Evaluation Handbook

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Introduction

A hearty welcome from Active Schools! We appreciate you taking the time to explore this resource. We're willing to bet that if you're reading this handbook on evaluation, **you probably care a WHOLE LOT about physical activity in schools**. We're also guessing that you value physical activity for all the benefits it offers and likely take deliberate steps to integrate it into your own life. As an educator, we know that you want what's best for the kids you serve and to know if all the efforts you're putting into making your school a more active school are actually paying off. Well…if that's the case, this resource is for you!

Our team at Active Schools feels the same way you do. We are passionate about physical activity and helping kids get more movement in schools. So, we want to help you learn practical strategies for documenting all the amazing work you do. If you're anxious about evaluation, don't worry… we've got your back. Our goal is to make evaluation so straight-forward that you'll become a complete data geek! So now if you're ready…let's dive right in!

> You want what's best for the kids you serve and to know if all the efforts you're putting into making your school a more Active School are actually paying off. So, we want to help you learn practical strategies for documenting all the amazing work you do.

What is an Active School?

Imagine a community where most kids walk or bike to school every day. When they arrive at school, there are options to be active and socialize with their friends before the start of the day, like a walking club or open gym time. Imagine that after that first bell rings, kids are not sitting in chairs the rest of the school day. Instead, they have multiple opportunities for movement integrated throughout the day, such as recess, classroom movement breaks, and quality physical education. What if after the school day ends there are a variety of clubs and activities that get kids moving? Maybe it is a hiking club or an after-school childcare program that emphasizes play. Maybe it is interscholastic sports for some and intramural sports for others. Imagine passionate members of the school staff involved in delivering these opportunities with support from parents and local community organizations. We know that not all schools are alike, but **what if all schools were Active Schools in their own unique way**? Wouldn't it be amazing?!

Establishing healthy behaviors early in life is easier than changing unhealthy behaviors later in life. This is especially important for underserved youth who are at higher risk for obesity and obesity related issues. Given the amount of time that children spend in schools, educators have been encouraged to develop a culture of health where **ALL** students have the ability to participate in free and culturally relevant activities that will help them be active both now and in the future (National Physical Activity Plan Alliance, 2016). An **Active School** can be defined as a school environment that encourages physical activity throughout the school day, so that students have the ability to meet the daily recommended guidelines of 60 minutes of physical activity per day (USDHHS, 2018). There are many ways that a school can integrate physical activity into their daily routine and make it available for all children. In fact, utilizing the **Comprehensive School Physical Activity Program (CSPAP)** framework is one way to help schools organize and implement intentional physical activities for youth. According to the CDC, a CSPAP has five components: 1) Quality Physical Education, 2) Physical Activity Before and After School, 3) Physical Activity During School, 4) Staff Involvement, and 5) Family and Community Engagement. Being an Active School entails working to implement quality physical education and at least one other component so that students are receiving opportunities for physical activity both within and beyond the physical education environment. A description of the five components of the CSPAP model (referred to as an "Active School" moving forward) is on the next page.

> Being an Active School entails working to implement quality physical education and at least one other component so that students are receiving opportunities for physical activity both within and beyond the physical education environment.
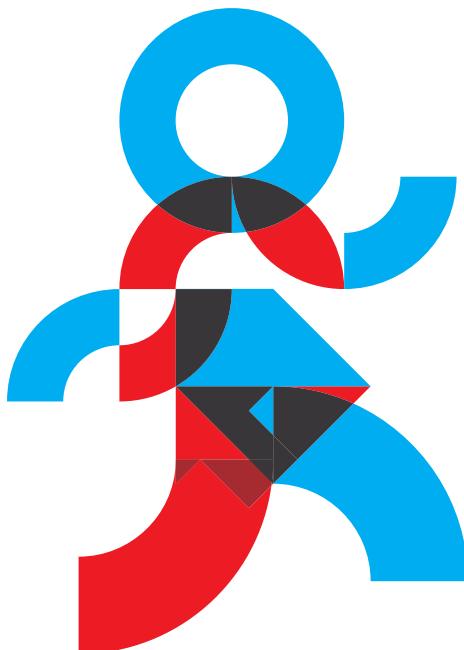
1 **Quality Physical Education** is the first component of an Active School that utilizes a CSPAP framework. Quality physical education is the cornerstone of a CSPAP within the school setting. It is a standards-based academic subject that provides a sequential and age-appropriate curriculum for students. To learn more about a quality physical education program, check out the Essential Components of Physical Education produced by SHAPE America.

2 **Physical Activity Before & After School** is the second component of a CSPAP. The before and after school component looks to integrate opportunities for youth to be active outside of the traditional school day, whether it be through before and after school programs or through walk and bike to school programs. Oftentimes schools offer intramural programs or clubs that encourage students to have fun and be active. These programs are open to all students and are not meant to be exclusionary. Check out this resource from the CDC to learn more about Before and After School Programs as well as from SHAPE America.

3 **Physical Activity During School** refers to physical activity during school hours, excluding physical education. This includes recess, but also includes physical activity in the classroom whether it is through a physical activity break or integrated into the learning lesson itself. There are many resources for integrating physical activity into the classroom, we suggest checking out some of the following organizations: Active Classrooms for Active Schools, CDC Recess and CDC Classroom, SHAPE America, Action for Healthy Kids.

4 **Staff Jnvolvement** means staff will engage in healthy activities and serve as role models for students within the school setting. This could entail engaging in a walking club during school hours or participating in an after-school workout program for staff. It could also be that a staff member is conducting and facilitating classroom physical activity and active recess, while also engaging or participating with the students. However, it doesn't have to be something that is organized, staff could join students in a walking club or just talk

Active Students = Better Learners
www.cdc.gove/healthyschools.PEandPA

about healthy activities in their classroom. Check out this JOPERD article to learn more about staff involvement in CSPAP. You can also read more about staff involvement and find additional resources from the CDC.

5 **Family and Community Engagement** is about including parents/caregivers, school staff, local out of school time providers, community members, and businesses to work together to increase the amount of physical activity opportunities available before, during and after school. This will look different depending on your community, but we know that school programs are more successful when family and the local community are involved (Epstein et al., 2019). The CDC offers specific resources to help you start engaging your families and local community members within your CSPAP.

In addition to the resources listed above, there are many publications and organizations that support the notion of integrating a CSPAP into the school setting. Check out the CDC CSPAP Framework, Action for Healthy Kids webpage on CSPAP, SHAPE America, the CSPAP Research to Evidence-Based Practice handbook, or JOPERD which features many tangible published articles on the integration of CSPAP's into the school setting.

Why is a Comprehensive Approach to Physical Activity Important?

Utilizing a CSPAP approach to integrate physical activity into the school setting is important because we know that creating a **culture of health** to help students and staff alike embrace physical activity is more effective than offering opportunities in a piece-meal approach. Plus, schools reach most youth in the United States, so CSPAPs are important from a health equity perspective. Making sure **ALL students** have consistent messaging and opportunities related to physical activity is important at school and a comprehensive model will support this messaging (CDC, 2021a).

In fact, the CSPAP framework aligns with the Whole School, Whole Community, Whole Child (WSCC) Model that is a social-ecological model designed together by the Centers for Disease Control and Prevention (CDC) and ASCD.

> Creating a culture of health to help students and staff alike embrace physical activity is more effective than offering opportunities in a piece-meal approach.

"The WSCC Model combines and builds on elements of the traditional coordinated school health approach and the whole child framework. It addresses the need for greater alignment, integration, and collaboration between education and health to improve each child's cognitive, physical, social, and emotional development, by providing a framework to address the symbiotic relationship between learning and health. (Slade, p. 1, 2020).

Ensuring all students have access to programming is critical to ensure health equity as not all community and school offerings are traditionally open and designed for all students. Through a CSPAP, children can not only increase their levels of physical activity to improve overall health and wellness, but they also have the opportunity to increase their academic achievement (IOM, 2013; CDC, 2010). To find out more about how to successfully implement a CSPAP within your school, check out this CSPAP guide from the CDC.

An Introduction to Evaluation

The Purpose of Evaluation

Evaluation can be a scary word to many; however, it is important to evaluate your CSPAP to show growth and progress over time as well as learn what you are doing well and what you could improve on. The purpose of this document is to help you feel more comfortable with evaluating your CSPAP and provide the tools and resources you need to be successful.

The CDC CSPAP Guide for Schools outlines CSPAP evaluation and provides a seven step process and guiding templates to help you initiate, organize, and implement your CSPAP, including evaluation. The seven steps include:

1   Establish a team or committee and designate a Physical Activity Leader

2   Conduct an assessment of existing physical activity opportunities

3   Create a vision statement, goals, and objectives for your CSPAP

4   Identify the outcomes or specific changes that will be direct results of program implementation

5   Identify and plan the activities for your CSPAP

6   Implement your CSPAP

7   Evaluate your CSPAP

Evaluating a CSPAP within your school is equivalent to what is called program evaluation. **Program evaluation** is a systematic way to collect information about a specific program or activity that will lead to a better understanding of program effectiveness. Specifically, program evaluation can help you describe, understand and plan programs, document what happens in your program, and drive continuous improvement (CDC, 2013). For more information about how to conduct health-focused program evaluation in addition to the CDC CSPAP guide above, you can check out this program evaluation website through the CDC or read through part V of the Comprehensive School Physical Activity Programs book (Carson & Webster, 2020) that also talks about assessment, evaluation, and advocating within an Active School. Another potential collaboration and resource could be partnering with a neighboring university to help guide you through all the steps of evaluation. The collaboration with university faculty and students could not only help with program evaluation but could potentially strengthen the ability of your Active School to grow and become more sustainable.

> Evaluation can be a scary word, however, the purpose of this document is to help you feel more comfortable with evaluating your CSPAP and provide the tools and resources you need to be successful.
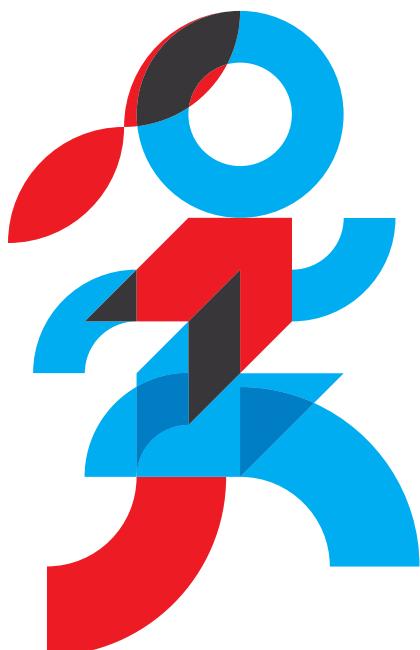
There are two main types of program evaluation: process and outcome. Both are important for understanding what is going on in your program, but they answer different fundamental questions. Process information that is collected helps the program team determine how the program is being implemented whereas outcome evaluation helps the program team understand the impact that the program is having as a result of the activities that were implemented. Below we will briefly describe and give examples of different types of process and outcome measures.

Process Evaluation

Process evaluation is a way to better understand how your program is being implemented. It is a way to answer the questions about your program that pertain to: **who, what, when, where, and why**? This is an important step in evaluation, as understanding these details will help you to determine the successes of your program and recognize areas in which you need to improve. What you want to know and better understand guides the process evaluation, therefore determining your questions and objectives should be your first priority. Some example questions for process evaluation within your CSPAP program could be:

- Is the physical education program being implemented as intended?

- Did training for the classroom teacher to facilitate physical activity breaks occur and were the breaks implemented as intended?

- What are the barriers to teachers implementing classroom physical activity breaks?

- What factors influence teachers providing additional opportunities for physical activity throughout the school day?

- What opportunities for before and after school were offered and how do students feel about the activities that were offered?

- Are the community partnerships working effectively? Why or why not?

Active Kids Do Better.

Outcome Evaluation

Outcome evaluation is designed to measure specific outcomes of the program that is being implemented. Another way to think of an outcome is **the desired results of your program**. It is meant to help assess the degree to which the program was successful or not. An outcome evaluation will help program developers and implementers better understand if the planned activities contributed to expected changes that should have occurred as a result of the program itself. As with the process evaluation, outcome evaluation is also specific to the questions and objectives that are set forth by the program directors. The questions that are asked will guide the type of outcome data collected, or if there is a specific outcome variable that you are looking for, it will guide the specific question. Here are some sample questions that could guide an outcome evaluation:

- Does the program increase the amount of physical activity students are getting during the school day?

- Has the program improved student academic achievement?

- Are schools offering a greater range of opportunities for students to be active and participate in physical activity?

- Were the goals we set forth to accomplish achieved?

- Did students increase their fitness?

- Do students feel more confident about participation in physical activity?

- Did students increase their social emotional skills for learning?

General Methods for Data Collection

Once you have determined the questions that you want to answer, you need to **collect the data that best represents your process and outcome questions**. In order to do this appropriately, it is important to have an understanding of the general ways in which data can be collected. Just like the objective or question that you ask guides your process or outcome evaluation, it also guides the type of data that you collect. A successful evaluation is dependent on collecting quality data. Think through the method you are using to collect data so that your results represent and answer the questions you are asking. In the table below you will see a list of suggested data collection methods that will help you be successful in collecting quality data. Think of it as a toolbox for evaluation.

Name of Data Collection Method	Description of the Method
Participant Demographics	It is important to know who's participating in programs and what their unique experiences are so we can ensure equitable access and opportunity for all members of the school community. Regardless of the method used to collect data, consider including demographic characteristics such as gender, age, grade level, race, ethnicity, etc. This will help interpret the data on the back end with a lens toward equity.
Surveys/ Questionnaires	A questionnaire or a survey is a document that is a collection of questions and items that you might ask a student, teacher, parent or other stakeholder. You can use it to ask specific questions about your program or use existing questions from validated tools (questions that are already created) that pertain to your goals and objectives. Typically these could be administered through a paper and pencil format, or you could use an online software like SurveyMonkey or Qualtrics.
Interview	An interview is typically used to get more in-depth information from your participants and/or stakeholders. It allows you to ask questions that might require more than a multiple choice answer and clarifying questions or prompt someone to provide more information. An interview is usually done with one individual at a time. There are different types of interviews including unstructured, semi-structured, and structured. Semi-structured interviews are most commonly used in education as they allow you to begin with a set of predetermined questions and add clarify questions as you conduct the interview based on the participants' responses. For more information check out these descriptions of the different types of interviews. The interview is led by a facilitator that leads the participant through the interview process and questions. Once complete the interviews are typically transcribed (typed out) and then reviewed and analyzed. This can be time consuming but you can utilize free services such as Zoom that will auto-populate a transcription of the conversation for you. There are also companies that will transcribe interviews for you for a low cost. It is important to transcribe the interviews so that you are able to properly analyze them and ensure that what you thought you heard was confirmed.

Name of Data Collection Method	Description of the Method
Focus Group	A focus group is similar to an interview, however, it is conducted with a group of people. Typically focus groups occur in groups of 6–12. You want to make sure that the group isn't too big so that everyone has a chance to share their thoughts, but also not too small so that participants feel the spotlight is on them. For a focus group, a facilitator is used to guide the session and oftentimes they follow a similar structure to interviews, depending on the intent of the focus group. After the completion of the focus group, it is usually transcribed and then analyzed.
Document Review	A document review is where a set of documents is collected about a given topic and then analyzed based on the objective or question that is being asked. First, it is determined what documents might be relevant. Then, documents are collected from various sources. These could be both internal documents (e.g., school wellness policy) or external documents (e.g., national and state standards and recommendations). Other types of documents that could be collected include but are not limited to: program and attendance logs, reports, performance ratings, funding applications, meeting minutes, newsletters, marketing materials, etc. Once all documents are collected either physically or electronically, look at them as a whole in relation to your objective to determine if the objective was met or not.
Photo/Video Analysis	Another way to collect data is through photos and/or videos. Documenting events and programs with photos is a way to gather information as well as provide a visual as to what occurred during the time of observation. Once photos are collected, then you can analyze the photos to tell a more comprehensive story of what occurred. You can find more information about photovoice and analysis through this community website.
Observations	Conducting observations is a way of gathering data by watching and observing behavior and events. Observations occur anytime that you are observing an event/activity/situation and taking notes and documenting the observation either electronically or via paper and pencil. There are two types of observations, direct and indirect. For more information on the types of observations, see the CSPAP Guide created by the CDC.
Physical Measures	Measuring heart rate, physical activity, body mass index, height, weight, etc. would be examples of physical measures that schools may wish to assess. There are many tools that can be used depending on the measure of interest. Physical measures are typically assessed to track the impact of your program and should align with your overall goals and objectives.

How to Evaluate an Active School

Once you have started the process of creating an Active School environment, it is important to understand how to evaluate it. This section will provide you with specific ideas of different types of evaluation tools you could use to evaluate both process and outcome measures in your CSPAP.

Process Measures

Process measures are important for understanding what is happening during the implementation of your CSPAP. When using process measures, you want to collect information throughout the entire process. It might be at the beginning, middle, and/or the end, however, the purpose is to be able to **tell a story about the entire experience**. By collecting data at multiple time points, you are able to draw better conclusions about what happened. If you are only looking at the end, then it is hard to portray where you started. Below are ideas of the type of process measures that could be collected such as: current policies and practices, environmental scan, readiness/organizational capacity, attendance, participation and engagement, implementation fidelity, and process-oriented survey items.

Current Policies and Practices

Guiding Questions for Evaluating Policies and Practices

1. To what extent does my school apply evidence-based physical activity practices?
2. To what extent do school and district policies support physical activity?

There are multiple ways to capture current policies and practices related to Active Schools. The most common way to understand policies and practices related to school wide physical activity promotion/health is by completing a policy/practice related survey or questionnaire. These instruments range in length, time to complete, and cost. It is also possible to systematically observe practices in different settings. This section will highlight tools that can be used to help further understanding around school physical activity policies and practices.

Physical Activity School Score (PASS)

The PASS is a free, web-based, 8-item tool that assesses evidence-based physical activity practices at elementary schools and can be used as a basic needs-assessment for CSPAP. Parents, teachers, school administrators, and school board members that are interested in learning about and assessing physical activity at their elementary school can complete PASS in approximately 5-minutes. Upon completion, a total school score and grade (A-F) will be presented along with a chart illustrating school comparisons and users are provided with access to school physical activity resources. A score of 30 (A+) indicates a school is well positioned to support children's physical activity during the day and a total score of 17 (F) indicates school is falling short of physical activity recommendations.

Comprehensive School Physical Activity Program Questionnaire (CSPAP-Q)

The CSPAP-Q (Stoepker et al., 2021) is a free, web-based, 52-question instrument designed to assess current policies and practices related to the five CSPAP component areas. The CSPAP-Q is designed to be completed by school physical activity leaders in conjunction with their school/district wellness teams. The instrument uses different types of question structures (e.g.,open-ended) with the majority being yes/no. After completing the CSPAP-Q, K-12 schools/districts will be able to understand their current state of CSPAP and to develop a deeper understanding of school physical activity policies and practices.

Systematic Observation

To understand current practices at an even deeper level, systematic observation tools such as the System for Observing Fitness Instruction Time + (SOFIT+, Weaver et al., 2016) and the System for Observing Staff Promotion of Activity and Nutrition (SOSPAN; Weaver et al., 2014) can be used. Both of these tools not only capture data on the physical activity levels of children, but also prompt observers to record adult behaviors that are known to promote greater physical activity. It is helpful to have a trained observer conduct the observations, so a partnership with a local university could be valuable.

> ★ EXPERT TIP
> *Use a survey/questionnaire or systematic observation to assess how well your school aligns with evidenced based PA policies and practices.*

Environmental Scan

Guiding Questions for Evaluating the School Physical Activity Environment

1. To what extent does the school environment support physical activity?

2. Do students and families have access to high quality physical activity spaces on school grounds?

Many factors influence physical activity behavior in youth. The built environment in schools can either be supportive of physical activity or serve as a barrier. For example, one school may have extensive outdoor play spaces that are well-maintained and open to the school community after school hours. Other schools may have run-down outdoor play facilities that present safety hazards. It is important that educators evaluate the extent to which the school environment may influence physical activity behavior so that if barriers exist, they can be remediated.

National Collaborative on Childhood Obesity Research (NCCOR)

The NCCOR maintains an extensive registry of tools that can be used to measure the physical activity environment. Specific tools can be searched on the site that directly measure the physical activity environment around schools. Relevant environments include school buildings/facilities, outdoor play spaces, connected parks and playgrounds, recreational facilities, and

active transportation infrastructure. Below are examples of practical tools that can be used to evaluate the physical activity environment in schools.

School Physical Activity Environment Questionnaire (Q-SPACE)

The Q-SPACE is a 16- item questionnaire that is completed by students to better understand their perceptions of the physical and social physical activity environment. Students answer questions on a 5-point Likert-type scale to indicate their level of agreement with a series of statements. The tool has been validated in rural and predominantly White middle school communities in Canada (Robert-Wilson et al., 2007) and in more urban low-income middle school communities in the United States (Martin et al., 2011). Results of the questionnaire can help educators understand student perceptions of the school physical activity environment and make improvements where possible.

Community Park Audit Tool

The Community Park Audit Tool is an observational assessment that can be completed by an adult member of the school community. It allows the observer to record park characteristics in three main areas: a) access and the surrounding neighborhood, b) usability and condition of activity areas, and c) park quality and safety. The tool can be used to evaluate a park that is directly connected to the school campus and results of the audit may inform advocacy efforts to improve play spaces.

> ★ EXPERT TIP
> *Evaluate the condition of a park connected to your school and share the results with influential members of the community.*

Readiness and Organizational Capacity

Guiding Questions for Evaluating Readiness and Organizational Capacity

1. To what extent is my school community ready for change?

2. What support systems are in place to facilitate change?

Schools are complex organizations with many competing priorities. When planning for the integration of physical activity before, during, and after the school day, it is important to consider the extent to which the

school community is ready for these kinds of changes. Using a school readiness and organizational capacity inventory can help identify where there is support for change and where more work may be needed to develop knowledge, skills, attitudes, and beliefs.

School Wellness Readiness Assessment
One tool that can help schools understand organizational capacity and readiness for change is the [School Wellness Readiness Assessment](#) (Lee, 2018). This tool consists of 40 items that members of a wellness team or other school staff can respond to and indicate level of agreement. It includes statements that connect to both structural and psychological factors that may predict a school community's readiness for change. Many items address school wellness more broadly, but could be easily adapted to assess physical activity more specifically.

Fitness Education Index
The [Fitness Education Index](#) was designed to help schools reflect on their current status of readiness in relation to implementing quality youth fitness programming in schools. This tool consists of 20 items that the physical education teacher or others that are tied to the physical education program could complete. It includes statements that ask about policies, assessment, programming, curriculum, and instruction.

> ⭐ **EXPERT TIP**
> *Use a questionnaire to determine the extent to which your school community is ready to promote physical activity.*

Participation

Guiding Questions for Evaluating Participation

1. What physical activity opportunities are available before, during, and after school?

2. Who is participating in these opportunities and what is their experience?

It is important to know what opportunities exist for physical activity before, during, and after the school day, who is participating, and what their experiences are so you can ensure there are relevant and appropriate opportunities for everyone in the school community to be active. The tools below allow schools to assess and keep track of this information.

Master Attendance Sheet
Before starting your Active School program, think through how you are going to record attendance. Creating an attendance sheet for different physical activity programs using pen and paper, a software program like Excel, or even an app like [YouHere](#) can help you keep track of participation. This metric is important to capture because it can let key school stakeholders and leaders know how many students and other school community members are participating and have the opportunity to benefit from participation. Make sure that you document each person who is there and capture any other demographic information that is appropriate (e.g., grade, age).

Pictures/Storytelling
Taking and gathering pictures of school community members engaged in physical activity can help display participation and overall engagement. Pictures are a powerful tool in advocating for your program. Have you ever heard the saying, a picture is worth a thousand words? Having pictures of students engaging in activities and having fun can go a long way to reporting to your administration, PTA, community, funders, and other stakeholders that are interested in the success of your Active School. In addition to taking pictures, plan time to meet with participants and allow them an opportunity to discuss/vocalize how they feel about your Active School program. Record quotes to complement the pictures and be sure to obtain consent before sharing any pictures or quotes with the public.

Physical Activity Program Opportunity Index
The Physical Activity Program Opportunity Index (PAPOI) is a formal way of calculating how many minutes of physical activity opportunities are available to students before, during, and after the school day. Originally conceptualized by [McKenzie and Lounsberry](#) (2013), the tool is a combination of the Structured Physical Activity Survey (SPAS) and the Physical Activity Record for Classes (PARC). It prompts school staff members to record how many minutes of physical activity are being offered each day of the week and how many students are participating in each of these

opportunities. The final PAPOI score is the total number of physical activity program opportunity minutes per student per week. Schools can use this tool to get a better understanding of the full scope of their physical activity program offerings and plan future expansion.

Take pictures to visually show the impact of your Active School program. Make sure you obtain consent before sharing pictures/stories.

Implementation

Guiding Questions for Evaluating Implementation

1. How will you track and document program implementation?
2. How will you gauge the success of your program?

During the development phases of an Active School it is important to follow an implementation process to ensure your Active School program is being delivered as it was originally intended. Following a plan and evaluating the implementation process can help you gain a better understanding of the success of your Active School program and help you identify areas of potential improvement.

CSPAP Guide Checklist
The CDC created a seven step CSPAP checklist to work through as you start building your CSPAP. This checklist is advised to be used to ensure proper steps are being followed before, during and after CSPAP implementation.

Planning Chart for CSPAP
The CSPAP Planning Chart was developed by SHAPE America and the CDC and is a tool that can be used to identify specific CSPAP activities you plan to offer. This planning chart also can help you document targeted grade level(s), scheduled time, location, facilitator, anticipated number of students, associated costs (if any), and the projected timeline for implementing each activity.

Template for CSPAP Budget
If there is an associated budget with your Active School program it is important to document all projected costs. Using the Template for CSPAP budget will help you keep track of and document CSPAP related costs.

Template for CSPAP Implementation Plan
The template for CSPAP Implementation was developed by SHAPE America and the CDC and is a tool that can be used to develop action planning steps. This tool can help identify who is responsible for activities, tasks, and other potential steps. Information gathered from this template will play a key role in guiding your Active School team as you implement your program within your school. Specific items that are addressed within this template are: identifying a specific goal and objective, identifying tasks, activities, or strategies to be accomplished, task leadership, start/end date, necessary resources for implementation, potential implementation barriers, and communication/outreach strategies needed.

Use templates to plan and budget for different components of your Active School. Share your plans with school administrators and other stakeholders.

Questionnaire/Survey Items

Guiding Questions for Evaluating Implementation

1. What are the needs and interests of key stakeholder groups in my school?
2. How satisfied is my school community with current physical activity programming?

Before implementing your program it is important to develop an understanding of current needs and interests of key stakeholders (e.g., students, parents, and teachers) and their current satisfaction with physical activity programming so you can ensure there are relevant and appropriate physical activity opportunities for everyone. This can be captured in many ways but the most commonly used tools to understand current needs and satisfaction are through the use of surveys. Using Likert-type scales that give a range of response options can be helpful for gathering this type of information. For example, you can ask the extent to which participants agree or disagree with a series of statements on a 5-point scale: 1-strongly disagree, 2-disagree, 3-neither agree nor disagree, 4-agree, 5-strongly agree. You can use items from existing surveys or develop your own. Here are some examples of items that could be included in a survey/ questionnaire.

Sample student items:
- How interested are you in the following activities?
  - List standards-based content areas for physical education or culturally relevant activities that students may wish to participate in after school hours and have students respond on a 5-point Likert-type scale
- How much did you enjoy these activities?
  - List the activities that were offered and have students respond on a 5-point Likert-type scale

Sample parent/caregiver items:
- What are the most common ways your child participates in physical activity outside of school hours?
  - List a variety of community physical activity opportunities and have parents check the ones their child participates in
- To what extent would you be interested in participating in the following special events?
  - List events that families could be involved in (e.g., 5K fun run, health festival, family open gym nights) and have parents rate their interest on a 5-point Likert-type scale

Sample teacher and school staff items:
- If you were to sponsor a physical activity club, what activity would you feel qualified and interested in sponsoring?
  - Open-ended response option
- What are the biggest barriers to integrating movement in your classroom?
  - List common barriers (e.g., time, space, resources, knowledge of activities) and have teachers rate them on a 5-point Likert-type scale

EXPERT TIP
Regularly survey key stakeholders to determine their physical activity interests and level of satisfaction with current programming.

Outcome Measures

Outcome measures help you understand the impact your Active Schools program is having on the school community. They include data connected to the benefits of an active lifestyle and also include factors that research has shown predict current and future physical activity behavior. In this section, we introduce measures of physical health like physical activity, physical fitness, and motor skills, along with measures of social-emotional well-being, psychosocial factors, and academic performance.

Physical Health

Guiding Questions for Evaluating Physical Health Outcomes
1. How physically active are students?
2. How physically fit are students?
3. How physically skilled are students?

Physical Activity
Physical activity is the goal and primary outcome of an Active School. We know that children and adolescents ages 6 through 17 years should participate in at least 60 minutes of moderate to vigorous physical activity on a daily basis (US Department of Health and Human Services, 2018a). We also know that the benefits of regular physical activity are numerous and include improvements in overall physical fitness, reductions in anxiety and depression, and the prevention of chronic health conditions like heart disease and diabetes (CDC, 2021b). Furthermore, research over the past few decades has illuminated connections between physical activity, cognitive function, and academic performance. We now know that physical activity improves cognition and has a neutral or positive effect on academic performance (Donnelly et al., 2016). In other words, adding physical activity to the school day is likely to help students perform academically.

It is important to make sure that as you are looking at physical activity, you pay close attention to how your data varies by the demographic variables that you have also collected. It is well known that students of color and students with lower socioeconomic status often are less physically active. Understanding how

these variables play a role within your own school data is important as it can help provide a better picture of equity and help guide future decisions.

There are many tools for measuring physical activity behavior in youth. Typically, they are organized into three categories: 1) **report-based measures** that require responses to survey questions or logging of behaviors, 2) **monitor-based measures** that use devices to quantify movement, and 3) **criterion-based measures** that consist of complex lab tests or direct observation (Welk et al., 2017). The National Collaborative on Childhood Obesity Research (NCCOR) maintains an extensive registry of tools that can be used to measure individual physical activity behavior. Below, we offer examples of some of the most practical tools that can be used by educational professionals to measure physical activity.

Report-Based Measures
The Youth Activity Profile, freely available to registered Active Schools Champions, is a 15-item questionnaire that asks students about their physical activity behavior before, during, and after the school day and also has items related to weekend physical activity and screen time. The benefit of the Youth Activity Profile is that survey responses have been calibrated using accelerometer data, so results can be converted to minutes of physical activity at the class, grade, and school levels with an added level of rigor compared to traditional self-report measures. The online tool provides school leaders with user-friendly reports that break down physical activity behavior by gender and segment of the school day. Therefore, the tool is exceptionally useful in evaluating existing physical activity behaviors around the school day and can inform the planning of new/ enhanced physical activity opportunities.

Monitor-Based Measures
Pedometers and heart rate monitors are two devices that are typically used in schools to objectively measure physical activity behavior. Pedometers count the number of steps taken, with some models converting steps to distance and intensity. Pedometers are practical for school use because they tend to be cheaper than other monitoring devices and data are easily understandable by a wide range of users. Most recommendations suggest that youth accumulate between 10,000 and 15,000 steps per day. Heart rate

monitors also provide an objective measure of physical activity behavior, but use a sensor to monitor the user's pulse either on the chest or wrist. Different intensity levels can be calculated using standard formulas and some models provide estimates of energy expenditure. Heart rate monitors tend to be more expensive than pedometers and require specialized software to analyze the data, but can provide detailed information on the physiological response to movement.

Criterion-Based Measures
Direct observation is one approach to criterion-based physical activity measurement in schools. Many tools have been developed to make the observation process systematic and ensure a high level of validity and reliability. In some cases, observers scan a space and record the total number of individuals at different intensity levels (e.g., lying down, sitting, standing, walking, vigorous). In other cases, observers follow a smaller sample of individuals and record their physical activity levels during intervals. Observations can be conducted live or by using a video recording, although there are limitations to both methods (e.g., participant reactivity, limited scope of view). Most systematic observation tools are specific to the environment being observed and allow the recording of contextual information (e.g., lesson topic, setting) that is not available via other physical activity measurement tools. It is best to have a trained observer conduct the observations to ensure the collection of high quality data. Some schools partner with local universities, while others have trained staff members complete the observations. Here are some examples of observation tools that can be used in the school setting:

- System for Observing Fitness Instruction Time (SOFIT)
- System for Observing Play and Leisure Activity in Youth (SOPLAY)
- System for Observing Play and Recreation in Communities (SOPARC)
- System for Observing Student Movement in Academic Routines and Transitions (SOSMART)

EXPERT TIP *Use a tool like the Youth Activity Profile to see if students in your school are getting 60 minutes of physical activity per day.*

Physical Fitness

Guiding Questions for Evaluating Physical Fitness

1. Which areas of fitness are my students strongest and weakest in?

2. How are student fitness levels changing over time?

Physical fitness is often viewed as a way to assess the health of children within an Active School. Various components of fitness (such as cardiorespiratory endurance) have also been found to have a direct impact on cognitive and academic performance of youth, specifically in reading and math (IOM, 2013). It is important to note that youth fitness is impacted by many factors and caution should be taken to ensure privacy and proper messaging around fitness testing. With that said, the Presidential Youth Fitness Program promotes fitness testing within the school setting for children in grades 4-12. Programs such as Fitnessgram and the Brockport Physical Fitness Test can be used to assess fitness in children enrolled in grades 4-12, but formal assessments should not take place before 4th grade. It is also important to note that fitness testing should not be used as part of a student's grade or to evaluate teacher performance, and instead should be used to provide personal information to increase student knowledge and onform goal-setting. Please see this document, created by SHAPE America, to understand best practices in fitness testing.

FITNESSGRAM
The FITNESSGRAM is nationally promoted through the Presidential Youth Fitness Program. It is a criterion referenced test that is designed to help students understand their own health-related fitness. The FITNESSGRAM provides various ways to measure five components of health-related fitness, including, aerobic capacity, muscular strength, muscular endurance, flexibility, and body composition. You can access free materials and training to implement the FITNESSGRAM through the Presidential Youth Fitness Program website. For each assessment, youth are categorized into one of three categories: Healthy Fitness Zone, Needs Improvement, and Health Risk. Based on the categorization within each component, the software (not free) provides feedback to students and parents alike based on the results.

Brockport Physical Fitness Test
The Brockport Physical Fitness Test is designed for youth with disabilities between the ages of 10-17. The main purpose of this assessment is to provide protocols and adapted fitness zone standards for ALL youth. The Brockport assessment protocols and affiliated standards can be found in the Brockport Physical Fitness Test manual (© 2015 Joseph Winnick). Portions of the manual, including those addressing test selection, administration, and standards are available here for free as part of the Presidential Youth Fitness Program.

> **EXPERT TIP**
>
> *Conduct fitness testing to allow youth to understand the components of fitness in relation to their own body and well-being. Then have them use the data to create individually focused health goals.*

Motor Skills

Guiding Questions for Evaluating Motor Skills

1. Which motor skills are my students strongest and weakest in?

2. How are student motor skills changing over time?

Fundamental or gross motor skills can be viewed as the building blocks for many physical activities and sports (Veldman et al., 2016). It has been found that higher levels of gross motor skills are associated with many positive health related indicators such as cardiorespiratory health (Okely et al.,2001), cognitive development (Best, 2010), and BMI (Okely et al., 2004). Conversely, a relationship has been found with youth who exhibit lower motor skills and decreased self-esteem (Piek et al., 2006). Due to the link between gross motor skills and physical activity ability it is important to try to incorporate the impact your Active School program has on motor skill development. By assessing motor skills it could help you identify potential student improvement areas and appropriate time spent on motor skill development which could lead to an increase of their overall physical literacy.

Test of Gross Motor Development (TGMD-3)
The Test of Gross Motor Development (TGMD-3) is a norm-referenced test used to assess fundamental motor skills. The test is divided into two subtests

(Locomotor and Ball Skills). The Locomotor subtest measures the gross skills that require fluid and coordinated bodily movements (e.g., run). The Ball Skills subtest measures throwing, striking, and catching movements (e.g., dribble). Upon completing the TGMD the student will receive a percentile ranking and an age equivalent number which compares results to an age group whose average scores are in the same range.

PE Metrics

Another potential way of assessing motor skill is to use the readily available rubrics from PE Metrics. This tool provides teachers with assessment materials that can be used in a variety of ways (formatively and summatively). In addition, PE Metrics also outlines specific procedures of how to administer/collect data, how/where to place a video recording device to help with assessment, safety considerations, and specific scoring rubrics to help guide student learning.

> **EXPERT TIP**
> *Assess student motor skills to educate them on their results, and create opportunities for continued improvement.*

Social-Emotional Well-being and Learning

Guiding Questions for Evaluating Social-Emotional Well-being and Learning

1. What social skills do students possess that could help them be successful in school and life?

2. How emotionally supportive is the school environment?

Social-emotional well-being is an overarching term that can be used to describe an individual's affective, psychological, and relational state of being. Research shows that physical activity, in many cases in connection with physical education and youth sports, can enhance psychological and emotional well-being (Eime et al., 2013), contribute to prosocial behaviors, skills, and attitudes (Bailey, 2006), and lead to greater school engagement (Owen et al., 2016).

In school settings, social-emotional well-being is often connected to social and emotional learning (SEL) because an emphasis is placed on building specific competencies that will result in enhanced well-being now and into the future. According to the Collaborative for Academic, Social, and Emotional Learning (CASEL), there are five distinct competencies: self-awareness, self-management, social awareness, relationship skills, and responsible decision-making. SHAPE America recognizes that many of these competencies closely align with national physical education standards and can be reinforced in a variety of school physical activity contexts. There are also resources available to help integrate SEL into physical education and physical activity programs.

In regard to evaluation, CASEL offers a detailed SEL Assessment Guide that can be used to identify relevant SEL assessment options depending on the age level of the student, who is responding to the items, and which competencies are addressed. This tool can be used in conjunction with the RAND Education Assessment Finder to compare measures and learn more about their validity and reliability. Some of the tools on these registries require fees for use, so it is important to investigate which assessments your school might already use to measure SEL competencies. Some example measures are presented below.

Panorama Social-Emotional Learning Survey
The Panorama Social-Emotional Learning Survey is a tool that can be used to assess both student and teacher/staff SEL competencies and indicators. The student section is divided into a) skills and competencies, b) supports and environment, and c) well-being, and has items appropriate for grades 3-5 and 6-12. The teacher/staff section includes items related to well-being and adult SEL. Response options are presented on a 5-point Likert-type scale. Survey developers do not recommend using the entire set of survey items, rather schools should determine which specific topics are most relevant to their goals and outcomes.

Positive Youth Development Questionnaire
The [Positive Youth Development Questionnaire](#) is a 77-item student questionnaire that measures 5 C's: Competence, Connection, Confidence, Caring, and Character. Responses are indicated on a paper and pencil form using 4-point Likert-type scales and sentence pairs where respondents select a statement that best matches what is true for them. The questionnaire is for children and adolescents ages 10 and older.

> **EXPERT TIP**
> *Select the social-emotional outcomes that are most relevant to your school community and assess them on an annual basis using a survey or questionnaire.*

Psychosocial Outcomes

Guiding Questions for Psychosocial Outcomes

1. Do students have a positive attitude towards physical activity?
2. What are student intentions around physical activity?
3. Are students confident to engage in a variety of physical activities?

Psychosocial factors such as attitude, intention, and self-efficacy are important predictors of physical activity behavior both now and in the future. There are many tools for measuring psychosocial outcomes in youth, as there are many variables that fall under the global term "psychosocial". The most commonly used tool to capture psychosocial health is through report-based measures that require responses to survey questions or logging of behaviors. These measures can assess youth attitudes towards physical activity and intentions to be physically active. Understanding how students feel about physical activity is important as attitude, enjoyment, and intention toward physical activity are related to the behavior of physical activity. Oftentimes you will see changes in these psychosocial variables before you see changes in behavior, so they are important factors to measure. Below, we offer examples of some of the most practical tools that can be used by educational professionals to measure psychosocial health.

Youth Physical Activity Attitude Scale (YPAAS)
The [Youth Physical Activity Attitude Scale (YPAAS)](#) is one scale that measures students' attitude toward physical activity. Attitudes can predict behavior. The YPAAS is a questionnaire that was developed to better understand youth attitudes toward physical activity. It was designed for youth in 4th through 8th grade and is 12 items that help one better understand both positive and negative attitudes.

Physical Activity Enjoyment Scale (PACES)
The [Physical Activity Enjoyment Scale (PACES)](#) measures physical activity enjoyment using a 16-item questionnaire with response options ranging from "disagree a lot" to "agree a lot" on a series of statements. Some items are stated in the positive ("I like it") and some items are stated in the negative ("I dislike it"), so before calculating a total score, some negatively worded items need to be reverse coded. Different versions of the scale have been validated with children, adolescents, and adults, so it is a versatile tool.

Physical Activity Intention Scales
One way to measure physical activity intention is adapted from [Hagger et al., 2005](#) where there are three questions that ask about intention for physical activity. Each question begins with plan, intend, and expect, respectively, and ends with "to do sports and exercise that make me breathe hard outside of school in the next two weeks." The Intention to be Physically Active Scale (IPAS) by [Hein et al. (2004)](#) is another physical activity intention scale, but it is intended to measure physical activity intentions after graduation.

> **EXPERT TIP**
> *Measure attitude, enjoyment, and intentions to better understand which psychosocial factors related to physical activity participation may be strongest and weakest.*

Academic Outcomes

Guiding Questions for Academic Outcomes

1. How are physical activity and academic performance related?

2. To what extent do attendance and discipline rates change as more physical activity opportunities are offered within and outside of the school day?

There are many ways to measure academic performance in schools. The type of measure you use will depend on your school and the data to which you have access. Information such as a student's **grade point average (GPA)** or **standardized test scores** are typically available and easily accessible for school administrators. However, these specific measures only occur on a yearly basis and typically are hard to see significant change occur, especially small changes over a period of time. Other measures known as **curriculum based measures** can be used to measure academic performance. Curriculum based measures are often more sensitive to change over a shorter period of time and also have national averages that they can be compared to. They are also used to track changes of achievement within subject areas and are often conducted by schools on a more frequent basis. Some examples of curriculum based measures include DIBELS and AimsWeb.

In addition to tools and assessments that directly measure student achievement, there are other variables that you might consider tracking that are related to achievement. Variables such as **students attendance** or **discipline records**, as well as **graduation rates** have all been used as indicators of student achievement.

> **EXPERT TIP**
>
> *Use measures that are already established within the school building and create data sharing agreements in order to create less burden on the teachers and students.*
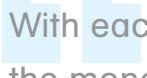
> "With each passing year, schools feel like it's just getting harder to find the time, the money, and the will to help our kids be active. But just because it's hard doesn't mean we should stop trying — it means we should try harder. It means that all of us — not just educators, but businesses and on-profits and ordinary citizens — we all need to dig deeper and start getting even more creative.
>
> ■ **Michelle Obama**, February 28, 2013

How to Get Started Planning Your Evaluation

There are a few steps to consider before evaluating your Active School program. They include determining your readiness/capacity for evaluation, identifying available resources (human, physical, and financial), aligning the evaluation with your program's goals and objectives, and developing an evaluation plan. Each step is summarized below, and more detailed information about program evaluation within a public health context is available from the CDC.

Active Kids Do Better.

Step 1 **Determine your Readiness/Capacity for Evaluation**

During this step, there are a few things to consider. First, it is helpful and recommended to implement your Active School program with a team/committee. Once you have identified your team/committee, make sure you have an understanding of each member's evaluation knowledge and skill set. Hopefully, there are individuals with some experience related to assessment and evaluation, or at least a belief in its value. Once you have an understanding of your team's skill set, review the assets that your school has connected to evaluation. You may find that your school already has specific software or technology that could be helpful or even has a budget that could be drawn from for evaluation purposes. Consider reaching out to a local univeristy to see if they would be willing to assist with your Active School evalutation.

Questions to consider during step one:

- What are my team/committee members' evaluation skills?
- What resources do we have in our school to help with evaluation?
- How can we capitalize on existing school and local resources (e.g. local university)?

Step 2 **Develop Evaluation Questions**

During step 2 your focus should be on developing evaluation questions. These questions should be directly aligned with the goals and objectives of your Active School program and include both process and outcome measures. Be sure to ask questions that can be reasonably answered, with consideration of existing resources/capacity. Smaller amounts of good quality data is better than large amounts of low quality data. Put your team's evaluation questions into a prioritized list and allocate resources (human, physical, and financial) toward the highest priority questions. This constitutes the beginning of your evaluation plan (described in the Step 3).

Questions to consider during step two:

- Do the evaluation questions align with the goals and objectives of our program?
- Do we have a balance of process and outcome measures?
- Have we allocated sufficient resources to our highest priority questions?

Step 3 **Develop an Evaluation Plan**

During step 3 it is important to conceptualize and develop an Active School evaluation plan. The evaluation plan should be based on the process and outcome questions that were developed during step 2 and include details about when, where, who, and how the data will be collected. You'll also want to consider the back end of evaluation (described in more detail in the Using Data Effectively section) about how the data will be stored, organized, analyzed, communicated, and applied. Feasibility is an important consideration in this step. You don't want to plan too much, you want to prioritize.

Questions to consider during step three:

• Who will collect the different types of evaluation data we've prioritized?

• How can we administer our evaluation over time to reduce the burden?

• How will we process and use the data after collection?

Step 4 **Collect Data**

Once you have a solid evaluation plan in place, it is time to collect data. Using the sample tools in this handbook and drawing on existing resources in your school setting, begin collecting small amounts of high quality data. Breaking the data collection process down into smaller chunks (e.g., one grade level at a time, one measure at a time, one program element at a time) can be a helpful strategy. If you are just beginning to implement a new program, consider collecting baseline data prior to starting and then recollect after implementation (pre/post evaluation). This is an effective way to measure program impact.
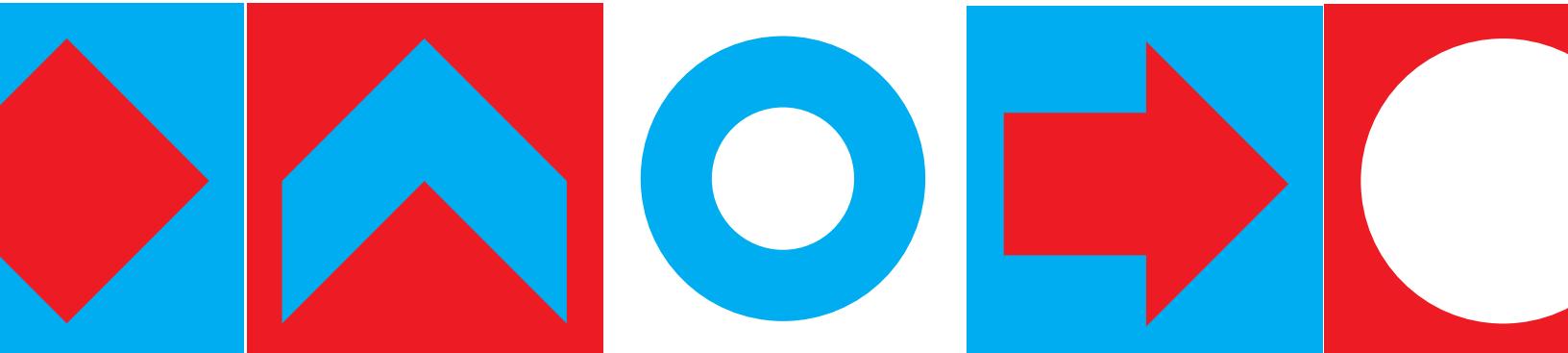
Using Data Effectively

The results of program evaluation are only valuable if they lead to some form of **action**. Too often, data are collected and stored away, never to be used to their full potential. This section will outline some suggestions for how to make the most out of the evaluation data you collect.

First and foremost, you must be prepared to allocate time to engage with your data after it is collected. Depending on the type of data, you may need to spend some time **organizing** it. This could be as simple as exporting data into a spreadsheet or grouping it together by common characteristics like grade level or gender. The organization process prepares the data for meaningful analysis.

Next, you'll want to perform some simple **analyses**. For example, you may wish to calculate the total number of participants in a certain activity over a given period of time or compare participation rates by different groups. These analyses can be conducted in an Excel or Google spreadsheet using simple formulas like =sum or =average. Many software applications like Google Forms will perform these analyses for you and most schools have access to an information management system that can help you access and analyze different types of data. Don't forget, as you analyze your data you want to make sure you keep equity in mind. Look at your data by various groupings (e.g. gender, grade, race/ethnicity) to make sure that results occur across groups and are not specific to just one. If you collect data like participant comments, the easiest way to analyze them is to look for common themes based upon the frequency of responses and pick out representative quotations.

Once you've analyzed your data, you'll want to ask three basic questions:

- What seems to be going well?
- Where are the areas for improvement?
- Was there anything particularly interesting or unexpected in the results?

These three questions will allow you to critically reflect on your data and prioritize the most valuable findings. Keep in mind that you should always consider **equity** when reviewing your data. Regardless of whether it is process or outcome data, you want to make sure that all groups in your school community are being offered equal opportunities for success. Asking the follow up question of "why are the results this way?" can facilitate a more critical examination of your findings and lead to a deeper understanding of issues of equity.

The results of program evaluation are only valuable if they lead to some form of **action**. Too often, data are collected and stored away, never to be used to their full potential.

The key is that the data must be transformed into actionable knowledge and be viewed through a lens of continuous improvement.

The goal is to have effective Active School programs that establish physical activity behaviors now and for the future. Evaluation is a critical element for achieving that goal.

Once you have some initial findings, you'll want to consider four different ways that the data can become **actionable**. Ask yourself these questions:

- Could these data be used to drive instructional decisions?
- Could they be used to make adjustments to curriculum?
- How might these data drive program improvement efforts?
- In what ways could these data be used to advocate for my programs?

Evaluation data can be used to drive **instructional decisions**. For example, if your school surveys students and finds that they are struggling with a specific set of social- emotional skills, the physical education teacher may find it advantageous to spend additional time during team-oriented cooperative games reinforcing those specific social skills.

If students were given the opportunity to rank their interest in a variety of standards-based physical education content areas, teachers could develop a curricular scope and sequence that matches students' preferences. This would be an example of using evaluation data to drive **curricular decisions**.

If an inventory of physical activity opportunities indicated that there were not many opportunities for students to be active outside of physical education and a large proportion of students were found to not be meeting the 60 minutes per day recommendation, the school might consider offering before and after school clubs and activities that promote more movement. This would be an example of a **program improvement** effort based upon evaluation data.

And lastly, if schools were to log attendance at special events like active family nights and document participants' experiences using photos and positive quotations, they could present these events as opportunities for community organizations and businesses to get involved and either supply volunteers or donate supplies, or to apply for grant funding. This would be an example of using evaluation data for **advocacy**.

These are only a few examples of how data can lead to action and help promote positive physical activity experiences in school settings. There are many other ways in which the types of data described in this handbook could be used to drive instruction, curriculum, program improvement, and advocacy efforts. The key is that the data must be transformed into actionable knowledge and be viewed through a lens of continuous improvement. We know that programs that are continuously monitored are more likely to be sustainable in the long run because the data can highlight achievements, identify areas for improvement, and be shared with stakeholders to garner additional buy-in and resources. The goal is to have effective Active School programs that establish physical activity behaviors now and for the future. Evaluation is a critical element for achieving that goal.

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