Chapter 5

Physical Activity Opportunities During the School Day: Classroom Teachers’ Perceptions of Using Activity Breaks in the Classroom

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The purpose of this study was to explore classroom teachers’ perceptions of incorporating physical activity breaks into their classroom and to determine specific features of preferred activity breaks. These perceptions are considered within the conceptual framework of Comprehensive School Physical Activity Program (CSPAP). Twelve elementary and high school classroom teachers from one Indigenous school district participated in the study. The data were collected using semistructured interviews and teachers’ reflective journals and were analyzed inductively by conducting systematic searches for patterns across data types. Emergent themes included: the need for and threats to classroom control; a preference for breaks with connections to academic content; and the importance of implementation ease and student enjoyment. The findings indicated that teachers prefer activity breaks that are easy to manage, quick, academically oriented and enjoyable for students. These findings have practical implications when considering physical education teacher education and professional development that targets classroom teachers.

Keywords: activity breaks, classroom teachers, comprehensive school physical activity program, academic integration, fun, management
Children spend the majority of their waking hours in schools (Synder & Dillow, 2012) and although the school has been identified as a viable location for increasing physical activity levels (Pate et al., 2006) research findings suggest that the majority of student time in school is spent in sedentary behaviors (Abbott, Straker, & Mathiassen, 2013). International physical activity guidelines recommend that children and adolescents engage in age-appropriate, moderate to vigorous physical activity (MVPA) for 60 or more minutes daily (World Health Organization, 2010). However, even with well-established and internationally accepted guidelines in place, the majority of young people in the United States often do not engage in appropriate amounts of daily physical activity (Centers for Disease Control, 2012).

This is of particular concern when considering the Indigenous population in the United States who have higher risk of overweight, obesity and hypokinetic disease such as type 2 diabetes (Kriska, Saremi, & Hanson, 2003). One recent study of Indigenous children and youth in the USA has suggested that 70% of several populations of Indigenous children were not in the healthy fitness zone for body composition (Brusseau, Kulinna, KloeppeL, & Ferry, 2012); however, the other components of fitness had similar results to non-Indigenous youth. It is encouraging to note that increasing physical activity participation in Indigenous populations can result in decreases in the incidence of type 2 diabetes (Kriska, Saremi, & Hanson, 2003).

Comprehensive School Physical Activity Programs and Activity Breaks

As is described more fully in Chapter 1 of this monograph, the Comprehensive School Physical Activity Program (CSPAP) approach includes five components which independently and collectively seek to increase physical activity levels of young people: (a) physical education, (b) physical activity during school, (c) physical activity before and after school, (d) staff involvement, and (e) family and community engagement. CSPAP programs align with the concept of a whole-of-school or Health Promoting Schools approach to increasing physical activity opportunities for young people (Institute of Medicine, 2013). International whole-of-school physical activity initiatives that are mentioned in Chapter 1 vary with respect to the specific content and goals (Kelder, Goc Karp, Scruggs, & Brown, 2014), but all of them include quality physical education as a cornerstone and integration of physical activity throughout the school day as a key tenant.

The focus of this report is on one method of increasing physical activity during the school day, specifically the use of activity breaks. Incorporating activity breaks has the potential to positively impact accumulation of the recommended minutes for physical activity participation among children (Katz et al., 2010). Sometimes called Brain Breaks, Energizers, or Activity Bursts—the shared philosophy behind activity breaks is to provide an interruption of the prolonged sedentary behaviors common to the school day. Several studies have described benefits associated with including short physical activity breaks throughout the school day which include fitness gains, improved attention spans, and increased physical activity levels (Erwin, Abel, Beighle, & Beets, 2009; Erwin, Beighle, Morgan, & Noland, 2011). A review of the literature relative to increasing physical activity levels of children and adolescents suggests that using activity breaks is an effective option for increasing physical activity (Faber, Kulinna & Darst, 2007) and can do so without compromising time
dedicated to academic learning (Katz et al., 2010). A Centers for Disease Control (CDC) review paper (2010) reported that physical activity either helps or leads to no changes when considering academic performance; that is, time spent in physical activity rather than on academics does not adversely impact academic performance.

The primary challenge in this approach is that many stakeholders in a CSPAP typically are not experienced in teaching physical activity and have additional work commitments that may compete with CSPAP goals. Classroom teachers, who most often have the responsibility for physical activity breaks, are particularly impacted by multiple commitments and a lack of experience teaching physical activity. There is some evidence to suggest that classroom teachers also have negative dispositions relative to teaching physical education and physical activity content (Armour & Duncombe, 2009; Faucette, Nugent, Sallis, & McKenzie, 2002). On the other hand, it has been suggested that classroom teachers recognize the importance of increasing physical activity and are willing to find ways for students to be physically active during normally sedentary classroom activities (Cothran, Kulina & Garn, 2010; Parks, Solmon & Lee, 2007).

Teachers’ perceptions of physical activity promotion in the academic classroom have also been studied by Webster and his colleagues (2013) and they offer insights into why and when classroom teachers might be likely to implement activity breaks. The authors reported that elementary classroom teachers who perceived the environment at the school as more supportive of physical activity promotion in the classroom were more likely to have favorable perceptions of promoting physical activity in their classrooms. Teachers reported an increased likelihood of adopting physical activity breaks if the following were in place: (a) simple to adopt; (b) compatible with their teaching skills and philosophies; (c) possible to yield observable outcomes; and (d) beneficial to make teachers innovative in their educational practices. In another study of elementary classroom teachers implementing activity breaks (Cothran et al., 2010) the authors reported two salient findings related to teachers’ successful adoption: (a) teachers’ own personal wellness priorities, and (b) a high level of care about students, particularly related to their health. Both of these studies of teachers’ perceptions indicate that given appropriate support and alignment with their own philosophies and priorities, classroom teachers are willing to incorporate physical activity into their classrooms.

Expanding on these previous findings, the purpose of this study is to explore classroom teachers’ perceptions of using physical activity breaks and to identify specific features or characteristics that determined whether teachers chose to use them with their students. This study is significant as high school teachers have infrequently been the focus of published reports on activity breaks. In addition, a unique teaching context is explored by examining activity breaks in a school district that serve primarily Indigenous children and adolescents.

**Methodology**

**Context of the Study**

This study was part of a larger investigation focused on one Southwestern United States Indigenous school district’s effort to create a healthier culture in their schools and community (e.g., Brusseau, Kulina, Kloeppe, & Ferry, 2012; Stylianou, Kulina, & Kloeppe, 2014). The district included an elementary, middle,
and high school that served primarily Indigenous youth (95%). The schools faced many challenges related to truancy, high teacher and administrator turnover and low performances on standardized tests. The community also faced critical health issues related to diabetes and obesity.

Teachers who participated in the study attended ten professional development workshops each year that delivered content related to classroom activity breaks and teaching basic content knowledge related to the physical activity and food pyramids. Teachers also had access to peer and external mentors, and received resources such as small equipment, and an activity break resource file to support activity break use. Teachers were given extensive physical activity break ideas by grade level, including 44 for K-2 grades, 39 for 3 to 6 grades and 34 for all K-12 grades, along with 14 walking games for all grade levels from 11 different sources (e.g., Decker & Mize, 2002; NC Department of Public Instruction, Energizers, 2006).

The complete program which was implemented over five years included other aspects of a school health change model including: (a) food service changes, (b) health content taught in the classrooms, (c) the school district’s wellness committee meeting monthly, (d) physical education teacher professional development on using the Dynamic Physical Education curriculum to increase physical activity in physical education classes (e.g., Darst, Pangrazi, Sariscsany, & Brusseau, 2012); and (e) regular family events that focused on healthy behaviors. The program was designed so that each year additional teachers and school personnel were added to the project at each of the schools. It is important to note that the current study addresses teachers’ perceptions of using physical activity breaks in the classroom context and it is possible that the overall project may have influenced the teachers’ behaviors and perspectives on this topic.

Participants

Interested school personnel volunteered to participate each year. There were 16 participants during the final year of the project but for the purposes of this report four of the participants were eliminated due to minimal data (i.e., few reflective journal entries, did not participate in interviews, etc.). The 12 remaining participants (six female; six male) included four elementary school teachers and eight who taught at the high school level (see Table 1). Nine of the participants identified as Caucasian, 2 as American Indian and 1 as both Caucasian and American Indian. The decision to classify all of the teachers in this study as classroom teachers was made based on the fact that all had instructional duties of some kind at least part of their school day and none of their teaching spaces were conducive to traditional physical activity participation.

Data Collection

Teachers were encouraged to use as many activity breaks as they wanted but to try at least one physical activity break per week. Some teachers may have chosen to repeat the same activity break multiple times, while others selected from a variety of activity breaks throughout the year. The total number of breaks that each teacher tried is reported in Table 1 and total breaks reportedly tried likely includes breaks that were tried multiple times (i.e., 38 breaks tried, but only 24 unique activity breaks). A wide variety of physical activity breaks were implemented.
The elementary teachers often chose breaks that emphasized math and spelling (e.g., Math Wheel, Spelling in Motion, Frozen Words) while “review” activities (e.g., Beach Ball Review, Medicine Ball Review, Around the World Review) were popular among the high school teachers. After completing the activity breaks the teachers were asked to report what happened in a reflective journal. The journal guidelines included six prompts, specifically asking teachers to: (a) describe the activity break chosen (b) discuss any changes made to it, (c) comment on what went well/strengths of the activity, (d) what did not go well/weaknesses, (e) their students’ responses to the break, and (f) if the teacher would try that specific break again and (g) their suggested changes. The reflective journal entries (N = 113) served as a data source for analysis and as a prompt for the researchers in planning interview questions (see Table 1).

Semistructured interviews (N = 21) occurred in November and April months of the same school year at a time and location convenient to the teacher and lasted 40 to 60 minutes (see Table 1). The interview guide involved questions common to all participants and teacher specific questions based on individual journal entries and teaching responsibilities. One interview question asked was, “Since context is so important I’m going to ask you to comment specifically on some different factors in a teacher’s world. I’d like to know how these things influence what you can and can’t do with regard to how you teach physical activity breaks in the classroom”. All interviews were recorded and later transcribed verbatim and the teachers were assigned pseudonyms during data analysis.

### Table 1  Teacher Demographics, Breaks Tried, Reflective Journal Entries and Interviews

<table>
<thead>
<tr>
<th>Teacher Name</th>
<th>Grade Level</th>
<th>Subject</th>
<th>Number of Activity Breaks Tried</th>
<th>Reflective Journal Entries</th>
<th>Interviews</th>
</tr>
</thead>
<tbody>
<tr>
<td>Louise</td>
<td>5</td>
<td>N/A</td>
<td>38</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Jack</td>
<td>7</td>
<td>Social Studies</td>
<td>56</td>
<td>12</td>
<td>2</td>
</tr>
<tr>
<td>Rob</td>
<td>7–12</td>
<td>American History &amp; Economics</td>
<td>82</td>
<td>22</td>
<td>2</td>
</tr>
<tr>
<td>April</td>
<td>6</td>
<td>N/A</td>
<td>23</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Joseph</td>
<td>7–8</td>
<td>Special Education</td>
<td>39</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Curt</td>
<td>7–12</td>
<td>Music</td>
<td>98</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Nathan</td>
<td>7–12</td>
<td>Librarian</td>
<td>18</td>
<td>11</td>
<td>1</td>
</tr>
<tr>
<td>Amber</td>
<td>1</td>
<td>N/A</td>
<td>31</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Mitch</td>
<td>K-6</td>
<td>School Counselor</td>
<td>11</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Bailey</td>
<td>9</td>
<td>English</td>
<td>50</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>Paula</td>
<td>7–12</td>
<td>Biology</td>
<td>75</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>Natalie</td>
<td>7–12</td>
<td>Social Studies</td>
<td>63</td>
<td>18</td>
<td>2</td>
</tr>
</tbody>
</table>

*Note: The number of activity breaks is a self-reported total of the number of activity breaks each teacher tried during the final year of the study. Some activity breaks were repeated more than once.*
Data Analysis and Trustworthiness

Data were analyzed inductively by the lead author who conducted systematic searches of the data for emerging patterns across data types (LeCompte & Schensul, 1999; Miles & Huberman, 1994). Patterns relative to teachers’ perceptions of activity breaks emerged as a result of several systematic readings of the interview transcripts and reflective journal entries. Subsequent searches of the data resulted in identification of themes relating to key features of activity breaks with regard to teacher preferences. The data associated with each participant were analyzed individually and constant comparison methods were used to identify characteristics that were most frequently referenced within each theme across cases (LeCompte & Schensul, 1999b).

Trustworthiness was of utmost importance during both data collection and data analysis. The researchers were able to develop rapport with the participants due to being present at the school for an extended period of time and data collected from teachers was handled confidentially. Further, to ensure trustworthiness during data collection, interviews were conducted in a private and comfortable space on the school campus. Trustworthiness strategies employed during analysis included several initial reviews of the data before theme identification, triangulation between data from interviews and reflective journals, the use of an independent reader to search for evidence that would disconfirm findings, and use of an analysis journal to keep track of emerging themes and possible interpretations (Glesne, 1999; Lincoln & Guba, 1985). Disconfirming cases are reported in the findings where relevant.

Findings

The data from this study reveal distinct characteristics that classroom teachers considered when selecting and evaluating activity breaks. The data associated with each theme (threats to class control; connection to academic content; and ease and enjoyment) are presented separately and represented by excerpts from the data.

Threats to Classroom Control

Given that class management is a primary concern for teachers at all experience levels, it is no surprise that teachers were concerned about the effect of activity breaks on class control. They specifically identified two challenges: chaos during activity, space constraints within the classroom and the challenge of returning to on task behavior after the activity.

Chaos. When looking at reasons why teachers would use an activity again or not and weaknesses of activity breaks, most of the participants mentioned issues of student behavior and/or classroom management. When describing weaknesses of activity breaks or reasons for necessary modifications to activity breaks the teachers used words like rowdy, chaos (or chaotic), silly, squirrely and rough, among others, in reflective journals and interviews. For example when describing a weakness of a particular activity break Mitch wrote, “Safety issues – when I had the kids find each other it got a little chaotic.” He also reported that he would not use this break again because of the issues with chaos. Nathan said that, “one of the biggest rough spots was maintaining classroom composure” during the activity breaks and Paula...
mentioned discipline during breaks as something that she struggled with throughout the study period.

Bailey identified a weakness of one activity break by writing, “Some students got a little rowdy for my comfort level.” She explained that although she would use the break again she would designate a specific, confined area for the activity. April explained that one break had “a little too much physical contact... realistically some of the boys are all zoom, Wrestlemania!” She continued by explaining how you had to be well prepared for implementing activity breaks and that “if you’re not careful [activity breaks] can cause chaos.” Although it is unclear exactly when chaos became a problem, management issues could be influenced by type or timing of an activity break or due to teacher inexperience in implementing the activity.

Sometimes the teachers were able to accept some chaos. For example, in a reflective journal entry for an activity break called “Card Walking Game” when describing the strengths of the activity Bailey wrote, “At some points, students run around the room to get ahead of their slower classmates.” She did not seem to mind that students were running instead of walking in this activity because she had no suggestions for modification of the activity for future use. April also mentioned that students can get out of hand, but she did not mind it because she knew it was good for them. Amber also noted multiple references to “safety rules” and “reminding the students to stay safe” in the majority of her reflective journal entries. As a first grade teacher she described a weakness of one break that she would not use again due to student behavior by saying, “Some students can get overly silly, so we occasionally need to pause to review rules.” Multiple teachers mentioned the need to reinforce rules about safety when students moved in the classroom.

**Space Constraints.** Not as evident as some other subthemes, but important when considering activity in the classroom, is the notion of space constraints. Joseph reflected on losing equipment under tables in the classroom, and student frustration relative to the small space available for movement. After referencing “safety precautions” Nathan listed, “Better accessibility in the classroom” as a suggestion for modification of a break and went on to say that he would not use this particular break again. In her last interview Louise explained that her class was “limited on certain activity breaks or activities to do inside the classroom” because of the limited space. Jack mentioned “Not enough room in the classroom” and April wrote that a weakness of one activity break was “Room in the classroom and desk positions.” Also referring to a weakness Mitch wrote “Sometimes space was an issue because I have a small office.” Although these were not reason enough to make Jack, April or Mitch indicate that they would not try those activity breaks again, all of them suggested modifying the activity by moving outside or to a different location in the school.

**Getting Back on Task.** Another teacher pattern of behavior considerations emerged relative to students’ ability to get back on task after an activity break. In the second interview Bailey mentioned that, “when they get like excited about something, it’s really hard for them to get settled back into doing whatever it is that you have to continue with.” Louise described how she overcame this issue:

...at the beginning it takes a little bit of time to get the students to understand and establish your expectations of how to get ready for [an] activity break, how to wind down from an activity break, but once you have that, it gets easier.
April also referred to getting students accustomed to the procedures associated with activity breaks and in an interview discussed her success of incorporating activity into a math lesson because, “the kids were used to activity breaks, it’s so easy to get into it and get right back out of it.”

Interestingly, some of the teachers used the activity breaks to increase teacher control in the classroom. These teachers used the breaks as a reward and student misbehavior in other classroom tasks threatened the students’ access to activity breaks. In the last interview April explained, “It even got to the point, actually, where it was a reward. Some of my kids are kind of chatty and so when they were chatty during reading and math, I’m like, ‘Okay you guys, no activity break today.’” In a majority of his reflective journal entries Rob mentioned that he tied participation points to student engagement in the activity breaks and he also wrote that, “students were rewarded for their dedication to the (academic) lesson” with 5 minutes of activity at the end of the lesson. In an interview Jack described activity breaks, “almost like a carrot...if we get this done, then we can do this [an activity break].”

### Connection to Academic Content

Throughout the interviews and reflective journals, the teachers frequently mentioned issues of time and the presses that exist relative to academic requirements and expectations. As a result many of them reflected more positively on the activity breaks that allowed them to incorporate academic content. Rob, who served as a peer mentor, said that the majority of participants were choosing to implement breaks that are “academic based.” Bailey explained:

Okay so first, all teachers are going for the mark...so anytime that the activity breaks reinforce the content, I think that works. It makes me more comfortable. Because even though the activity breaks may only last five to ten minutes, it still takes them five, maybe ten minutes, to come down from it.

For Bailey and other teachers, the time committed to activity breaks was only worth it if there was an academic payoff. Natalie echoed this sentiment, “I definitely try to integrate whatever we’re doing in the curriculum with the activity.” Jack had a positive view of the nature and purpose of the breaks and how they contribute to content acquisition:

...it shouldn’t take away from learning time. It should be in addition to it and be helpful. To me that is – I like doing reviews with the exercise. Get them out of their seat, whether it be a true and false tag or tossing the football around and answering questions or whatever.

Some of the teachers mentioned that their students were able to learn the content more effectively when they were incorporated into an activity break. In her first interview, Amber explained this by saying, “I definitely think that the movement is helping them retain information and be more interested in what they are doing.” Curt responded to an interview question about working with classroom teachers, getting them to buy into using activity breaks by saying that teachers should know using activity breaks, “was a way to really motivate your kids and have them retain their knowledge rather than in one ear and out the other.” Similarly, April discussed using the activity breaks with content to get her students to be more interested in certain
subjects. She said, “Especially with math, ‘cause you know math is just not a good subject for the kids. They kind of go ‘Oh I don’t want to do this’ and stuff. So we just turned it into something that would be good.” Curt, a music teacher, reflected on an activity called “Hot Potato Sing” he used to help students learn the words to a song, “It was a great way to train their memory. It really went well. Everything they did reinforced their memorization of the words as well as the rhythm.”

Teacher reflections related to future use after an activity break attempt often focused on the student learning component. Comments such as “[the activity break] helped get them to practice their new vocabulary words in an interesting way” and “I will probably use this activity again because it is connected to content.” included in reflective journal entries by Natalie and Bailey respectively. In the ‘strengths’ and reasons ‘why you would use this activity again or not’ sections of the reflective journals, there were frequent references to the activity breaks being connected to content and student learning. Thus, it is clear that this is a characteristic of activity breaks that teachers appreciated.

A majority of responses to activity breaks that allowed for the integration of academic concepts were positive, however, the teachers did not always choose activity breaks that incorporated academic content. Joseph, a special education teacher, said:

I’ve been doing the activities [where] I try to incorporate some of the lessons and the kids, they’re such a wide range of abilities, sometimes it’s hard to do the same lesson with the little activity. For example, vowels, I also have one student that doesn’t speak so he has to do hand signals for his and occasionally one or two of them will get frustrated because they don’t know what to do. So then they won’t be real happy with the game. So you kind of have to maneuver a little bit and figure out which is best for everybody...

Given the academic diversity in his special education classroom, Joseph appears to have struggled with incorporating content into the activity breaks and he went on to say that the breaks do not, “always have academics but just to get some moving around.” Other teachers mentioned using the activity breaks for reasons like “getting the wiggles out” (Amber) and “to wake them up in the morning” (Curt). In short, academic integration was a characteristic that teachers frequently considered when selecting an activity break.

**Ease and Enjoyment**

In addition to activity breaks that did not cause behavior issues and ones that included academic content, classroom teachers also had an affinity for activity breaks that were easy to implement and lead to student enjoyment.

**Ease of Implementation.** Louise summarized this well when she said, “I have to keep the activity breaks just short, simple and sweet.” For the teachers, short and sweet seemed to be in the 5 to 10 minute range with few equipment needs and simple rules that could be understood the first time the activity was tried. Louise went on to describe her challenges with one activity relative to this idea by saying, “We can play that game but it took probably three, four, five times for us to practice and get it down first and finally be able to play that game without too many mess-ups, I guess.”
Even with the ability to integrate academic content some of the teachers described not having enough time for them in their classrooms and the difficulty of fitting in even a short activity break. April responded to a question about pressures and her ability to incorporate activity into the classroom by saying, “Not enough time. There’s never enough time. Time is a big issue; the lack of time is a big issue.” Paula said, “Quite frankly, I’ve let some of the exercise things [activity breaks] go in the last couple of weeks because we’ve had a lot of labs and it’s their crunch time.”

With limited time, teachers expressed a preference for quick and easy activities. April described one activity break she used to teach the concept of perimeter in math as “great” because, “…it was just so quick and so easy!” Amber echoed these sentiments when she described why she would use an activity break again by writing, “This was a great, quick break.” Teachers sometimes attempted longer activity breaks but infrequently tried them again if they lasted too long. Nathan struggled with how long some of the activity breaks lasted. He explained this by saying:

It is hard to be efficient when doing the lessons. You have to go train them, explain to them, show them what the plan is, and then sort of do a pre-rehearsal before they actually do it. By that time you are looking at taking 10 to 15 minutes and then you are doing the lesson and then you have got to explain the conclusion to the lesson and then try to go back to your regular lesson and do it that way.

The teachers seemed to most value and use the short, 5 to 10 minute activity breaks unless the break was simple and had a clear academic component, for example a longer review game that included physical activity.

Going hand in hand with the idea of activity breaks being quick, is that the breaks should also be easy to organize and simple enough for the teachers to lead with minimal preparation. Amber described the types of breaks she prefers:

I’ve been attracted to the ones that require less materials, things that we can just get up and do, the less preparation the better, the more simplified they are, I can explain to the little ones better. So I’ve just been kind of rotating around those ones.

In a journal entry, Nathan indicated that he would use one activity break again because: “I like the simplicity of using it…” Joseph shared his frustration and reluctance to try again with one activity that used small pieces of equipment that often got lost under tables in the classroom.

**Enjoyment.** The element of student enjoyment, most often described as “fun” was frequently mentioned in interviews and written about in journal reflections. Whether the students enjoyed the activities had a strong influence on the teachers’ decision to use the break again or not. Curt summarized this by saying:

They like the activity. They like the movement. It’s a positive experience for them. That’s how I consider whether it works or not. If I’ve gone through the motions, we’ve done [the activity] and it hasn’t worked then they’re down, they’re stooped shouldered, they’re just not enjoying it, I’m not going to use that activity anymore.
Jack also supported this point, “To see them having fun while they’re doing it, that affects me greatly.” Some of the teachers associated the level of student enjoyment to the effectiveness of the learning experiences. Curt said, “…if it’s enjoyable and they have fun doing it I think the learning lasts longer, perhaps even a lifetime.” In his reflective journal Curt also included comments such as, “Students loved it” and, “…students had great fun” when describing the strengths of certain activity breaks. Paula wrote that she would use an activity again because, “…the students enjoyed it” a sentiment she referred to in several of her reflective journal.

Although the majority of the teachers relied heavily on student engagement and enjoyment to determine if they would use an activity again, this was not always the case. In one activity reflective journal entry Jack indicated that he would use an activity again even though his “Students didn’t find [the] activity too engaging or interesting.” His reflection included positive references to student learning so in this case it appears he put a greater emphasis on learning rather than enjoyment. In contrast, one of Nathan’s journal entries about a particular activity indicated a high degree of student enjoyment but it was accompanied by problematic behavior and he therefore was not going to use the activity again despite the students’ enjoyment. Generally, however, throughout the teachers’ reflective journals comments relative to student enjoyment such as “This was a fun activity and the students enjoyed the game” (Natalie), “They enjoyed it” (Rob) and “They loved it!” (Nathan) consistently reinforced the importance that activity breaks included the fun factor.

**Discussion**

To determine how, when, and if classroom teachers will use particular types of activity breaks in their classroom, it is necessary to consider the factors and influences that play out in their daily lives. The findings reported here would suggest that classroom teachers are less likely to use activity breaks that could lead to student misbehavior and that they struggle at times with managing movement in their classrooms. Due to time and academic accountability, the teachers are drawn to activity breaks that reinforce academic content. In addition, they prefer activity breaks that are easy to use and enjoyable for their students.

Even in this group of volunteers—the teachers presumably most interested in and willing to try classroom physical activity, the teachers were at least initially uncomfortable with student movement in the classroom and the potential threat that movement provided to teacher control. By the end of the year and with multiple types of support and professional development, student movement was still a very new and at times disconcerting factor for the teachers. This should not be surprising when we consider that preservice teachers list limiting physical activity as one of their most important classroom rules (Kaufman & Moss, 2010). It seems clear that classroom teachers will likely need help broadening their management skills and comfort levels to include physical activity as a regular part of their day. Introducing these skills during teacher education programs by modeling activity breaks and providing resources for preservice teachers to experience and try might help. At the in-service level, management concepts should be included in CSPAP professional development and resources.
Another avenue of support is the physical educator in the school who might serve as a peer mentor and even go into classrooms and model effective teaching of physical activity.

Kulinna et al. (2013) report that modifying physical education management practices to fit the classroom setting can help classroom teachers. Five key management principles for the classroom are: (1) the start and stop signals are different and used consistently (e.g., use a verbal command to start and a sound, perhaps a bell, to stop; (2) use “when” before “what” in directions (e.g., “When I say go, please . . .”); (3) organize students into groups efficiently; (4) deliver instructions quickly (e.g., 30 seconds or less); and (5) have equipment ready.

What is unclear, and was not explored in the current study, is the notion of when movement actually becomes a problem—or turns into chaos from the teacher’s perspective. Is it the type of movement itself (i.e., running versus walking)? The teacher’s individual comfort level or management style? This has implications when considering the type of activity breaks that should be taught to classroom teachers. It may mean that developmentally there should be a range of desk side activities provided to teachers and as they become more comfortable with movement in the classroom (and the students grow in experience) they can progress to more active breaks that include increased movement. It is also possible that classroom teachers simply need a period of “student movement recalibration” where they experience and adjust to a different type of student behavior in a classroom space that previously had a very narrow range of acceptable student movement behavior. It is worth noting that within the limitations of the study it was not possible to determine the extent to which teachers’ preferences were impacted by the qualities of the activity breaks as opposed to their expertise relative to planning and managing activity in the classroom.

Negative presses relative to scheduling and expectations to produce high test scores have been previously reported when discussing teachers’ willingness to include physical activity in their classrooms (Cothran et al., 2010; Parks et al., 2007). This is particularly important when we consider the perceptions of teachers who are working with an Indigenous population because of the well documented achievement gap that exists between these children and their non-Indigenous peers (McCarty, 2009). If classroom teachers appreciate that physical activity can help them when teaching academic concepts, they may be more likely to consider activity breaks as a support to student learning. It would seem practical to suggest that developers of CSPAPs should therefore consult with physical activity (or physical education) experts as well as subject-specialists when designing classroom physical activity opportunities that are appropriately connected to academic content.

The academic connection must also be considered in light of the cultural connection. This group of teachers faced general teacher stressors, but also had very specific challenges relative to educating Indigenous children and adolescents. In addition to the high rates of truancy and poor performance on standardized tests mentioned earlier, teachers in this school district must also consider the specific cultural needs of this population. When discussing assumptions about Indigenous education, Garcia and Ahler (1992) remind us that, to achieve good teaching, it is important “that teachers understand and respect the individuality of all children” (p.14). This is a very general statement about teaching children, but has real implications when considering the uniqueness of the Indigenous population who are often exposed to teaching strategies that present them with significant cultural conflicts.
Classroom Activity Breaks

(Brown, 1980). As one example, there is a significant body of literature that discusses Indigenous students’ preference of cooperative rather than competitive activities (Swisher, 1990). Developing activity breaks that understand and embrace cultural values is a critical next step in their development and use.

It is meaningful that considering the perceptions of teachers from both elementary and high school levels and examining activity breaks in a school district that serve primarily Indigenous children and adolescents did not necessarily produce any unique findings. It does not appear that preferred activity break characteristics were dependent on school level. In addition, the fact that these characteristics are preferred in this unique school district is important. The preferences communicated by the teachers in this study could resemble the preferences of a variety of other teachers teaching within a variety of different contexts. As mentioned previously, teachers engage with activity breaks if they align with their philosophies and priorities as a teacher (Cothran et al., 2010; Webster et al., 2013); therefore, it might be reasonable to suggest that when it comes to successful activity break implementation the characteristics of the students matter less than the values of the teacher. Future study could compare and contrast differences in teachers’ physical activity break preferences by school context and/or setting.

A unique and important finding of this study is relative to the teachers’ use of activity breaks as a reward. At least some of the participants regarded the activity breaks as something students value because they often used the short breaks as a bribe to buy student compliance during other parts of the class. On the one hand, this can be viewed as a positive development as teachers can have one more option in their motivation and management tool box. On the other hand, this finding also suggests that at times the students in the classrooms may have been denied activity breaks because of noncompliance during academic work time. This is problematic because students who may need an activity break to refocus or expend extra energy may not get it because they are unable to focus during long stretches of sedentary class time. Considering that teachers perceived activity breaks as something students value, future research should seek to address classroom activity breaks from a student perspective and the use of breaks as rewards versus part of instruction.

The finding which claimed that student enjoyment was an important teacher consideration should not be overlooked. Today’s educational focus on results and accountability might suggest a goal like fun is frivolous and extraneous to the academic mission. The teachers in this study, however, put a lot of stock in selecting activity breaks that their students enjoyed and they even sometimes mentioned their own enjoyment of the activities. The fun factor likely is important in understanding why the breaks were successful as a reward for students. It is also important to acknowledge that including an element of fun in classrooms can lead to increased engagement and more effective learning (Minchew & Hopper, 2008). It may also be helpful to assist teachers and students in broadening their conceptions of enjoyment to include factors like competence and challenge.

Conclusions

The findings of this study are novel in that they describe the type of activity breaks that a select group of classroom teachers are willing to use with their students. Classroom teachers have a great deal to worry about in the day-to-day operations of their classrooms (i.e., teaching required content, standardized
testing requirements, behavior issues, etc.). Therefore, as classroom teachers consider activity breaks, it may be important to ensure they see the implementation process as simple and worthwhile. Teachers understand the value of incorporating activity into their classrooms but they see teaching necessary academic content as their main priority. If activity breaks can do both, get students moving and reinforce content (e.g., vocabulary words), then teachers may be more likely to incorporate them into the classrooms on a daily basis. To be successful and widely-used, activity breaks should require minimal equipment and little to no preactivity preparation. Finally, classroom activity breaks need to be enjoyable. In addition classroom teachers may need help in expanding their management skill sets to include these new classroom behaviors involved in activity breaks. Clearly more work is needed in alternate settings and with teachers who were not willing to participate in the use of activity breaks to understand their concerns.

Implications for Professional Development and Teacher Training

Although not specifically addressed by the teachers in their discussions of using physical activity breaks in the classrooms, the school personnel in the study had several types of support during this project including regular professional development, and a variety of resources including curricula, equipment, and mentor teachers. It is unclear how that support and other components of this intervention may have influenced the teachers. Previous scholars suggest that providing support to classroom teachers (i.e., professional development, mentoring, equipment, resources, etc.) can lead to more successful implementation of classroom physical activity inclusion (Webster, et al., 2013; Cothran et al., 2010). Providing support and resources which consider the characteristics presented in these findings (that is support to teach breaks that integrate content and standards that they are teaching as well as breaks that are quick and require few resources) could support further use of classroom physical activity integration. Future research might also consider delineating the types of support needed for elementary school teachers and how those would differ from high school teachers.

Another important element to be considered when discussing professional development and training of classroom teachers is that the activity breaks that they implement must be culturally relevant. Therefore, regardless of the population of the students they will be teaching, knowing students and understanding their culture has implications relative to student buy-in and enjoyment. Specific to Indigenous children and adolescents it is important that curricular materials and classroom activities are immediately relevant in students’ lives (Brayboy & Castagno, 2009). Therefore activity breaks should emphasize benefits that will be experienced immediately rather than focusing on the long-term benefits (i.e., lower risk of disease, prevention of obesity, etc.).

In summary, the following recommendations for professional development and teacher preparation relative to physical activity break inclusion in the classroom include:

- Teach classroom teachers physical activity breaks that are manageable and do not disrupt the classroom teachers’ notion of control.
• Train teachers how to connect classroom content to physical movement—both in class and maybe beyond (i.e., active homework).

• Encourage teachers to select activity breaks that their students will enjoy, which will be based on each teacher’s knowledge and understanding of their unique group of students.

• Encourage classroom teachers to join or start a wellness team that promotes a collective school effort in implementing physical activity breaks (Carson, Castelli, Beighle & Erwin, 2014; CDC, 2013).

• Encourage classroom teachers to take a leadership role within the CSPAP framework by developing and implementing strategies that increase physical activity during the school day (Carson, 2013; Society of Health and Physical Educators [SHAPE], 2014).

• Encourage classroom teacher to seek out PE teachers for their expertise (Castelli & Beighle, 2007).

• Consider teaching philosophies and priorities when selecting activity breaks to be included in professional development and teacher preparation programs.

References


