Enhancing Physical Activity Practices in 14 Elementary Schools

AN EVALUATION OF THE STATEWIDE HEALTH IMPROVEMENT PARTNERSHIP (SHIP) ACTIVE SCHOOLS MINNESOTA INITIATIVE
Enhancing Physical Activity Practices in 14 Elementary Schools

This report is part of a series of Statewide Health Improvement Partnership (SHIP) evaluation studies. For other reports, visit www.health.state.mn.us/divs/oshii/ship/results.html.

December 2017

Minnesota Department of Health
Office of Statewide Health Improvement Initiatives
85 East 7th Place, Suite 220
PO Box 64882
St. Paul, MN 55164-0882
651-201-5443

Minnesota Department of Education
1500 Highway 36 West
Roseville, MN 55113
651-582-8200

Upon request, this material will be made available in an alternative format such as large print, Braille or audio recording. Printed on recycled paper.
## Contents

Executive Summary ..................................................................................................................... 4  
Background on Physical Activity, Health and Education ............................................................ 5  
  Active Schools Minnesota ....................................................................................................... 5  
  More about the Active Schools Minnesota Strategies ........................................................... 7  
Evaluation Design and Methods ................................................................................................. 8  
  Requirements for Schools ...................................................................................................... 8  
  Support Provided by MDH .................................................................................................. 9  
  Support Provided by SHIP Grantees .................................................................................... 9  
  Data Analysis .................................................................................................................... 10  
Evaluation Findings ................................................................................................................... 11  
  Strategy Selections by Schools ............................................................................................ 11  
  Findings on School Practices .............................................................................................. 11  
  Findings on Student Outcomes ........................................................................................... 12  
  Perceived Successes and Challenges .................................................................................. 12  
Conclusions ............................................................................................................................... 16  
Learn more ............................................................................................................................. 17  
Appendix. Strategy best practices ............................................................................................ 18  
School Case Studies .................................................................................................................. 22  
  Kelliher Elementary ............................................................................................................. 22  
  Sebeka Elementary ............................................................................................................ 24  
  Henning Elementary .......................................................................................................... 26  
  Swanville Elementary ......................................................................................................... 27  
  Winterquist Elementary ...................................................................................................... 29  
  Lake Park Audubon Elementary ........................................................................................ 31  
  Moose Lake Elementary .................................................................................................... 33  
  Keewatin Elementary .......................................................................................................... 35  
  Viking Elementary ............................................................................................................. 37  
  Indus Elementary .............................................................................................................. 39  
  Long Prairie-Grey Eagle Elementary ................................................................................. 41  
  Menahga Elementary .......................................................................................................... 43
ENHANCING PHYSICAL ACTIVITY PRACTICES IN 14 ELEMENTARY SCHOOLS

Lake of the Woods Elementary ................................................................. 44
Upsala Elementary ...................................................................................... 46
References .................................................................................................. 47
Executive Summary

Physical activity is an important ingredient for health and academic success. Between 2014 and 2016, the Minnesota Department of Health (MDH) – through its Statewide Health Improvement Partnership (SHIP) – worked with the Minnesota Department of Education (MDE) to implement and evaluate the Active Schools Minnesota initiative in 14 elementary schools in central and northern Minnesota. The goal of the initiative was to assist students in attaining the national physical activity guideline of at least 60 minutes of movement every day. These pilot schools committed to increasing time in two evidence-based Active Schools Minnesota strategies to increase opportunities for physical activity during and outside the school day.

Active Schools Minnesota is being implemented in schools across the state to increase the time that students are physically active. This evaluation study was conducted to capture the impact of SHIP’s Active Schools Minnesota strategies in 14 schools. Findings from the evaluation indicate that Active Schools Minnesota is a feasible and evidence-based approach to increasing physical activity among students. Between the beginning and end of the study, three schools increased time spent in physical education (+30 minutes per week on average), four schools increased time in active recess (+5.5 minutes per week on average), five schools added one new before or after school physical activity program, and 33 percent more teachers offered active classroom breaks (e.g., 5-10 minute bouts of physical activity during classroom time).

Students maintained their aerobic fitness, weight and test scores throughout the two-year intervention. At the end of the intervention in 2016:

- 74 percent of students met recommendations for aerobic fitness
- 65 percent of students were at a healthy weight
- 61 percent of students were proficient in reading based on MCA scores
- 60 percent of students were proficient in math based on MCA scores

Students who met recommendations for aerobic fitness had better weight and academic outcomes than students who were less fit. In particular, they were:

- 250 percent (2.5 times) more likely to have healthy weight
- 24 percent more likely to be proficient in reading
- 27 percent more likely to be proficient in math
- 6 percent more likely to attend school consistently (at least 90 percent of school days)

Teachers reported that students enjoyed being active and that they observed positive behavioral changes in the classroom; however, full implementation of the active schools strategies was often limited by time and space constraints. The schools were also able to successfully collect and report student fitness assessment data into a state data portal for analysis. This result demonstrates that physical fitness tracking at the school level is feasible and could be used to track trends in student fitness levels over longer periods of time.

MDH and MDE can provide guidance and toolkits to schools interested in adopting Active Schools strategies.
Background on Physical Activity, Health and Education

The 2013 Minnesota Student Survey found that only 42 percent of fifth graders reported being physically active for at least 60 minutes on five or more of the previous seven days.\(^1\) These data made it clear that most Minnesota elementary schoolers were not meeting the national guidelines of 60 minutes of physical activity every day.\(^2\) Physical activity is an important ingredient for health and academic success. Physical activity helps build strong bones and muscles and decreases the risk of developing physical and mental health problems, such as obesity and depression.\(^2\)

Dozens of peer reviewed publications as well as studies by state departments of health and education have also demonstrated a positive relationship between student physical activity, physical fitness and academic performance (e.g., cognitive skills and attitudes, academic behaviors such as attendance and academic achievement such as standardized test scores).\(^3-9\) Schools have been identified as an important setting for increasing youth physical activity through implementation of a comprehensive, evidence-based physical activity program.\(^2\)

Active Schools Minnesota

Active Schools Minnesota is a collaboration between the Minnesota Department of Health (MDH) and the Minnesota Department of Education (MDE) designed to support schools in the implementation of evidence-based strategies to increase physical activity opportunities for students both during and outside of the school day (Table 1). The goal is to assist students in attaining the national physical activity guideline of at least 60 minutes of movement every day.\(^2\)

Schools across Minnesota are working with the Statewide Health Improvement Partnership (SHIP) and local public health grantees to increase time students spend being physically active at school. In 2016, 575 schools participated in an Active School Minnesota strategy.

To provide guidance for Minnesota schools on implementing effective strategies to increase students’ physical activity levels, the Active Schools Minnesota initiative released *Moving Matters: A School Implementation Toolkit*.\(^10\) The Centers for Disease Control and Prevention has concluded that multi-component school-based interventions, such as Active Schools Minnesota, are effective at increasing physical activity among youth during school hours.\(^11\)
Table 1. Summary of Evidence on School-based Physical Activity Interventions

<table>
<thead>
<tr>
<th>School Intervention</th>
<th>Evidence of Health Impacts(^{11,12})</th>
<th>Evidence of Academic Impacts(^{13})</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Enhanced Physical Education</strong></td>
<td>Increased physical activity (during class and overall) and increased fitness</td>
<td>Better grades, standardized test scores, and classroom behavior (e.g., on-task behavior)</td>
</tr>
<tr>
<td>(e.g., increasing time students are active during class, lengthening class time or adding more classes to curriculum, meeting needs of all students, including those with disabilities)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Active Classrooms</strong></td>
<td>In combination with other strategies, increased physical activity</td>
<td>Improved cognitive performance (e.g., attention, concentration), classroom behavior (e.g., on-task behavior), and educational outcomes (e.g., standardized test scores, reading literacy scores, math fluency scores)</td>
</tr>
<tr>
<td>(e.g., short (5-10 min) bouts of physical activity during classroom time)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Active Recess</strong></td>
<td>In combination with other strategies, increased physical activity</td>
<td>Improved cognitive performance (e.g., attention, concentration) and classroom behaviors (e.g., not misbehaving)</td>
</tr>
<tr>
<td>(e.g., encouraging physical activity during recess time by offering teacher-organized activities and/or equipment)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Before and After School Physical Activity</strong></td>
<td>Promising practice to increase physical activity</td>
<td>Higher grade point averages (GPAs), lower drop-out rates, and fewer disciplinary problems among students who participate</td>
</tr>
<tr>
<td>(e.g., extracurricular programs, intramural and interscholastic sports)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Safe Routes to School</strong></td>
<td>Increased walking and biking to school, physical activity, and aerobic fitness</td>
<td>Higher cognitive performance among girls who walk or bike to school versus those who do not(^{14})</td>
</tr>
<tr>
<td>(e.g., walking school buses, school curricula and resources, improving safety of school routes, and educating and encouraging parents)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
More about the Active Schools Minnesota Strategies

**Physical Education** is the foundational strategy of the Active Schools Minnesota initiative. Physical education programs offer the best opportunity to provide physical activity to all students and teach them the knowledge and skills needed to establish and sustain an active lifestyle.

**Active Classrooms** is the intentional act of embedding movement throughout the school day, within a classroom setting. Acknowledging that learning is enhanced when the brain is engaged, physical activity can be a component of any discipline or subject matter and is an important part of differentiated instruction (e.g., using a variety of instruction techniques to reach students with diverse learning styles and abilities).

**Active Recess** provides opportunities for all elementary students to engage in structured and unstructured physical activity during the school day. Active recess takes into account many best practices including zoning the playground to provide space for a variety of physical activities, providing clearly defined behavioral student expectations and applying active adult supervision principles.

**Before- and After-School Physical Activity Programs** provide opportunities for activity for students outside of the regular school day. Physical activity can be integrated into already existing after-school programs such as extended day educational programs, 21st Century Community Learning Centers or community organizations such as Boys and Girls Clubs, as well as school-sponsored intramurals and activity clubs.

**Remote Drop-Off and Pick-Up Zones (a component of Safe Routes to School)** provide students and families a more active alternative in transportation to and from schools. Drop-off and pick-up zones are designed to increase safety by improving traffic flow and easing congestion around the school. Students also benefit by increasing their daily physical activity by walking to the school building from those zones.
Evaluation Design and Methods

Between 2014 and 2016, SHIP worked with the Minnesota Department of Education to implement and evaluate the Active Schools Minnesota initiative in 14 elementary schools in central and northern Minnesota (see figure 1).

SHIP grantees helped recruit and engaged with pilot schools throughout the intervention as well as providing them technical assistance and support. The pilot schools committed to increasing time in their choice of two evidence-based strategies recommended by the Active Schools Minnesota initiative. The strategies included:

- quality physical education
- physical activity in the classroom (“active classroom energy boosts”)
- active recess
- before- and after-school physical activity opportunities
- remote drop-off and pick-up (a component of Safe Routes to School)

Funding for the study was provided by MDH’s Statewide Health Improvement Partnership (SHIP) and federal funds from the Centers for Disease Control and Prevention.

Requirements for Schools
ENHANCING PHYSICAL ACTIVITY PRACTICES IN 14 ELEMENTARY SCHOOLS

Pre-assessment tool: Complete a tool developed by MDH that assessed current school physical activity policies and practices. The results of this assessment helped each school select strategies for the study. Pilot schools selected a minimum of two strategies.

FITNESSGRAM: Implement FITNESSGRAM into their physical education curriculum as part of the Presidential Youth Fitness Program (PYFP). FitnessGRAM is the assessment tool used in PYFP to measure physical fitness levels of students. Pilot schools committed to purchasing FITNESSGRAM with grant funds over the grant period, implementing the assessments and sharing with MDH results of students in grades four, five and six in the spring of 2014, 2015 and 2016.

ACTIVITY: Conduct a one-day physical activity recall tool called ACTIVITY during a physical education class for grades four, five and six in the spring of 2014, 2015 and 2016. ACTIVITY is a video and questionnaire-based tool that asks students to describe the moderate and vigorous physical activities they participated in during the previous day. ACTIVITY is appropriate for measuring physical activity for children in this age group.

Professional development: Participate in professional development in their strategies of focus in the spring and fall of 2014. The intent of the trainings was to ensure that evidenced-based best practices were implemented over the course of the study (the list of best practices for each strategy can be found in the appendix). Physical education teachers in pilot schools also received hands-on professional development on FITNESSGRAM test administration, database management and reporting.

Reporting: Complete reporting requests from MDH. These reports included a pre-post policy and practices assessment and progress reports.

Support Provided by MDH

- Funds to purchase FITNESSGRAM and cover other study-related expenses such as equipment and staff time.
- Professional development opportunities that included two FITNESSGRAM training and two additional active school strategies trainings.
- Support and technical assistance in administration of the pre-assessment tool, FITNESSGRAM, ACTIVITY and strategy implementation.
- Data collection, analysis and reporting on all assessments associated with the study.

Support Provided by SHIP Grantees

- Technical assistance to participating schools
- Resources (upon request)
- Media and communications support
Data Analysis

Changes in school practices were assessed by comparing the school and teacher reports from 2014 (baseline) and 2016 (follow-up). Measures included 1) number of minutes of physical education provided per week, 2) number of minutes of active recess provided per week, 3) number of before and/or after school physical activity programs offered during the year, and 4) whether teachers provided active classroom breaks.

Student outcomes (physical activity, physical fitness, weight status and academic performance) were examined using regression models and data from 2014, 2015 and 2016. These models account for the fact that the data come from students grouped within schools. They also control for student grade, gender, receipt of free or reduced-price lunch (a measure of socioeconomic status) and year of data. Physical activity was measured on a four-point scale based on student’s responses to the ACTIVITY physical activity recall instrument. Physical fitness was assessed by whether students scored in the Healthy Fitness Zone for the aerobic capacity test in FITNESSGRAM. Students were considered to be at a healthy weight if they scored in the Healthy Fitness Zone for body mass index (weight in kilograms/ height in meters$^2$) based on their age and gender. Educational outcomes included attending at least 90 percent of school days during the year (consistently present) and scoring in the range of “meets expectations” or “exceeds expectations” on the math and reading portion of the Minnesota Comprehensive Assessment (MCA). Students who took alternate state tests (e.g., Minnesota Test of Academic Skills) were excluded from the analysis.

At the end of the study, teachers and school personnel reported positive changes they observed as a result of implementing Active Schools strategies, as well as challenges they faced. These comments were grouped into themes and summarized overall and for each specific Active Schools strategy.
Evaluation Findings

Strategy Selections by Schools

The most commonly chosen strategies were active classrooms (12 schools) and before/after school physical activity opportunities (11 schools). Fewer schools chose to increase time spent in active recess (four schools) and physical education (three schools). No schools chose to implement remote drop-off/pick-up.

Figure 3. Strategies Chosen By Schools

Findings on School Practices

Schools were successful in implementing active school strategies to increase opportunities for physical activity before, during and after the school day. In particular:

- All three schools that chose the physical education strategy increased the time students spent in physical education class. The average number of minutes students spent in physical education class increased from 96 minutes per week in 2014 to 126 minutes per week in 2016, an increase of 30 minutes. This is below the recommended 150 minutes per week.
- In the 12 schools that chose the active classroom strategy, 89 percent of teachers provided at least one active classroom break per day in 2016, an increase from 67 percent in 2014. The percentage of teachers that provided 20 minutes of active classroom boosts per day doubled, from 12 percent in 2014 to 24 percent in 2016.
- Three of the four schools that chose the active recess strategy were already meeting the recommended 20 minutes per day at the start of the study. Two schools increased time
spent in active recess by 3-7 minutes per day. Across all four schools, the average amount of active recess provided in 2016 was 22 minutes per day.

- Five of the 11 schools that chose the **before and after school physical activity** strategy added one new before or after school physical activity program between 2014 and 2016. On average, each school offered about six programs in 2016.

**Findings on Student Outcomes**

Students maintained their physical activity, aerobic fitness, weight, and test scores throughout the two-year intervention. At the end of the intervention in 2016:

- 74 percent of students met recommendations for aerobic fitness
- 65 percent of students were at a healthy weight
- 61 percent of students were proficient in reading based on MCA scores
- 60 percent of students were proficient in math based on MCA scores

Minnesota students who met recommendations for aerobic fitness were statistically significantly more likely to be at a healthy weight and achieve proficiency in reading and math on state exams. They were also statistically significantly less likely to be chronically absent. In particular, students meeting recommendations for aerobic fitness were:

- 250 percent (2.5 times) more likely to have healthy weight
- 24 percent more likely to be proficient in reading
- 27 percent more likely to be proficient in math
- 6 percent more likely to attend school consistently (at least 90 percent of school days)

The findings from this study confirm what has been found in prior research on the relationship between physical activity, health and academic achievement.

**Perceived Successes and Challenges**

At the end of the study, 88 teachers and other school personnel reported positive changes they observed as a result of implementing Active Schools strategies, as well as challenges they faced. These comments were grouped into themes, shown in table 2 below. Some themes, such as student engagement and motivation and time and space barriers, emerged across multiple strategies. Other themes were limited to just one strategy, such as transportation barriers for before and after school opportunities. School personnel also reported an overall perception that increasing opportunities for physical activity was a success and that consistency, communication and buy-in from all involved are vital to success of this program. More details on themes from each strategy are described below and in Table 2.

- **Physical Education.** School personnel reported increased student engagement and motivation to be physically active, including higher morale and students putting forth greater effort during class. The added gym time allowed introduction of new topics and more consistency in curriculum. Space and time were common challenges for this strategy. In many schools, gym spaces are already fully booked, making longer or more frequent class times a challenge.
Active Classrooms. The most commonly reported positive change was that students were more attentive and focused in class. Some teachers also observed that students were more motivated to be active and energized during classroom time, and that students enjoyed activity breaks. Lack of time to fit in activities was the most commonly reported challenge. Fewer teachers also reported limited availability of space and equipment for physical activity in the classroom. Several teachers mentioned that students were either difficult to organize for the activity or had a hard time settling down after activities. Difficulty with behavior likely contributes to time being a barrier. It was also noted that scheduling is important as it is easy to forget to do activities otherwise.

Active Recess. School personnel reported increased student engagement in physical activity and student enjoyment of activities. They also reported improved student behavior during recess and in the classroom. The most common challenge was inadequate adult supervision. Lack of space and time were also mentioned as challenges. One teacher described the importance of support from the school leadership and administration for successful implementation.

Before and After School Physical Activity. School personnel commonly reported that students’ engagement in physical activity and enjoyment of activities increased and that their behavior improved. Some also reported that students’ motivation to be active and attention and focus in the classroom increased after participating in activity before or after school. One teacher also found that students made friends during activities that they may not have otherwise, increasing social engagement. Similarly to active recess, finding enough adult supervision to facilitate activities daily was a common challenge. One teacher also mentioned the need for support among school administrators. Transportation and time were also mentioned as barriers for these activities. Some schools did not have bus availability for students to get to these activities, and parents were unable to pick up and drop off students. This combination made it difficult for some students to participate.
## Table 2. Positive Changes and Challenges Reported by School Personnel after Implementing Strategies

<table>
<thead>
<tr>
<th>Theme</th>
<th>Physical Education (n=7)</th>
<th>Active Classrooms (n=61)</th>
<th>Active Recess (n=9)</th>
<th>Before and After School (n=11)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Positive Changes</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students enjoyed activities.</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Student behavior improved.</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Motivation to be active increased.</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engagement in physical activity increased.</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Students were more attentive and focused.</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Students became more of a community.</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Students were more awake and energized.</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td><strong>Challenges</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time was a barrier.</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Space was a barrier.</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Adequate adult supervision was not available.</td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Support of school leadership is required for success.</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Equipment for activity was not always available</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Teacher inconsistency was a barrier.</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Student behavior was a barrier.</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Transportation availability was a barrier.</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
</tbody>
</table>
Data collection successes and challenges

School personnel also reported successes and challenges of collecting and reporting data on student physical activity and fitness. Key findings from these reports are summarized below.

**FITNESSGRAM.** Teachers felt that administration of FITNESSGRAM was easy and that it got easier over time. Availability of equipment for fitness tests and videos available of testing procedures were helpful. Teachers said testing helped students to feel more motivated to reach fitness goals. Challenges to FITNESSGRAM testing included scheduling make up testing, and time constraints since tests take up some of other class time. Many teachers mentioned difficulty in uploading students’ names into tracking software but noted that it worked well beyond that. During year 2 of the study, FITNESSGRAM changed national vendors, which resulted in a change in registration and reporting systems for all schools across the country. The new vendor was slow to provide information about the new system, and teachers in this study found this change challenging in the midst of this study even though they received additional training. Ensuring proper exercise form for certain tests was noted as a challenge as well.

**ACTIVITY assessment.** Teachers’ perceptions of the ACTIVITY assessment were that students became familiar with the video, which made it easier to administer over time. They mentioned that completing the assessment motivated students to become more active. Teachers also said the video was boring and poor quality, that students did not like it, and that it was difficult to find time to complete the assessment.
Conclusions

The elementary schools in this study were successful in making small changes to increase opportunities for physical activity before, during and after school. Students maintained their physical activity, aerobic fitness and proficiency in reading and math between the beginning and end of the study. In addition, Minnesota students that met recommendations for aerobic fitness were statistically significantly more likely to be at a healthy weight and be proficient in reading and math than those not meeting recommendations. This finding confirms prior research and further strengthens the evidence base on the importance of physical activity for student health and academic performance (table 3). Based on feedback from teachers, the culture of these schools appears to have shifted toward a foundation of movement for students both during and outside the school day. Teachers reported that students enjoyed being active and that they observed positive behavioral changes in the classroom; however, full implementation of the active schools strategies was often limited by time and space constraints. Taken together, the findings of this evaluation and the potential reach of SHIP Active Schools strategies (326,188 students in 2016) make the Active Schools Minnesota initiative a smart investment in the health of Minnesota’s students.

Table 3. Contribution of Active Schools Minnesota Pilot Study to the Evidence on Physical Activity, Health and Academic Performance

<table>
<thead>
<tr>
<th>Evidence from prior studies¹³</th>
<th>Findings from this study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students who are physically active tend to have better grades, school attendance, cognitive performance (e.g., memory), and classroom behaviors (e.g., on-task behavior).</td>
<td>Students meeting recommendations for aerobic fitness were 24% more likely to be proficient in reading, 27% more likely to be proficient in math, and 6% more likely to attend school consistently.</td>
</tr>
<tr>
<td>Higher physical activity and fitness levels are associated with improved cognitive performance (e.g., concentration, memory) among students.</td>
<td>Teachers reported that students were more attentive and focused in class. They also reported improved student behavior during recess and in the classroom.</td>
</tr>
<tr>
<td>Increased time spent for physical education does not negatively affect students’ academic achievement.</td>
<td>Active Schools Minnesota emphasizes a multi-component approach based on evidence that implementing multiple strategies is more effective than single strategies in isolation. Therefore, the intervention and evaluation methods were not designed to permit conclusions about specific strategies. Nevertheless, implementation of the multi-component Active Schools strategies did not negatively affect students’ academic</td>
</tr>
</tbody>
</table>
Evidence from prior studies\textsuperscript{13} & Findings from this study

- achievement based on the finding that the proportion of students achieving proficiency on standardized reading and math tests did not change over the two-year intervention period.

The schools were also able to successfully collect and report student fitness assessment data into a state data portal for analysis. This result demonstrates that physical fitness tracking at the school level is feasible when teachers receive training on fitness test administration and data entry. Schools and the state of Minnesota could consider using FITNESSGRAM to track trends in student fitness levels over longer periods of time, which could help inform priorities for physical education programming, policy and practice changes, and school environment changes to promote physical activity and health among students.

A limitation of this study is the lack of high-quality data on student physical activity levels. The self-report tool used by this study, ACTIVITY, was the only self-report tool available at the start of the study that was validated for use in 4th graders. Unfortunately, that tool was not sensitive enough to detect the small changes in physical activity levels that would be expected based on the dose or intensity of the Active Schools strategies, nor could it be used classify students as sufficiently active. Objective measures, such as accelerometers, were not feasible given the study resources. More research is needed to develop valid and reliable tools to measure physical activity levels of elementary school-aged children.

Overall, the results of this pilot study suggest that the Active Schools Minnesota initiative is a feasible and promising approach to increasing youth physical activity in schools. Schools were successful in increasing opportunities for physical activity before, during and after the school day, and teacher feedback was positive. Students maintained their aerobic fitness, weight, and test scores throughout the two-year intervention, and students who met recommendations for aerobic fitness had better health and academic outcomes than students who were less fit. Schools interested in increasing physical activity among students can contact MDH or MDE for resources and guidance on implementing evidence-based Active Schools strategies.

**Learn more**

MDH would like to acknowledge the generous time and effort of MDE and SHIP grantee staff, school administrators and teachers who made this pilot possible.

The pilot schools kindly provided names and contact information for teachers and school administrators along with a case study describing how Active Schools was implemented in their school. They welcome questions from other schools on how they can implement active schools strategies at their locations.

For more information, visit www.health.state.mn.us/activeschoolsmn.
Appendix. Strategy best practices

At the end of the intervention period in spring 2016, school personnel reported their implementation of best practices in each of the strategy areas selected by their school. There were 10-18 best practices for each strategy (see tables A1-A4). School personnel had the option to select the best practices in each strategy that best fit their school. Some best practices reflected school policies, such as utilizing state physical education standards for physical education, while others reflected classroom practices implemented by individual teachers, such as teachers providing rationale to students for why moving is important. Best practices that reflect school-level policies or institutionalized practices were more likely to be fully implemented (e.g., physical education, active recess, before and after school physical activity) than practices implemented by individual teachers in the classroom. These findings suggest that teachers may require additional training and technical assistance in order to make consistent changes across all classrooms.

Table A1. Physical Education Best Practices

<table>
<thead>
<tr>
<th>Best Practice</th>
<th>Percent Reporting Full Implementation*</th>
</tr>
</thead>
<tbody>
<tr>
<td>School does not allow students to substitute other activities in place of physical education</td>
<td>100%</td>
</tr>
<tr>
<td>Physical Education activities provide opportunities for students to be moderately to vigorously active at least 50% of class time</td>
<td>100%</td>
</tr>
<tr>
<td>Physical Education teacher employs instruction practices that engages all students</td>
<td>100%</td>
</tr>
<tr>
<td>Physical Education curriculum is based on state standards and district developed outcomes</td>
<td>86%</td>
</tr>
<tr>
<td>Physical Education assessments are aligned with student outcomes</td>
<td>86%</td>
</tr>
<tr>
<td>Students in grades 4 and 5 receive physical education 150 minutes a week all school year long</td>
<td>29%</td>
</tr>
<tr>
<td>Physical education utilizes state physical education standards</td>
<td>71%</td>
</tr>
<tr>
<td>Physical Education curriculum includes fitness assessments that are shared with all students</td>
<td>71%</td>
</tr>
<tr>
<td>The Physical Education program has identified grade-specific outcomes or benchmarks for students</td>
<td>57%</td>
</tr>
<tr>
<td>Physical Education teachers attend regular professional development relative to their content area</td>
<td>57%</td>
</tr>
<tr>
<td>Physical Education program utilizes technology to assist with student assessment</td>
<td>14%</td>
</tr>
<tr>
<td>Students in grade 6 receive physical education 225 minutes a week all school year long</td>
<td>0%</td>
</tr>
</tbody>
</table>

*Based on reports by seven teachers in the three schools that implemented the physical education strategy.
## Table A2. Active Classrooms Best Practices

<table>
<thead>
<tr>
<th>Best Practice</th>
<th>Percent Reporting Full Implementation*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Education teacher or other staff provide resources for classroom movement</td>
<td>50%</td>
</tr>
<tr>
<td>Classroom teachers provide rationale to students why moving is important</td>
<td>47%</td>
</tr>
<tr>
<td>Classroom uses internet sites such as GoNoodle or Jammin Minute</td>
<td>35%</td>
</tr>
<tr>
<td>Classroom teachers receive professional development on active classrooms</td>
<td>26%</td>
</tr>
<tr>
<td>Classroom provides both morning and afternoon physical activity times</td>
<td>39%</td>
</tr>
<tr>
<td>Classroom teachers use music to get students moving in the classroom</td>
<td>36%</td>
</tr>
<tr>
<td>Classroom teachers share physical activity resources with each other</td>
<td>19%</td>
</tr>
<tr>
<td>Classroom utilizes student leaders to select and/or lead activities</td>
<td>7%</td>
</tr>
<tr>
<td>Classroom environment furnished with equipment such as stability balls or standing desks</td>
<td>6%</td>
</tr>
<tr>
<td>Classroom utilizes resources in print form such as the North Carolina Energizers</td>
<td>3%</td>
</tr>
<tr>
<td>Classroom environment furnished with equipment such as stability balls or standing desks</td>
<td>6%</td>
</tr>
</tbody>
</table>

*Based on reports by 72 teachers in the 11 schools that implemented the active classrooms strategy.
### Table A3. Active Recess Best Practices

<table>
<thead>
<tr>
<th>Best Practice</th>
<th>Percent Reporting Full Implementation*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clearly defined roles and responsibilities for recess supervisors</td>
<td>100%</td>
</tr>
<tr>
<td>Teach positive playground expectations for students by: Identifying positive playground behavior expectations for students</td>
<td>89%</td>
</tr>
<tr>
<td>Teach positive playground expectations for students by: Clear identification of consequences of inappropriate behavior for students</td>
<td>89%</td>
</tr>
<tr>
<td>Utilize key components of active supervision</td>
<td>89%</td>
</tr>
<tr>
<td>Have a storage system for playground equipment</td>
<td>89%</td>
</tr>
<tr>
<td>Clear processes for transition times (students returning to classrooms)</td>
<td>89%</td>
</tr>
<tr>
<td>Recess environment provides movement opportunity for ALL students</td>
<td>89%</td>
</tr>
<tr>
<td>Map or zone the playground to designate different areas of play</td>
<td>78%</td>
</tr>
<tr>
<td>Have a process for maintaining and replacing equipment</td>
<td>78%</td>
</tr>
<tr>
<td>Multiple play opportunities for both structured and unstructured play</td>
<td>78%</td>
</tr>
<tr>
<td>Recess supervisors participate in staff development opportunities</td>
<td>44%</td>
</tr>
<tr>
<td>Utilize a “Walk and Talk” strategy</td>
<td>33%</td>
</tr>
<tr>
<td>Classroom environment furnished with equipment such as stability balls or standing desks</td>
<td>6%</td>
</tr>
<tr>
<td>Provide recess before lunch</td>
<td>0%</td>
</tr>
</tbody>
</table>

*Based on reports by nine teachers in the four schools that implemented the active recess strategy.*
Table A4. Before- and After-School Physical Activity Best Practices

<table>
<thead>
<tr>
<th>Best Practices</th>
<th>Percent Reporting Full Implementation*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program provides physical activities that are age-appropriate</td>
<td>92%</td>
</tr>
<tr>
<td>Program provides a variety of physical activity options that are fun and recreational</td>
<td>92%</td>
</tr>
<tr>
<td>Program engages students in physical activity selections</td>
<td>92%</td>
</tr>
<tr>
<td>Program provides physical activities that are inclusive of all students</td>
<td>83%</td>
</tr>
<tr>
<td>Program dedicates at least 20% of program time to physical activity</td>
<td>83%</td>
</tr>
<tr>
<td>Program offers non-competitive physical activities (walking, running, dancing)</td>
<td>75%</td>
</tr>
<tr>
<td>Program offers unstructured free play or structured activities that involve everyone</td>
<td>67%</td>
</tr>
<tr>
<td>Equipment is sufficient to engage all participants</td>
<td>58%</td>
</tr>
<tr>
<td>Program staff receive training on national standards for physical activity programs</td>
<td>50%</td>
</tr>
</tbody>
</table>

*Based on reports by 12 teachers in the 11 schools that implemented the before and after school physical activity strategy.
School Case Studies

Kelliher Elementary

School District: Kelliher School District

Grades: Early Childhood - 6

Location: Kelliher (Beltrami County)

SHIP Grantee: North Country (Beltrami, Clearwater, Hubbard and Lake of the Woods counties)

Active Schools Strategies Implemented

- Active Classrooms
- Before and/or After School Physical Activity

Strategy 1: Active Classrooms

To implement this strategy, classroom teachers used Internet sites such as “GoNoodle” and “Just Dance.” Students were especially engaged when there was upbeat music, which created a festive atmosphere in the classroom. Teachers incorporated activity opportunities during class, with 10 minutes in the morning and afternoon. Students had the freedom to stand anywhere around the room they felt comfortable. Staff shared Internet resources and downloadable activities with each other at departmental or school staff meetings.

Students look forward to the activity to fire them up. Students come out of their shell and feel more confident moving and having fun around each other.

Justin Lundin, fifth grade teacher

Strategy 2: Before and/or After School Physical Activity

The after school program focused on a thoughtfully planned out activity that increased physical activity options for participating students. Students were engaged in activities that were fun and recreational. Activities included snowshoeing, yoga, dancing, cross country skiing and many others. As a result of the expanded physical activity options, there was a large increase in the number of students participating in the after school program.

Results

Since being engaged in the Active Schools Minnesota pilot study, the school wellness policy added several active school strategies that guaranteed increased opportunities in physical activity for students. The additions included mandating at least 30 minutes of daily recess for students K-6, 25 minutes of daily physical education for elementary students and active classroom breaks in both the morning and afternoon.
We got involved as an active school because I have read and heard a lot of research that students who are more active during and after the school day are much more likely to be successful in school. Cognitive abilities improve, attendance improves, students get better grades and behavior improves. I just saw all this and thought why wouldn’t we do this for our students?

Tim Lutz, superintendent

Contact Information

Tim Lutz
Superintendent
tlutz@kelliher.k12.mn.us
218-647-8286
Sebeka Elementary

School District: Sebeka School District

Grades: Early Childhood - 6

Location: Sebeka (Wadena County)

SHIP Grantee: Health4Life (Morrison, Todd and Wadena counties)

Active Schools Strategies Implemented

- Physical Education
- Active Classrooms
- Active Recess

Strategy 1: Physical Education

Physical Education time for students increased from 25 minutes each day to 30 minutes. The additional time allowed the students to participate in more instant activities and spend more time in their daily lessons. Students used technology to track their movements and heart rates. Students also participated in fitness assessments and individual improvement plans through FITNESSGRAM.

_The additional time of five minutes per day may not seem like a lot, but when you take into account this happened for 180 days, it really made a difference._

_Brenda Wegscheid, elementary physical education teacher_

Strategy 2: Active Classrooms

Staff received training in active classrooms at a school in-service day. Classroom teachers talked with their students about why they were moving and had students assist in selecting the activities. Favorite activities included “GoNoodle,” “Yoga Dots,” and “The Jam School Program.” Some teachers had students lead activities. Classroom teachers also shared activity ideas with each other.

Strategy 3: Active Recess

Recess time was increased to 25 minutes for all elementary students. Recess supervisors received training on setting up the playground or indoor environment to encourage more physical activity options. The play area was clearly zoned to designate different areas of play to provide movement opportunities for all students. Positive playground expectations were clearly described and posted for the students. Recess supervisors also implemented clear processes for transition times on and off the playground.

Results

Participation in the Active schools Minnesota pilot study resulted in a shift in school culture. Students had increased physical activity opportunities through enhanced physical education and integration of movement into their classrooms. They also experienced a change in the playground environment that provided more choice in physical activity options.
We became an active school because we know the importance of getting our kids moving and grooving. There’s a lot of energy in this school and when there’s lots of energy we want to find ways to use it positively. We want to be intentional about making sure our students have the opportunity to move throughout the school day so they can settle in and focus on academics.

Jill Walter, assistant principal

Contact Information

Janet Mattson
School Nurse
jmattson@sebeka.k12.mn.us
218-837-5101 x 129
Henning Elementary

**School District:** Henning Public School District

**Grades:** Early Childhood-6

**Location:** Henning (Otter Tail County)

**SHIP Grantee:** PartnerSHIP 4 Health (Becker, Clay, Otter Tail and Wilkin counties)

**Active Schools Strategies Implemented**

- Active Classrooms
- Before and/or After School Physical Activity

**Strategy 1: Active Classrooms**

Teachers provided students the rationale why moving in the classroom is important. Physical activity was implemented at a consistent time, twice each day. Students often helped select activities and served as leaders for the activities. Teachers shared resources with each other and received additional ideas from the physical education teacher.

> Children seemed refreshed and energized so they can refocus and attend to their work and lessons.
> Stacy Hagen, fifth and sixth grade teacher

**Strategy 2: Before and/or After School Physical Activity**

Morning open gym was available for an hour every school day all year long. The gym was open for all students. Students selected activities that interested them. There were competitive and non-competitive options. Activities were age-appropriate, inclusive of all students, fun and recreational.

> Some elementary teachers told me that students who came to morning gym burned off their energy and were more focused in their school work.
> Mark Oscarson, elementary physical education teacher

**Results**

The biggest impact that participation in the Active Schools Minnesota pilot study was seen in the increased number of students participating in physical activity before school. It became part of the school norm for students to go to the gym and move rather than sitting in the cafeteria waiting for the school day to begin.

**Contact Information**

Mark Oscarson
Physical Education
moscarson@henning.k12.mn.us
218-583-2927
Swanville Elementary

**School District:** Swanville School District  
**Grades:** Early Childhood - 6  
**Location:** Swanville (Morrison County)  
**SHIP Grantee:** Health4Life (Morrison, Todd and Wadena counties)

**Active Schools Strategies Implemented**
- Active Recess
- Before and/or After School Physical Activity

**Strategy 1: Active Recess**

Recess time was increased for students in grades four, five and six and scheduled so fewer students were on the playground at a time. Recess supervisors participated in staff development to learn best practices for setting up the playground environment that encouraged more movement. This included implementing a “Walk and Talk” strategy, zoning the play areas to enable more participation and providing opportunities for both structured and unstructured play. Student playground expectations were also posted on the door to the playground to remind students about those expectations.

*Increasing physical activity options during recess and taking time to clearly define student behavior expectations made a big difference for our students.*  
Aarin Gapinski, recess supervisor

**Strategy 2: Before and/or After School Physical Activity**

“Active Mornings” were implemented before school twice a week for 30 minutes. Students were able to select activities they wanted to do. Students of all ages and abilities participated.

*Mr. Poegel is so nice to open up the gym in the morning for kids. He makes it super fun and shows us how to play new games and works with different techniques. In the morning we have the option to play Ga-Ga ball, shoot baskets, badminton, and other fun activities. We love it because it gets us active right away in the morning and we get to play with our friends.*  
Zach (age 9) and Isaac (age 7) Gapinski
Results

As a result of Swanville’s involvement in the Active Schools Minnesota pilot study, physical activity opportunities for play at recess and before school increased. Purposeful adjustment of the recess schedule allowed more time for recess. Decreasing the number of students on the playground resulted in less congestion and more play options. By opening up the gym for 30 minutes twice weekly with multiple activity options, students were able to select activities they enjoyed and looked forward to playing with their peers.

Contact Information

Marvin Poegel
Sharon Pesta
Physical Education Teachers
mpoegel@swanville.k12.mn.us
spesta@swanville.k12.mn.us
320-547-5113
320-547-5114
Winterquist Elementary

School District: Esko School District

Grades: Early Childhood - 6

Location: Esko (Carlton County)

SHIP Grantee: Healthy Northland (Aitkin, Carlton, Cook, Itasca, Koochiching, Lake and St. Louis counties)

Active Schools Strategies Implemented

- Active Classrooms
- Before and/or After School Physical Activity

Strategy 1: Active Classrooms

Teachers received professional development on implementing physical activity into their classrooms. The physical education teacher provided resources to teachers on a regular basis. Some of the classrooms were furnished with equipment such as stability balls or standing desks. Students often selected and led the physical activities. According to Tammy Thornton, a sixth grade teacher, “Students will definitely let me know when it’s time for a physical activity break!”

Andy Nielsen, sixth grade teacher

Strategy 2: Before and/or After School Physical Activity

The physical education teacher implemented “Mighty Milers,” a running program for kids of all fitness levels from pre-kindergarten through eight grade. Over the course of the program, children in Mighty Milers set goals to run and/or walk a certain distance and earned awards for reaching milestones along the way. Students could participate before or after school and track their progress. The physical education teacher also provided after school activity sessions for archery and tennis.

Results

As a result of being part of the Active Schools pilot study, the culture of the school shifted toward a foundation of movement for students both during and outside the school day. The district wellness policy now spells out that all students will have opportunities, support and encouragement to be physically active on a regular basis. The policy states that physical education is an integral component of the overall education of a child in preparation for health and wellness and should not be substituted for other physical activities. The policy also says that classroom teachers will provide short physical activity breaks between lessons or classes, as appropriate.
Since implementing Active Schools Minnesota, teachers have become more aware of the importance of being active during the school day. If a school is considering becoming an active school, my advice would be start small, start with teachers who are buying into it and introduce activities at faculty meetings.
Cyndee Johnson, physical education teacher

Contact Information
Cynthia (CJ) Johnson
Physical Education Teacher
cjohnson@esko.k12.mn.us
218-879-3361
Lake Park Audubon Elementary

School District: Lake Park Audubon School District

Grades: Pre-kindergarten - 6

Location: Audubon (Becker County)

SHIP Grantee: PartnerSHIP 4 Health (Becker, Clay, Otter Tail and Wilkin counties)

Active Schools Strategies Implemented

- Active Classrooms
- Before and/or After School Physical Activity

Strategy 1: Active Classrooms

This strategy was implemented through an initial in-service training for classroom teachers to create or increase physical activity opportunities in their classrooms. The physical education teacher provided numerous resources such as the Jam School Program, GoNoodle and an online subscription to SPARK ABC’s (activity break choices). Teachers reported that by having resources readily available it eliminated prep time and made physical activity easier to implement. Teachers scheduled five-10 minute activity breaks three to five times a day.

My students look forward to the movement and stay focused through our next lesson.
Jim Hopkins, fourth grade teacher

Strategy 2: Before and/or After School Physical Activity

The Raider Mileage Club was created for students to track their daily mileage before school. Students walked, jogged or ran, keeping track of their progress through laps or 2,000 pedometer steps. Students were given Fitness finders chains, collecting a foot and number charm each time they reached a new goal. After reaching mileage goals the student chose a prize from the prize box. When the students reached 50 miles, they were given a RMC t-shirt.

When students were asked why they participated in RMC, fifth graders Marc Pederson and Satchel McDonald said: “For the fitness, to stay in shape and for the prizes!”

Students were excited to get into the gym and start their laps. They learned intrinsic and extrinsic motivation while setting daily/weekly goals for mileage. They definitely seemed more focused leaving the gym.
Lori Wixo, elementary physical education teacher

Results

Participating in the Active Schools Minnesota pilot study had a positive impact on the school environment. Physical activity in the classroom became part of the norm. Physical activity opportunities increased both before and after school resulting in more student participation.
The addition of FITNESSGRAM assessments enhanced the physical education curriculum, providing students the opportunity to learn about their healthy fitness zones and use their results to set personal goals.

**Contact Information**

Lori Wixo  
Physical Education Teacher  
[lwixo@lpa.k12.mn.us](mailto:lwixo@lpa.k12.mn.us)  
218-439-3301 x 1122
Moose Lake Elementary

**School District:** Moose Lake School District  
**Grades:** Pre-kindergarten - 6  
**Location:** Moose Lake (Carlton County)  
**SHIP Grantee:** Healthy Northland (Aitkin, Carlton, Cook, Itasca, Koochiching, Lake and St. Louis counties)

**Active Schools Strategies Implemented**
- Quality Physical Education
- Active Classrooms

**Strategy 1: Quality Physical Education**

Physical education time increased to 25 minutes, four days a week for grades four, five and six. Physical education teachers received professional development in the implementation of FITNESSGRAM and implementing quality grade-level outcomes to meet state standards. The program emphasized the need for students to be physically active at least 50 percent of class time and was designed to engage all students, regardless of abilities. Students participated in FITNESSGRAM and results were individually reported.

> It was really helpful to be able to provide FITNESSGRAM assessment results to the kids. The assessment helped students understand where they needed to be in their healthy fitness zone.  
> Joe McDonnell, elementary physical education teacher

**Strategy 2: Active Classrooms**

Classroom teachers received training on the importance of physical activity on educational outcomes and were provided resources to implement in their classrooms. Students were engaged by first learning why movement was important to their health and learning and were involved in activity selections. Classroom teachers shared additional resources and favorite activities during departmental and faculty meetings. Favorite activities were tapped from Internet sites such as GoNoodle and Jammin Minute.

**Results**

As a result of participation in the Active Schools Minnesota pilot study, physical activity became more a norm for the culture of the school. Classroom teachers gained a better understanding of the impact of physical activity on educational performance and became more committed to consistent daily physical activity opportunities throughout the day. By increasing time for physical education, the curriculum was enhanced and more physical activity class time was provided for students.
Participation in this study was successful because it changed the mindset of teachers to incorporate physical activity into the school day, it introduced the physical education to FITNESSGRAM and provided funding for resources and equipment that would have not been available otherwise.

Ann Haugen, Active Schools Minnesota pilot study lead at Moose Lake

Contact Information

Ann Haugen
Physical Education Teacher
ann.haugen@isd97.org
218-485-4622 x 1007
Keewatin Elementary

School District: Nashwauk-Keewatin School District
Grades: Early Childhood - 6
Location: Keewatin (Itasca County)

SHIP Grantee: Healthy Northland (Aitkin, Carlton, Cook, Itasca, Koochiching, Lake and St. Louis counties)

Active Schools Strategies Implemented
- Active Classrooms
- Before and/or After School Physical Activity

Strategy 1: Active Classrooms
This strategy was implemented through initial training on active classrooms that included both the research linking the positive impact of physical activity on the brain and hands-on resources that could be quickly accessed. GoNoodle and the North Carolina Energizers were two regularly used resources. Students often had the opportunity to select and lead activities. Students reported they liked the movement opportunities and often commented on how much better they felt afterward.

Students look forward to brain breaks. They can take an independent brain break while still in a chair, and they understand how not to be distractive. As a class they can choose what activity they want to do and they enjoy it.
Susan Johnson, fifth grade teacher

Strategy 2: Before and/or After School Physical Activity
An open gym opportunity was created twice a week for 30 minutes during the entire school year. The program was supervised by the physical education teacher. Students selected activities they wanted to do. The activities were age-appropriate and inclusive of all students. Activity options ranged from team games such as basketball or kickball, to small group or individual activities such as jump rope or hacky sack.

Some students participating in our before school open gym seemed to have fewer discipline problems during the school day.
Dan Owens, elementary physical education teacher

Results
Through participation in the Active Schools Minnesota pilot study, system changes occurred throughout the school. Integrating physical activity opportunities in the classroom became a common practice for teachers and an expectation of the students. By opening the gym outside of regular school hours, more students participated in the physical activity options. Integrating FITNESSGRAM assessments into the physical education program enhanced the curriculum and increased student knowledge of their personal fitness levels. Students set personal goals based on results.
We were able to implement FITNESSGRAM smoothly. Making sure students had ample practice time beforehand really helped. Having proper equipment for doing sit ups, push ups, and sit and reach made it easier.

Dan Owens, elementary physical education teacher

Contact Information

Dan Owens
Physical Education Teacher
dowens@isd319.org
218-885-1280
Viking Elementary

School District: Pelican Rapids School District
Grades: Early Childhood - 6
Location: Pelican Rapids (Otter Tail County)
SHIP Grantee: PartnerSHIP 4 Health (Becker, Clay, Otter Tail and Wilkin counties)

Active Schools Strategies Implemented
- Active Classrooms
- Active Recess

Strategy 1: Active Classrooms

Teachers received professional development on the impact of physical activity on learning and were provided resources that could be used right away in their classrooms. Internet sites such as GoNoodle or Jammin Minute were two popular resources. The physical education teacher provided additional resources to teachers and assistance when requested. Students were often asked to select activities and lead an activity.

*Students are more attentive after physical activity. It relieves excess energy and builds classroom community.*
Sherri Larson, fifth grade teacher

Strategy 2: Active Recess

Recess supervisors attended training that focused on best practices in setting up the playground environment for maximum movement opportunity for students. The school focused on clearly defined roles and responsibilities for recess supervision, including actively moving around the playground area and engaging with students. Expectations for student behavior on the playground was also an area of focus. Students received clear instructions on expectations and consequences for inappropriate behavior.

*The changes we made for recess in explaining positive playground expectations and clear consequences of inappropriate behavior for students reduced behavioral issues and increased play time.*
Rebecca Garza, recess playground supervisor

Results

Since being involved in the Active Schools Minnesota pilot study, movement opportunities for students increased. Success for implementing the changes was due to providing foundational concepts about the importance of movement and ways to set up the classroom and playground environment for maximum participation, providing teachers resources that were readily available and engaging the physical education teacher as a key leader. The initiation of physical fitness assessment enhanced the physical education curriculum and provided evidenced-based
results for students, allowing them to gain a better understanding of personal fitness levels and enabling them to make plans to maintain or increase those levels.

Contact Information
Sheri O’Brien
Physical Education Teacher
sobrien@pelicanrapids.k12.mn.us
218-863-2911 x 5807
**Indus Elementary**

**School District:** South Koochiching School District  
**Grades:** Pre-kindergarten - 6  
**Location:** Birchdale (Koochiching County)  
**SHIP Grantee:** Healthy Northland (Aitkin, Carlton, Cook, Itasca, Koochiching, Lake and St. Louis counties)

**Active Schools Strategies Implemented**

- Active Classrooms  
- Before and/or After School Physical Activity

**Strategy 1: Active Classrooms**

Classroom teachers were trained in active classroom research and provided resources that could easily be utilized in their rooms. GoNoodle and brain breaks from the North Carolina Energizers book were most popular. Classroom teachers provided students with the rationale of the importance of physical activity during class time and often engaged them to select activities and serve as leaders. Classroom teachers also shared physical activity resources with each other.

> Student needs are being met through use of exercise balls and standing up activities. They have more focus for longer periods of time when activity is built in.  
> Sara Wendt, sixth grade teacher

**Strategy 2: Before and/or After School Physical Activity**

The physical education teacher created two before/after school physical activity opportunities for students. The first was an After School Activity Night offered twice a year in the spring of the year. The second was a program called “Couch to 5K” three days a week in the morning before school. In addition, the physical education teacher initiated a community 5K walk/run to combine outdoor education with physical activity and other content areas. All students in physical education classes participated in the community event.

> “Couch to 5K” offered an additional opportunity for the students to be physically active. It was fun for me to watch the students set their goals and then meet them. Some of them continued to run on their own after the program ended.  
> Melody Nelson-Swanson, physical education teacher
Results

Through involvement in the Active Schools Minnesota pilot study, integrating physical activity during and outside the school day became part of the school culture. The school also engaged community members by inviting their participation in the first Annual Couch to 5K, showing their commitment to physical activity with the theme “We’re in it for the long run.”

Contact Information

Evan Amdahl
Physical Education Teacher
eamdahl@indus.k12.mn.us
218-634-2425
Long Prairie-Grey Eagle Elementary


Grades: Pre-kindergarten - 6

Location: Long Prairie (Todd County)

SHIP Grantee: Health4Life (Morrison, Todd and Wadena counties)

Active Schools Strategies Implemented

- Active Classrooms
- Active Recess
- Before and/or After School Physical Activity

Strategy 1: Active Classrooms

All classroom teachers were provided professional development that was grounded in the link between physical activity and learning. Teachers were also coached on identifying easily accessible resources to get students moving in their classrooms. Teachers reported that GoNoodle and other Internet sites such as Jam School Program were the most popular resources with students. Teachers shared additional resources with others and asked students to select and serve as the lead for the physical activity sessions.

Strategy 2: Active Recess

Students in grades four, five and six received recess for 30 minutes every day. There were clearly defined roles and responsibilities for recess supervisors. For students who simply wanted to talk during recess, a “walk and talk” strategy was implemented where students had the opportunity to walk a path as they talked.

> The walk and talk portion of recess really helped in allowing all students a chance to be active and not just play games.

Sandy Wienhold, recess supervisor

Strategy 3: Before and/or After School Physical Activity

Opportunities for after school physical activity were offered throughout the school year. Activities included flag football, volleyball, open gym (before and after school), youth baseball, gymnastics and little league. Activities were fun and recreational and included a variety of competitive and non-competitive options.

Results

Through participation in the Active Schools pilot study, the physical education program was enhanced by the implementation of the standards-based FITNESSGRAM student assessment. By using this tool, students were able to gain knowledge about their personal fitness levels by learning about healthy fitness zones. By using FITNESSGRAM, students could track their fitness levels throughout their school career.
For schools interested in implementing active schools, my advice would be to start with activities that can be implemented easily and work up from there. 

Steve Christians, physical education teacher

Contact Information

Steve Christians
Physical Education Teacher
schristians@lpge.k12.mn.us
320-219-1521
Menahga Elementary

School District: Menahga School District
Grades: Early Childhood - 6
Location: Menahga (Wadena County)
SHIP Grantee: Health4Life (Morrison, Todd and Wadena counties)

Active Schools Strategies Implemented
- Quality Physical Education
- Before and/or After School Physical Activity

Strategy 1: Quality Physical Education
Time for physical education class was increased to 25 minutes on a rotating six-day schedule (four of six days for fourth and sixth grades and five of six days for fifth grade). The physical education program uses the state physical education standards and has developed grade-level outcomes for students. The curriculum was expanded with new activities that included physical fitness assessments through FITNESSGRAM. Physical education staff received professional development on the implementation of new curriculum.

The FITNESSGRAM software is great. I love the printed student reports. It also provides great feedback for parents.
Isaiah Hahn, physical education teacher

Strategy 2: Before and/or After School Physical Activity
An after school physical activity opportunity was created that ran twice a week all school year. The activities included age-appropriate selections that were inclusive of all students. The activities varied from non-competitive to competitive and offered a variety of options to encourage engagement. Students had the opportunity to select activities.

Results
The biggest impact of participation in the Active schools Minnesota pilot study was seen in the physical education program, with its enhanced curriculum and increased time allotted. Physical education teachers reported an increase in student engagement and motivation that resulted in an increase in physical activity levels in students.

Students were more engaged and excited when we implemented new and different games and equipment. More effort is put forth when students take charge of their own fitness.
Katie Smith, physical education teacher

Contact Information
Isaiah Hahn
Physical Education Teacher
ihahn@menahga.k12.mn.us
218-564-4141
Lake of the Woods Elementary

School District: Lake of the Woods School District

Grades: Pre-kindergarten - 6

Location: Lake of the Woods (Lake of the Woods County)

SHIP Grantee: North Country (Beltrami, Clearwater, Hubbard and Lake of the Woods counties)

Active Schools Strategies Implemented

- Active Classrooms
- Before and/or After School Physical Activity

Strategy 1: Active Classrooms

Teachers were provided physical activity resources that could be implemented in their classrooms. Most teachers had a designated activity time in the morning and in the afternoon. GoNoodle was the most popular resource. Often students were given the opportunity to select and lead the physical activity time.

Students are more alert and they smile. Physical activity seems to relieve some anxiety.  
Don Krause, fifth grade teacher

Strategy 2: Before and/or After School Physical Activity

The school implemented a before school walking and hacky sack program and also provided an after school physical activity program that included activities such as outdoor activities club (snowshoeing, canoeing, kayaking, maple syruping), running club, swimming club and team sports. Participating students increased their physical activity time to assist them in reaching 60 minutes of daily physical activity.

Before school walking has definitely helped with positive behavior during morning classes.  
CeCe Charlton, before/after school coordinator
Results

Participation in the Active Schools Minnesota pilot study resulted in a change in school culture around physical activity. It became regular practice for classroom teachers to integrate movement throughout the day, providing students not only the opportunity for physical activity, but also empowered them in activity selection and leading activities. Increasing the number of physical activity options after school resulted in increased student participation.

Contact Information

Curt Storbeck
Physical Education Teacher
curt_s@lakeofthewoodsschool.org
218-634-2510 x 1135
Upsala Elementary

School District: Upsala School District
Grades: Early Childhood - 6
Location: Upsala (Morrison County)
SHIP Grantee: Health4Life (Morrison, Todd and Wadena counties)

Active Schools Strategies Implemented
- Active Classrooms
- Before and/or After School Physical Activity

Strategy 1: Active Classrooms
Classroom teachers provided the rationale to students why moving breaks during their studies throughout the day was important. Some teachers had their classroom environment furnished with equipment such as stability balls. Classroom teachers were also able to share physical activity resources with each other and implement movement times in the morning and the afternoon.

Strategy 2: Before and/or After School Physical Activity
A walking club was offered twice a week for the entire school year for 20 minutes each session. Physical activities were age-appropriate and inclusive of all students. Activity options were fun and recreational and included structured, unstructured and non-competitive options.

The focus on physical activity in our before/after school program provided an opportunity for more exercise for our students as well as confirming the need for a foundation for healthy lifelong movement.
Jonathon Leither, before/after school physical activity coordinator

Results
Through participation in the Active Schools Minnesota pilot study, staff and student commitment to moving more throughout the day could be seen in both the classroom and out-of-school time opportunities. Staff and students grounded the implementation with the knowledge of the importance of physical activity throughout and outside the school day; students also had input on the activities and choices offered.

It’s important for students to know why they are moving. I think the activity helps them focus afterward.
Jim Drill, fifth grade teacher

Contact Information
Vern Capelle
Superintendent
vcapelle@upsala.k12.mn.us
320-573-2175
References


17. Inman J. *The Development and Validation of a Video Questionnaire to Assess the Physical Activity Levels of Children*: Kinesiology, University of New Brunswick; 1996.