Giving the teacher a voice: Perceptions regarding the barriers and enablers associated with the implementation of Smart Moves (compulsory physical activity) within primary state schools

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Abstract: The specific focus of this study is to explore Queensland (Australia) state school generalist teachers' perceptions regarding the barriers and enablers associated with the implementation of the Smart Moves (compulsory physical activity) policy in the primary classroom setting. This study sought to primarily add to the literature on, and understanding about, implementing compulsory physical activity policy by generalist primary teachers. More generally, this study also aimed to explore generalist primary teachers' attitudes towards daily compulsory physical activity policy within the context of Smart Moves. Such a research undertaking was positioned within the interpretivist paradigm and a basic interpretive study methodology was employed. The research project involved semi-structured interviews with six generalist teachers from six Gold Coast State primary schools. Results of this study identify a cross section of both major thematic institutional and teacher-related barriers.
and enablers affecting the implementation of the Smart Moves policy. The sub-themes being: (1) crowded curriculum, (2) lack of priority, (3) ensured that children are physically active, (4) the importance of teacher confidence and (5) inadequate access to facilities and equipment. These factors are clearly affecting the implementation of Smart Moves sessions and need to be addressed to ensure teacher compliance for the benefit of students. This paper concludes by offering potential recommendations for the future adoption and implementation of compulsory physical activity programmes within a primary school setting.

Subjects: Education; Health and Social Care; Medicine; Social Science

Keywords: Smart Moves; physical activity; health, physical education; sport; curriculum; obesity; fitness; school; teaching; pedagogy

1. Introduction
The recent global trend of an increasing prevalence of overweight and obesity in primary school-aged children is well documented with Australia being no exception. The government’s growing concern about childhood physical inactivity and obesity has helped to create greater interest and discourse around physical activity and its contribution to children’s health (Dwyer et al., 2003). With exercise habits commencing early in life and development of healthy lifestyle behaviours amongst children translating into reduced risks in adulthood, quality physical activity at the primary school-aged level is vital (Doak, Visscher, Renders, & Seidell, 2006; Jenkinson & Benson, 2010). What is more, Queensland Health (2006) explains that good health is important for everyone, especially children, “whose growth, development and maturation depend on optimal physical, social and emotional well-being. A healthy diet and regular, adequate physical activity are essential to promoting and maintaining good health from infancy and through to adulthood” (p. 15). Unfortunately, with the combination of declining fitness standards and inadequate pathways to accessing physical activity, and the increasing prevalence of obesity levels, there is growing concern for the health of children across the world (Jenkinson & Benson, 2010). Similarly, Keegan, Keegan, Daley, Ordway, and Edwards (2013) suggests that “Australia needs to ensure its citizens are willing and able to be more physically active, and this can start at pre-school and primary school” (p. 1). What is more, it is well documented that improved levels of physical literacy (PL) amongst youth have many other significant outcomes, such as self-concept, childhood obesity and heightened academic performance (Whitehead, 2001). Examples of existing programmes which address PL have been operating throughout Canada, the UK and the US. Each programme “operationalise physical literacy as the early development of fundamental motor skills and exposure to sport” (Whitehead, 2001, p. 130). However, Keegan et al. (2013) maintain that Australia has an increasing gap when it comes to designing programmes, which reflects the full range of PL components, and consequently supporting more benefits for Australian children.

In response to the growing obesity epidemic and the link between physical activity and academic performance (Jenkinson & Benson, 2010), the Queensland Government has attempted to make quality daily physical activity compulsory in schools by giving Queensland students more opportunities to be physically active. Supporting such a directional shift, Fox (2010) reported that Australia needed to develop innovative programmes that are world leading, effective for teachers and pupils, and constantly improving. Interestingly, it is further indicated that, “Overall, it is clear that other countries facing similar problems of inactive lifestyles and obesity are responding with significant investment in promoting physical literacy in children, using increasingly sophisticated programmes” (Fox, 2010, p. 72). This growing concern has brought about considerable action by top-level policy-makers in these areas. Following the 2006 Ministerial Review of School Sport and Physical Activity, recommendations were made to inform the future course of sport and physical activity in Queensland state schools. The Ministerial Review Committee for School Sport and Physical Activity (2007) examined a variety of issues including participation rates in sport and
physical activity in Queensland state schools, the types of activities and sports undertaken, potential barriers that could prevent students from participating in school sport and physical activity, community involvement in the delivery of school sport and physical activity in schools, and examples of good models in the delivery of school sport and physical activity. From such a review, the Queensland Government’s (2007a) Smart Moves policy was developed with the aim of enhancing the health and well-being of all Queensland students through regular/compulsory physical activity. The Queensland Government (2007a) launched Smart Moves in July 2007 in partnership with the Department of Education and Training, Queensland Health, and the Department of Local Government, Sport and Recreation. By implementing Smart Moves into Queensland state schools, the Queensland Government (2007a) aims to “increase the curriculum time in which students are effectively engaged in physical activity and improve the quality of that activity” (p. 3). Surprisingly, there is currently no national-wide mandatory policy related to physical activity within Australia, resulting in individual states and territories having their own policies and requirements (Jenkinson & Benson, 2009).

As a result of such policy directives, all Queensland state primary schools are required to develop a physical activity programme that provides evidence of how the school is addressing all six components of Smart Moves. The Queensland Government (2007b) states that all state schools “must be able to show evidence of planning and implementation of physical activity, with Queensland generalist primary school teachers required to provide students with 30 min of compulsory physical activity each day” (p. 48). Unfortunately, the gap between actual policy and implementation is widespread. The implementation of Smart Moves was evaluated in 2012 using the results of the 2011 Smart Moves Principal’s Survey and the 2011 School Opinion Survey (Department of Education & Training, 2012). The findings from the evaluation were based on self-report surveys completed by school principals. Of the five findings from the evaluation, only one barrier was identified to effect Smart Moves implementation—increased curriculum pressures associated with literacy and numeracy state-wide testing. With this in mind, it can be argued that the evaluation has not given teachers a “voice” in communicating their perceptions about factors influencing the implementation of compulsory physical activity, with principal self-report surveys an obvious limitation of the evaluation findings.

Jenkinson and Benson (2009) highlight that regardless of countless Health and Physical Education (HPE), sport and physical activity policies that are circulating nationally and internationally, there is a great variation between policy and implementation by generalist primary teachers. Jenkinson and Benson further argue that this variance emphasises the challenges and barriers teachers and schools are facing in delivering physical activity to students and highlights the reduced opportunities available for children to participate in regular physical activity. Jenkinson and Benson (2010) argue that the simplicity of these classifications enables researchers to apply institutional and teacher-related barriers to both primary and secondary schools. A comparison and summary of institutional and teacher-related barriers to HPE and physical activity that compares primary and secondary school environments has been created by Jenkinson and Benson (2010) which is shown in Figure 1. With the benefits of physical activity for school-aged children being well-documented and widely acknowledged, it can be argued that addressing such barriers for the implementation of compulsory physical activity programmes is being overlooked.

In order to understand such barriers associated with Smart Moves (compulsory physical activity) implementation more clearly, the particular constraints and other factors identified by teachers when implementing daily compulsory physical activity need to be identified and discussed. It is important to note that this study is not attempting to evaluate or measure the success of Smart Moves or to conduct an audit on the frequency of Smart Moves implementation by Queensland primary school teachers. Rather, the primary focus is on identifying teachers’ perceptions about the factors that help or hinder the implementation of Smart Moves policy within a school context.
2. Methods

2.1. Objective
The objective of this study was to explore teachers’ perceptions regarding the barriers and enablers associated with the implementation of Smart Moves (compulsory physical activity) throughout the Gold Coast State Primary Schools (Queensland, Australia).

2.2. Participants
The target participant group included six generalist primary classroom teachers from a number of Gold Coast State Schools. Of the six teachers, three were from the lower primary school (Prep–Year 3) and three were from the upper primary school (Year 4–Year 7). In order to best understand the needs of teachers, Gold Coast State Primary Schools were selected based on the criteria associated with the level of Smart Moves implementation, which is the implementation that was undertaken. A number of local schools were approached and the aims of the project were presented to teachers at their staff meetings. Teachers who were interested were encouraged to contact the researcher. All participant details were kept anonymous.

2.3. Data collection and analysis
The principal method of enquiry involved the collection of qualitative data from all participants via the administration of one-on-one semi-structured interviews. Interviews were tape recorded and later transcribed for further thematic categorising. Participants were interviewed at a time and location that was convenient for the participant. Within this study, the analysis of the interview data was via a “hand analysis of qualitative data”. That is, the researcher read the data obtained from the participant interview, marked it by hand, identified appropriate thematic categories and subsequently divided the data into parts. This approach, as opposed to a computer-generated analysis (Leximancer), was justified due to the relatively small database of six participants and resulting transcripts. Content analysis was carried out on the data collected from particular questions in the survey. Once “saturation” of themes and concepts occurred, and became more pronounced, they were then formulated. In addition, important quotes/participants commentaries were used to substantiate some of the findings presented (see Section 3). Ethics was obtained via Griffith University (Protocol Number EDN/77/11/HREC).

| BARRIER                | PRIMARY SCHOOLS                                                                 | SECONDARY SCHOOLS                                                                 |
|-----------------------|--------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| Institutional         | Access to and lack of facilities                                               | Access to and lack of facilities                                                 |
|                       | Lack of time                                                                  | Lack of time                                                                     |
|                       | Crowded curriculum                                                            | Restricted curriculum                                                            |
|                       | Funding                                                                       | Funding                                                                          |
|                       | Access to and lack of equipment                                               | Ethos of PA for life within the school                                           |
|                       | Support from other staff                                                      | Socioeconomic status of school                                                   |
|                       | Support from administration                                                   | Timetabling                                                                      |
|                       | Access to professional development                                           |                                                                                 |
|                       | PE/Sport not priority in school                                               |                                                                                 |
|                       | Large class sizes                                                            |                                                                                 |
|                       | Budget constraints                                                            |                                                                                 |
|                       | Insufficient infrastructure                                                   |                                                                                 |
|                       | Other teaching priorities                                                     |                                                                                 |
|                       | Quality of facilities                                                         |                                                                                 |
|                       | Level of professional development                                            |                                                                                 |
|                       | School executive attitudes toward PE                                          |                                                                                 |
|                       | Insufficient number of PE staff                                               |                                                                                 |
|                       | Lack of performance measures for PE                                           |                                                                                 |
| Teacher-related       | Lack of training and knowledge                                                | Colleagues undervaluing activities                                               |
|                       | Difficulty providing safely planned and structured lessons                    | Ethos of performance/elitism of PE department or school as a whole               |
|                       | Gender stereotyping of activities                                             |                                                                                 |
|                       | Poor planning                                                                 |                                                                                 |
|                       | Perceptions of the value of PE                                               |                                                                                 |
|                       | Interest in enthusiasm for PE                                                 |                                                                                 |
|                       | Personal school experiences in PE                                             |                                                                                 |
|                       | Attitudes toward PE                                                           |                                                                                 |
|                       | Expertise/qualifications                                                      |                                                                                 |

Figure 1. Barrier to the delivery of physical education (PE) and physical activity (PA) programmes to primary and secondary school students.

Source: Jenkinson and Benson (2010).
3. Results and discussion

The results from this study have been placed into major thematic categories, and have been communicated across two broad themes, with these being: (1) perceived barriers and (2) perceived enablers of implementing Smart Moves. Underpinning these two major themes are a number of sub-themes, which have been identified as being: (1) the crowded curriculum, (2) lack of priority given to Smart Moves implementation and compliance, (3) the responsibility of ensuring that children are physically active, (4) teacher confidence and (5) access to facilities and equipment. The sub-themes will be further unpacked and discussed in detail in the forthcoming results section. In the sections described, the research question will be addressed by examining the ways in which teachers view compulsory physical activity within a school context and the perceived barriers and perceptions to the adoption and implementation of the Smart Moves concept to heightening physical activity.

3.1. Broad theme 1: perceived barriers of implementing Smart Moves

Whilst the benefits of physical activity have been highlighted, the data have identified that it is becoming increasingly difficult to provide physical activity opportunities for students when teachers are constrained by many institutional and teacher-related barriers—as outlined in Figure 1 (Jenkinson & Benson, 2010). Consequently, teachers’ inability to provide the mandated frequency and intensity of physical activity was the first area of concern emerging from the interview data.

All participants reported scheduling on average only one Smart Moves session per week in combination with one school administered interschool sport session and one 30-min HPE lesson per week. This equates to 1.5 h, at most, of physical activity per week compared to the required 2.5 h. Teachers also reported that the physical activity was not of moderate intensity for the majority of sessions. Thus, the data emphasise that the teachers participating in this study are not meeting the necessary requirements of Smart Moves with teachers failing to provide students with both the mandated time of physical activity and activities of appropriate intensity. Consequently, the data call attention to the gap between policy and implementation, proving problematic given the growing obesity epidemic as well as the strong research evidence in favour of programmes such as Smart Moves (Sherman, Tran, & Alves, 2010).

Throughout the data collection process, teachers indicated that the greatest perceived inhibitors were related to institutional barriers, namely (1) the crowded curriculum and (2) a lack of priority given to Smart Moves implementation and compliance. A concerning teacher-related barrier also emerged from the data, relating to perceptions that teachers feel that it is not their responsibility to ensure that all children are physically active. Each of these sub-themes will be discussed and participant commentaries presented in the forthcoming sections.

3.1.1. Sub-theme 1: the overcrowded curriculum

It has been widely acknowledged in previous research that reductions in time provisions in the curriculum and the crowded curriculum itself are posing problems for today’s primary school teachers (Jenkinson & Benson, 2010). Given the increased demands of curriculum and policies such as Smart Moves, it is not surprising that some teachers are feeling overwhelmed. This sense of intensification, widely reported in international research into the contemporary teaching experience, is what the National Council for Curriculum and Assessment (2010) describes as the overcrowded curriculum. With all participants in this study citing “time constraints” and pressures of a “crowded curriculum” as the most significant factors influencing their ability to implement Smart Moves on a daily basis, it can be argued that these barriers are proving to be detrimental for Smart Moves compliance. For example, participant 2 stated:

It’s the excessive curriculum, it’s too crowded. It’s not just sports, its other things that suffer as well. Everything is rushed; the curriculum seems to be focusing on quantity rather than quality ... we are just too time poor.
Similarly, participant 1 further added:

Definitely the time factor and crowded curriculum is a major issue. It was an issue seven years ago when Smart Moves wasn’t around, yet we are expected to include more but we aren’t getting more time. Every year it is just getting worse and worse. We now have so much differentiation to do with such a diverse range of learning needs—the pressures of the curriculum are a massive issue for teachers.

Literature addressing this topic attributes the pressures experienced by teachers to important subjects competing for space with one another and also competition with what some teachers consider to be less important subjects (National Council for Curriculum & Assessment, 2010). This study also supported opinions espoused by Morgan and Hansen (2008) who found that the crowded curriculum and pressures to teach a number of Key Learning Areas (KLAs) made the implementation of physical activity programmes particularly difficult. Furthermore, Sherman et al. (2010) suggest that monumental pressures exist in state primary schools for teachers to focus on literacy and mathematics and that pressure to teach a variety of KLAs is preventing teachers from incorporating regular and sufficient physical activity programmes into their weekly timetables.

Of particular importance was the noted identification associated with the increasing demands and rigour school administration is placing on The National Assessment Program—Literacy and Numeracy (NAPLAN). This was reported by teachers as being a major contributing factor to the crowding of the curriculum. Teachers expressed concerns about the amount of curriculum time designated to preparing for NAPLAN, and the detrimental effect this has on initiatives such as Smart Moves. Unfortunately, Grieve (2012) argues that NAPLAN testing has damaging effects on teaching practices including the tendency for teachers to focus on the areas in which students will be tested, whilst reducing the proportion of class time devoted to others areas not included in state tests. This was evident by a number of participants, especially from the response of participant 3:

Every day it comes down to balancing time with the increased curriculum demands. I make time for Smart Moves in my timetable but very rarely do we get the opportunity to do it. We need to practice for NAPLAN, or we need to finish a maths investigation, or haven’t finished off our English unit. If I need to get school work done, Smart Moves is the first thing to drop out of the timetable to make room. School work is always the priority.

As indicated by the participant responses, there were strong feelings expressing that current curriculum and policies place unreasonable demands on teachers to programme-learning activities across the scope of the curriculum, whilst providing students with opportunities to be physically active. Comparable to a study conducted by Morgan and Hansen (2008), participant responses indicated that most teachers perceived that they are more accountable to Education Queensland, school administrators and parents for delivering outcomes in literacy and numeracy, as opposed to implementing physical activity.

All teachers acknowledged the importance of daily compulsory activity and expressed a need for there to be systems in place to ensure that children are provided with opportunities to be physically active. Unfortunately, the notion of mandating teachers as being responsible for ensuring that children are physically active every day was reported to be an unrealistic possibility with the current competing curriculum demands and of lack Smart Moves “policing”. All teachers expressed interests in seeing Smart Moves implemented daily; however, a number of participants suggested that implementation by a third party or external agency would be much more feasible.

Linked closely with “crowded curriculum” was the expressed theme of “time constraints”. This theme also appeared heavily in the data when discussing the use of Queensland Government Smart Moves resources and utilising external providers during Smart Moves sessions. In response to what would encourage teachers to use these resources, the response was, in all cases, more time.
Teachers attributed their response to the increased time that is required to search the internet for appropriate programmes, read booklets or programme information, and the additional organisation required. For example, two participants 5 and 6 similarly suggested that they would be receptive to physical activity resource education during staff meetings if it did not require reading large amounts of material. Practical demonstrations that teachers could mirror were seen as potentially beneficial.

3.1.2. Sub-theme 2: lack of priority given to Smart Moves

When asked what their school’s teaching priority areas are, all participants indicated academic areas, with HPE or sport not cited. English and mathematics were reported as being the school’s teaching priority areas with the majority of instructional time concentrated on these particular KLAs. Despite the participants’ schools not having HPE or sport as priority teaching areas, all participants reported physical activity to be “very” important for student health and well-being and benefiting student academic outcomes. These comments are indicative of a number of other international studies. For example, in a study conducted by Sherman et al. (2010), teachers reported HPE and physical activity to be a low-priority subject, despite teachers acknowledging the associated benefits for student health and well-being. From such data, it could be inferred that there needs to be administrative rather than a teacher change when it comes to adopting a school-wide approach to implementing physical activity. Interestingly, all participants stated that the school administrators or sport coordinators do not promote Smart Moves implementation.

Participants further added that the implementation of Smart Moves was not enforced or audited in a meaningful way, and teachers were not required to indicate in their planning how they were achieving their 30 min of daily physical activity. For example, participant 4 reported that:

Smart Moves is not promoted, it’s not enforced, it’s not endorsed and it’s definitely not checked up on. Whereas we have checklists for reading, we have checklists for everything else. We are provided with unit plans, lesson resources and curriculum information for all other KLAs but nothing for Smart Moves or physical activity.

Participants also stated that they frequently removed Smart Moves sessions from their timetable to make room for other impromptu school-related activities. For example, participant 6 stated that:

Sometimes we get a note in the morning to tell us that we have a visitor coming to the school and that we now have to make our students available at a certain time. It can be anything from a school assembly, musical performance or special visit from an education provider. If I need to create a 20-30 minute window of availability, Smart Moves is the first thing that goes—and it’s not like anyone is going to jump up and down and tell me off for cancelling Smart Moves—our Principal doesn’t care.

Failing to plan and implement, or cancelling Smart Moves sessions in favour of other instructional or school-related activities, is a notable area of concern. According to Young et al. (2007), schools that allow, or fail to discourage these actions, send the message to teachers that physical activity is not highly valued by the school. Furthermore, Jenkinson and Benson (2010) argue that by failing to strictly implement Smart Moves policy provision by school principals highlights that there are no procedures in place, or means of measuring their compliance to the Queensland Smart Moves mandate. Of the six teachers interviewed, only two teachers schedule Smart Moves into their weekly timetable.

Results suggest that little priority has been given to Smart Moves Implementation. Simultaneously, implementation failures have been accompanied by a lack of proactive support by school administrators and HPE coordinators. When asked how members of school staff (HPE teachers/coordinators/Principal) support or coordinate with teachers in implementing Smart Moves, all participants reported that there was no consultation or support provided and/or offered. This was seen as a significant drawback of Smart Moves implementation with all participants expressing frustrations around this particular theme.
Participant 1 expressed their view by stating that:

Smart Moves is just something that teachers know that they have to do. They know what is expected of them, as they do with anything else like literacy for example. Except we have meetings with curriculum coordinators and team leaders regarding all of our other KLA’s but not in regard to Smart Moves or physical activity. I know there are meetings that the Principal has with the HPE staff about what they do with students, but there aren’t any meetings that I know of that relate to the physical activity we need to do with students.

Morgan and Hansen (2008) claim that the current situation experienced by teachers is due to a lack of school administrator planning and informed leadership for the overall Smart Moves initiative. They also add that teachers’ belief in Smart Moves policy is an important asset for Smart Moves implementation, but ultimately teachers’ actions are influenced by Principal and coordinator leadership. This is further demonstrated by participant 2 who noted that:

We are completely on our own when it comes to Smart Moves. Nobody checks on you, nobody really wants to help you—because nobody cares about something that we don’t have to report on, or are accountable for. Yet we are meant to be doing it. I would love if someone sat down with me and helped me plan for Smart Moves, even if it was only for 30 minute a term.

Coupled with the absence of priority given to physical activity by school administrators and the fact that administrators have “never” followed up on the implementation of Smart Moves, it can be argued that teachers feel that it is acceptable to regularly omit Smart Moves from their daily schedules in favour of priority in teaching areas. As previously mentioned, teachers argued that they cannot fit in the required hours of Smart Moves along with the demands of the curriculum. Some participants pointed out that this was due to Smart Moves not being properly timetabled by coordinators; hence, it becomes the easiest area to cut from a busy day. Furthermore, Smart Moves policy does not require teachers to report student participation or development, so it can be argued that teachers can justify cancelling Smart Move sessions in favour of subjects that require assessment and reporting.

3.1.3. Sub-theme 3: responsibility of teaching physical activity

It is apparent from the literature that teachers are becoming more accountable than ever before as their role evolves with additional responsibilities including providing opportunities for students to be physically active (Jenkinson & Benson, 2010). All participants expressed varied opinions surrounding the responsibility of implementing compulsory physical activity for school-aged children. Five participants indicated that the HPE teacher is, or should be, primarily responsible for ensuring that children are physically active, followed by parents, then classroom teachers.

There was considerable discussion around the shift in some responsibilities from parents to teachers, and concerns around teachers becoming more like another parent as opposed to a teacher. Similar ideas also featured heavily in a study conducted by the New South Wales Department of Education & Training (2012) which found teachers claiming that they had become responsible for concerns traditionally assigned to parents and guardians. The majority of participants within this study also claimed that instructional time would be better spent on activities more formally linked to literacy and numeracy skill development as opposed to Smart Moves. For example, participant 5 stated that:

When I first started teaching there was far more of a focus on the three R’s. My students 15 years ago new more about the three R’s at a comparable age then what today’s students know. I’m not convinced that I need to be investing important amounts of time to teaching my students social skills. Things like resilience or cooperation—Mum, Dad or their soccer coach can teach them that.
Furthermore, comments surrounding the government “passing the buck” of accountability to teachers with regard to the growing obesity epidemic were also noted. Participant 4 expressed their view by stating that:

Once again the government has “passed the buck” of yet another parental responsibility to teachers. The responsibility of physical activity has been moved from parents to teachers in light of this “obesity epidemic”.

Unfortunately, the problems facing teachers may be exacerbated when teachers hold negative attitudes towards Smart Moves and question its value for children when compared to other areas of the curriculum (Morgan & Hansen, 2008).

3.2. Broad theme 2: perceived enablers influencing the implementation of Smart Moves

Whilst there are many barriers that teachers may encounter when trying to implement their daily Smart Move sessions, there are many facilitators that assist with the practical implementation of compulsory physical activity initiatives. The most significant enablers identified by participants in this study related to “teacher confidence” and “adequate access to recreational facilities and equipment”.

3.2.1. Sub-theme 4: teacher confidence

When asked to describe their level of confidence in teaching physical activity, all participants reported “medium” to “high” levels of confidence. The main attributors of their confidence related to previous sporting experience, HPE/physical activity/sport professional development, and specific tertiary education subjects. For example participant 5 commented on her confidence by stating that:

I guess I’m confident because of my experience. I’ve played a lot of different sports in the past and I still play a lot of sport now. I guess you could say I’ve got quite a few “tricks” in my bag when it comes to sport and games and it’s not something that is hard work for me like some other KLAs.

Participant 6 discussed her confidence by stating that:

I’ve done a lot of professional development in sport—I’ve got quite a few coaching accreditations, some in netball, softball, touch football, soccer and kayaking. My teaching degree also included HPE subjects and I’ve just picked a lot up along the way by going to different PD sessions.

All teachers indicated that they had participated in some form of professional development in physical activity over the course of their teaching careers. All of the professional development completed by teachers had been achieved by securing coaching accreditation across a number of sporting disciplines including rugby league, rugby union, soccer, softball and netball. Three of the participants had also completed their level one in coaching principles, with four teachers having multiple coaching accreditations. The professional development opportunities were cited as being beneficial for all participants, not only for the coaching specific sports, but particularly in arming teachers with a better variety of activities, and activities that were more developmentally appropriate for students.

Interestingly, when asked what professional development would be beneficial for teachers in implementing Smart Moves, teachers expressed that professional development would not be helpful. Barriers such as a “crowded curriculum” and “time constraints” were heavily noted with suggestions that professional development centred on physical activity would do little to assist teachers in overcoming these barriers.
3.2.2. Sub-theme 5: access to facilities and equipment

All participants described recreational facilities and equipment to be very accessible, well maintained and in good condition. Of the facilities available at the school, teachers reported using the sports shed, oval, track, hall, sandpit, fitness centre and hall for Smart Moves sessions. In response to whether additional recreational facilities were needed for Smart Moves sessions, participant 1 expressed a need for “a soccer field for more ball sports”. All other participants were satisfied with the current facilities available.

Contrary to the majority of literature, it was quickly established that participants have more than adequate access to recreation facilities and equipment when implementing Smart Moves. For example, participant 2 described the school’s facilities by stating that:

“We have more than enough access; the sport shed is opened all day. If it’s not open you only need to make a quick phone call and it can be opened.”

Participant 6 added that:

“Accessing equipment has never been a problem. Even if someone is already using an area that you planned on using there are plenty of alternative areas that can be used and there is always plenty of equipment to go around; most of the time we need very little equipment to play the games the kids like anyway.”

Participants also indicated that some of the facilities are utilised by outside sporting providers, including rugby union, zumba, tennis and martial arts. Unfortunately, these providers have not been utilised for Smart Moves sessions by teachers or school administrators. All participants cited this as a missed opportunity by school administrators, who have developed productive working relationships with these providers. For example, participant 3 expressed their view around the missed opportunity by stating that:

“I never even considered using any of the sports groups—it’s definitely something I think I’ll look into. It’s a shame really, because the school has built some really strong relationships with some of the sports that operate out of the school, particularly tennis and martial arts. It would be great if the school organised for these people to come in during the day and take the kids for Smart Moves.”

4. Discussion

Current research acknowledges numerous factors as considerable impediments to the provision of physical education, or any learning that requires additional resources outside of the classroom (Jenkinson & Benson, 2010). Despite access to and poor quality of facilities featuring heavily within literature as a major barrier to implementing HPE or physical activity, these barriers were not identified by participants as impeding Smart Moves implementation. Surprisingly, the data from this study may highlight a potential shift in the major perceived barriers facing Smart Moves compared to those experienced when implementing HPE. It is argued by Jenkinson and Benson (2010) that this difference can be attributed to the specificity of HPE resources required to teach specific sporting disciplines. Whilst Smart Moves policy stipulates 30 min of moderate intensity physical activity, the physical activity is not bound by specific sports or activities, and therefore resources and facilities.

The results from this study indicate that whilst teachers are providing some opportunities for students to be physically active, teachers are experiencing difficulties in providing the mandated 30 min of moderate intensity physical activity each day as part of Smart Moves policy. By answering the overarching research question, this study has brought forth new data that adds to and builds upon existing data to better inform future policy and practice. It is important that future policy developers take into consideration the identified factors that teachers perceive to influence the implementation of Smart Moves policy. These factors have been summarised in Figure 2. These barriers are clearly impeding the provision of Smart Moves sessions and need to be addressed to ensure teacher compliance for the benefit of students. As supported by Hardman (2008), it is of concern
that many of the barriers surfacing in this study were also identified by researchers over 15 years ago. Findings from this research go towards supporting past research but also present further original contemporary data that go towards legitimising the further inclusion of strategies to heighten the implementation of Smart Moves.

This study further found that the greatest perceived inhibitors were related to institutional barriers, namely the crowded curriculum and a lack of priority given to Smart Moves compliance. Concerns also merged around the responsibility of ensuring that children are physically active. Although teacher confidence and access to recreation facilities and equipment were seen to be beneficial for teachers when implementing Smart Moves, it did not help overcome the institutional barriers identified. Furthermore, whilst researchers report access to facilities, suitable teaching spaces and equipment as the most highly ranked barriers (Jenkinson & Benson, 2010), data from this study report a potential shift in the major perceived barriers facing Smart Moves compared to those experienced when implementing HPE.

The findings of this study will go towards better guiding future policies and practices to ensure the successful inclusion of Smart Moves in Queensland state primary schools. It can also be argued that the generalisability of the key themes can be applied to any typical Queensland state primary school. However, this study provides further insights, demonstrating that there are different barriers that teachers may encounter when implementing Smart Moves as opposed to HPE curriculum.

4.1. Implications and recommendations
Morgan and Hansen (2008) argue that the teachers’ perceived difficulty or ease of performing a behaviour is strongly reflected in anticipated barriers. As a consequence of the literature review and results of this study, a number of recommendations have been made for future policy development and policy implementation in relation to the factors identified in Figure 2. These recommendations are presented as a Smart Moves Best Practice Implementation Model (Figure 3) geared towards achieving a successful whole school approach to Smart Moves implementation that is sensitive and responsive to the needs of teachers. The six key components of Smart Moves have formed the basis on which the model has been created with the results of this study informing recommendations aimed at redeveloping the current policy to be more practical for all stakeholders.

4.1.1. Recommendation 1—required time for physical activity
Drawing upon the ideas of Larsen, Samdal, and Tjomsland (2013), it is recommended that school administrators focus on anchoring Smart Moves policy in a way that establishes commitment to the implementation of daily sessions. To achieve this, it is recommended that principals adopt school level structuring conditions relating to time allocation in the weekly timetable. This is aimed at detracting teachers from cancelling Smart Moves sessions in favour of other KLAS.
4.1.2. Recommendation 2—improved access to resources for physical activity
As discussed previously, current research acknowledges access to recreational facilities and equipment as a major impediment to the provision of physical activity (Jenkinson & Benson, 2010; Morgan & Hansen, 2008). This study highlights that although teachers generally do not require a large variety of specific sporting equipment or resources, a variety of general equipment is considered sufficient by teachers. In circumstances where funding is or is not available, it is recommended that consideration be given to securing resources that can be utilised by all teachers across all year levels as opposed to sporting discipline-specific equipment. In addition, it is recommended that schools adopt procedures surrounding access to recreational facilities and equipment that enables teachers and their students’ effortless access for Smart Moves sessions.
4.1.3. Recommendation 3—increased capacity to deliver physical activity

With all participants citing a lack of priority and support afforded to Smart Moves implementation, it is recommended that Principals, HPE Coordinators and HPE teachers guide a Smart Moves leadership team that motivates and empowers teachers to implement daily Smart Moves sessions. Dobbins, De Corby, Robeson, Hussom, and Tirilis (2009) endorse the value of implementing a school leadership team to provide direction and leadership for staff, and to ensure the compliance of teachers in implementing Smart Moves. The leadership team will ultimately be responsible for conducting cohort meetings to support teachers in their planning and to assist with the execution of the schools Smart Moves Action Plan that will be discussed as part of recommendation #6. This leadership team can ultimately be responsible for the development of procedures around Smart Moves anchored within teachers’ daily practices that encourage implementation in accordance with policy requirements (Larsen et al., 2013).

It is also important to mention that whilst policies such as Smart Moves exist, it is the responsibility of teachers to ensure that their students are physically active regardless of personal opinion. Larsen et al. (2013) advocate that at the grassroots level of implementation, teachers also need to be motivated and prepared to implement policies like Smart Moves. Thus, Larsen et al. (2013) recommends that school administrators must develop a school climate that motivates and empowers all generalist teachers to implement the policy by communicating the value of regular physical activity. This draws upon the previously mentioned literature that highlights the important role that teachers place in promoting physical activity.

4.1.4. Recommendation 4—provide professional development in physical activity

With teacher confidence proving to be a valuable successor of physical activity implementation, it is important that school administrators and policy developers provide teachers with opportunities to improve or develop confidence through professional development. Jenkinson and Benson (2010) argue that although initiatives like Smart Moves are largely influenced by institutional factors, teachers still must know what to do to provide engaging and developmentally appropriate physical activity experience for all of their students. Therefore, ensuring adequate access to professional development regarding sport and physical activity is imperative for the successful implementation of Smart Moves (Jenkinson & Benson, 2010).

4.1.5. Recommendation 5—build community partnerships to enhance physical activity

With the pressures of such a crowded curriculum, policy developers need to seriously reconsider the level of support embedded within the framework of Smart Moves policy. Websites and paper resources that place increased time demands on teachers are doing little to facilitate the appropriate frequency and intensity of Smart Moves sessions. As part of the supporting resources that accompany policy, more focus needs to be directed to connecting teachers with external physical activity providers. There are numerous sporting organisations that provide free physical activity sessions for primary schools. For example, organisations such as the National Rugby League (NRL) deliver a five-week programme comprising 30-min sessions during scheduled class time, free of charge, to introduce students to the sport of Rugby League as part of their Backyard League program (NRL, 2013). This is just one example of an external provider that can assist teachers with the daily implementation of Smart Moves without requiring additional planning, research or resources. A regional contact list of sporting providers is an inexpensive strategy that can be adopted by policy developers that would benefit teachers’ ability to provide sessions of appropriate frequency and intensity, whilst alleviating some of the pressures of the crowded curriculum and associated time constraints.

4.1.6. Recommendation 6—accountability for physical activity

Reflecting on the requirements of Smart Moves policy, the Queensland Government (2007b) specifies that all state schools “must be able to show evidence of planning and implementation but a formal Action Plan is not required unless specified by a Regional or District Executive Officer, or it is a school’s preference to have a formal plan” (p. 1). Another recommendation would see that a formal Smart Moves Action Plan is required for all schools to appropriately plan and document Smart Moves compliance. The process of developing and implementing the action plan would ensure that
the appropriate priority is given to the implementation of Smart Moves sessions and would encourage school administrators and coordinators to provide the appropriate support and leadership to generalist teachers.

5. Conclusion
This study provides valuable information regarding the perceived barriers and enablers influencing the implementation of Smart Moves by a sample of Queensland state primary school teachers. With researchers documenting that overweight children become overweight adults and that inactive children become inactive adults, the importance of teachers implementing daily Smart Moves sessions cannot be overstated (Young et al., 2007).

A number of national and international studies have reported on the most significant barriers experienced by teachers when implementing physical activity, with results often dependent on the data collected. Some researchers have reported teacher-related barriers as the most significant barriers to overcome, whilst others attribute institutional barriers as the source of greatest frustration (Morgan & Hansen, 2008). Currently, research is not unanimous in identifying the greatest inhibitors of compulsory physical activity implementation, as further reflected in the results of this study. As argued by Morgan and Hansen (2008), identifying whether teachers perceive barriers as inside or outside of their control has vital implications for correctly targeting resources, support and interventions for policy developers, schools and teachers. Although this study reported some enablers supporting Smart Moves implementation, significant barriers were identified to be affecting the daily provision of physical activity by a sample of Queensland primary teachers.

Additional research is warranted to further understand factors specific to the provision of Smart Moves in the primary school setting. Future research could see the Smart Moves Best Practice Implementation Model theorised in this study implemented and evaluated for its effects on the daily provision of Smart Moves sessions. In addition, similar research into the factors affecting the implementation of Smart Moves could be conducted in regional areas of Queensland to determine if all Queensland teachers perceived the same factors or if they are region specific. This information may also provide valuable information into other perceived enablers or successful practices that could be beneficial to Smart Moves implementation in other areas of Queensland and to further inform further policy development.

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