Developing and Implementing

State-level Physical Education Accountability Systems in Student Learning

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The Every Student Succeeds Act (ESSA) of 2015 induced significant change to the mechanisms by which schools are held accountable for student learning. Compared to the previous No Child Left Behind (NCLB) Act, the ESSA provides a less structured framework for determining accountability related to student learning. Each state now has greater flexibility and autonomy to employ systems that hold schools accountable for student outcomes. The ESSA also emphasizes the use of student learning data to engage parents and other stakeholders in their local education systems (U.S. Department of Education [USDE], 2016). This evidence-based approach encourages families, teachers, administrators, teacher educators, community stakeholders and researchers to collaborate in the development of policies, systems and environments that promote and document student learning in schools (USDE, 2016).

Impact of ESSA on Physical Education

Physical education is one of the subject areas that has been most impacted by the passing of ESSA. While the earlier NCLB did not consider physical education to be a core academic subject, ESSA formally recognizes this content area as an essential component of a “well-rounded education.” This transformation reinforces the importance of physical education from education and public health perspectives. Physical education is expected to play an important role in improving the physical literacy of K–12 learners and addressing persistent societal challenges such as childhood obesity and physically inactive lifestyles (Centers for Disease Control and Prevention, 2018; SHAPE America – Society of Health and Physical Educators, 2016).

In physical education SHAPE America (2013) has identified five content standards that represent what a student should know and be able to do following completion of a K–12 physical education program. These National Standards also include grade-level outcomes that provide more specific targets of what students should be able to know and do at the completion of each grade level. Based on the national standards, each state has developed their own state standards. If student learning relative to state and the national standards in physical education is not measured, reported, analyzed and/or disseminated, educational systems are not informed on priorities or action items for improvement.

The inclusion of physical education in the definition of a well-rounded education provides physical educators with greater access to various funding opportunities. Physical education is now eligible for Title I (low-income schools), Title II (professional development), and Title IV (student support and academic enrichment) funding (USDE, 2016). However, in many instances these funding opportunities are contingent on the availability of data-based evidence. Evidence of student learning in physical education can be achieved through state-level accountability systems that are well-developed and provide evidence that students are competent and confident in a wide variety of physical activities that lead to an active and healthy lifestyle.

Well-developed accountability systems are also important to better position stakeholders to:
• Achieve a shared vision for school physical education including its future direction: Assessment enables stakeholders to clarify the purpose of programs and teachers to focus on providing high-quality learning experiences for all students (Fullan, 2007).
• Identify program needs and best practice for continuous program improvement: By measuring and reporting student learning...
outcomes, stakeholders can better understand: (1) the most significant needs of students, enabling the use of meaningful educational targets; and (2) the most instructionally and developmentally appropriate practices (Barber, 2004). • Advocate for physical education programming: The documentation of student learning outcomes allows physical educators to gain the support of both the public and policymakers (Rink & Mitchell, 2003). These data provide a source of feedback for the public to better understand the impact that their societal investment in schools is producing (Barber, 2004).

Current Status of State-level Physical Education Accountability Systems

In 2018–2019 a group of researchers conducted a two-phase survey study to examine the status of a state-level accountability system for monitoring student learning in physical education across the United States (Active Schools, 2019). In the phase 1 survey, among a total of 48 state respondents from state Departments of Education (n = 44), representatives of Health, Physical Education, Recreation and Dance Association (HPERD) associations (n = 3), and a representative from a state health department (n = 1), 10 respondents answered that their states have an accountability system in place for student learning outcomes. In phase 2 a follow-up survey was conducted for those states with student learning outcomes that asked their recommendations for developing and implementing an accountability system. Based on the findings of phase 1 and 2, critical elements for a robust state-level accountability system were identified. The following sections discuss the key recommendations from that research for policymakers and school leaders to develop and implement a robust state-level accountability system to inform policy, standards, curriculum, instruction and assessment based on the findings of the previous study and literature.

The Framework of the Student Learning Accountability Cycle for Physical Education

Critical elements of robust physical education accountability systems for student learning are depicted by the framework of the Student Learning Accountability Cycle for Physical Education (SLAC-PE; see Figure 1). The framework is grounded in the Stages Model (Howlett, Ramesh, & Perl, 2009) that is widely used in policy research. The premise of the SLAC-PE framework is to describe the critical elements and contributing factors that support the development of an effective accountability system for student learning in physical education. The conceptual underpinning of this framework is that accountability systems are not a linear process, but rather continuous, iterative feedback loops to continually refine and improve elements of the accountability system.

Content standards provide the foundation of an accountability system of student learning because standards represent the expected outcomes in K–12 physical education, which is placed in the center of the framework. The SLAC-PE framework represents

Figure 1. The Student Learning Accountability Cycle for Physical Education (SLAC-PE) framework
three primary aspects of effective accountability systems; (1) critical elements necessary to execute a robust statewide accountability system, (2) fundamental elements of school policy and environment, and (3) facilitating factors that influence the effectiveness and sustainability of an accountability system.

The critical elements necessary to execute a robust statewide accountability system include legislation/policy, data collection, data monitoring, and data evaluation and dissemination (see Table 1 for the definitions). Fundamental elements of school policy and environment are represented in the inner circle that include physical education as a required subject, required minutes per week, mandated certified teachers, and adequate class size (the student-teacher ratio). If one or more of these elements are not in place, it can detract from the establishment of a quality teaching-learning environment and will make it difficult to implement and sustain a robust accountability system. The outer ring represents the facilitating factors that influence the effectiveness and sustainability of an accountability system. These factors can interact with all the critical elements at any point of the process to facilitate or impede planning, development, implementation and evaluation of the system.

### Recommendations to Develop and Implement Accountability Systems

This section aims to discuss recommendations for those states that currently do not have any or all of the critical elements of an effective accountability system in place using the SLAC-PE framework. The recommendations are based on research findings and existing literature about state-level accountability systems, such as articles about accountability systems in South Carolina and Ohio. While the South Carolina system is not currently being implemented, it has been previously recognized as a model statewide accountability system for physical education (Rink & Mitchell, 2003). Ohio is currently executing a robust accountability system, which has been documented in the literature as well (Lorson & Mitchell, 2014). Rink and Williams (2003) noted the importance of a coalition among state-level health and physical activity groups to help prompt the development of legislation. For those states with no accountability system, establishing a coalition to garner support from the legislature or the state’s Board of Education may be an important first step to move toward the passing of supportive legislation/policy at the state level.

### Critical Elements of a Robust Accountability System

**Content Standards.** To implement accountability systems at the state level, there should be a focus updating content standards that align with the national content standards (SHAPE America, 2013). National organizations, such as SHAPE America, provide essential leadership in the areas of legislation and policy that strengthen the field. While each state has its own standards, moving toward a shared vision of the field may help implement changes across the nation.

**Legislation/Policy.** Legislation/policy plays a central role for states in the creation and implementation of an accountability system (Metzler, 2014). Rink and Williams (2003) noted the importance of a coalition among state-level health and physical activity groups to help prompt the development of legislation. For those states with no accountability system, establishing a coalition to garner support from the legislature or the state’s Board of Education may be an important first step to move toward the passing of supportive legislation/policy at the state level.

**Data Collection.** For data collection, what to, how to, and when to measure should be determined. Regarding what to measure, states should consider if all national or state content standards are being achieved and to what extent the standards are being met. If all standards are not measured, then a strong rationale should support the decision-making process of what standards are to be assessed and how they should be measured (Cale & Harris, 2009). A state’s decision of which standards to measure sends a critical message to the public and stakeholders regarding the value of physical education.

Regarding how to measure, assessment strategies with accountability have the power to change school programs (Rink & Williams, 2003). Thus ensuring the validity and reliability of assessments is fundamental. Also, feasibility and authenticity of assessment instruments need to be considered (Lorson & Mitchell, 2016). In the case of South Carolina steps were taken to make sure assessment materials were what the state wanted students to be able to do in real life (Rink & Williams, 2003).

Lastly, about when to assess student outcomes, collecting data in two- to three-year bands may be a reasonable timeframe from both feasibility and student growth perspectives. Furthermore,
when developing a secure online data submission platform and storage system, the simplicity of the data-entry process is an important consideration for busy teachers.

Data Monitoring. Data is sometimes intentionally or unintentionally submitted inaccurately, which could be due to the lack of knowledge of the assessment protocol (Rink & Stewart, 2003). Thus monitoring the accuracy of collected data is critical to ensure the reliability of what has been reported. However, for a state to govern the entire process is unrealistic; thus it is recommended that the districts/counties be responsible for monitoring schools and that the state assume responsibility for monitoring the districts/counties. Allocation of responsibilities could enable the execution of the data monitoring system to be more feasible within a state.

Data Evaluation and Dissemination. The central purpose of data collection is to inform standards, curriculum and assessments to ensure student learning in physical education. The assessment gives teachers feedback on the teaching process (Rink & Williams, 2003). However, to provide more meaningful feedback, consideration needs to be given to best practices in data reporting. For example, in Ohio aggregated data is shared with various audiences including the state and district superintendents, district physical education coordinators, school principals, physical education teachers, students and parents/guardians, and the public. However, Lorson and Mitchell (2016) suggested that the state Department of Education should move from an overall report by a school to tracking individual students. Regardless of the approach, states should consider using the data to hold schools and districts accountable for meeting standards in physical education and to facilitate and support program improvement.

Fundamental Elements of School Policy and Environment

Having formalized expectations for what students should learn places physical education on a more equal footing with the other academic subject areas in their schools (Rink & Stewart, 2003). In the literature, Ohio reported that having no required minutes per week for physical education made it challenging to implement the accountability system. Specifically, when a school has physical education only one time per week for 40 minutes, assessing students could take up all available class time and leave little time for instruction (Lorson & Mitchell, 2016). Alternatively, a policy could be developed after establishing an accountability system for student outcomes. For example, in the case of South Carolina many programs were able to reduce class size, acquire equipment, and obtain scheduling concessions from high school guidance counselors as a result of the state-level policy.

Facilitators of Effective Accountability Systems

Stakeholder Support and Shared Decision-making. Involvement of various stakeholders in the development and implementation of the accountability system is an effective strategy. Ohio noted that a 15-member writing team, consisting of physical education teachers, classroom teachers, higher education faculty members, curriculum directors, business leaders, and parents, developed the benchmarks and performance indicators for the new Ohio Physical Education Academic Content Standards (Lorson &
Mitchell, 2016). Assessments for each benchmark were developed by a writing team composed of both public-school physical educators and higher education faculty members (Lorson & Mitchell, 2016). The power of garnering input from these different groups is that they represent a cross-section of voters and bring different levels of expertise to bear on the perceived need or problem. Coalitions established by reform efforts are effective in gaining the attention of legislators and appointed committees (Elliott, Jones, & Bulger, 2014; Rink & Mitchell, 2003).

Continuing Professional Development for School Personnel. Professional development is essential for successful accountability systems in physical education (Bulger & Housner, 2009). When Ohio first established its accountability system, the Department of Education developed a set of regional trainers to deliver at least four professional development sessions in each region of the state. Further, the Department of Education provided online workshops to share information with teachers and administrators and made support materials and guides available on a website to support the implementation of the assessments and the collection of data (Lorson & Mitchell, 2016). Providing regular training for both school administrators and teachers is important to continue updating physical educators and refining shared goals.

School–University Partnerships and Shared Expertise. Forging a school–university partnership ensures that university faculty are a part of the process, which could facilitate the feedback loop within accountability systems (Brusseau, Bulger, Elliott, Hannon, & Jones, 2015). The use of the resources and expertise in universities in this process (e.g., analyze and interpret data) could be a significant factor for improving instruction and curriculum in schools. South Carolina reportedly had productive and positive working relationships between universities and public-school teachers in implementing their accountability system. In addition, university faculty members serve active roles in professional organizations (Rink & Mitchell, 2003). The involvement of university faculty also serves to prepare preservice teachers to implement the standards and assessment materials as they transition to full-time positions in the K–12 schools following graduation (Rink & Williams, 2003).

Advocacy Efforts across Multiple Audiences and Platforms. To demonstrate the impact that physical educators make, the systematic documentation of student learning is important. Efforts also need to be made to communicate those results to a range of stakeholders across multiple levels of influence (Bulger, Jones, & Elliott, 2018). These advocacy efforts should include the reporting of results using easily accessible platforms and readily consumable formats. Highlighting the impact physical education can have on K–12 learners facilitates the acquisition of additional resources for teachers. Advocacy efforts are also important, as they ensure that physical educators are a part of the movement rather than negatively affected by it (Rink & Williams, 2003). When state legislation is considered, oftentimes legislators have minimal expertise in the specific areas that require their attention and must depend on various experts and lobbyists to inform them of the needs and problems within their state, as well as potential solutions and strat-

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<tr>
<th>Stakeholders</th>
<th>Recommended action steps</th>
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<tr>
<td>State boards of education (policy) and/or state legislators (legislation)</td>
<td>• Ensure equitable resource distribution to physical education.</td>
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<td>• Establish legislation/policy for an accountability system.</td>
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<td>• Ensure that physical education has effective leadership in place at the state level within the department of education.</td>
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<td>State education/physical education leaders</td>
<td>• Advocate for the creation of legislation/policy that requires measuring student learning in physical education.</td>
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<td>• Establish a coalition to garner support from the legislature and/or state Board of Education.</td>
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<td>District education/physical education leaders</td>
<td>• Establish a data monitoring system collaboratively with state representatives to ensure the validity and reliability of the data.</td>
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<td>• Provide regular training for teachers to stay current with the accountability system.</td>
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<td>• Provide leadership for the reflective cycle of the data use to improve physical education programming at the school level.</td>
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<td>Physical education teachers/Principals</td>
<td>• Use the collected and reported data to improve physical education programming.</td>
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<td>• Provide adequate equipment and facilities for a physical education curriculum that meets physical education content standards.</td>
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<td>State and national organizations</td>
<td>• Support the development of state-level accountability systems (e.g., fund research initiatives, provide professional development).</td>
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<td>• Provide opportunities for state-level physical education leaders to share challenges and suggestions for the continued development of accountability systems.</td>
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<td>Higher education physical education teacher educators</td>
<td>• Seek opportunities to serve on committees appointed by the state or district to help with benchmarks, performance indicators, and the vision for what K–12 students.</td>
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<td>• Ensure that preservice teachers are gaining the knowledge and skills necessary to contribute to a robust accountability system for physical education.</td>
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Action Steps Needed by Various Stakeholders

Developing and implementing effective accountability systems for student learning in physical education requires support and action from a variety of stakeholders across the educational realm. Results of the report (Active Schools, 2019) and prior evidence-informed recommendations suggest that the following action steps be considered by each representative group to improve the accountability of student learning in physical education across the nation (see Table 2).

Conclusions

With the implementation of the ESSA in 2015, physical education is now recognized as a contributor to a “well-rounded education” for K–12 learners. Along with this change in status, there are increased expectations for documenting evidence of student learning in physical education. Demonstrating evidence also increases access to funding opportunities that are crucial to further provide support for quality physical education and student learning. Most states already have state content standards that align with the SHAPE America National Physical Education Standards and describe their states’ expected learning outcomes in K–12 physical education. These content standards represent an important starting point in that they provide the basis for all accountability systems of student learning in physical education.

Some people may argue that the establishment of an accountability system narrows the scope of student learning outcomes in physical education. However, up until now the limited use of accountability systems in physical education has created a situation where questions persist regarding student learning (Rink & Williams, 2003).

There is no single best approach to developing an effective accountability system in physical education. Decision makers and physical education experts can collaboratively determine a course of action that best meets the needs of their teachers, students, families and school–community stakeholders. The SLAC-PE graphic organizer described in this article provides a general framework for developing accountability systems in physical education.

It is important to note that the field cannot wait for policy-makers to prompt widespread systemic change in physical education, because it is unlikely ever to represent an immediate priority (van der Mars, 2018). Therefore, all stakeholders in physical education must demonstrate initiative in developing state and local systems for accountability that promote student learning. To better advocate for the value of physical education, accountability systems must become the norm and student learning should be readily evident.

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