The Production, Communication, and Contestation of Physical Education Policy: the cases of Mississippi and Tennessee

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ABSTRACT The purpose of this study was to explore the production, communication, interpretation and contestation of new physical education (PE) and physical activity (PA) policy initiatives introduced in Mississippi and Tennessee for the academic year 2006-2007. These states provide a relevant context to study such issues, since Mississippi has the highest and Tennessee has the fifth-highest rate of childhood obesity in the United States (Trust for America’s Health, 2009). The social-ecological model was used as a theoretical framework to interpret the social, economic, temporal, and political interactions that shaped the development, interpretation, and implementation of these policies (Stokols, 1992). A multiple-level case study design (Yin, 2003) was adopted in which the policy process was analyzed and compared across eight high schools. We purposefully selected four high schools in each state that provided a broad range of contextual differences and collected data in real-time during a one-year period. We conducted 73 interviews with key stakeholders, including policymakers, school administrators, teachers and students, and observed PE lessons and school-based activities. The researchers identified themes from the data: Policy process; Expectation of compliance; Unfunded mandate; Problematic policy enactment; Academic pressure; Marginalized status of PE; Narrow PE curriculum; and Dislike of PE. Even though new PE and PA legislation had been passed in both states, no substantive change occurred in any of the schools during our study. This work moves beyond a superficial understanding of how policy initiatives impact PA and PE provisions within schools, particularly at the secondary level. We recommend the development of support systems within the school through the creation of clear goals, strategic plans, and professional development to implement new policy initiatives.
Physical education (PE) and physical activity (PA) are valuable for healthy growth and development of children and youth (Burgeson et al, 2001; Trost, 2004; Blair, 2010). Unfortunately, school administrators have reduced the amount of PE offered in schools because of pressure to concentrate on academic content and preparation for high-stakes tests, such as those required by the No Child Left Behind (NCLB) Act (US Department of Education [USDE], 2002; Rukavina & Li, 2008). However, PA is decreasing dramatically among American youth (US Department of Health & Human Services [USDHHS], 2001) with a precipitous drop among adolescents (Kulinna et al, 2003; Grunbaum et al, 2004; Eaton et al, 2008; Nader et al, 2008). Leading researchers suggest PA as a strategy to reduce the chances of students becoming overweight or obese (Dietz, 2004; Gordon-Larsen et al, 2006; Blair, 2010). This problem is particularly important in the mid-South, since Mississippi and Tennessee, the states focused upon in this study, are ranked first and fifth respectively in the nation for childhood obesity levels (Trust for America's Health, 2009).

We contend that adopting an ecological multilevel perspective is crucial to gaining a holistic understanding of policy enactment. The construct of ecology is borrowed from biological science, where it is used to describe the interrelationship between organisms and their environments (Stokols, 1992). Bronfenbrenner’s Ecological Systems Theory (1979) has recently been adapted and applied as a theoretical framework in health promotion literature. The social ecology perspective focuses on the social, institutional, and cultural contexts of people and their relationship to their environments (Bronfenbrenner, 1979). Several researchers have advocated the Social Ecological Model (SEM) to study health promotion and behavior (McLeroy et al, 1988; Stokols, 1992; Sallis & Owen, 2002; Fleury & Lee, 2006; Panter-Brick et al, 2006; Eastabrooks et al, 2008; Plotnikoff et al, 2008; Woods, 2009). We draw upon the SEM to highlight the interconnectedness among people and the social, economic, and political interactions that shape the contexts in which PE policies are implemented (Sallis & Owen, 2002). The term ‘social ecology’ is used to focus on the social and physical settings which contextualize behavior and the interplay between human actors and external factors shaping their agency. Social ecology perspectives examine transactions among people within their social and physical settings, over time and across several levels of analysis: personal, cultural, institutional, and political (McLeroy et al, 1988; Plotnikoff et al, 2008).

The SEM provides a useful framework to embed the design, implementation, or critical evaluation of interventions within the larger social context. Stokols (1992) proposed four assumptions that underlie SEM. The first assumption is that health is influenced by multiple facets of the physical (e.g. geographical, architectural, and technological) and social (e.g. cultural, economical, political) environment. The second assumption is that environments are complex and that efforts to understand the environmental effects on health must take into account the environments’ multiple dimensions. Stokols’ (1992) third assumption is that participants can be studied at different levels including individual, small groups, organizations or larger populations. The fourth assumption focuses on understanding the dynamic relationships between people and their environments. Multiple levels of influence occur across levels of the environment. People influence their settings and their settings exert influence over people’s behaviors through cyclical processes (Eastabrooks et al, 2008).

Research into change in schools has usually been focused at either a macro or a micro level (Fullan, 1999, 2005). The predominant focus of most research on teaching in PE has been with and on individual-level or program-level descriptions and interventions. We have chosen the SEM theoretical framework because it better captures the complexity inherent in the implementation of new PE policy. Both Mississippi and Tennessee have recently mandated PE and PA policy interventions. In Tennessee, House Bill 3750 and Senate Bill 3991 were passed in 2006, requiring K-12 students (year 1 to year 13 students) to engage in 90 minutes of PA during the school week. Mississippi Public Schools Standard 32, mandated in 2004, made PE a required course offering for high school students. In 2004, a federal law (applied to all states) established a new requirement that all school systems implement wellness policies that address nutrition and physical activity by the start of the 2006-2007 school year (the Child Nutrition and WIC Reauthorization Act of 2004). To this end, our work is located at four different levels: state-level officials, school administrators, teachers, and students. Our interest in the development and management of the changes that accompany policy introduction provides insight into more and less effective mechanisms of implementation. Therefore, the purpose of this study was to examine the development of new PE
policy initiatives and their subsequent implementation in four Mississippi and four Tennessee high schools.

Methods

Participants and Settings

The eight high schools involved in our study were purposefully selected to represent different states (two) and counties or school districts (four). The schools differ in size, setting and demographic constitution (see Table I).

<table>
<thead>
<tr>
<th>High school name</th>
<th>State</th>
<th>Locale</th>
<th>Total students</th>
<th>White %</th>
<th>Black %</th>
<th>Other%</th>
<th>Economically disadvantaged%</th>
</tr>
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<tr>
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<td>100</td>
<td>0</td>
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<td>4</td>
<td>46</td>
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<td>36</td>
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</tr>
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<tr>
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<td>57</td>
<td>40</td>
<td>3</td>
<td>83</td>
</tr>
<tr>
<td>Piney Woods</td>
<td>MS</td>
<td>Rural</td>
<td>642</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>57</td>
</tr>
</tbody>
</table>

*a* Includes Hispanic, Asian, American Indian/Alaskan, and Pacific Islander.

*b* Based on standard criteria of qualification for partially or completely subsidized school meals.

Table I. Demographic information for participating schools. (compiled from data listed at [http://www.greatschools.org](http://www.greatschools.org) and confirmed by school administrators at the commencement of the study. The data did not change significantly over time).

Data Collection

This article presents the first year of a three-year, comparative case study (Yin, 2003). A total of 73 interviews were carried out with lobbyists, legislators, state and district officials, principals, PE teachers, classroom teachers, guidance counselors, and students. Most interviews were carried out with one individual at a time, although the students were also interviewed in small focus groups. The interviews lasted between 30 and 90 minutes. Direct observation of PE classes and other school-based activities helped to enrich the data and strengthen findings. Forty-eight school visits occurred periodically throughout the first year of the study, with field notes written up following visits. An auditing tool was used as a guide to understanding each PE context. This PE audit was based on the School Health Index Physical Education and Physical Activity Module developed by the Centers for Disease Control & Prevention [CDC] and the National Association for Sport & Physical Education [NASPE] Program Evaluation Tool (CDC, 2007; NASPE, 2007). In addition, documents were collected related to policy development and implementation, including district PE curriculum documents, legislative commentaries, state directives, and popular press articles.

Data Analysis

Data analysis began with an initial round of coding the interview transcripts using the qualitative analysis software NVIVO 7, to identify themes in the data. Coding is an established way to condense large data sets into manageable units of meaning. Although our approach was not a pure ‘grounded theory’ method, we did draw upon concepts put forth by Glaser & Strauss (1967) in our analysis. For example, after an initial round of coding, we went back and looked for higher-level themes. After several rounds of coding, we identified themes from the data.

Our results tell the story of how changes were implemented and provide thematic description of the levels of implementation at the various schools in the study. In structuring our data
collection and analysis, we were guided by the criteria laid out by Lincoln and Guba (1985) for developing the trustworthiness of qualitative data. In sum, according to Lincoln and Guba (1985), it is incumbent upon the researcher to first establish the trustworthiness of the research by demonstrating that his or her work has credibility. Central to this is prolonged engagement in the field, something that we achieved over a three-year period. We also returned interview transcripts to those who were interviewed in a process of member checking, discussed our interpretations with school-level staff and other personnel involved in the PE policy process, and used observation, documentation, and a significant number of interviews to triangulate our findings and conclusions. Second, while we were sensitive to the context-specific nature of interpretive research, we attempted to provide sufficient detail in our methods and results sections to allow readers to appreciate whether our insights could be transferred to other settings. Third, we tried to enhance the dependability of our findings by laying out an audit trail for a colleague who is familiar with our project, but not directly involved with it. This colleague was then able to challenge the logic behind the interpretations, resulting in a much more reflective process. Finally, we attempted to satisfy Lincoln and Guba’s (1985) criterion of confirmability by providing a reflexive, self-critical account that laid bare the inherent biases in our work, and, again, by triangulating our findings and interpretations. Effectively, these are quasi-foundational surrogates for establishing the quality of the scholarship (Amis & Silk, 2008).

Findings

The findings are presented at four levels: state, administrator, teacher, and student. Within each level, we broke down our initial discussion around the themes that we had identified from the data. In this way, we gained access to the various complexities of interaction that are typical of policy implementation, but often little considered by researchers or policy makers.

State Level

At the state level we identified two themes, Policy process and Expectation of compliance, from the data. They represent the perspectives from stakeholders who have the greatest influence on the development of new PE policy.

Policy process. In every state, a political process or bureaucracy can either empower or impede the legislative process. The case of Tennessee is indicative of this. Prior to 2006, the PE policy in Tennessee required only one year of lifetime wellness during high school, encompassing one semester of health education and one semester of PE, over four years of high school. At the K-8 level, PE was mandated but there was no minimum number of minutes per week required.

At the state level, Tennessee Senate Bill 3991 was specific to PE and required 150 minutes of PE per week for elementary, and 225 minutes of PE per week for middle school students, with an estimated annual cost of $66 million. The bureaucratic pressures of the legislative process modified the bill dramatically. The bill that was passed, HB 3750 SB 3991, replaced the original bill and featured a new Coordinated School Health program and 90 minutes of PA, rather than PE, per week for students in grades K through 12 (year 1 to year 13 students). The $14.9 million attached to this bill was to hire district administrators for the Coordinated School Health program at the district level; it could not be used to hire personnel for instructing and monitoring the 90 minutes of PA in the schools. Physical activity in an educational setting was defined by the Tennessee Association of Health Physical Education Recreation and Dance (TAHPERD) as a behavior consisting of bodily movement that requires energy expenditure above the normal physiological (muscular, cardio-respiratory) requirements of a typical school day. Physical education was defined as a series of structured classes taught by a knowledgeable licensed teacher, based on national PE standards, and with a specified number of minutes required per week. Even though this bill was quite a dramatic step, lobbyists and officials at the state level saw the replacement of mandatory PE minutes with 90 minutes of PA as an inadequate response to the rising levels of students being overweight or obese. An official of TAHPERD explained, 'lawmakers pacified us by saying we will allow the physical activity policy, but not the physical education bill.'
The American Heart Association (AHA) had a national mandate to increase the number of minutes in PE in each state. The advocacy director for the AHA in Tennessee stated that:

as a member of the South Eastern (S-E) Affiliate Advocacy Committee for the American Heart Association I can assure you that in southern states there has been a legislative push [to increase PE in schools] by the AHA, often with minimal participation from other organizations.

This individual further noted that,

The minimum mandatory minutes of PE ... [in the originally proposed] bill was assigned a ludicrously high fiscal note by the ‘theoretically independent’ fiscal review committee ... and so that’s why you get this $66 million dollar fiscal note, when probably what the story was is that you had a intransigent bureaucracy that didn’t want to have to adapt.

In addition, Senator Bruce, original sponsor of the PE bill, reported that ‘many times fiscal notes are an easy way to kill a bill ... We kept on running into road blocks with the fiscal note.’ This bill had to pass through the Senate Education Committee and then it went to the Fiscal Review Committee. However, the assigned cost of $66 million effectively crippled the bill, and prevented it from moving out of the legislative committee process until it was substantially modified by fiscal and partisan restraints.

Similarly, in Mississippi the legislation passed in 2007 required 150 minutes of PA, not PE, with no funding attached to this requirement. The legislation called for ‘appropriate state-source funds’ (SB 2369) but offered no accompanying fiscal note. The chair of the Education Committee in the Mississippi House of Representatives also supported this view:

We had some opposition to it. A lot of questions about how it was going to affect schools and cost ... How much is it going to cost? Is this a mandate for the school district? Those kind of issues. We had to overcome all of that.

Thus the Mississippi legislation was passed, but without dedicated funding attached.

Expectation of compliance. At the state level there was a general assumption that schools would comply with the new legislation, despite the lack of accountability. Tennessee legislators and Department of Education officials had no plans to introduce penalties for schools or districts that failed to comply. Kathy, a state official, commented on non-compliance:

We’re not punishing the ones who aren’t doing it, but I think they’re gonna look at the ones who have embraced this 90 minutes and see advantages they’re getting from the [participation in the 90 minutes] in all areas of academics.

At the root of the problematic policy implementation is the assumption at the state level that schools will simply enact the mandates. Nonetheless, not everyone at the state level expected the requirements to be met. Hillary Morris, an elected official of TAHPERD, explained that the lack of accountability has resulted in the laws being ‘bookshelved’ to allow more attention on the standardized testing priorities. She added,

You can have anything that looks great on paper, but if you’re not going to put it in practice, I mean it’s like the treadmill in the bedroom. It’s great to have it, but if you’re not going to use it, it’s not going to work for you.

A State Board of Education (the policy arm of the Department of Education) official, Greg, commented that, ‘unfunded mandates ... are not normally fulfilled.’ This was acknowledged by Conrad, Mississippi Department of Education’s School Health Program official: ‘It’s not like you have a real big effort to implement those programs because from the state level you really can’t monitor every school for compliance.’

Administrator Level

We identified three dominant themes from the data: Unfunded mandate; Problematic policy enactment, and Academic pressure. These themes reflected the issues facing administrators in implementing the activity portion of the state-level policy.
Unfunded mandate. Because the policies were not funded, administrators found it difficult to fully implement the changes. Unfunded mandates are not a priority for principals unless a superintendent requires action, but principals explained that superintendents gave no directives to act on the new PE policy. If the principals are not provided with the resources to implement the PE policy, the unfunded law changes will take a back seat to funded mandates which, by no coincidence, tend to be the ones with accountability measures attached. Principal Wyatt from Montlake School stated,

I think that if it’s a high expectation and monitored closely, it has a lot better chance of growing and developing. If it’s thrown out there and not anything inspected, I think it will be a lot slower probably and especially with no resources.

Without additional resources, principals say they have no method to expand their PE programs. Even if student interest is there, without additional funds, adding more PE faculty and classes is logistically impossible, according to the principals. Principal Murray at Smith school stated, ’Right now it would not be possible for me to add any more [PE classes] unless we have more resources.’ Principal Wyatt at Smith School added: ‘We haven’t been given any resources or any means to purchase resources. It’s another unfunded mandate.’

The principals at Montlake and Smith Schools in Tennessee supported the new laws in theory, believing that student PA was important, however Principal Wyatt at Montlake stated, I do not have the resources or personnel to fully comply with the new policies ... The classroom teacher will probably be responsible for initiating the activity, but we don’t have the resources for all 1400 of our students to go through PE every day, that’s not gonna happen.

Problematic policy enactment. Administrators discussed their understanding of the new PE policy. There were varying levels of understanding, support, and attempts to comply with the legislation. In fact, some principals were not even aware of the new legislation until they were asked about it during this study. The plethora of new initiatives that principals are confronted with each year forces a focus on priorities. Several administrators revealed that the lack of accountability and monitoring the measures that are attached to the new PE policy render it unlikely that it will be fully implemented in the manner intended by policy makers. Principal Wyatt commented: ’But you know, we need accountability and I think this new program coming without accountability, we’ll see it wandering in the wilderness a little bit.’

The principal at Piney Woods in Mississippi described the new PE policy at his school: ’I can’t tell you exactly what [our policy] says, but we do have a policy. There is one on the books.’ Another example of the top to bottom disconnect is from Principal Rose at Jefferson regarding costs to the school for implementing the new 90 minute policy: ’Well, at Jefferson it’s not gonna be any additional cost because you know we are doing our lifetime wellness, so we’re pretty set.’ This indicates a lack of understanding of the new PE policy, with the principal unaware that the policy required 90 minutes of PA per week for all students for four years in her high school.

At Gold Coast School in Mississippi no formal PE program existed. Only members of the school basketball team were afforded the opportunity for in-school PA, which was basketball practice that occurred during the school day. After the legislative change in Mississippi that mandated that PE be offered, the school principal and basketball coach (a teacher) took the stance that anyone playing on the basketball team and practicing during the school day would be considered to be participating in formal PE. No other students were offered PE. Gold Coast’s principal asserted their compliance with the new policy without actually taking any action. ’Well, it really hasn’t affected [us] much anyway because ... we were already doing it to start with.’

Several administrators said schools would find ways to say they were compliant with the new PE legislation. The Executive Director of the Tennessee State Department of Education suggested that, ’The schools are gonna say, gosh, we can get 30 minutes in every day just walking from class to class, that’s activity.’ In fact several administrators did report that they met the requirement because students walked between classes. According to state official Robin, however, simply counting the time walking between classes would not actually add any more PA to the daily lives of
students, and therefore would not be in compliance with the new policy in Tennessee that mandated an increase in instructional PA in the schools.

At Piney Woods in Mississippi, the new policy was ignored outright. According to Boston, the principal: ‘When the state tells us to do something they give us enough time and then, they’ll say ok, we’re gonna come over and check on this and make sure that you have it. That’s when we’ll do it.’ This outright defiance of the measure highlights the problematic nature of implementing policy with no accompanying compliance measures in place.

**Academic pressure.** Pressure to maintain academic performance was pervasive at all the institutions in our study. These pressures stemmed from federal NCLB requirements and state accountability standards (USDE, 2002). Principals and teachers mentioned feeling pressure to reach or maintain high levels of performance on state achievement tests. These demands made any initiative that took focus away from academic achievement an unwelcome irritant. Principal Wood at Adams reflected this:

> With No Child Left Behind, your principals are gonna have to want more English, math, and science to pass the test. So, what’s being phased out is music, art, PE. Your elective classes are being phased out so we can hire more [core subject] teachers and [have] smaller classes.

The focus on standardized test score performance and its negative impact on the implementation of PE legislation is summed up by Principal Boston of Piney Woods:

> They put so much emphasis on academics you know, there needs to be a balance, but we put so much emphasis on academics and our accreditation rating, which we’re currently a five, and we want to remain a five, so we don’t want to pull kids out of classrooms, even though they need this physical activity.

**Teacher Level**

We identified **Marginalized status of PE** and **Narrow PE curriculum** as dominant themes from our data set. These became particularly relevant when attempting to understand the implementation of the new PE policy.

**Marginalized status of PE.** Several teachers discussed issues that they believed reflected the lack of value placed on PE, such as sub-standard facilities, lack of resources, favoritism of athletic programs, and overcrowding. For instance, Maude, a classroom teacher at Gold Coast offered this observation about the lack of value placed on PE: ‘When we say PE, we mean basketball ... It is very important. Having a good basketball team is important, PE is not.’ Insufficient facilities were cited as a problem at four of the schools in our study (Adams, Piney Woods, Gold Coast, and Jefferson). For example, at Gold Coast the one gymnasium is used by elementary school students for the first three periods of the day, and is used for athletic practices for the remainder of the day (field note).

However, in some cases, the resources were available, but were reserved for the athletic programs at the schools. A PE teacher at Smith pointed out a personal frustration: ‘We need another gym, really. They don’t really like us getting on the gym floor, because they have it waxed every year for basketball season.’ This favoritism extended to the football field as well; some students spent their PE classes painting lines and repairing holes on the football field, since the football coach was their PE instructor. Principal Wyatt at Montlake justified this allocation of resources: ‘I don’t care what anybody says, when you win football, it sets the precedence for your students’ spirit and school pride and things like that, and that carries over into how they perform.’

Teachers and their administrators at four of the schools (Rogers, Franklin, Adams, Jefferson) reported overcrowded conditions. Schools frequently had PE classes that exceeded state mandated requirements of 30 students per class (PE audit). Coach Johnson at Jefferson explained her frustration at having more than one class in the gym at one time:

> [The other PE teacher] meets with all five of his classes now, in the gym with me. Whereas [in the] first semester, I had the luxury of the entire gym by myself because these were elective classes and not wellness classes.
Field notes indicated a problematic teaching environment at Jefferson: 'It was very difficult to conduct meaningful PE when there were 60 to 90 students in the gym at one time.'

Adding to the overcrowding problem was a situation in which the gymnasium space was often used in some of the schools to cover for sick teachers and to alleviate overcrowding in rooms used for 'Study Hall'. At Adams the PE teacher reported that frequently on Fridays teachers called in sick and there were not enough substitute teachers available, resulting in several classes being sent to the gymnasium at one time (field note). With the gymnasium bleachers (rows of seats) full, the PE teachers' time was compromised and redirected to crowd control rather than education. No structured class took place on these days (PE audit). Horace, a PE teacher at Adams stated 'you shouldn’t come here to observe PE on Fridays, ‘cause this [overcrowding] happens almost every Friday' (field note).

Another issue detracting from PE teachers providing instruction was that discipline problems at two schools led to them taking on roles as de facto security guards, regularly policing hallways instead of teaching PE. In fact, at Jefferson, substitute teachers were called in to cover the PE classes on occasion to allow a PE teacher to devote time to policing other students. Coach Johnson at Jefferson spoke about this issue, saying, 'Coach [Watson] is in the other gym and many times he just sat in a chair in the hallway, his classes were just covered by a sub.'

Narrow PE curriculum. A narrow PE curriculum was observed at each of the eight high schools in this study. Calisthenics, basketball, weight training, and cross-country running made up the majority of the PE content at these schools (PE audit). While basketball and other traditional activities undoubtedly appeal to some children, the narrow curriculum acts to marginalize many children who are not interested in, or competent at, this subject matter. Several PE teachers insisted that basketball was the only strategy to get kids moving. Coach Johnson at Jefferson justified frequently allowing students to play basketball during PE time:

I will tell you a good reason with that, you have less problems. The boys are out there playing basketball, they’re occupied, they’re physically active, they’re the ones dressed out anyway. And then you’ve got the ones that don’t really care about activity, they are just sitting down. So as far as control [is concerned, allowing the students to play basketball is] the best thing.

This comment was consistent with many observations in which we noted a small proportion of the students (almost all males) very actively engaged in a basketball game, while the majority of students sat in the bleachers and talked, rested, or did homework. This occurred at all of the schools (field notes).

Teachers expressed a desire to expand programs, yet appeared unable to overcome the perceived roadblocks of limited expectations and resources. Coach Wheeler from Rogers commented:

the facility’s the best high school facility I’ve ever been in, it’s a lot better. Of course PE just started [here]. What’s great is, there’s so much interest in it ... What’s bad is, we don’t have all the equipment we need.

Wheeler pointed out that something other than basketball would boost attendance and interest in his classes: 'I would like to have enough equipment where we could play games, a lot of games that kids don’t know how to play.'

A stark example of a narrow PE curriculum was observed at Gold Coast, a school with no formal PE program. Basketball practice, which occurred during the school day, was designated as Gold Coast’s PE program. The guidance counselor at Gold Coast discussed the reasons why he felt that PE would not be offered to non-athletes at the school:

I think here it’s gonna be ... we would have to hire somebody else to do that ... And it’s hard at this school because of the student population. When you only have 70 high school kids [taking PE], you don’t get very much money. You don’t get much support I would say, so that’s the main reason why.
Student Level

Utilizing student perspectives provides other stakeholders with an understanding from the ‘ground level’ of why PE policies are often ineffective. We identified four themes from our student data: Marginalized status of PE; Dislike of PE; Academic pressure, and Narrow curriculum.

Marginalized status of PE. Several students noted that PE is marginalized, and the perception is that it does not count as a ‘real’ class. Marion at Montlake outlined her thoughts:

I’ve heard a lot from, you know, the ones that complain a lot about their poor grade in the [PE] class. Well, my parents don’t care about whatever I make in here, ‘cause it’s just PE and they just brush it off.

Savanna, a student at Montlake, reported: ‘[the PE teacher/coach] just takes his class out there, and say like “oh let’s go paint the football field.”’ Brian continued: ‘it was football season, we had to fill in the holes in the practice field [during PE class].’ This misallocation of PE time and resources was a common occurrence in PE classes. Anita at Adams stated: ‘The people that sit in the stands [instead of participating in PE class], they sit in the stands because like, class don’t matter to them.’

Dislike of PE. Several students were not reserved in their comments about their PE experiences. Sam from Piney Woods moaned: ‘I hate it because, I don’t know, it’s just basically the same crap. It’s not gonna make us any better so I mean it’s just useless stuff.’ In addition, Mel pointed out her disinterest in PE: ‘To be honest with you if I didn’t have to take it I wouldn’t.’ Hanna complained, ‘I’m all sweaty and my hair is soaking wet. It makes me mad and I had to go back to class. I’m musty and stuff, that’s what I don’t like. Yeah, we have to smell in class.’ Jake suggested that a number of students found it difficult to be fully engaged in their PE classes: ‘I don’t think they [fellow students] want to do the work. They’re lazy yeah.’ A student from Adams said,

It’s just a waste of time ... This class is a waste of time because, you could be doing other stuff with your spare time, you know, taking other classes, other foreign languages, and stuff instead of in the gym playing basketball, or walking.

Students disliked overcrowding in the gymnasium. Aaron, a student at Jefferson complained, ‘I don’t like how sometimes, like when we have things to do ... there’s too many people in the gym.’ Other students expressed frustration with the formality of changing into PE clothes even when overcrowding in the gym resulted in no structured lesson that day. Candice from Jefferson protested, ‘And there could be five classes in [the gymnasium] and coach [Johnson] still going to make us dress out. For nothing!’

Academic pressure. Student comments regarding standardized testing shed insight into the intense academic pressure to reach or maintain high levels of performance on state achievement tests. Evan from Smith complained: ‘Cause, all they do is give us tests. They don’t care, well, they care about the grades, but this school is all about standardized tests.’ Eric, a student at Montlake, suggested: ‘Like two years ago, math class was about teachers helping you with your homework. Now all it is all about standardized tests, [it’s about] getting the math objectives.’ Penny from Montlake seemed to miss her elementary days when she had more time to be physically active:

The elementary school kids, they’re able to go outside once they get home from school, and play around or do whatever. But with all the workload from school, we don’t get time to just go outside and you know play with our dog, or just do activity after school for a long period of time because we’re trying to get our school work done.

Alisha felt that PE was a ‘waste of time’ and she was more concerned about spending time in ‘important academic classes’ rather than ‘playing basketball or walking around the gym.’

Narrow curriculum. A narrow curriculum is defined as a lack of diverse PE content offerings (Kirk, 2010). Eric, a student at Jefferson, reported that ‘I like it when we do other things other than basketball ... I’m good at basketball, I just like to do something else.’ When asked how she felt about the current PE program at Adams, where there was a heavy basketball focus, Tasha stated, ‘[PE is] cool, but it could be better. We could have other sports like hockey and all that. There’s
other sports besides basketball.’ At the same school, Dominica pointed out: ‘We don’t really play anything but basketball, and I don’t know how to play basketball, so I just sit in the stands and walk sometimes.’ In terms of helping students learn how to live active lives, playing the same sport time and time again can lead to the few students playing and most of the students watching, as was the case with Dominica (PE audit). However, many students commented that they wanted to participate only in the sports they preferred. Jordan said that: ‘The majority of this school know how to play basketball, and that’s what we do ... Students don’t want to do nothing but the sports they want to do.’ Troy at Rogers admitted that even though he had been exposed to basketball in PE for the last five years he had poor skills: ‘Yeah, you know. I can’t really play basketball.’

**Discussion**

Successful policy implementation is inherently difficult, even when well conceived (Penny & Evans, 1999; Fullan, 1999, 2005; Walker, 2004). Thus, when one considers that the new policies in Mississippi and Tennessee came with no specific goals or objectives and no funding or compliance mechanisms, it is not surprising that we observed implementation failure in the eight schools. In fact, the evaluation report from the Coordinated School Health (CSH) program in Tennessee found that students’ physical activity levels actually decreased during the first year of our study (CSH, 2008). Similar to other school-based research (Suarez-Balcazar et al, 2007), we found resistance to change due to a perpetuation of the status quo, a lack of school revenue and resources, and institutional bureaucracy. Evenson et al (2009) reported that, ‘State legislation often mandates programs but does not offer sufficient guidance or resources to implement new policies’ (p. 236). Lawmakers lacked the political will to allocate money to the PE legislation; therefore, we argue that it was flawed from the beginning. Another flaw was that key actors, teachers, principals, and students were not involved in the development of the new PE and PA legislation and were not consulted with regard to the specific implementation or communication of the policies. Effective policy development in the complex school environment requires a collaborative process at all levels: individual, interpersonal, school, and state level (Moag-Stahlberg et al, 2008). Students’ experiences of PA and PE have been enhanced in projects where a multidisciplinary team of researchers, educators, and public health professionals has interacted across the different levels (Chomitz et al, 2010).

The SEM highlights the need for the interconnectedness among people and the social, economic, and political interactions that shape the contexts in which school-level policies are implemented (McLeroy et al, 1988; Stokols, 1992; Fleury & Lee, 2006; Greaney et al, 2007; Eastabrooks et al, 2008; Woods, 2009). As Panter-Brick et al (2006), argued, a social ecology perspective makes explicit links between and among different levels. They proposed that SEM focuses attention on the contexts of behavior when designing, implementing or critically evaluating programs, and we argue that this can apply to physical education reform in schools. These data ‘helped us understand the multiple perspectives of stakeholders which in this case were also a source of resistance to change and conflict’ (Suarez-Balcazar et al, 2007; p. 345).

At an individual level, students were not encouraged to become physically educated at these schools (NASPE, 2004). Most student perspectives of their PE classes were negative. Our youth require continual support and guidance within the school environment to facilitate the likelihood of being physically active, and therefore PE should be designed to be purposeful and enjoyable so that it contributes to students valuing a physically active lifestyle (e.g. McKenzie et al, 2006; Lee et al, 2007; USDHHS, 2010).

The diverse contexts of our eight schools strongly influenced the propensity of students to be physically educated or more physically active. Actors at all levels, from students to principals, did not value PE. Administrators, teachers, parents, and students were concerned about ‘standardized testing’ and ‘athletic performance,’ not the physical education of their students. This finding was congruent with Trost’s (2004) conclusions that PE is not prioritized and often lags behind other content in terms of policy implementation. Students had a view that the only thing valued in school was performance on standardized tests. Several PE teachers discussed other issues that they believed reflected the marginalization of PE, such as sub-standard facilities, lack of resources, favoritism of athletic programs, overcrowding, and misuse of facilities. At several of the schools the
existing facilities were used for athletic practices during the school day instead of being available for PE class. Physical education suffered from a cycle of low expectation and understandably students are not likely to take PE seriously if they have to paint the football field or sit in the bleachers during classes. As found in other research, the PE instructional context was not purposeful and meaningful to students (Enright et al, 2009).

Our findings revealed a problem, not only with the quantity of PE, but also the quality of the PE instruction. Similar to other programs the key problem was a narrow curriculum (Kirk, 2010) focused on weight training, calisthenics, football, and basketball. Basketball and football were prioritized to such a degree – both in terms of the school’s athletic profile and in activities in PE lessons – that those students unwilling or unable to participate were marginalized. What is needed is a broader, high-quality program and we need to think differently about the process of how PE is structured and delivered in the high school (Kirk, 2010). In Massachusetts, Chomitz et al (2010) found that an innovative PE program that offered frequent professional development for PE teachers and included dance, adventure education, and after-school programs increased students’ level of engagement with PA.

At a broader level, economic and political factors are key in the implementation of any new initiative in schools. The political processes undervalued PE in favor of the politics of a fiscally conservative legislation that focused instead on the more ambiguous goal of increasing students. We advocate PE legislation that requires an increase in the number of minutes per week, a variety of content, and the provision of professional development for teachers. Principals reported a lack of support, resources, money, and professional development. As found elsewhere, this trend in PE may reflect a priority on preserving core academic programs to maintain NCLB requirements without consideration of the effects on children’s PA and health (Rukavina & Li, 2008).

With the large number of policy initiatives across the US (Boehmer et al, 2008), we recommend further examination of potential policy, programs, and practices utilizing the SEM framework in a number of other states. Our research supports the need to further incorporate social ecological perspectives of how intrapersonal, interpersonal, school, and organizational indicators may influence change in schools (Panter-Brick et al, 2006; Suarez-Balcazar et al, 2007; Woods, 2009; Chomitz et al, 2010). In PE policy implementation in Tennessee and Mississippi, there was a lack of coordination and collaboration between the different levels of actors who could have facilitated change. Some principals and teachers were not even aware of the new legislation until they were asked about it during our interviews. More importantly, this research represents the voices of the participants in the PE policy process and we concur with Suarez-Balcazar et al (2007) that it is critical to highlight the different perspectives from all stakeholders: ‘There is a need to further understand complex systems, such as the school systems, to promote institutional changes at all levels of the SEM’ (p. 344). Although the SEM provides a useful theoretical perspective, several researchers note that there has been relatively little research designed to analyze the role of the multiple influences on PA behavior in schools (Burgeson et al, 2001; McKenzie et al, 2006; Dyson et al, 2009). We recommend the development of support systems within the school through the creation of clear goals, strategic plans, and professional development to implement new PE policy. The intent would be to create ‘socially, contextually, and culturally relevant programs that foster sustained physical activity in a supportive setting’ (Fleury & Lee, 2006, p. 137).

In sum, our research provides insight into the ways in which policy initiatives directly impact PA and PE provision within schools, and provides a more in-depth understanding of the implementation of new PE legislation in Tennessee and Mississippi. While such legislation appears to be a logical and intuitively appealing in the United States as a response to the dramatic increase in childhood obesity, there is clear evidence that national and state policies intended to increase students’ PA have frequently proved ineffective, particularly at the high school level (Trost, 2004). The federal and state mandates provide a potentially extraordinary opportunity to improve schools’ practices. However, as Moag-Stahlberg et al (2008) point out, US high schools with an academic focus – and, we argue, an athletic focus – are faced with ‘budget challenges, [and] districts need resources and support to turn policies into sustainable practices’ (p. 562) to enhance health and physical education of students. Our findings move beyond a superficial understanding of the complex process of physical educators, administrators, and other stakeholders assisting schools with efforts to improve student physical education and thereby increase their physical activity. Our
intent is for this information to improve policy production and implementation, and reduce the inherent contestation that exists in all school reform (Fullan, 1999, 2005).

Notes
[1] All of the names used to designate schools and individuals in this article are pseudonyms.

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