

STATUS OF STATE-LEVEL PHYSICAL EDUCATION ACCOUNTABILITY POLICY AND SYSTEMS FEBRUARY 2019

MANAGED BY





WEST VIRGINIA UNIVERSITY

Emi Tsuda, Ph.D. James Wyant, Ph.D. Sean M. Bulger, Ed.D. Eloise Elliott, Ph.D. Andrea R. Taliaferro, Ph.D.

ACTION FOR HEALTHY KIDS AND ACTIVE SCHOOLS

Charlene Burgeson, M.A.

ALLIANCE FOR A HEALTHIER GENERATION

Howell Wechsler, Ed.D., M.P.H. (former Chief Executive Officer)

ACKNOWLEDGEMENT

We would like to thank Dr. Shannon Michael and Dr. Sarah Lee from the Centers for Disease Control and Prevention for providing insights into this research study.

FINANCIAL SUPPORT

Financial support for this study was provided by the American Council on Exercise and the American Heart Association.

TABLE OF CONTENTS

EXECI	UTIVE SUMMARY1	
INTRO	DUCTION	}
	Recent Shifts in Education	}
	Impact of ESSA in Physical Education	}
	The Need for Accountability Systems	}
	Shared vision	}
	Identify needs and best practices	}
	Advocate 4	ŀ
	The National Physical Education Standards4	ŀ
	Purpose4	ŀ
METH	ODS	j
	Participants and Recruitment5)
	Phase 1 5)
	Phase 25)
	Instrumentation and Data Collection Procedures6	;
	Phase 16)
	Phase 26)
	Data Analysis6)
THE F	RAMEWORK OF ACCOUNTABILITY SYSTEMS	
	Critical Elements of Robust Accountability Systems7	7
	Legislation/policy7	7
	Data collection7	7
	Data monitoring8	}
	Data dissemination/evaluation8	3
	Fundamental Elements of School Policy and Environment	}
	Facilitators of Effective Accountability Systems8	}
RESU	LTS)
	Part 1: Overall Summary of the Findings9)
	The content standards and the status of accountability systems)
	The legislation/policy, data collection, monitoring, and dissemination and evaluation9)
	Part 2: State by State Profiles of the Accountability System in Student Learning1	3
	Part 3: Critical Elements for Robust and Successful State-Wide Accountability Systems	51

Fundamental elements of school policy and environment in physical education 31
Facilitators of effective accountability systems
DISCUSSION AND RECOMMENDATIONS
Critical Elements of the Robust Accoutability Systems
Legislation/policy
Data collection
Data monitoring
Data evaluation and dissemination
Fundametal Elements of School Policy and Environment
Facilitators of Effective Accountability Systems
Stakeholder support and shared decision-making
Regular training for school administrators and teachers
School-university partnership and shared decision-making
Advocacy efforts across multiple audiences and platforms
Action Steps Needed by Various Stakeholders
Limitations and Future Study Directions
CONCLUSIONS
APPENDIX A
APPENDIX B
REFERENCES

EXECUTIVE SUMMARY

BACKGROUND

The implementation of the Every Student Succeeds Act (ESSA) in 2015 has redefined expectations for physical education in K-12 schools. While physical education was not included as a core academic subject in its predecessor, the No Child Left Behind (NCLB) Act, the ESSA formally recognizes physical education as an essential component of a "well-rounded education." This significant conceptual shift reinforces the potential contribution of physical education in addressing critical societal challenges such as childhood obesity, sedentary lifestyles, and physical literacy among K-12 learners (Centers for Disease Control and Prevention, 2018; Society of Health and Physical Educators [SHAPE America], 2016).

As a recognized contributor to a well-rounded education, physical education now shares an increased expectation for demonstrating student learning with other comparable subject areas at both state and local levels. Accordingly, supporting evidence of student learning in physical education is needed for stakeholders to:

- Achieve a shared vision for school physical education including its future direction.
- Identify program strengths and needs as a basis for continuous program improvement.
- Advocate for physical education programming.

Furthermore, ESSA funding requires evidence of student learning, including Title I (low-income schools), Title II (professional development), and Title IV (student support and academic enrichment) (SHAPE America, 2016). The need for evidence makes implementation of state-level accountability systems in physical education vital.

PURPOSE

The purpose of this study was to describe the status of state-level accountability systems for student learning in physical education. The findings provide policymakers and school leaders with valuable information regarding the development and implementation of state-level physical education accountability systems to inform decision-making in policy, standards, curriculum, instruction, and assessment.

METHOD

Researchers employed a mixed-method design (Bowen, 2009). The data sources consisted of survey results collected across two phases and publicly accessible documents related to school policy. In Phase 1, a web-based survey was administered to representatives from 50 states and the District of Columbia. A total of 43 state representatives completed the web-based survey, and four states representatives responded to an email. One state representative answered an email noting that the state had an accountability system but declined to participate in the survey.

For the states that completed the survey and reported having a state-level accountability system in place, further analyses were conducted on the related documents (i.e., policy and legislation) that were uploaded into their survey responses. A report published by SHAPE America (2016) was also analyzed to acquire information regarding the status of physical education for all 50 states and the District of Columbia. In Phase 2, researchers conducted a follow-up survey with representatives from the states with an accountability system. The data were analyzed and summarized descriptively.

RESULTS

Among the 48 states that responded to the survey or the email, a total of eleven states indicated that there was an accountability system to measure student outcomes. However, one of the eleven states declined to participate in the survey. Of the ten states which had an accountability system and completed the survey, seven measured fitness outcomes, two measured multiple content standards, and one assessed cognitive outcomes. The results across both phases of the study supported that there were four critical elements necessary for robust accountability systems: (1) legislation/policy to mandate implementation of the system, (2) utilization of online system to facilitate data collection and analysis, (3) data monitoring processes to ensure validity and reliability, and (4) data dissemination/evaluation strategies to inform key stakeholders of current status and future directions. Furthermore, school leaders and other key stakeholders must work together to address the fundamental elements of

school policy and the environment in physical education (e.g., required subject area, required minutes per week, mandatory teacher certification, and appropriate class sizes). Without these foundations, maximum student learning cannot be expected. Additionally, factors such as stakeholder support and shared decision-making, continuing professional development for school personnel, school-university partnership and shared expertise, and advocacy efforts across multiple audiences and platforms are vital to facilitate the implementation and sustainment of systems.

CONCLUSIONS

Given the limited number of states with physical education accountability systems in place, there is a need for further development in this area. Rink (2016) and van der Mars (2018) cautioned, however, that the field cannot wait for policymakers to prompt a wide-spread systemic change in physical education because it is unlikely ever to represent an immediate priority. Therefore, all key stakeholders in physical education need to take the initiative in developing state and local systems for accountability that promote student learning. It is also important to recognize that there is no single best approach to develop an effective accountability system. 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.

INTRODUCTION

RECENT SHIFTS IN EDUCATION

The enforcement of the Every Student Success Act (ESSA) in 2015 induced a 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 federal government 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 student learning in schools (USDE, 2016).

IMPACT OF ESSA IN PHYSICAL EDUCATION

Physical education is one of the most impacted subject areas with 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 a significant role in improving the physical literacy of K-12 learners and addressing persistent societal challenges like childhood obesity and physically inactive lifestyles (Centers for Disease Control and Prevention, 2017; Society of Health and Physical Educators [SHAPE America], 2016).

Being included in the definition of a well-rounded education provides physical education greater access to 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 upon the availability of data-based evidence. This crucial evidence of student learning in physical education can be made possible 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.

THE NEED FOR ACCOUNTABILITY SYSTEMS

Accountability systems need to be in place at the state level to ensure that all districts, schools, and teachers are collecting meaningful student outcome data based on state physical education standards. Well-developed systems of accountability better position stakeholders to:

- Achieve a shared vision for school physical education including its future direction.
- · Identify program strengths and needs as a basis for continuous program improvement.
- Advocate for physical education programming.

SHARED VISION. The development and adoption of high stakes assessment programs have the potential to establish a shared vision for what students should know and be able to do as a result of their participation in K-12 physical education (Fullan, 1991; Rink & Steward, 2003). Assessment enables stakeholders to clarify the purpose of programs and teachers to focus on providing high-quality learning experiences for all students (Fullan, 1991).

IDENTIFY NEEDS AND BEST PRACTICES. By measuring and reporting student learning outcomes, stakeholders can better understand how their students' performance compares to other schools in their district and state (Barber, 2004). Identifying the most significant needs of the students enables stakeholders to set meaningful targets for future performance. Additionally, knowledge of student performance in each school allows stakeholders to identify best practices (Barber, 2004).

ADVOCATE. Documenting student learning outcomes allows physical educators to gain the support of both the public and policymakers (Rink & Mitchell, 2003). If a program area cannot demonstrate observable outcomes, the subject is looked upon as "an area that can be reduced or eliminated" (Rink, 1999, p. 5). Moreover, the data provides feedback to the public on how much impact their societal investment in schools is producing (Barber, 2004).

THE NATIONAL PHYSICAL EDUCATION STANDARDS

Most subject areas in the school curriculum have national education standards that drive the content of the curriculum and the assessment of student learning. To show that progress is made in developing physical literacy, accountability systems should be able to identify evidence thereof. At the national level, the SHAPE America (2014) 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:

- **Standard 1**: The physically literate individual demonstrates competency in a variety of motor skills and movement patterns.
- **Standard 2**: The physically literate individual applies knowledge of concepts, principles, strategies, and tactics related to movement and performance.
- **Standard 3**: The physically literate individual demonstrates the knowledge and skills to achieve and maintain a health-enhancing level of physical activity and fitness.
- **Standard 4**: The physically literate individual exhibits responsible personal and social behavior that respects self and others.
- **Standard 5**: The physically literate individual recognizes the value of physical activity for health, enjoyment, challenge, self-expression and/or social interaction.

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 end of each grade. By adopting physical literacy as the goal of these standards, physical education is now recognized as the venue in which students learn the skills and knowledge necessary to participate in a variety of physical activities, and the confidence and motivation to participate in regular physical activity. If student learning in physical education is not measured, reported, analyzed, and disseminated, educational systems are not informed on priorities and what actions should be taken to improve.

PURPOSE

Accountability systems for producing data-based evidence of student learning in schools are critical to the field of physical education. Despite the potential benefits of accountability systems, little is known about what systems are in place across states for monitoring student learning in physical education. The purpose of this study was to address this knowledge gap by describing the current status of accountability systems of student learning in physical education across all states in the United States. It is expected that the findings will provide policymakers and school leaders with valuable information regarding the development and implementation of state-level policy and accountability systems to inform policy, standards, curriculum, instruction, and assessment.

The researchers investigated four related questions:

RQ1. What state-wide accountability policies and systems are in place for physical education?

RQ2. What underlying factors (i.e., legislation, policy, cost, and training) influenced the development of the current accountability policies and systems?

RQ3. How are data collected, stored, reported, and used in states with systems in place?

RQ4. What recommendations do leaders in states with accountability systems have for those in states with no systems in place?

METHODS

Researchers used a mixed-method research design (Bowen, 2009) for this study. The method included two sequential phases: (1) A web-based survey of state representatives, and (2) a follow-up survey with respondents who reported having a state-level accountability system in place for physical education. Data were gathered using surveys and publicly accessible sources (i.e., the report of the status of physical education [SHAPE America, 2016] and shared documentation through surveys including legislation/policy). The data from multiple sources were mixed in analyses to develop a profile for each state with an established accountability system for physical education. The following subsections describe the method in further detail.

PARTICIPANTS AND RECRUITMENT

PHASE 1. Three steps were taken for the recruitment process. First, the research team contacted physical education representatives from each state's Department of Education. Three representatives deferred emails to other individuals who were better informed about the status of physical education accountability systems in their state. Two state representatives declined to participate in the study. Following four email prompts and a phone call to state Department of Education representatives in the ten states that had not yet responded to the survey or declined to participate, in step two, researchers contacted the state Health, Physical Education, Recreation, and Dance (HPERD) association to recruit a representative to respond to the survey. Two more states responded to the survey through this process. One final follow-up inquiry, step three, was conducted with the ten states with no response and the two states that initially declined to participate in the survey. An email was distributed to these states that directly asked whether there was an accountability systems. One state representative, who had declined to participate in the survey previously, responded to the email noting that the state has an accountability system for student learning. Further, one more state completed the survey through this process. The recruitment process is illustrated in Figure 1. A total of 48 states participate either in the survey or the email. Respondents included: representatives from state Departments of Education (n=44 [n=4 responded to the final email but did not complete the survey]), representatives of state HPERD associations (n=3), and a representative from a state health department (n=1)



Note. HPERD = the state Health, Physical Education, Recreation, and Dance Association.

Figure 1. Three recruitment steps for Phase 1

PHASE 2. After the initial survey, the research team contacted the respondents who reported having a state-level accountability system in place for physical education to request their participation in a follow-up survey. Three state representatives responded to the initial follow-up survey request. A week later, the research team contacted the state representatives who did not respond. After the second email, one more state representative completed the follow-up survey. In total, four (n=4) state representatives completed the follow-up survey.

INSTRUMENTATION AND DATA COLLECTION PROCEDURES

PHASE 1. The research team developed a survey to examine the status of state-level accountability systems for student learning in physical education. The survey questions were drafted and refined through multiple rounds of input from ten experienced researchers in physical education, public health, and education policy. A web-based survey platform (Qualtrics®) was employed in this study.

The initial draft of the web-based survey was pilot-tested with two physical educators and two graduate students to determine its functionality, the clarity of the questions, and face validity. Researchers made minor revisions to the survey based on the feedback received and obtained Institutional Review Board (IRB) approval from their university before data collection.

The final survey consisted of six sections with a total of fifty-three questions. The total number of questions that each respondent answered varied due to embedded skip patterns. For example, if a respondent answered that there was no accountability system in place for student learning, questions aligned with the development and implementation of the accountability systems were not displayed. The questions asked were organized in the following sections:

- **Section 1.** Demographic Background: Contact information and affiliation.
- Section 2. Requirements for Physical Education: A state's requirement for minutes per week for physical education.
- Section 3. Physical Education Standards: A state's physical education content standards, including dedicated personnel and the last year updated.
- Section 4. Physical Education Assessments and Accountability: Factors that informed the system development and personnel who were involved in developing the system.
- Section 5. Accountability System Implementation: Data collection approaches, related costs, involved personnel, and data dissemination systems.
- Section 6. Overall: Factors that helped and challenged the development and implementation of the accountability system

The final web-based survey was distributed electronically to state representatives from all fifty states and the District of Columbia.

PHASE 2. The follow-up survey included six open-ended questions. Three questions solicited recommendations for developing, implementing, and sustaining state-level accountability systems in physical education. Other questions sought to gather information regarding the rationale for the current structure of the accountability system, and another asked if there is a plan to measure additional student learning outcomes. The last question requested respondents to share recommendations that could be beneficial to other states in developing and enhancing accountability systems. All survey questions were drafted by researchers with experience in qualitative research methods. Questions were pilot tested with one graduate student and one physical educator to ensure the clarity of the questions before use.

During this phase, the state representatives had the option to respond in writing or by a phone call. Among four respondents, three states answered the web-based format, and one state chose to respond via a phone call. The phone interview was recorded and transcribed verbatim into a written format.

DATA ANALYSIS

The web-based survey data from Phase 1 were downloaded into a spreadsheet for descriptive analysis. Research team members then completed an inductive content analysis for all open-ended question responses and shared or publicly accessible policy documents. Collectively, these data were then used to create state-by-state profiles. Members of the research team also inductively analyzed state representative responses to all open-ended survey questions from Phase 2. These data were used to develop specific case descriptions for each state with an accountability system.

THE FRAMEWORK OF ACCOUNTABILITY SYSTEMS

The results of this study are organized using a proposed Student Learning Accountability Cycle for Physical Education (SLAC-PE; see Figure 2). The framework is grounded by the Stages Model (Howlett & Ramesh, 2003) that is widely used in policy research and further adapted based on the findings of this study. The SLAC-PE framework graphically represents the critical elements of a robust accountability system for student outcomes in physical education.



Figure 2. Student Learning Accountability Cycle for Physical Education (SLAC-PE)

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. Content standards provide the foundation of an accountability system of student learning because standards represent the expected outcomes in K-12 physical education.

This SLAC-PE framework represents three primary aspects of the accountability systems: Critical elements of a robust accountability system, fundamental elements of school policy and the environment in physical education, and facilitators of an effective accountability system.

CRITICAL ELEMENTS OF ROBUST ACCOUNTABILITY SYSTEMS

There are four critical elements to execute a robust state-wide accountability system: (a) legislation/policy, (b) data collection, (c) data monitoring, and (d) data dissemination and evaluation. The underpinning concept of this framework is that accountability systems are not a linear process, but rather a continuous, iterative feedback loop. States can use data as a mechanism to continually refine and improve elements of the accountability system.

LEGISLATION/POLICY. Legislation and policy describe state-level mandated requirements for measuring student learning outcomes in physical education. Elements of legislation/policy that should be included are: (a) what to assess, (b) how to assess, (c) when to assess, and (d) how to report data. The legislation/policy element provides specific guidance for implementing accountability systems.

DATA COLLECTION. The data collection element includes the processes for obtaining and managing high-quality data on student learning across settings. This element includes the types of assessments used, the grade levels involved, the location and security of data storage, the budget for implementing the assessment, and school personnel involved.

DATA MONITORING. Data monitoring addresses how to examine the validity and reliability of the collected data at the district/county and school levels. Data monitoring ensures that teachers accurately administer tests and assess student performance. To this end, professional development is also an integral aspect of data monitoring (Williams & Rink, 2003).

DATA DISSEMINATION/EVALUATION. The data dissemination and evaluation element include whom the data are shared with, how the data are used, and what purpose the data serves. This step of the process is critical in communicating feedback for improvement. Without this mechanism, the accountability system has limited usefulness.

FUNDAMENTAL ELEMENTS OF SCHOOL POLICY AND ENVIRONMENT

There are four fundamental elements of school policy and the environment in physical education included in the inner circle: (a) class size, (b) required subject, (c) certified teachers, and (d) minutes per week. Class size focuses on ensuring that the teacher-to-student ratio for physical education is comparable to other subject areas. The designation of physical education as a required subject area guarantees that students across the K-12 years must complete it. For example, at the high school level, students are required to take and pass a physical education class to satisfy the requirements for graduation. Certification of teachers addresses the issue of who can teach physical education, with an emphasis on mandating that only those teachers who attain a license in physical education should serve as the instructor of record. The minutes per week factor reinforces the need for states to have weekly time requirements (e.g., 150 minutes a week for elementary school) in place for physical education. When one or more of these factors are not in place, it can detract from the establishment of a quality teaching-learning environment. More importantly, if these fundamental elements for physical education are not in place, it will be difficult to implement and sustain a robust accountability system.

FACILITATORS OF EFFECTIVE ACCOUNTABILITY SYSTEMS

The outer ring represents the facilitating factors that influence the effectiveness and sustainability of the 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: (a) stakeholder support and shared decision-making, (b) regular training for school administrators and teachers, (c) school-university partnership and shared expertise and (d) advocacy efforts across multiple audiences and platforms.

The development of accountability systems at the state or local level represents a resource-intensive undertaking. The success of large-scale accountability efforts is contingent in part on the generation and maintenance of stakeholder support. Shared decision-making represents an essential strategy in garnering that support. System developers also need to resource the training of school administrators and personnel. Periodic re-training is needed to guard against drift in protocol administration over time.

School-university partnerships offer great promise as a strategy for maximizing shared expertise. For example, university researchers can offer specialized skills in the areas of design, data collection, data analysis, and data interpretation. Additionally, cooperating teachers can work with pre-service teachers to help them better understand the complexities of school-based assessment. Advocacy efforts targeting audiences across multiple levels of influence (e.g., student, school personnel, families and communities, policy-makers) also require careful attention including targeted messaging and the use of multiple platforms (e.g., formal reporting, traditional media, social media).

RESULTS

Findings of this study are reported in three parts. The first part illustrates the overall summary of the results with tables. The second part focuses on an in-depth state-by-state analysis of the accountability systems in the ten states that had systems in place. The final part presents other critical aspects that need to be considered to facilitate and sustain robust accountability systems.

PART 1: OVERALL SUMMARY OF THE FINDINGS

The overall summary of the findings is displayed in two tables. Table 1 provides summary findings on the central element of the SLAC-PE framework, content standards. Table 2 shows the results of the critical elements of robust accountability systems in the SLAC-PE framework.

THE CONTENT STANDARDS AND THE STATUS OF ACCOUNTABILITY SYSTEMS. Table 1 represents the summary of the content standards (the most recent year updated, and leading agency establishing the standards) and the status of accountability systems for student learning. The results of the states colored in red in the first column are solely from the findings of the document analyses (SHAPE America, 2016). The results from the remaining states are from both the document and survey or email analyses.

THE LEGISLATION/POLICY, DATA COLLECTION, MONITORING, AND DISSEMINATION AND EVALUATION. Table 2 represents the summary of the results from the ten states that have accountability systems in place for student learning. The data provides background on the accountability system regarding legislation/policy, data collection, data monitoring, and data dissemination/evaluation.

		Involved in the Development (the leading agency of developing the system = bold)									
State	Last Updated	The state education agency	The state health agency	The state PE association	District PE coordinators	Principal of School	PE teachers	University faculty	Other	Student Outcomes $\bigcirc = Yes / \times = No$ $\triangle = Developing$ U/K = Unknown	
AL	2009	\checkmark	√	✓	\checkmark	√	✓	✓	Governor Appointees	×	
AK	2010	\checkmark	\checkmark	\checkmark	-	-	-	-	-	×	
AZ	2015	\checkmark	-	√	\checkmark	√	√	✓	-	×	
AR	2011	\checkmark	-	-	-	-	√	\checkmark	-	Х	
CA	2005	U/K	U/K	U/K	U/K	U/K	U/K	U/K	U/K	U/K	
CO	2010	\checkmark	-	\checkmark	\checkmark	-	\checkmark	-	-	×	
CT	2006	✓	✓	✓	√	-	√	✓	-	0	
DE	2005	U/K	U/K	U/K	U/K	U/K	U/K	U/K	U/K	Х	
DC	2017	✓	✓	-	-	-	-	-	District of Columbia Public Schools	0	
FL	2013	✓	-	✓	√	-	√	√	Parent	×	
GA	2018	~	✓	√	✓	✓	✓	~	State Board of Education Members & Children's Hospital American Red Cross	0	
HI ³	2005	U/K	U/K	U/K	U/K	U/K	U/K	U/K	U/K	×	
ID	2010	\checkmark	√	\checkmark	√	-	√	✓	-	×	
IL	2014	√	-	√	\checkmark	-	√	-	Public health advocacy group	0	
IN	2017	✓	-	✓	√	-	√	~	-	×	
IA ³	-	U/K	U/K	U/K	U/K	U/K	U/K	U/K	U/K	×	
KS	2005	√	-	√	√	-	√	~	-	Х	
KY	2006	√	-	-	-	-	-	-	-	×	
LA	2017	√	√	√	√	-	√	~	-	Х	
ME ¹	2007	√	-	√	✓	-	\checkmark	\checkmark	-	×	
MD	2015	√	√	√	√	-	√	~	-	Δ	
MA	1999	√	✓	√	✓	-	-	\checkmark	Health and Nursing Coordinators	×	
MI	2017	√	√	√	√	-	√	~	-	Х	
MN	2018	√	✓	√	✓	\checkmark	\checkmark	\checkmark	-	×	
MS	2013	√	-	-	-	-	√	~	-	Х	
MO	2007	√	-	√	✓	-	\checkmark	\checkmark	-	0	
MT	2016	√	√	√	√	√	√	~	-	Х	
NE	2016	✓	√	√	~	-	√	~	Health care workers & researchers and American Heart Association, American Lung Association	×	
NV ³	2014	U/K	U/K	U/K	U/K	U/K	U/K	U/K	U/K	×	
NH	2006	√	-	√	√	-	√	√	-	Δ	
NJ	2014	√	-	√	√	-	√	√	-	×	
NM	2009	√	\checkmark	√	-	-	√	✓	-	0	
NY ²	1990's	√	-	√	√	√	√	√	-	×	
NC	2011	√	-	√	√	-	√	✓	-	×	
ND	2015	-	-	√	√	-	~	~	-	×	

Table 1. Summary of State Content Standards and the Status of Accountability Systems

OH	2015	\checkmark	√	\checkmark	\checkmark	-	√	✓	-	0
OK	2016	~	~	√	\checkmark	-	√	✓	-	×
OR	2016	✓	√	\checkmark	√	√	√	√	Educational Service District	×
PA	2002	U/K	U/K	U/K	U/K	U/K	U/K	U/K	U/K	×
RI ⁴	2003	√	√	√	√	-	√	√	CBO's	×
SC	2014	✓	√	√	√	-	✓	✓	-	U/K
SD	2014	U/K	U/K	U/K	U/K	U/K	U/K	U/K	U/K	U/K
TN ³	2018	✓	-	✓	√	-	\checkmark	✓	-	×
TX ⁴	1998	√	-	√	√	√	\checkmark	\checkmark	-	0
VT	2015	U/K	U/K	U/K	U/K	U/K	U/K	U/K	U/K	U/K
UT	2016	√	✓	-	√	-	√	√	-	×
VA	2015	✓	✓	√	√	✓	✓	✓ Public Hearings and public comments		0
WA	2016	✓	√	√	√	-	√	✓ ✓ Health Educators		×
WV	2015	✓	-	√	-	-	√	✓		0
WI	2010	√	√	\checkmark	-	\checkmark	√	✓ ✓ Director of Instructional Services		Х
WY	2014	\checkmark	-	\checkmark	-	-	✓	√	-	×

Note:

1 = A local control state so each district has its own accountability system and does not have a state-wide accountability system.

2 = District curriculums and assessments are developed at the local level. BMI is collected through the department of health.

3 = These states only responded to an email, not a survey. Thus, results are only from the document analyses (SHAPE America, 2016).

4 = This state participated in only part of the survey and declined further participation.

State	Legislation/ Policy	Data Colle	ction	Data Monitoring	Data Dissemination/Evaluation				
State	Y = Yes	Type of	Grade Levels	Y = Yes	The State I	Level	District/County Level		
	N = No	Assessment	to Report	N = No	Dissemination Usage		Dissemination	Usage	
CT	Ν	Connecticut Physical Fitness Assessment	4, 6, 8	Ν	 District superintendent District physical education coordinators School principals The public 	U/K	The public	U/K	
DE	Y	FitnessGram®	4, 7,9 or 10	Ν	U/K	U/K	U/K	U/K	
DC	Y	Health and Physical Education Assessment	5, 8, HS grades	N	 The state legislature The state superintendent School principals The public 	U/K	• The public ¹	 Comparing data from a previous year(s)¹ 	
GA	Y	FitnessGram®	1-12 (1-3 body composition only; 4-12 a whole battery)	Y	 The state superintendent District physical education coordinators School principals The public Governor's Office 	U/K	 Physical education teachers The public	 Compare data from previous year(s), state norms, and national norms Set objectives for improvement 	
IL	Y	FitnessGram®	5, 7, 10	Ν	U/K	U/K	The public	U/K	
MO	Y	FitnessGram®	5, 9	Y	 Considers it for revisions to student learning outcomes 	Enhancement of current programming and to award school districts that meet minimum standards	• Teachers ¹	 Encourage teachers to use appropriate practices¹ 	
NM	U/K	End of Course Exam	4-5, 6-8, 9-12	Ν	 Physical education teachers School district test coordinators Curriculum coordinators 	U/K	TeachersStudent and families	U/K	
OH	Y	PEE Standards 1-5	4, 5, 7	Ν	 State superintendent District superintendent, PE coodinators School principals, PE teachers Students and families Public 	 Revisions to student learning outcomes Setting performance objectives 	 Physical education teachers Student and families 	 Comparing data from previous year(s) and with national norms Setting objectives for improvement 	
TX ²	Y	U/K	U/K	U/K	U/K	U/K	U/K	U/K	
VA	U/K	Objectives of Standards of Learning	U/K	Y	 State legislature, superintendent District superintendents 	U/K	The publicPhysical education teachers	U/K	
WV	Y	FitnessGram®	4-12	Ν	School principalsPublic	U/K	U/K	U/K	

Table 2. Summary of the Accountability Systems for Student Learning at the State Level (U/K = Unknown)

Note.

1 = Not mandated.

2 = TX responded to an email noting that they have an accountability system in place for student learning. However, they declined to complete the survey.

PART 2: STATE BY STATE PROFILES OF THE ACCOUNTABILITY SYSTEM IN STUDENT LEARNING

This section presents the profiles (n=10) for the states that responded to the survey and currently have accountability systems in place. Each profile consists of three sections: (1) the process of developing the accountability system, (2) the SLAC-PE framework, and (3) other factors.

(1) THE PROCESS OF DEVELOPING THE ACCOUNTABILITY SYSTEM

The section includes information on how long it took the state to establish the system, what informed the selection of the assessment(s), the process of developing the accountability system, the data dissemination plan, and people involved with developing the system.

(2) THE SLAC-PE FRAMEWORK

The SLAC-PE framework provides an overview of each state profile. A transparent box in the model represents missing elements. For example, in the figure below, no color is filled in the data monitoring box; this means that there is no data monitoring system in place for this sample state's system.

(A) CONTENT STANDARDS

This section explains which component(s) of the national standards are covered in each state, and the last year when the state standards were updated.



(B) CRITICAL ELEMENTS OF ROBUST ACCOUNTABILITY SYSTEMS

This section, which is the focus of the state profile, provides descriptions of each critical element of robust accountability systems in the SLAC-PE framework: (a) legislation/policy [see Appendix A for specific codes or titles], (b) data collection, (c) data monitoring, and (d) data evaluation and dissemination. The depth of description varies depending on the level of detail provided in the survey responses.

(3) OTHER FACTORS

This last section provides information regarding factors that helped in developing and implementing systems, and challenges in developing and implementing systems. Other comments shared by each state's representative are also included here.

CONNECTICUT

The state of Connecticut established an accountability system for physical education to ensure it was held to the same standard as other subject areas. The focus of the system is to collect student fitness data. Data collection occurs at grades 4, 6, 8, and 10. The state also requires that fitness data be shared with various stakeholders. Visit Connecticut's Department of Education website to acquire more information on the physical education accountability system.

(1) THE PROCESS OF DEVELOPING THE ACCOUNTABILITY SYSTEM

There is no shared information.

(2) THE SLAC-PE FRAMEWORK

(A) CONTENT STANDARDS

Connecticut has content standards (last updated in 2006) that align with each of the SHAPE America National Standards.

(B) CRITICAL ELEMENTS OF ROBUST ACCOUNTABILITY SYSTEMS

 Legislation/policy: There is no legislation or policy for the accountability system. There is only a <u>requirement</u> by the State Department of Education.



- **Data Collection:** Students' fitness levels are required to be measured using the "<u>Third Generation</u>" Connecticut Physical Fitness Assessment in grades 4, 6, 8, and 10. Each district/county submits the collected data through an online system.
- Data Monitoring: There is no shared information.
- Data Dissemination/Evaluation:
 - *The state level:* The state shares the data with the district superintendents, district physical education coordinators, school principals, and the public.
 - *The district/county level:* The state requires the districts/counties to share the data with the public.

(3) OTHER FACTORS

The state developed the accountability system because they were establishing state-wide testing for academics, and people felt that it was important to include physical education in some ways to have equal value with other subjects.

DELAWARE

The state of Delaware established an accountability system to collect data on student fitness levels. The state adopted FitnessGram® as the assessment tool to guide this process. Data collection occurs during grades 4, 7, & 9 or 10. The state also requires the data to be shared with various stakeholders. Visit Delaware 's Department of Education's <u>website</u> to acquire more information on the physical education accountability system.

(1) THE PROCESS OF DEVELOPING THE ACCOUNTABILITY SYSTEM

There is no shared information.

(2) THE SLAC-PE FRAMEWORK

(A) CONTENT STANDARDS

Delaware has content standards (last updated in 2005) that align with each of the SHAPE America National Standards.

(B) CRITICAL ELEMENTS OF ROBUST ACCOUNTABILITY SYSTEMS

• Legislation/policy: There is a <u>department of education</u> <u>policy</u> for the accountability system (Title 14: 500). The policy mandates assessing fitness and reporting back to different stakeholders.



- **Data Collection:** FitnessGram® measures students' fitness levels in three grade levels (4, 7, & 9 or 10). Once teachers collect the data, they submit it through an online system. The cost associated with implementation is \$20,000, and the state agency provides the funding.
- **Data Monitoring:** There is no shared information.
- Data Dissemination/Evaluation: There is no shared information.

DISTRICT OF COLUMBIA

The District of Columbia established an accountability system that focuses on students' cognitive knowledge. The Health and Physical Education assessment is adopted to measure the cognitive domain of student learning. Data collection occurs during grades 5, 8, and high school grades. The state also requires that results of the cognitive assessment be shared with various stakeholders. Visit the District of Columbia's Department of Education website to acquire more information on the physical education accountability system.

(1) THE PROCESS OF DEVELOPING THE ACCOUNTABILITY SYSTEM

It took 0-6 months to develop the accountability system once a decision was made to begin the process. The state physical education content standards informed the selection of the assessment(s) in the accountability system. Once the state developed the system, emails were used to disseminate the information to target audiences. The state education agency contributed the funding for development of the system.

(2) THE SLAC-PE FRAMEWORK

(A) CONTENT STANDARDS

The District of Columbia has content standards (last updated in 2017) that align with each of the SHAPE America National Standards.

(B) CRITICAL ELEMENTS OF ROBUST ACCOUNTABILITY SYSTEMS

Legislation/policy: There
 is legislation for the
 accountability system. The
 policy mandates assessing
 student learning concerning
 cognitive outcomes.



- **Data Collection:** The state measures students' cognitive knowledge through the Health and Physical Education Assessment in three grade levels (5, 8, and high school grades). Each school submits the collected data through an online system and stored in the state's computer system. The state education agency supports the funding for system implementation.
- Data Monitoring: There is no shared information.
- Data Dissemination/Evaluation:
 - *The state level:* The state shares the data with the state legislature, the state superintendent, school principals, and with the public.
 - *The district/county level:* The state recommends districts/counties compare the data from the previous year(s) and share with the public.

(3) OTHER FACTORS

• **Factors that helped in developing:** Local Healthy Schools Act and CDC handbook for School Health Profiles were the factors that helped in developing the system.

- **Factors that helped in implementing:** Robust communication strategy, timely responses to technical assistance requests were the factors that helped to implement the system.
- **Challenges in implementing:** Ensuring universal participation and the technology portal were the challenges in implementing the system.

GEORGIA

The state of Georgia has legislation in place that mandates assessing and reporting student fitness data. The state adopted FitnessGram® to measures students' fitness levels. Data collection occurs annually in grades 1-12. The state also requires that student fitness data be shared with various stakeholders. Visit Georgia's Department of Education website to acquire more information on the physical education accountability system.

(1) THE PROCESS OF DEVELOPING THE ACCOUNTABILITY SYSTEM

It took 6-12 months to develop the accountability system. The state physical education content standards, expertise of the committee members, and feasibility related to assessment administration training informed the selection of the assessment in the accountability system. Once the state developed the system, emails were used to disseminate the information to target audiences. The state education agency also delivered workshops at a state conference and outside of a state conference. Approximately, \$1,000,000 were used for initial and ongoing costs. The cost was attributed to staff time, meeting/travel costs for committee, pilot testing, technology, training, honorarium for committee members, validity and reliability testing, supplies/equipment, and branding. The state education agency and state health agency provided funding.

(2) THE SLAC-PE FRAMEWORK

(A) CONTENT STANDARDS

Georgia has content standards (last updated in 2018) that align with each of the SHAPE America National Standards.

(B) CRITICAL ELEMENTS OF ROBUST ACCOUNTABILITY SYSTEMS

 Legislation/policy: There is legislation (Title 20-2-777) for the accountability system. The legislation mandates assessing and reporting student fitness levels.



- **Data Collection:** The state requires each local school system to conduct an annual fitness assessment using FitnessGram® once a year for students in grades one through 12; for the grades 1-3, only the body composition data is required, and for the grades 4-12, the full battery is mandatory to be measured. Each school submits the data through an online system, and the pre-existing program is used to store the data at the state level. The implementation and maintenance of the accountability system costs more than \$10,000 each year. The funding is provided by state education agency and state health agency.
- Data Monitoring: There is no data monitoring system in place.

Data Dissemination/Evaluation:

- *The state level:* The state is required to share the data with the state superintendent, district physical education coordinators, school principals, the public, and the governor's office.
- The district/county level: The data is required to share with physical education teachers and with the public.

(3) OTHER FACTORS

- **Factors that helped in developing:** Having legislation helped in developing the accountability system. Also, the partnership with the state SHAPE America was the key to develop the system.
- **Challenges in developing:** Securing funds, people buying in, and local control issues were the challenges in developing the system.
- Factors that helped in implementing: Partnership helped implementing the system.
- **Challenges in implementing:** Securing funds and time were the challenges in implementing the system.

ILLINOIS

The state of Illinois passed legislation that mandates the collection of student fitness data. The state adopted FitnessGram® as the assessment tool to measure student fitness levels. Data collection occurs at every grade level between 3-12, with the results only being reported to various stakeholders during grades 5, 7, and 10. Visit the Illinois Department of Education website to acquire more information on the physical education accountability system.

(1) THE PROCESS OF DEVELOPING THE ACCOUNTABILITY SYSTEM

It took one to two years for the state to establish the accountability system once a decision was made to begin the process. The cost was attributed to meetings or travel costs for the committee members. The state education agency provided funding.

(2) THE SLAC-PE FRAMEWORK



- **Data Collection:** Students' fitness levels are required to be measured every year in 3-12th grades and reported in 5th, 7th, and 10th grades using FitnessGram®. Teachers submit data through the online system and stored in the "Illinois Web Application Security (IWAS) system."
- Data Monitoring: There is no data monitoring system in place.
- Data Dissemination/Evaluation:

student fitness data.

- The state level: The state shares the collected data with the state legislature.
- The district/county level: The district/county shares the collected data with the public.

(3) OTHER FACTORS

- **Factors that helped in developing:** Legislative support; support from some progressive district superintendents; support from state public health advocacy group were the factors that helped in developing the system.
- Challenges in developing: Parental pushback was the challenges in developing the system.
- *Factors that helped in implementing:* Legislative mandate was the factors that helped in implementing the system.

• **Challenges in implementing:** Misunderstanding of how to measure FitnessGram® for various populations, specifically those with disabilities, difficulty in finding time for qualified physical education teachers to perform the assessment, and no penalty for failure to assess fitness nor for failure to report were the identified challenges in implementing.

MISSOURI

The state of Missouri passed legislation that mandates the collection of student fitness data. This system has been in place for over 30 years. Data collection occurs at grades, 5 and 9. Data collected from the fitness assessment is posted to a publicly accessible website. Visit the Missouri Department of Education's <u>website</u> to acquire more information on the physical education accountability system.

(1) THE PROCESS OF DEVELOPING THE ACCOUNTABILITY SYSTEM

The accountability system has been in place for over 30 years and gets updated every five years. Updates in physical education/health have occurred regularly based on legislation and school needs. Data collection started in the mid '80s, and the system was legislated. The state developed the current accountability system with input from a broad group of stakeholders with expertise in particular areas. Meetings across the state and focus group meetings were used to gain feedback on the system. The cost is attributed to staff time and meeting/travel costs for committee members. State education agency, school districts in the state, and the state physical education association provided funds to cover the costs of development.

(2) THE SLAC-PE FRAMEWORK (A) CONTENT STANDARDS

Missouri has content standards (last updated in 2013) that align with each of the SHAPE America National Standards.

(B) CRITICAL ELEMENTS OF ROBUST ACCOUNTABILITY SYSTEMS

 Legislation/policy: There is legislation for the accountability system (Guidance for Cade's Law). The legislation mandates assessing and reporting student fitness levels.



- **Data Collection:** The state requires the reporting of students' fitness levels in 5th and 9th grades. Each district/ county submits the data through the online system, and the state's computer system is used to store the data. The state education agency and the office of quality schools lead the process, and the state physical education association and Director of Health, Physical Education and School Wellness, and Office of Quality Schools are involved.
- **Data Monitoring:** The collected data is posted on the website for those districts and schools meeting minimum requirements.
- Data Dissemination/Evaluation:
 - *The state level:* The data is used to consider revisions to student learning outcomes, for enhancing current programming, and to award school districts that meet the minimum standards at the state level.
 - *The district/county level:* There is no requirement for the dissemination of the data (local control state). However, the state encourages them to use appropriate practices.
- 22 Status of State-Level Physical Education Accountability Policy and Systems

(3) OTHER FACTORS

- Factors that helped in developing: History and legislation assisted in developing the system.
- **Challenges in developing:** There was a lack of buy-in for physical education from some stakeholders.
- **Challenges that helped in implementing:** Barriers to technology and teacher/school buy-in to complete the ideal process were the challenges identified in the implementing process.

NEW MEXICO

The state of New Mexico has legislation in place that requires the assessment of multiple student learning outcomes. Student learning across these multiple outcomes are assessed via End of Course exams. These state-authored exams are requirements for all teachers to complete, and the results are shared through different channels to various stakeholders. The data is used within the state to document student growth. Visit the New Mexico Department of Education's <u>website</u> to acquire more information on the physical education accountability system.

(1) THE PROCESS OF DEVELOPING THE ACCOUNTABILITY SYSTEM

It took about one to two years to develop the accountability system once a decision was made to begin the process. The state physical education content standards, other states' use of assessments, the expertise of the committee members, and feasibility related to development cost informed the development of the system. It cost \$1,500,000.00 for the entire accountability system (72 End of Course [EoC] exams delivered on an online testing platform; approximately \$20,000.00 per EoC, such as physical education). The cost was attributed to staff time, meeting/travel for the committee, technology, and training/travel. The state education agency provided funding.

(2) THE SLAC-PE FRAMEWORK

(A) CONTENT STANDARDS

New Mexico has content standards (last updated in 2009) that align with each of the SHAPE America National Standards.

(B) CRITICAL ELEMENTS OF ROBUST ACCOUNTABILITY SYSTEMS

- Legislation/policy: There is EoC policy to mandate measuring multiple student learning outcomes.
- Data Collection: Students' learning outcomes for the standards are required to be



reported in physical education for grades 4-5, 6-8, and 9-12 for EoC exams. Physical education also plans to extend to grade 5-6 for the 2018-2019 school year. Each school submits the data through an <u>online system</u>. The data is stored in a cloud-based system (data is stored in the New Mexico Public Education Department STARS [Student Teacher Accountability Reporting Systems]). It costs the state \$425,000.00 to implement all the EoCs (72) (approximately \$5900.00 per EoC). The state education agency, school principals, and physical education teachers led and were involved in the implementation.

• **Data Monitoring:** No data monitoring system is in place for district or county levels. The Public Education Department holds districts and teachers accountable for demonstrating student growth based on EoC outcomes.

Data Dissemination/Evaluation:

• *The state level:* The state shares the data with physical education teachers. The Public Education Department shares the accountability data with school district test coordinators and curriculum coordinators.

• The district/county level: There is no state requirement on using the data, but teachers have immediate access to the data if they test online. The district/county also share information with students. The data is shared internally to calculate student growth for the educator evaluation system.

(3) OTHER FACTORS

- **Factors that helped in developing:** The Public Education Department's implementation of the new educator evaluation system within New Mexico was a driving force (system was implemented in 2013-2014). This accountability system provided the Public Education Department a way to measure student growth. Educators were convened to help identify which standards from the curriculum would be measured.
- **Challenges in developing:** Initially, there was hesitation on the part of physical education teachers in relation to an EoC that would effectively measure what was being taught at the local level. This hesitation was overcome, in part, through the convening of physical education teachers across the state in the development of the EoC. Another challenge was acquiring funding as this was a state requirement.
- **Challenges that helped in implementing:** Continuity in knowledge due to district turnover and communication amongst various levels of the district were the identified challenges in implementing the system.

OHIO

The state of Ohio has legislation in place that requires the assessment of multiple student learning outcomes. These state generated assessments are requirements for all teachers to complete. Students must be assessed at least one time across different grade bands: K-2, 3-4, 6-8, and 9-12. Assessment results are shared with various stakeholders. Within the state, data is used to track student learning and facilitate student improvement. Visit the Ohio Department of Education's <u>website</u> and a published article (Lorson & Mitchell, 2016) to acquire more information on the physical education accountability system.

(1) THE PROCESS OF DEVELOPING THE ACCOUNTABILITY SYSTEM

Developing the system is an ongoing process and is constantly undergoing revision as to how to maintain accountability within our schools. Initially, the time between the passage of Senate Bill 210 until when teachers first reported student data was 6-12 months. Various factors contributed to developing the system: State physical education content standards, PE Metrics, the expertise of the committee members, validity and reliability of the assessment, feasibility related to the development and implementation cost, assessment administration training, and time, equipment, and/or technology to conduct the assessment. The state education agency and state physical education association provided the funding.

(2) THE SLAC-PE FRAMEWORK

(A) CONTENT STANDARDS

Ohio has content standards (last updated in 2015) that align with each of the SHAPE America National Standards.

(B) CRITICAL ELEMENTS OF ROBUST ACCOUNTABILITY SYSTEMS

 Legislation/policy: There is legislation for the accountability system (Senate Bill 210). The legislation requires all public and community schools to assess every student once per grade band (K-2, 3-5, 6-8, and 9-12).



- **Data Collection:** Students' learning outcomes for the standards are required to be measured by Physical Education Evaluation Standard 1-5AB once in each grade band: K-2, 3-5, 6-8, and 9-12. Each school submits results through an online system. Teachers submit the data through their district education management information system (EMIS) coordinator. Each school submits overall state scores to their EMIS coordinator. The data is then sent to the state level, from district EMIS coordinators to the state level data managers. The state's computer system is used to store the data. The state education agency and school districts in the state provide the funding. The state education agency, school principals, and physical education teachers are involved in the process.
- Data Monitoring: No data monitoring system is in place.

Data Dissemination/Evaluation:

- *The state level:* The state shares the collected data with the state superintendent, district superintendent, district physical education coordinators, school principals, physical education teachers, student and their families, and the public. The data is used to consider revisions to the state physical education content standards, student learning outcomes, and setting performance objectives at the state level.
- *The district/county level:* The data is compared from the previous year(s), compared with national norms, used to set objectives for improvement, shared with physical education teachers, and shared with the students and their families.

(3) OTHER FACTORS

- **Factors that helped in implementing:** Providing ongoing professional development to instruct teachers how to fit the instrument into their everyday lesson planning.
- **Challenges in implementing:** Ensuring that all teachers complete data collection is challenging. At present, there are teachers who make up data and are not actually implementing correct assessment procedures. In addition, having no mandated minutes for physical education makes executing the accountability system challenging. For example, if there are only 30 minutes per week for physical education, assessing students could take up all of the physical education class time.

VIRGINIA

The state of Virginia has legislation in place that mandates the collection of student fitness data. In addition to state-level fitness data, the state requires school districts to implement different forms of assessment for multiple learning outcomes. There is also a requirement for districts to monitor the collection of student outcome data. Data from the assessments are shared with various stakeholders. Visit the Virginia Department of Education's <u>website</u> to acquire more information on the physical education accountability system.

(1) THE PROCESS OF DEVELOPING THE ACCOUNTABILITY SYSTEM

It took 0-6 months to develop the system. The state content standards and other states' use of assessments informed the system. The state education agency provided funding for the costs.

(2) THE SLAC-PE FRAMEWORK

(A) CONTENT STANDARDS

Virginia has content standards (last updated in 2015) that align with each of the SHAPE America National Standards.

(B) CRITICAL ELEMENTS OF ROBUST ACCOUNTABILITY SYSTEMS

 Legislation/policy: There is legislation for assessing fitness (Code of Virginia, <u>§</u>. <u>22.1-16.4</u>). The legislation requires schools to measure fitness data.



- **Data Collection:** The state collects fitness data. Each school submits results through the online system. The state's computer system (SSWS stores school data for all disciplines) is used to store the data. The state agency covers the costs. To hold a district/county accountable, there is self-report compliance with standards and other Standard of Accreditation (SOA) requirements. Local school boards/divisions are required to meet the expectations of the Standards of Learning (SOL), as measured on locally developed formative and summative assessments. Some divisions have common assessments for all disciplines, and others have report cards that provide student achievement measures for every SOL.
- **Data Monitoring:** There is an accountability system at the district/county levels. They self-report compliance with standards and other SOA requirements.
- Data Dissemination/Evaluation:
 - The state level: The state shares the data with the state legislature and the state superintendent.
 - The district/county level: The district/county shares the data with the public.

(3) OTHER FACTORS

• **Factors that helped in developing:** Board of Education and public input helped in developing the system.

- *Factors that helped in implementing:* Leadership in schools was the factor that helped in implementing the system.
- **Challenges in implementing:** Schools are overwhelmed with unfunded mandates.

WEST VIRGINIA

The state of West Virginia passed legislation for an accountability system in physical education to systematically collect data on student fitness levels. The state adopted FitnessGram® as the assessment tool. Data collection begins at grade 4 and continues through grade 12. The state also requires that data to be shared with various stakeholders. Visit the West Virginia Department of Education's <u>website</u> to acquire more information on the physical education accountability system.

(1) THE PROCESS OF DEVELOPING THE ACCOUNTABILITY SYSTEM

There was no information shared.

(2) THE SLAC-PE FRAMEWORK

(A) CONTENT STANDARDS

West Virginia has content standards (last updated in 2015) that align with each of the SHAPE America National Standards.

(B) CRITICAL ELEMENTS OF ROBUST ACCOUNTABILITY SYSTEMS

 Legislation/policy: There is legislation for the accountability system (<u>House</u> <u>Bill 2816</u>). The legislation requires schools to measure and report students' fitness data.



- **Data Collection:** Students' learning outcomes for Standard 3 is required to be measured by FitnessGram® from the 4th grade to high school. Each school submits data through the online system. The state's computer system (WVEIS) is used to store the data. The state agency covers the cost. The state education agency leads the process, and the state health agency, the state physical education association, district physical education coordinators, school principals, physical education teachers, and university faculty are involved in the process.
- Data Monitoring: There is no data monitoring system.
- Data Dissemination/Evaluation:
 - The state level: The state shares the data with school principals and public at the state level.
 - The district/county level: No system reported in place at the district/county level.

PART 3: CRITICAL ELEMENTS FOR ROBUST AND SUCCESSFUL STATE-WIDE ACCOUNTABILITY SYSTEMS

Through the analyses of the initial and follow-up survey data, researchers found that robust accountability systems cannot be achieved without fundamental elements of school policy and the environment in physical education and related facilitators in place. Part 3 illustrates why those aspects of accountability systems are important, along with supporting data.

FUNDAMENTAL ELEMENTS OF SCHOOL POLICY AND THE ENVIRONMENT IN PHYSICAL EDUCATION. Without the

fundamental elements of school policy and the environment in physical education in place (e.g., required subject area, certified teachers, required minutes per week, and adequate class

size), maximum student learning is difficult to achieve. Under conditions where little student learning occurs, accountability systems have limited value. While more than half of the ten states had requirements for certified teachers, high school graduation requirements, and class size, only three states had mandated minutes per week for K-12 physical education. Appendix B illustrates a summary of the fundamental elements of school policy and the environment in physical education.

Consider how much time do you have in physical education (need time to teach content and assessing). No mandated min makes it difficult to implement the accountability system. - State representative guote



FACILITATORS OF EFFECTIVE ACCOUNTABILITY SYSTEMS. Four

facilitators were identified as factors essential for executing and sustaining accountability systems: (a) Stakeholder support and shared decision-making, (b) continuing professional development for school personnel, (c) schooluniversity partnerships and shared expertise, and (d) advocacy efforts across multiple audiences and platforms.



STAKEHOLDER SUPPORT AND SHARED

DECISION-MAKING. Stakeholder involvement in accountability systems is vital to acquiring broad support for funding, implementing, and sustaining the system. One of the state representatives stated the importance of having funding in place at least two years in advance. Stakeholder engagement and cohesion are crucial to facilitating robust and sustainable accountability systems.

Communicate with all stakeholders, not just superintendents and administrators.

- State representative quote

Provide a system of support for questions and answers and ensure that teachers are participating in the creation of accountability materials (tests, policies, rubrics, etc). - State representative quote

CONTINUING PROFESSIONAL DEVELOPMENT FOR SCHOOL

PERSONNEL. At present, accountability systems are not a norm in the field of physical education; thus, teachers are not well prepared for executing such systems. As a result, ongoing support and training are crucial. These training opportunities are also significant in encouraging teachers to share strategies and ideas regarding data collection for accountability systems.

SCHOOL-UNIVERSITY PARTNERSHIPS AND SHARED EXPERTISE.

Two states with robust accountability systems were intentional in determining who was involved in the development process.

Also, these two states made concerted efforts to involve university faculty. Forging a school-university partnership ensures that university faculty are a part of the process, which could facilitate the feedback loop within accountability systems. 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 curriculum and instruction in schools. In addition, the involvement of university faculty enables teacher preparation programs to equip pre-service teachers with the ability to meet the future demands of an accountability system.

" Ensure that the accountability systems provide data back to teachers at a standard level. so they can evaluate their own instruction against those standards. - State representative quote

"

Develop mandates to require all schools to collect and report: a) ensuring students attain functional knowledge relating to active, healthy behaviors over a lifetime. b) ensuring students achieve optimal levels of weight, fitness, and other vital health measures and c) ensuring that schools programs in physical education align with health-enhancing behavioral outcomes. - State representative quote

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 in communicating those results to a range of stakeholders across multiple levels of influence. 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 can facilitate the acquisition of additional resources for teachers.
DISCUSSION AND RECOMMENDATIONS

The purpose of this study was to describe the status of state-level accountability systems for student learning in physical education. This section aims to discuss findings and provide recommendations for those states which currently do not have any or all of the critical elements of an effective system in place. These recommendations are grounded in literature relative to 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 one of the most robust accountability systems for physical education. Ohio is currently executing a robust accountability system, which has been well documented in the literature. Recommendations are also provided for various stakeholders that support physical education and can contribute to an effective accountability system. At the end of the section, the limitations and future study directions are identified.

Based on the analyses of data from the ten states which currently have an accountability system for student outcomes, researchers developed the SLAC-PE framework. While no state fully meets all of the elements of the framework, each state has strengths in different elements. Combining those strengths could create a robust accountability system; accordingly, discussion and recommendations are provided for each aspect of this framework.

CRITICAL ELEMENTS OF THE ROBUST ACCOUNTABILITY SYSTEMS

LEGISLATION/POLICY. Legislation/policy plays a central role for states in the creation and implementation of an accountability system. Metzler (2014) stated that policy has always been a driving force in education. Among the nine states with accountability systems in this study, eight state representatives reported that they had legislation/policy in place. Ideal legislation/policy includes what to measure, how to measure it, how to monitor, and how to evaluate and disseminate the data. Rink and Williams (2003) noted that the importance of a coalition among state-level health and physical activity groups could 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 development of legislation/policy at the state level.

DATA COLLECTION. Regarding data collection, determining what to measure, how to measure it, and when to measure it are critical considerations. In determining **what** to measure, states should consider if content standards are being achieved. If all standards are not measured, then a strong rationale should support the decision-making process of what standards are assessed and how they will be measured. For perspective, Cale and Harris (2009) claimed that fitness testing in physical education plays a questionable role in promoting healthy lifestyles and physical activity since little evidence was found to support the notion that fitness tests promote healthy lifestyles and physical activity. Motivate young people, or help to develop the knowledge and skills that are important to a sustained engagement in an active lifestyle. A state's decision about which standards to measure sends a critical message to the public and stakeholders regarding physical education values.

Another essential consideration is **how** to measure learning outcomes via assessments. Assessment strategies with accountability have the power to change school programs (Rink & Williams, 2003). In addition to ensuring the validity and reliability of assessments, feasibility and authenticity need to be considered (Lorson & Mitchell, 2016). In the case of South Carolina, steps were taken to make sure assessment materials were authentic; what was being assessed was what the state wanted students to be able to do in real life (Rink & Williams, 2003). Furthermore, a state needs to determine **when** to assess student outcomes. In the current study, most states reported that they assessed data in two to three-year bands. This pattern may provide a reasonable timeframe from feasibility and student growth perspectives.

Another critical issue for collecting data is the submission and storage process of the state system. States with accountability systems in place indicated the need to develop a secure online data submission platform and storage system that is easy to use and will simplify the processes for teachers when entering the student data.

DATA MONITORING. The role of data monitoring is critical to developing accountability for both data accuracy and data compliance (Rink & Stewart, 2003; Williams & Rink, 2003). In the current study, one state representative reported that teachers sometimes do not implement the assessments and submit false data. Another state representative expressed concerns about teachers not following the protocol for FitnessGram®. Such concerns also have previously been reported in the case of South Carolina; some teachers would either unintentionally or intentionally submit inaccurate data (Rink & Stewart, 2003). To establish a data monitoring system, developing a systematic process at the district/county and state levels is suggested. For a state to govern the entire process is unrealistic; thus, it is recommended that the district/county be responsible for monitoring schools, and the state assumes responsibility for monitoring the districts/county. Allocation of responsibilities could allow 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 (Edmonds, 1979). 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 superintendent, district superintendent, district physical education coordinators, school principals, physical education teachers, student, and their families, and the public. However, Lorson and Mitchell (2016) suggested that the Department of Education should move from an overall report by the school to tracking individual students. They suggest that a critical examination of student learning data can enable relevant stakeholders to pinpoint the strengths and weaknesses of current programs and provide objective guidance on how to improve the quality of physical education. Regardless, states should consider using the data to hold schools and districts accountable for meeting standards in physical education and facilitating improvement.

FUNDAMENTAL ELEMENTS OF SCHOOL POLICY AND ENVIRONMENT

It is imperative to secure the fundamental elements of school policy environment for physical education (i.e., class size, required subject area, certified teachers, and mandated minutes per week) to execute accountability systems. Among the ten states analyzed in this study, only two states had these school policy environment areas fully addressed. Ohio reported that having no required minutes per week for physical education made it challenging to implement the accountability system. Specifically, when a school only has physical education one time per week for 40-minutes, assessing students could take up all available class time (Lorson & Mitchell, 2016) and leave little time for instruction. Turner and colleagues (2017) also discussed the importance of fundamental elements of school policy and environment. They reported that schools with higher physical education instructional time and were less likely to assess students' physical fitness (Turner, Johnson, Calvert, & Chaloupka, 2017).

Alternatively, a policy could be developed after establishing an accountability system for student outcomes. For example, in the case of South Carolina, many programs could reduce class size, acquire equipment, and obtain scheduling concessions from high school guidance counselors because of the state level policy. Having formalized expectations for what students should learn places physical education on an equal footing with the other academic areas (Rink & Stewart, 2003). When the fundamental elements of school policy and environment are lacking, it makes executing accountability systems difficult. At the same time, establishing accountability systems could facilitate securing those elements of school policy and environment to ensure student learning.

FACILITATORS OF EFFECTIVE ACCOUNTABILITY SYSTEMS

Stakeholder support and shared decision-making. Securing stakeholder support and shared decision-making are critical to achieving the goals of student learning and acquiring funding to implement an accountability system. The ten states with accountability systems in place reported that various stakeholders were involved in the development and implementation of the accountability system. 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). A similar approach was taken in South Carolina (Rink & Mitchell, 2003). The power of 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 often useful in gaining the attention of legislators and appointed committees (Rink & Mitchell, 2003).

REGULAR TRAINING FOR SCHOOL ADMINISTRATORS AND TEACHERS. Teachers and school administrators should attend regular training to stay current in an accountability system. For example, when Ohio first established its accountability system, the Ohio Department of Education developed a set of regional trainers to deliver at least four professional development sessions in each region of the state. These sessions were delivered a year in advance of the requirement by the state's Department of Education. 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 essential to continue updating physical educators and refining shared goals.

SCHOOL-UNIVERSITY PARTNERSHIP AND SHARED DECISION-MAKING. Schools and universities should establish partnerships and share decision-making. Universities have systems that can assist with analysis and interpretation of data, and importantly help translate it into practice. South Carolina reportedly had productive and positive working relationships between universities and public-school teachers in implementing their robust accountability system. Also, university faculty members serve active roles in professional organizations (Rink & Mitchell, 2002). The involvement of university faculty also serves to prepare pre-service teachers to implement the standards and assessment material. (Rink & Williams, 2003).

ADVOCACY EFFORTS ACROSS MULTIPLE AUDIENCES AND PLATFORMS. Advocacy efforts are important, as they ensure that physical educators are a part of the movement rather than negatively affected by it (Rink & Williams, 2003). Most legislators have no expertise in the specific areas that require their attention. As a result, these legislators must depend on various experts and lobbyists to inform them of the needs and problems within their state, as well as potential solutions and strategies for meeting needs and solving problems. A State Department of Education can often find itself in the position of implementing developed policy without professional expertise and input by state legislators. Therefore, knowing how to navigate within this political system is an increasingly important skill for physical educators (Rink & Mitchell 2002).

ACTION STEPS NEEDED BY VARIOUS STAKEHOLDERS

Developing effective accountability systems for student learning in physical education requires support and action from a variety of stakeholders across the educational realm. Results of this study and prior evidence-informed recommendations suggest the following action steps be considered by each of these representative groups to move forward accountability of student learning in physical education across the nation.

State Boards of Education (policy) and state legislators (legislation):

- Ensure equitable resource distribution to physical education.
- Secure fundamental elements of school policy environment for physical education (i.e., class size, a required subject, certified teachers, and mandated minutes per week).
- Acquire stakeholder support.
- Establish legislation/policy for an accountability system.
- Ensure that physical education has effective leadership in place at the state-level within the department of education.

State education/physical education leaders:

- Advocate for the creation of legislation/policy that requires measuring student learning in physical education.
- Establish a coalition to garner support from the legislature and/or state Board of Education.
- Establish a team of stakeholders representing teachers, county leaders, state leaders, university faculty and others who will provide input in developing specific strategies such as:
 - What content standards will be assessed with a strong rationale for the decision.
 - If chosen assessments are feasible and authentic (what the state expects the students to be able to do in real life).
 - Who will monitor the data and data collection, how teachers and county leaders will be training to assess and report data, and how to collaborate with district/county.
 - What data will be submitted, who will analyze and report the data, to whom the data will be reported, and how to use the data (e.g., teachers submit an action plan).

• Develop an online data submission platform and storage system that is easy to use and will simplify the process for teachers.

District education/physical education leaders:

- Establish a data monitoring system collaboratively with state representatives to ensure that those data collection mechanisms are in place for each school.
- Provide regular training for teachers to stay current with the accountability system.
- Provide leadership for the reflective cycle of the data use to improve physical education programming at the school level.
- Develop a systematic process to monitor all schools to ensure compliance with data collection and reporting.
- Ensure that physical education is not treated differently than any other subject area regarding regulations for class size and certified teachers.
- Mandate all schools have physical education for all students and monitor school schedules for the adequate time each week, preferably daily.
- Provide funding that can help with the implementation of a standards-based curriculum that supports the content standards and assessments.

Physical Education Teachers/Principals:

- Use the collected and reported data to improve physical education programming.
- Engage in training to understand how to collect and report data and stay current with the accountability system.
- Ensure that physical education is not treated differently than any other subject area regarding regulations for class size and certified teachers.
- Provide adequate equipment and facilities for a physical education curriculum that meets physical education content standards.

State and National Organizations:

- Advocate for the adoption of state-level accountability systems.
- Support the development of state-level accountability systems (e.g., fund research initiatives, provide professional development).
- Provide opportunities for state-level physical education leaders to share challenges and suggestions for the continued development of accountability systems.
- Promote best practices for developing, implementing, and evaluating accountability systems.
- Celebrate successful approaches to state-level accountability (e.g., recognize model states, share successes through media, meetings, conferences).

Higher Education Physical Education Teacher Educators:

- 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 are expected to achieve in physical education.
- Make their assistance available with:
 - Providing recommendations for evidence-based assessments to consider that are valid and reliable.
 - Providing the scientific base and expertise on physical education and physical education accountability for obtaining the support of key policymakers.
 - Data analysis and help in translating outcomes to practice.
- Ensure that pre-service teachers are gaining the knowledge and skills necessary to contribute to a robust accountability system for physical education.

LIMITATIONS AND FUTURE STUDY DIRECTIONS

One major limitation of this study was that we were not able to acquire survey responses from all the states; some states only responded to email questions. Acquisition of survey responses from all the states could have enabled us to provide more precise results across the United States. Second, there were inconsistencies among participants who responded to the survey; some of them were a representative of the state department of education, and others were a representative of the state HPERD association. Moreover, some of the state representatives commented that they started their current positions in the last few years after their system was developed, which limited their knowledge. Obtaining survey responses from someone who was involved in the development of the system could have given us more in-depth descriptions of how the system was developed and what challenges they faced.

After the completion of this project, there are at least three points that need to be addressed. First, as discussed prior, more in-depth understanding of the development of accountability systems is needed. With our current study, the purpose was to understand the status of each state, so quantitative data was primarily utilized. However, to further understand the development of the systems, the use of qualitative data with someone who was involved in the development process of the system is crucial. Second, the focus of this current project was mandatory accountability systems at the state level, and no attention was paid to voluntary systems or district level systems.

Further exploration is needed for those systems in future studies since some states are local-control states. Lastly, only surface knowledge was acquired for each element of the SLAC-PE framework. Future studies should investigate each element of the framework critical for implementation and sustainability to further accumulate knowledge bases for robust accountability systems.

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. 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. Up until now, however, the limited use of accountability systems in physical education has created a situation where persistent questions regarding student learning in the field remain unaddressed (Rink & Williams, 2003). To better advocate for the value of physical education, accountability systems must become the norm, and student learning should be readily evident. Rink (2016) and van der Mars (2018) cautioned, however, that the field cannot wait for policymakers to prompt a wide-spread systemic change in physical education, because it is unlikely ever to represent an immediate priority. Therefore, all stakeholders in physical education must demonstrate initiative in developing state and local systems for accountability that promote student learning.

Developing an accountability system takes time. Program efficacy tends to be dependent upon teacher understanding and buy-in into the intent of both the outcomes as well as the need for assessment. Rink and Williams (2003) reported that, in South Carolina, much time was invested at the elementary and middle school levels helping teachers involved in the program work through the decision-making process to set expectations. In South Carolina, it took three years for physical education to be reflected on the school report card, and five years to establish a policy to create some accountability. It took another three years to fully implement the assessment program at the high school level after the program was "ready to go" (Rink & Williams, 2003). It is essential to understand that developing an accountability system is not a one-shot effort. The establishment of accountability systems takes time and, once in place, needs to be continually refined (Lorson & Mitchell, 2016).

Moreover, it became evident through this study that key individuals were needed to facilitate the creation and implementation of accountability systems. What also needs to be considered is the sustainability of systems and an understanding that there will be turnover in key personnel. Therefore, shared-commitment, decision making, and collaboration among all stakeholders are suggested.

It is also important to recognize that 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 previously referenced SLAC-PE graphic organizer provides a general framework for developing accountability systems in physical education. Further, SLAC-PE would be a useful framework for future investigation of accountability systems in student learning in physical education.

APPENDIX A

The specific legislation/policy for accountability systems of student learning in physical education are presented in this appendix.

CONNECTICUT: Connecticut Physical Fitness Assessment

The Connecticut Physical Fitness Assessment (CPFA) is Connecticut's annual assessment of students' physical well-being. Students in Grades 4, 6, and 8 are assessed annually. At the high school level, schools have the flexibility to assess students at any grade, but must assess each student at some point between Grades 9 and 12.

The goals of the assessment program are to:

- Provide for continual monitoring of students' fitness levels in targeted grades;
- Identify a student's weaknesses and strengths so that areas in need of improvement can be seen and Individual programs can be developed;
- Inform students and parents about student fitness status; and
- Inform schools, districts and the public about programs focusing on fitness and physical activity in our schools and evaluate their success

Students taking the CPFA are evaluated using age and gender appropriate standards in four components fitness. The components assessed include:

- Aerobic endurance;
- Flexibility;
- Upper body strength and endurance, and
- Abdominal muscle strength and endurance.

DELAWARE: Department of Education Policy - Title 14: 500

- 1.5. Local school districts and charter schools shall annually assess the physical fitness of each student in grades 4 and 7, and in grade 9 or 10.
- 1.5.1. The local school districts and charter schools shall provide the results of the physical fitness assessment to the parent(s) guardian(s) or Relative Caregiver of each student. The districts and charter schools shall also report this information to the Delaware Department of Education in a format determined by the Department.
- 1.5.1.1. The Delaware Department of Education shall annually report the statewide grade level results of the physical fitness assessment to the public.

DISTRICT OF COLUMBIA: Code of the District of Columbia - §38-824.05

Beginning in 2011, on or before September 30 of each year, the Office of the State Superintendent of Education shall report to the Mayor, the Council, and the Healthy Schools and Youth Commission annually regarding:

(1) Compliance of public schools and public charter schools with the physical and health education requirements in this title; and

(2) Student achievement with respect to health and physical education standards.

GEORGIA: Georgia Code – Title 20, Chapter 2, Article 16, Part 3 (§20-2-777).

(a) (1) Beginning in the 2011-2012 school year, each local school system shall conduct an annual fitness assessment program, as approved and funded by the State Board of Education, one time each school year for students in grades one through 12, to be conducted only during a physical education course that is taught by a certificated physical education teacher in which a student is enrolled. Such assessments shall include methods deemed by the State Board of Education as appropriate to ascertain levels of student physical fitness. Each local school system shall report the individual results of the fitness assessment to the parent or guardian of each student assessed and the aggregate results of the fitness assessments by school to the State Board of Education annually in a format approved and funded by the State Board of Education. The minimum required contents of the report shall be determined by the State Board of Education.

ILLINOIS: Illinois Administrative Code – Title 23, Code 1, Subtitle D, Part 1, 1.425.

Assessment and Reporting In accordance with Section 27-6.5 of the School Code, each school shall use a scientifically-based, health-related physical fitness assessment for grades 3 through 12 and periodically report fitness information to the State Board of Education to assess student fitness indicators.

For the purposes of this subsection (f), each school shall administer the FitnessGram® (http://www.fitnessgram.net/; also see subsection (f)(3)) to students in grades 3 through 12 (except as noted in subsection (f)(1)(A) and as exempted under Section 27-6 of the School Code) for the components and using the test items listed in subsections (f)(1)(A) through (f)(1)(D). Beginning in school year 2016-17, the FitnessGram® shall be administered at least annually in the second semester of the school year; however, schools also are encouraged to administer the assessment at the start of the school year in order to receive pre- and post-results.

Each school district shall annually report aggregate data regarding the total number of students whose fitness results for each of the components listed in subsection (f)(1) were identified as meeting the "healthy fitness zone" or as "needs improvement zone".

- A) Data shall be submitted electronically to the State Board of Education no later than June 30 of each school year, beginning in school year 2016-17, using the Illinois State Board of Education Web Application Security System (IWAS).
- B) Data shall be reported for students in grades 5, 7 and 10 only and include:
 - i) the total number of students tested by grade and gender;
 - ii) the total number of students achieving at the "healthy fitness zone" by grade and gender;

the total number of students identified as "needs improvement zone" by grade and gender.

MISSOURI: Guidance for Cade's Law

Although schools are encouraged to assess student fitness at each grade level, Local Education Agencies (LEAs) will collect and report data on aerobic capacity, muscular strength, endurance, and flexibility for all eligible elementary students in grade five (5), middle school students in grade seven (7), and high school students in grade nine (9) who are enrolled in a physical education class for any part of the traditional school year as identified by each LEA's beginning and ending date or summer school. Schools will report this data beginning in the June 2015 reporting cycle. SCHOOLS WILL REPORT FITNESS LEVELS FOR GRADES FIVE (5) AND NINE (9) FOR THE 2013-2104 SCHOOL YEAR JUST AS IN PAST YEARS. Schools should use Fitnessgram® tools found on the Presidential Youth FITNESS PROGRAM website.

Fitness assessments must be administered by a teacher certified in Physical Education by the state of Missouri.

OHIO: Senate Bill 210 (ORC3302.032)

A) Not later than December 31, 2011, the state board of education shall establish a measure of the following:

(1) Student success in meeting the benchmarks contained in the physical education standards adopted under division (A)(3) of section 3301.079 of the Revised Code;

VIRGINIA: Code of Virginia (§ 22.1-16.4.)

The Department of Education shall develop and maintain a nutrition and physical activity best practices database. The database shall contain the results of any wellness-related fitness testing done by local school divisions, as well as information on successful programs and policies implemented by local school divisions designed to improve nutrition and physical activity in the public schools.

WEST VIRGINIA: House Bill 2816 (§18-2-7a).

The State Board shall prescribe a program within the existing health and physical education program which incorporates fitness testing, reporting, recognition, fitness events and incentive programs which requires the participation in grades four through eight and the required high school course. The program shall be selected from nationally accepted fitness testing programs designed for school-aged children that test cardiovascular fitness, muscular strength and endurance, flexibility and body composition:

Provided, That nothing in this subsection shall be construed to prohibit the use of programs designed under the auspices of the President's Council on Physical Fitness and Sports.

APPENDIX B

Appendix B illustrates the results of the fundamental elements of school policy and the environment in physical education for each state. Findings are from the survey and document analyses. The policy and teaching environment are important factors that can play a role in student learning. The following factors have been identified as growth areas for physical education: (a) minutes per week and high school graduation requirement of physical education, (b) class size - student-teacher ratio requirement, and (c) certified teacher. Table 3 represents the summary findings of these three contextual factors for each state.

(A) MINUTES PER WEEK AND HIGH SCHOOL GRADUATION REQUIREMENT

To promote student learning, it is important that students accumulate enough time in the physical education environment. A minute requirement for physical education ensures that students have access to physical education. SHAPE America recommends that elementary students receive 150 minutes of physical education per week and middle/high school students receive 225 minutes of physical education per week. Overall, about 50% of the states (20 states) have minutes requirement for elementary school physical education, 30% of the states (15 states) have for middle school, and 14% (7 states) have for high school. Only 12% of the states (6 states) have the requirements across elementary to high schools. A total of 39 states require students to acquire physical education credit(s) to graduate from high schools.

(B) CLASS SIZE

To promote student learning, physical education teachers should have a reasonable student-teacher ratio that in line with other subject areas. Less than half of the states (20 states) have the rules for the student-teacher ratio in physical education.

(C) CERTIFIED TEACHERS

It is important that students receive instruction from certified/licensed physical education teachers to produce student learning outcomes. Approximately half of the states (22 states) mandated to have certified physical education teachers to teach elementary to high schools. Another 22 states mandated to have certified physical education teachers from middle to high schools, and four other states required that only for high schools. Two states did not have any requirements for certified teachers for physical education.

TABLE 3. SUMMARY OF FUNDAMENTAL ELEMENTS OF SCHOOL POLICY AND ENVIRONMENT IN PHYSICAL EDUCATION

State	Certified Teachers	Class Size	Minute per week requirements			
			Elementary	Middle	High	High school graduation requirement
AL	√ + *	√	150	150 (250) ¹	-	1 credit
AK	_2	-	-	-	-	1 credit (H&PE)
AZ	+ *	✓	-	-	-	-
AR	√ + *	✓	40	40	-	0.5 credit
CA	√ + *	√	200/10 days	400/10 days	-	2 credits
CO	+ *	-	-	-	-	-
CT	√ + *	-	-	-	-	1 credit
DE	√ + *	-	_	-	-	1 credit
DC	√ + *	√	150	225	-	1.5 credit (H&PE)
FL	*	-	150	-	-	1 credit
GA	+ *	√	90 hours/yr	-	-	1 credit (H&PE)
HI	+ *	↓	45 (K-3) / 55 (4-5)	200	-	1 credit
ID	*	-	-	-	-	-
IL	× ✓ + ★	-	-	_	-	-
IN	+ *	-	-	_	-	2 credits
IA	↓ ★	-	_	_	45-89 ³	1 credit
					40-89°	
KS	√ + *	-				1 (H&PE)
KY	+ *	-	-	-	-	0.5 credit
LA	+ *	√	150	150	-	1 credit
ME	+ *	\checkmark	-	-	-	1 credit
MD	√ + *	-	-	-	-	0.5 credit
MA	+ *	-	-	-	-	-
MI	+ *	-	150	225	225	1 credit (H&PE)
MN	+ *	-	-	-	-	-
MS	*	√	150	150	-	0.5 credit
MO	√ + *	\checkmark	50	3000/yr	-	1 credit
MT	*	\checkmark	Up to district	225	225	1 credit (H&PE)
NE	+ *	-	-	-	-	-
NV	+ *	-	-	-	-	2 credits
NH	√ + *	\checkmark	-	-	-	1 credit
NJ	+ *	-	150	150	150	3.75 (H&PE)
M	+ *	√	-	-	-	1 credit
NY	+ *	-	120	90	90	2 credits
NC	+ *	√	-	-	-	1 credit
ND	√ + *	-	-	-	-	1 credit (H&PE)
OH	✓ + *	-	_	_	-	0.5 credit
OK	✓ + *	-	60	-	-	-
OR	+ *	-	150	225	-	1 credit
PA	√ + *	-	-	-	-	1 credit (H&PE)
RI	√ + ★	-	100 (H&PE)	100 (H&PE)	100(H&PE)	-
SC	V + ×	√	60		-	1 credit
SC SD	$\checkmark + \star$	• -	-	-	-	0.5 credit
SD TN	$\checkmark + \star$ $\checkmark + \star$		-	-	-	0.5 credit
	✓ + ★	-	-	-	-	1 credit
TX		-		_		
VT	✓ + *	-	-		-	
UT	+ *	√	-	-	-	1.5 credits
VA	+ *	√	-	-	-	2 credits (H&PE)
NA	*	-	100	100	100	1.5 credit (Fitness)
WV	+ *	√	90	_3	_3	1 credit
WI	+ *	-	-	-	-	1.5 credits
WY	√ + *	\checkmark	_	-	-	-

 \checkmark = Elementary; + = Middle school; \star = HS

1 = The state requires a minimum of 30 minutes but recommend 50 minutes per day.

2=The state only requires for those who teach physical education to pass a physical education certificate/licensure exam before they are endorsed to teach physical education. 3= WV policy requires middle school to provide physical education every day for one semester.

REFERENCES

- Barber, M. (2004). The virtue of accountability: System redesign, inspection, and incentives in the era of informed professionalism. *Journal of Education*, *185*(1), 7-38.
- Bowen, G. A. (2009). Document analysis as a qualitative research method. *Qualitative Research Journal, 9*(2), 27-40, https://doi.org/10.3316/QRJ0902027
- Cale, L. and Harris, J. (2009). Fitness testing in physical education a misdirected effort in promoting healthy lifestyles and physical activity. *Physical Education & Sport Pedagogy*, 14 (1), 89-108.
- Center of Disease Control and Prevention. (June 2018). Physical Education. Retrieved from https://www.cdc.gov/healthyschools/physicalactivity/physical-education.htm
- Fullan, M. (2007). The new meaning of educational change (4th ed.). New York: Teachers College Press.
- Howlett, M., Ramesh, M., & Perl, A. (2009). *Studying public policy: Policy cycles & policy subsystems* (3rd ed.). Don Mills, Ont.: Oxford University Press.
- Lorson, K., & Mitchell, S. (2016). Advocacy, assessment and accountability: Using policy to impact practice in Ohio. *Journal of Physical Education, Recreation & Dance, 87*(3), 44-49.
- Metzler, M. (2014). Teacher effectiveness research in physical education: The future isn't what it used to be. *Research Quarterly for Exercise and Sport, 85*(1), 14-19.
- Mitchell, M., Castelli, D., & Strainer, S. (2003). Chapter 2: Student performance data, school attributes, and relationships. *Journal of Teaching in Physical Education*, *22*(5), 494-511.
- Rink, J. E. (2016, January). Advocacy in physical education: A professional responsibility. Paper presented at the Arizona Health and Physical Education Professional Development Workshop. Phoenix, AZ.
- Rink, J., & Mitchell, M. (2003). Introduction: State level assessment in physical education: The South Carolina experience. *Journal of Teaching in Physical Education, 22,* 471-472.
- Rink, J., & Stewart, S. (2003). Chapter 6: Insights and reflections on a state assessment program. *Journal of Teaching in Physical Education*, 22(5), 573-588.
- Rink, J., & Williams, L. (2003). Chapter 1: Developing and implementing a state assessment program. *Journal of Teaching in Physical Education, 22*(5), 473-493.
- SHAPE America. (2016). Shape of the nation: Status of physical education in the USA. Retrieved from https://www.shapeamerica.org/uploads/pdfs/son/Shape-of-the-Nation-2016_web.pdf
- Turner, L., Johnson, T. G., Calvert, H. G., & Chalouspka, F. J. (2017) Stretched too thin? The relationship between insufficient resource allocation and physical education instructional time and assessment practices. *Teaching and Teacher Education, 68,* 210-219.
- U.S. Department of Education. (November 2016). Education Department releases final regulations to promote a high-quality, well-rounded education and support all students. Retrieved from https://www.ed.gov/news/press-releases/education well-rounded-education-and-support-all-students

- van der Mars, H. (2018). Policy development in physical education ... the last best chance?: National association for kinesiology in higher education 37th dudley allen sargent commemorative lecture 2018. *Quest, 70*(2), 169-190.
- Williams, L., & Rink, J. (2003). Chapter 5: Teacher competency using observational scoring rubrics. *Journal of Teaching in Physical Education, 22*(5), 552-572.