation for, and accuracy of administering the state mandated Fitnessgram by providing staff development and a Fitness Coach from a feeder middle school to provide technical support to the fifth grade elementary school teachers responsible for testing. Provide pedometers to each fifth grade classroom to help motivate students to participate in a healthy lifestyle and teach them how to gauge the amount of physical activity they receive daily.

Implemented Activities and Evaluation:

Physical education specialists were selected from various elementary and middle schools as Fitness Coaches. The SDCC Coordinator was familiar with the high competency level of the Fitness Coaches and their knowledge of sound physical activity principles. To develop common goals and strategies, Fitness Coaches attended a three-hour fitness workshop conducted by the San Diego County Office of Education Physical Education Coordinator. During the workshop the Fitness Coaches were provided with materials and videos to coach the grade five teachers and received instructions on using pedometers with students. After the workshop each Fitness Coach was assigned a school site and fifth grade teacher(s) with whom they would work throughout the project. Fitness Coaches were responsible for conducting on-site surveys with their teacher(s) and to gather data at their site concerning fitness.

Fitness Coaches provided their teacher(s) with a Fitnessgram administration manual and Fitnessgram materials including sit up test strips, a test cadence CD, CD

player, skin fold calipers and a class set of 40 pedometers. During this initial meeting and equipment exchange Fitness Coaches were able to explain the purpose and use of each item. Follow-up meetings were scheduled for observations and to continue discussion concerning activity ideas, teaching strategies and effective practices.

Data sources were obtained from fifth grade teachers and the Fitness Coaches. Fifth grade teachers were asked to complete a pre- and post-fitness journal with the assistance of their Fitness Coach. Upon completion of their support sessions, Fitness Coaches completed an open-ended questionnaire and participated in focus groups. Qualitative data analyses were conducted and included data reduction and thematic categorization. Data from Fitness Coaches and fifth grade teachers were analyzed separately to more accurately reflect feedback on the differing roles and experiences.

Teacher fitness journals focused on their knowledge of the components associated with the five-part Fitnessgram (Appendix E). Three specific open-ended questions were of interest for final evaluation, (1) major concerns with Fitnessgram components, (2) favorite Fitnessgram component and (3) least favorite Fitnessgram component.

Two major concerns emerged from the pre-fitness journals. Teachers were concerned with the amount of time fitness testing would consume and they worried about how to motivate students for fitness activities. While not a predominant theme across all sites, lack of fitness testing equipment was also a teacher concern. Post-fitness journals were not collected at all sites due to scheduling barriers. However, the above themes were not evident in the post-fitness journals obtained. Even though this information needs to be cautiously interpreted, providing the sites with fitness testing equipment minimized “lack of equipment” as a concern for teachers. Student motivation may have been impacted

through student pedometer use. Novelty and the ability to set challenges based on steps may have created an intrinsic motivation in students which would then reduce the teacher concern. Finally, professional development and support from Fitness Coaches may have provided strategies for implementing and collecting data more efficiently and this would have an impact on time concerns. Therefore, the absence of the initial concerns in the post-fitness journals could be a result of program implementation.

Both pre- and post-fitness journals identified the 1-mile run as the favorite component for teachers in this study. There were no recurring themes in response to the least favorite component, yet abdominal and strength items were mentioned. Knowing this information may provide educators strategies for supporting fitness testing implementation. Additional training or support would be reasonable for those components that were not highlighted as “favorites” and perhaps less emphasis on support for the 1-mile run.

Fitness Coach open-ended questionnaires (Appendix F) were designed to gather information on the impact of the program on the selected physical educators who participated as Fitness Coaches. In response to “the single best experience” three major themes emerged, (1) collaborating with fellow Fitness Coaches, (2) providing support to the fifth grade teachers, and (3) generating enthusiasm for the fifth grade students. These responses support the notion that these professionals valued a peer-assistance model. While this data cannot be generalized to all teachers it provides insight for future opportunities. Obtaining information on the “single worst experience” for Fitness Coaches resulted in two themes, (1) communication problems, and (2) scheduling. Connecting with the schools and teachers to coordinate visits became increasingly more

difficult throughout the project. While the Fitness Coaches were motivated to stay engaged it seems that the motivation for fifth grade teachers was not as high and resulted in cancelled visits, unanswered phone calls and Fitness Coach frustrations. No identifiable themes emerged from the question “what did you learn in this process”, however, each Fitness Coach provided a unique perspective and situation. Two Fitness Coaches highlighted the need for site and administrative support of professional development projects such as peer-to-peer mentoring. A proactive administration would most certainly create an environment with increased communication and participation. Another response highlighted that one coach believed their teaching strategies had improved as a result of their interactions with the fifth grade teacher. Even with the frustrations and problems associated with the Fitness Coach model a majority (75%) responded that “if asked” would be a Fitness Coach again.

Data obtained as a result of Fitness Coach focus group questions (Appendix G) provided greater insight to the program. Program strengths were identified as potentially increasing fitness levels, fitness scores, and collegiality. Weaknesses included time commitment, scheduling and communication issues. Suggestions from Fitness Coaches on how to improve the program highlighted the need for the fifth grade teachers to visit schools with effective fitness programs, receive release time from classes for meetings, and increased administrative support at the sites. Fitness Coaches identified “best practices” as site-based coaching and empowering the fifth grade teachers.

Implementation of the Fitness Coaching aspect of the SDCC grant provided teachers with fitness testing equipment and teaching strategies. Based on data from the fifth grade teachers, the Fitness Coaches were able to provide them support in the area of

fitness during the grant cycle. Quite possibly the themes identified by the Fitness Coaches were a result of their own high expectations for intervention impact. All of the Fitness Coaches were physical education specialists and may have struggled to appreciate the demands of non-specialists. Replication and revising the Fitness Coach model would be an exciting endeavor. The perspectives and data obtained would allow for modifications in future models. Overall, the Fitness Coach model had an impact at the school sites by providing equipment and support to teachers.

Summary Ideas

The process of change takes time. Developing professional connections, providing support and professional development are first steps toward change. Implementation of the SDCC goals has begun the process of change in the schools associated with this initiative. The San Diego County Consortium was designed to provide standards-based curriculum, equipment and instructional support for physical education programs in elementary schools without physical education specialists. Data analysis indicates that SDCC successfully impacted the goal to provide standards-based curriculum (Appendix H) in elementary schools without physical education specialists through the implementation of SPARK, Peaceful Playgrounds and Fitness Coaches.

Twelve sites received a nationally recognized and research supported curriculum in conjunction with training, equipment, and support. Teachers believed that program outcomes were being met more successfully with the implementation of the SPARK curriculum. Perceived barriers to instructing physical education during the typical day

were minimized as a result of SPARK curriculum use by teachers. As a result of teacher support and confidence in the SPARK curriculum students are receiving more days, and thus more physical activity time in physical education during the week. The overall satisfaction of the SPARK curriculum implementation was positive and seems to be the first step toward institutional change. Suggestions for continuing these positive results include additional trainings for all new teachers to the schools in upcoming years and ongoing administrative support for professional development of the teachers.

Implementation of Peaceful Playgrounds provided schools with conflict resolution skills, stenciled playground surfaces, and activities to promote physical activity levels for students. Through this program students were more active during recess time and this contributes to their overall daily MVPA. Providing students with conflict resolution skills resulted in a decrease of bullying during activities. Also, large brightly colored stenciled activity areas resulted in more students being active.

The notion of site based support for Fitness testing implementation is one that should be more fully explored in the future. Providing group workshops, more opportunities for interactions and funding would enhance this program. However, given the trial nature of this endeavor the SDCC is satisfied to have made initial impact at the school sites and reiterates that change takes time.

While originally not an identified outcome of the SDCC grant a cable television program was produced about the SDCC PEP grant for the Schools in Focus series and was titled “It’s Elementary.” Produced by the San Diego County of Education, the program outlined the need for more physical education and linked a decrease of physical

activity to the increasing obesity problem. Surgeon General Carmona was interviewed for the program and stressed the importance of improving physical education and nutrition education, especially for Latino students. The three components of the PEP grant were highlighted: (1) SPARK staff development workshops (2) Peaceful Playground markings and activities and (3) the fitness coaching for grade five teachers as they were taught how to use step counters. Interviews with students, staff, administrators and physical education specialists were also featured in the program that has aired at least once a month since June 2004 and was also pressed into a DVD that was distributed to all 14 of the PEP grant sites in San Diego County.

A final comment revolves around the need for strong administrative support for teacher professional development in their areas of expertise. Sites where the value of the SDCC grant components were recognized and appreciated seemed to have the greatest gains and most impact for the teachers. While all principals in this project agreed to have their schools and teachers participate in the SDCC, the reality of day-to-day school occurrences created a barrier during grant implementation.

SDCC successfully implemented all objectives of their proposal. This was a dynamic and fascinating experience for all who were involved with the development, implementation and evaluation of the project. Further, it has provided a level of expertise in the participants that can now be shared with teachers and administrators not associated with this grant.