



Spotswood, F., Vihalemm, T., Uibu, M., & Korp, L. (2021). Understanding whole school physical activity transition from a practice theory perspective. *Health Education*, 121(5), 523-539. <https://doi.org/10.1108/HE-04-2021-0066>

Peer reviewed version

Link to published version (if available):
[10.1108/HE-04-2021-0066](https://doi.org/10.1108/HE-04-2021-0066)

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A practice-oriented theorisation of whole school physical activity transition: insights from a national 'active schools' programme

Abstract

Purpose

Authors offer a practice-oriented framing of school physical activity transition with conceptual and managerial contributions to Whole School Approaches (WSAs).

Design/methodology/approach

Based on a literature overview of the limitations of WSA ecological and systems theorisation and a practice theory framing of physical activity, authors introduce a transition framework that identifies signs of practice transition and conceptualises the relationship between signs and practice reconfigurations. To exemplify insights from the framework, authors provide illustrations from three cases from the national Estonian 'Schools in Motion' programme.

Findings

The signs of practitioner *effort*, signs of *resistance* and signs of *habituation* indicate how practice ecosystem transition is unfolding across a spectrum from practice differentiation to routinisation. Several signs of transition, like resistance, indicate that reconfigured practices are becoming established. Also, there are signs of habituation that seemingly undermine the value of the programme but should instead be celebrated as valuable evidence for the normalisation of new practices.

Practical implications

The article provides a framework for WSA programme managers to recognise signs of transition and plan appropriate managerial activities.

Originality/value

The practice-oriented theoretical framing of school physical activity transition advances from extant theorizations of WSAs that have failed to account for the dynamic ways that socio-cultural change in complex school settings can unfold. A practice-oriented framework to

recognise signs of transition can help with the dynamic and reflexive management of transition that retains the purpose of systemic whole school change. Recognising resistance or indifference, for example, as part of practice reconfiguration and routinisation.

Keywords Whole School Approach, physical activity, social practice theory

Paper type Conceptual paper

Introduction

Insufficient physical activity has widely spread and causes obesity and a variety of health problems (Kohl *et al.*, 2012; Reis *et al.*, 2016). The role of schools in developing healthy lifestyle through promoting physical activity is critical (Rickwood and Foisy, 2014; Adamowitsch *et al.*, 2017). However, interventions to increase physical activity (PA) via class-based and standalone ‘delivered’ doses of activity (Blitstein *et al.*, 2016) tend to have only limited impact in creating long term habitual active styles of living (Reis *et al.*, 2016; Zwolinsky *et al.*, 2016). Given the limits of discrete intervention programmes for physical activity, there is a growing call for a shift towards intervention approaches that seek to integrate PA into the context of everyday life (Kickbusch, 2003).

There has been particular interest in intervention approaches focused on integrating physical activity into ‘settings’; places in which people come together and interact during everyday activities (Keshavarz *et al.*, 2010; Samdal and Rowling, 2013). Particularly, there has been much support internationally for ‘Whole School Approaches’ (WSAs) to PA intervention, which ensures the whole school promotes and supports healthy engagement with regular physical activity (Adamowitsch *et al.*, 2017; Teutsch and Gugglberger, 2020).

The ‘Whole School Approach’ to physical activity arose from the Ottawa Charter for Health Promotion, which affirmed that “Health is created and lived by people within the settings of their everyday life; where they learn, work, play and love” (WHO, 1986). The Ottawa Charter was the starting point for the Health Promoting Schools initiative (WHO, 1996) that understood health as an imperative to be managed and experienced through the whole school and the wider community (Nordin *et al.*, 2019). Health promoting schools focus on creating supportive environments to promote health and facilitate healthy behaviour (Inchley *et al.*, 2000), including by shaping school ‘ethos’ through collaborative, participatory and democratic means

(Inchley *et al.*, 2000). WSA uses multiple, interconnected interventions to embed health with the “culture, routine life and mainstream business of a specific setting” (Dooris *et al.*, 2007, p.332). Areas of intervention include school policies, the physical and social environment, formal and informal curriculum, community links and health services (Adamowitsch *et al.*, 2017). For example, WSA to physical activity prioritises regular, highly active PE classes, provides suitable physical environments and resources to support structured and unstructured physical activity throughout the day; supporting active travel programmes and enabling all of these through a supportive school policy that engages staff, pupils, parents, and the wider community (The Lancet, 2012).

WSA settings-based approaches have been recognised as having potential for integrating physical activity into the everyday life of the school, and national programmes have been implemented globally (Langford *et al.*, 2014; Adamowitsch *et al.*, 2017; Holt *et al.*, 2018; Hunt and Metzler, 2017; Naylor *et al.*, 2006, Ni Chroinin *et al.*, 2012; Inchley *et al.*, 2000). The approach has been viewed as adding richness and a joined-up approach to public health (Dooris *et al.*, 2007). However, there is considerable critique about the sustainability of WSA programmes (McMullen, 2020) and particularly about the problems with implementing and managing complex whole school interventions (Keshavarz *et al.*, 2010; Leger and Nutbeam, 2000; Moore *et al.*, 2019; Resnicow and Page, 2008). Research reports a tendency for the integrated and complex approach to whole school approaches to get ‘lost in translation’ (Nordin *et al.*, 2019), and for implementation to commonly fall short of systemic change required (Kelly and Russo, 2018). In some cases, the programme is reduced solely to classroom activities due to local difficulties (Adamowitsch *et al.*, 2017) and in others, problems have been identified with mobilising enough teachers to assume the role of health champions (Haapala *et al.*, 2017), with difficulties with communication between health and education policy sectors (Moynihan *et al.*, 2016) and with school actors feeling excluded from the processes of change (Adamowitsch, 2017).

In this paper, we explore the limitations of the extant theoretical underpinning of the WSA that fails in practice to allow programme managers to implement complex interventions seeking to make systemic change. The ecological model dominates, and school actors remain theorised as actors who receive behaviour change interventions to reduce individualised health risks, or as blocks in programme delivery intentions. We propose an alternative, practice theory conceptualisation of WSA programme implementation and school transition that can help

programme managers understand the complexity of multiple actor responses to programme delivery during the process of dynamic school transition. Although a conceptual paper, we draw on insights from the Estonian national Schools in Motion (SiM) WSA physical activity programme to illuminate our theoretical arguments and explore managerial implications.

A novel theorisation of WSA physical activity programmes

Current research emphasises the ecological framing of whole school physical activity programmes, with systems perspectives and whole systems thinking used to frame how change happens and can be managed (Dooris, 2006; Dooris *et al.*, 2007). However, studies report difficulties in implementing a systemic conceptualisation of school physical activity. Research reports that programmes readily reduce schools to ‘sites’ (Rowling and Jeffreys, 2006) that ‘contain’ a passive audience of people with ‘health risks’ (Nordin *et al.*, 2019) who need to ‘receive’ behaviour change intervention (Samdal and Rowling, 2012). As such, the value of staff and pupil experiences of school transition towards a physically active setting can become lost (Green *et al.*, 2000). Rather, the focus can be on using the ecological approach tactically (Dooris *et al.*, 2007; Wenzel, 1997) to design feasible rather than synergistic, system-wide intervention elements.

In light of this critique, there have been multiple calls for research and theorisation of WSA implementation experiences, processes and practice (Adamowitsch *et al.*, 2017; Dooris *et al.*, 2007), particularly given the complexity of schools as social settings, the vast differences between institutions and the need for flexibility and reflexivity as programmes evolve in their own context (Hunt and Metzler, 2017). Accordingly, this paper explores the contribution of a practice theory framing of WSA physical activity transitions. Practice theory emphasises “processes like habituation, routine, practical consciousness, tacit knowledge, tradition, and so forth” (Warde, 2005, p.140). Practices are shared and social (Schatzki, 2002) and hang together through institutional arrangements, shared cultural meanings, knowledge and infrastructures that shape everyday life. Practice theory inherently shifts the conceptual focus away from individuals and towards practices and their interrelation, providing a number of important theoretical tools for the analysis of WSA transition.

First, a practice framing highlights the interconnection between practices across the school setting and beyond as an enmeshed practice ecology that orchestrates multiple physical or

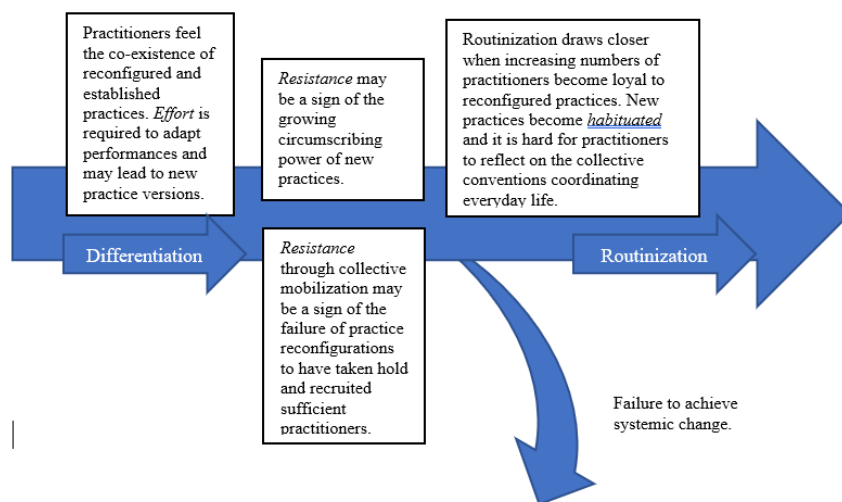
sedentary activity enactments. The practice ecology incorporates practices from which physical activity emerges, as the purpose of practice (such as PE) or as a demand of practice (such as moving between classes) (Spotswood *et al.*, 2019), but also other practices with which these interconnect in the configuration of school life, *e.g.* school eating, learning, meeting and teaching. Enmeshed practices can include those that are closely coupled and mutually sustaining, such as sitting and classroom learning, or more loosely connected such as walking and playtime, where a number of other practices may be more competitive. Practices conflict or harmonise, creating important contexts for physical activity (Schatzki, 2002). Existing ecologically-framed WSA studies note that programmes tend to focus on adherence to programme interventions (Ottoson and Green, 1987; Green *et al.*, 2000) instead of considering the complexity of social relations, management-labour relations, power relations, social rules, norms and values (Dooris *et al.*, 2007) that contextualise programme delivery. A practice approach focuses on the interconnections of practices and acknowledges that addressing entire bundles of practices is necessary to unravel and reconfigure unhealthy ‘ways of living’ (Blue *et al.*, 2016).

Second, practice theory recognises that the ‘healthfulness’ (Best *et al.*, 2003) of a school setting will depend both on synergy and interconnectedness between multiple aspects of physical and social environment (Dooris *et al.*, 2007), but also on the way these socio-cultural configurations and school actors interact. That is, social practices are recursively generated and reconstituted, “not brought into being by social actors but continually recreated by them via the very means whereby they express themselves *as* actors” (Giddens, 1984, p.2). It is also through this repeated performance and reconstitution, including deviation, loyalty, adaptation and defection, that practices evolve (Maller, 2015). Although ecological theory recognises that individuals are influenced by their social context, it does not account for the dynamic, recursive nature of school actors and the socio-cultural context. Existing WSA research reports that unsuccessful programmes within an ecological framing tend to label actors as ‘resistant’ (Cale and Aflrey, 2013) or as ‘blocks’ to implementation (Adamowitsch *et al.*, 2017; Holt *et al.*, 2018; Lindegaard Nordin *et al.*, 2019; Young *et al.*, 2013). In contrast, a practice framing would see resistance as adaptation that is contingent on the practice ecosystem because practices contain the seeds of constant change (Warde, 2005).

Signs of practice transition

When WSA programme managers reflect on and plan the ongoing management of programme implementation, they will see varied and emotional practitioner responses in the face of transition, in the form of ‘doings’ (actions) or ‘sayings’ (interactions about, or during the course of practice enactments) (Schatzki, 2002). From a practice perspective, signs of transition during programme implementation come from the interaction between existing practices and practices that have been reconfigured or recrafted (Spurling *et al.*, 2013) during the intervention. Furthermore, signs of transition reflect the way the enmeshed ecosystem of practices across the school have been disrupted and reconfigured, and also the reactions and responses of practitioners as they navigate and adapt in the light of newly formulated practices. Therefore, doings and sayings are ‘signs’ of transition that come from isolated moments in the performance of a practice that are the ‘tip of the iceberg’, with the submerged iceberg comprising of complex and dynamic practice ecosystem interactions and relations (Spurling *et al.*, 2013; Maller, 2015). Based on this conceptualisation, we propose a spectrum of WSA programme transition spanning between *differentiation* and *routinisation*, along which different signs can indicate the current state of transition. Figure 1 illustrates the model, which is discussed with examples from the Estonian Schools in Motion programme in the next section along with management implications drawn from a practice-informed understanding of the signs of transition.

Figure 1: Signs of transition from differentiation to routinisation



Schools in Motion

The Estonian WSA ‘Schools in Motion’ has the goal of embedding physical activity in the social processes of everyday school life (Mooses *et al.*, 2021) and reducing prolonged and overall sitting time. The predominantly sedentary teaching and learning practices in Estonian schools are resistant to change. The programme supports school boards and teachers to reconfigure teaching/learning, break time and commuting routines and, thus, to incorporate more physical movement throughout the school day. Since the beginning of the programme in 2016, that started with ten pilot schools on the funding of Estonian Ministry of Education and Science, the programme currently involves 148 schools with 63000 pupils, which is more than 40% of all general education pupils. SiM is financed by the European Economic Area grant programme "Local Development and Poverty Reduction".

The SiM programme builds constant monitoring and methodologically flexible action research into the programme (see the detailed programme design in Mooses *et al.*, 2021). Researchers had attempted to monitor implementation using regular surveys among pupils and school staff as well as objective measurement of pupils’ PA. However, findings failed to answer questions about ongoing systemic shifts in schools and did not necessarily indicate changes beyond occasional project-driven events and new initiatives. Both the online surveys and informal interviews revealed natural fluctuation: teachers’ enthusiasm went up and down, as well as pupils’ feelings about being encouraged to move more during the school day. Although survey responses demonstrated clearly the increase in general knowledge about the SiM and understanding about the importance of PA, there were also signs of conflict and resistance to the WSA implementation efforts.

Three schools have been purposively selected to illustrate the practice theory conceptualisation because they represent a significantly varied set of school transition experiences. Schools participated in a web survey in four consecutive years (2016 – 2019) and represent different contexts in terms of location and size. Each offers examples of different signs of transition. Table 1 provides an overview of the characteristics of each school, their experience of transition and the data collected to explore each case.

Table 1 about here

Illustrative examples of the signs of transition are now discussed using insights from these three SiM schools, followed by managerial implications and a discussion of the conceptual implications of the practice-oriented approach.

Illustrating signs of transition

Established sedentary collective conventions in Estonian schools are locked in place by temporal, material, and socio-cultural configurations. For example, freezing winter temperatures keep pupils indoors where sitting is normative, and school sport halls are understood as a space for PE lessons not breaktime free play. During the SiM WSA programme, school project teams unpicked and reconfigured or recrafted the elements of individual practices and worked to reconfigure practice interconnections. For example, school halls were opened up to breaktime play in winter, and outdoor play was enforced in summer, with mobile phones being banned. Active indoor trails were marked on school corridors, and lessons were designed to be more active. These interventions were collaboratively devised to integrate physical activity into the ‘very fabric’ of school life (Williams, 1995). However, practitioners and practices evolve dynamically, unpredictably and recursively. Thus practice transition in each school issued a range of signs, indicating that adaptation is occurring across a spectrum spanning from ‘practice differentiation’ to ‘practice routinisation’.

Signs of practice differentiation: effort and resistance

At the *differentiation* end of the WSA transition spectrum there are signs that indicate how performances of practices in everyday school life are adapting to the co-existence of established school practices and reconfigured or recrafted physically active practices (Spurling *et al.*, 2013). *Effort* is required by practitioners as the new practice configurations brought about by the intervention bring states of ontological insecurity (Giddens, 1984), where the effortlessness afforded by routinised practices is fractured (Wilk, 2009) and practical understanding no longer allows practitioners to feel safe within the “predictable flow of... shared routines” (Phipps and Ozanne, 2017, p.362). Rather, practitioners ‘struggle’ to maintain routines through tactical adjustments in the face of material reconfigurations (Phipps and Ozanne, 2017).

New configurations of interrelated practices may also afford the possibility for *resistance* as practitioners interact about and with practice variations. Discussions about change is part of the orchestration of new practice configurations, required to coordinate and align practices (Schatzki, 1996) when practice configurations are unsettled and practice fidelity can no longer be assumed (Arsel and Bean, 2013). As practices evolve, triggered by the programme of intervention, practitioners diverge in their loyalty to different versions (Shove *et al.*, 2007) and interact with each other in order to adapt and establish new collective conventions. Resistance can therefore be a sign of the growing circumscribing power of new practices and a healthy sign of transition.

Both effort and resistance have been evident during the SiM programme. For example, the effort in changing teaching practices to incorporate activity breaks lead in some cases to the reconfiguration of a number of interrelated practices in creative ways. Authors learned in our field visits to School B that activity breaks in lessons were perceived as problematic by some teachers because they conflicted with teachers' understandings of keeping control and discipline in the classroom, which was ensured by pupils sitting quietly to learn. A teacher in School B resisted the activity breaks policy but made an effort to reconfigure her teaching practices to allow pupils to change their sitting positions flexibly, to sprawl on their chairs and to fidget as they wish. This approach deviated from both the SiM programme and from the established conventions of lesson-based discipline in the school. However, the teacher's defection allowed them to align with teaching expectations that emphasised discipline and also allowed a recrafted practice to emerge.

Other signs of resistance included the way school actors aligned to different versions of enmeshed, evolving practices group together and used the language of 'us' and 'them' to distance themselves from alternative practice versions and practitioners. For example, in School A, indications of differentiation between reconfigured and established, enmeshed practices formed in the second year of the programme. Teachers who practised the WSA programme goal of active lessons and encouraged pupils to move more also participated in programme seminars, went on hiking trips and walking meetings, rather than traditional sedentary meetings. Teachers who had not been recruited to the recrafted teaching practices also did not participate in the hiking and walking meetings. This illustrates how related practitioner networks help the recruitment of practitioners across interconnected practices

(Shove et al., 2012). An active teacher in the SiM programme explained the reaction of her colleagues as a resistance to the effort required to adjust to new practice conventions:

“Our not enthusiastic colleagues say: “I do not have time for this *tilu-lilu!* [Estonian derogative term for insignificant things]... I have felt so much negative attitudes with this walking meeting, [people saying] ‘Why do we have to do it?! Why can’t we sit behind the table?! Whose idea was that?’ Of course, it hurts. Many people are jealous that we are doing this [PA- methods] and we are doing it well.”

Her use of the word ‘jealousy’ indicates the divergence of practices and practitioners during this differentiation stage, but the mention of ‘pride’ also indicates loyalty to new practice configurations that bring accepted collective conventions.

Failure to achieve systemic change

In some cases, resistance to the new practices can be expected in the process of transition. However, it is important to notice when signs of resistance lead to new collective mobilisation practices that could jeopardise systemic change. Collective mobilisation transcends pockets of resistance and involves the evolution of new resistance practices that take on the ritual characteristics of a subculture (Goulding *et al.*, 2013) such as the use of artefacts (songs, slogans), extraordinary actions, and appeals. Such mobilisation practices appeared in School B where older pupils (age 13-15) started an organised protest against newly introduced mandatory breaktimes. School management enthusiastically followed the SiM programme suggestion that outdoor breaks will increase the PA of pupils. However, going outdoors conflicted with older pupils’ existing bundle of break time practices, which included sitting in corridors and playing with mobile phones. Initially, pupils complained and tried to stay indoors by hiding in the cupboards during the break time. As this resistance was not fruitful, they organised a collective protest via co-created posters that were fastened to the doors of teachers’ cupboards. They also co-created a protest rap song. The words of this song reflect the source of the practice conflict as a sense of disempowerment and inequality between pupils and teachers. Outdoor break was not mandatory for teaching staff. Pupils claimed their right to contributing to the transition process:

You say ‘warm clothes’,

But I say ‘staying indoors’.

No, you can't!

We have been taught from early age

That everybody is equal

Where is this equality now?

If you wouldn't force on us...

We have only duties

But where are our rights?

You say 'warm clothes',

But I say 'staying indoors'.

No, you can't!

Let us say a word:

We feel that nobody listens to us.

By doing it together we can change

Change the school better for everyone.

As the protest grew, the school leaders negotiated with the pupils by offering some compromises: older pupils could shorten the outside break time by having their meal slightly later (the 50-minute break time is both for a lunch and going outside). Also, the head master finally agreed to the use of mobile phones while outdoors. As a result, the older pupils complied to the new rules by eating their lunch slowly to colonise more of their break time and make eating more dominant in that temporal location (Southerton, 2013). They then sat or stood outside during the rest of break to use their phones, thereby avoiding the additional PA that was the purpose of the initial policy.

This experience of failure illustrates how a rigorous understanding of the way the elements of an existing practice link together, like meanings (e.g. autonomy to choose break practices), materials (e.g. mobile phones) and competences (the lack of skills and knowledge how to spend

active time outdoors) is required to underpin successful practice reconfiguration. In this illustrative example, the meanings of autonomy at break time were a central organising structure in break time practices, and this was not acknowledged by school management as practices were reconfigured without pupils' input, noted as a common failing of other WSA approaches in the previous studies (Adamowitsch et al., 2017). School leadership was forced to backtrack, relenting on the use of mobile phones, which has colonised time that would otherwise be spent actively. The result was transition stalemate.

Towards routinisation

Routinisation is made possible through unreflexive practical understandings that become settled when practices take hold. Routinisation enables the somewhat automated practice reconstitution that happens through practitioners' repeated performances, organised by the elements of practices that provide a blueprint for multiple, varied but collective enactments (Molander and Hartman, 2018). In schools undergoing PA transition, routinisation draws closer when increasing numbers of practitioners become loyal to the reconfigured practices and when conflict between these and established, interrelated practices reduces and disappears (Shove *et al.*, 2012). As new practices become *habituated*, practitioners have become drawn into the new practice configurations, and the ontological insecurity initially experienced has been replaced by a settled sense of practical understanding and automation.

For example, in School C, the transition towards reconfigured physically active practices was supported systematically. School C's joining of the SiM programme coincided with major changes in the school itself, such as having a new head teacher and a reorganisation of the school management. During those structural and symbolic changes, which meant great effort and active reflexivity about school culture, the school management was able to reimagine the role of physical activity in lessons and breaktimes using a variety of practical tools and methods provided by the programme. This opportunity underpinned a swift transition to a more physically active practice ecosystem in School C, including routine physically active outdoor break times that included dance and various sport breaks. Additionally, new equipment was introduced for outdoor play, further locking in the new physical activity conventions of break time. The physical activity conventions of break time quickly 'spilled over' (Frezza *et al.*, 2019) into other interrelated school practices such as classroom teaching. For example,

according to the pupils, enacting physically active exercises at the beginning of a class was wholly normative, requiring no reward or enforcement: “No one forces you. You just do it”.

Important signs that new versions of SiM practices had become habituated were the way practitioners talked about school PA practices. On the one hand, when transition is approaching routinisation, practitioners were not always able to reflect explicitly on the new collective conventions driving the school’s everyday life. During the interviews, pupils would use expressions such as “it just is....” or “it has been always so” with little explanation. At this point, the new practice ecosystem feels normative. The school is felt to have “always been PA-friendly”, as one teacher explained. Practical understanding governs the enactment of everyday life, with little need for reflection or effort in relation to change.

On the other hand, a sign of habituation might also be overt criticism of occurrences that appear to ‘go against’ the collective conventions of the established physically active practice re-configuration. Pupils at SiM schools answered the open-ended questions in the survey using phrases like “I/we want more of....” or “We do not have enough...” These comments indicate raising awareness of new school conventions in relation to PA and a shift in perceived normality. These might be interpreted as signs of poor performance of the PA programme, but they can also be signs of routinisation, as expectations about physical activity are contingent on new practice ecosystem. Programme managers must be wary of evaluation that categorises such comments as problematic, instead understanding the way they relate to the process of practice ecosystem transition via habituation.

The transition to routinisation is unlikely to be quick or linear, be matched across different institutional contexts or be predictable. In many schools, the continuation of training and programme’s activities needs to continue across multiple years. However, within two years, most teachers at School C agreed (in the survey conducted by the SiM program) that inducing pupils’ physical activity is their task, suggesting the programme had taken root. Furthermore, teachers did not consider it to be a heavy burden, contrary to some other programme schools where reconfigured practices failed to recruit sufficient teachers for the recreated practices to take hold. Furthermore, in School C, pupils’ tacit understanding of the school’s physically active collective conventions meant they could easily identify teachers who failed to lead physically active lessons. For example, the head teacher of School C told a story about a teacher who routinely did not provide physical activity opportunities in her lessons. When her lesson

was observed, she included a PA break to impress the visitors. However, this was so clearly different from her normal teaching performance that pupils asked why the lesson was being held in such an abnormal way. After this incident the teacher registered herself on the active lessons training course. The head teacher stressed her acceptance of ‘slow adopters’ who take time to internalise the new conventions that transition brings.

Our illustrations from the SiM programme show that where teachers apparently ‘fail’ to incorporate intended practice changes, their effort may lead to the emergence of new practice versions that can gain traction. We have also illustrated that resistance, which can seem problematic to programme delivery, can be a sign that reconfigured practices are becoming established, triggering practitioners who have yet to be recruited to vocalise their difference. However, it is important that resistance can also be a sign of collective mobilisation, where new practice configurations fail to take hold in the interrelated ecosystem of school practices due to conflicting practice meanings, for example. This can mean systemic transition has failed. Where transition is becoming established and newly reconfigured practices are becoming routinised, there may be indications that practitioners are indifferent to the change programme, finding it difficult to articulate the collective conventions that feel normative and settled. Conversely, complaints may emerge that opportunities or equipment are insufficient. Rather than these being a sign of programme failure, they may mean practitioners’ expectations about PA have shifted in alignment with the collective conventions of the new practice configurations and that a physically active practice ‘regime’ has taken hold (Arsel and Bean, 2013).

Managerial implications

Managing whole school physical activity transition is a complex task, particularly because changes will gain traction in different ways depending on particular pre-existing configurations of practices that make up school life in any given context and how new practices and practice configurations interrelate with these. Recognising signs of transition in practice terms may help programme managers and school leadership with identifying, tracking, interpreting and acting on multi-directional, dynamic and complex signs of change. For example, signs of differentiation can be recognised from the emergence of practitioner ‘in’ and ‘out’ groups. These can be addressed by encouraging collaborative interaction that enables practitioner recruitment of others to the new versions of practices (Maller and Strengers, 2013). Discussion may take the form of seminars, workshops and debates, or via opportunities for sharing practice

performances such as joint lessons between teachers or subject-related meetings for staff. It is also important for managers to recognise the effort required by practitioners to adapt their performances. The SiM experience shows the benefit of communicating the achievements of slower adopters, demonstrating that school transition is a process not a competition.

Scepticism is common amongst teaching staff during a transition (McMullen *et al.*, 2020) but often shifts as more practitioners are 'drawn in' to the new practices (Reckwitz, 2017). However, when resistance and effort in the differentiation stage has given way to collective/mobilised resistance against the emergence of new connections between new and old practices, it may be necessary to lean on the material agency of practice elements to enhance their prescriptive power (Maller, 2015). For example, creating active indoor corridor trails or opening sports halls for longer indoor breaktimes may shape the meanings of breaktime at a collective level. However, it is important for school managers to engage in practice-oriented research about the practice configurations that make up everyday school life (Spotswood *et al.*, 2019) and to consider carefully the significance of the elements being recrafted through intervention, and the way that elements and practices interconnect (Blue *et al.*, 2016). This insight may help avoid the emergence of mobilisation practices as a powerful and detrimental form of resistance. For example, there were several new practices that did not meet strong resistance in the SiM programme. A novel breaktime activity called 'play break' involved pupils leading physically active games for other, usually younger pupils. This gained traction in the participating schools because there were existing meanings of pupil leadership and mentorship in other practices and strong conventions about play. In contrast, the mandated outdoor breaktime in School B was seen as a curtailment of freedom and active break times failed to recruit practitioners.

It is also suggested that where resistance is overt, organised, ritualised and strong, slowing down the transition can help prevent further collective mobilisation. 'Slowing-down' can be counter-intuitive for the transition managers when it seems logical to publicly recognise and prize those who have quickly adopted. This may, however, intensify polarisation between the practitioners by attaching unhelpful meanings of status to different practice career stages. Resistance can be dispersed by facilitating collaborative effort, e.g. through internal training and co-created resources (idea banks, joint lessons). Furthermore, the introduction of 'neutral' practices, or activities that are not tightly bound with existing practices can also help to cool tensions. Examples are dancing break times or activities lead by older pupils that do not involve

teaching staff. In case of collective mobilisation and protests, the negotiations between the management and protesters may also help save the programme from failure.

Programme managers should recognise the seeds of change contained within practices, supporting and encouraging teachers to recraft practices through their own mastery. The dynamic evolution of practices can be supported by celebrating the creativity of teaching practitioners as they acquire knowledge and expertise and progress through their practice careers as ‘physical activity champions’. As practices become habituated, evaluators should be encouraged to see beyond demands for more PA opportunities by pupils, and beyond nonchalance towards the transition programme by staff. These are signs that the new practice configurations have become subject to practical rather than reflexive understanding. Managers can celebrate the new normality by embedding physical activity expectations in the materiality of the school, for example through investment in permanent active play resources. Furthermore, sustainability can be achieved through school policies such as recruitment. In School C, expectations about physically active learning environments are made clear in the recruitment interviews and through the compulsory training for all teachers.

Discussion

Existing whole school physical activity programme literature emphasises the limitations of the ecological and systems theorisation of settings approaches, centred on the difficulties in translating the theoretical framework in practice. There is a tendency for school actor experiences to become lost (Green *et al.*, 2000) and for actors to be dismissed as obstacles to implementation (Young *et al.*, 2013). Furthermore, programme management tends to emphasise adherence to inflexible notions of implementation rather than accounting flexibly for the dynamic unfolding of programmes in unique institutional contexts. Following a growing stream of research that explores the ‘exciting’ potential for a practice theory conceptualisation of public health research and intervention (Kelly and Russo, 2018; Blue *et al.*, 2016; Maller, 2015; Spotswood *et al.*, 2019) we offer a practice-oriented framing of school physical activity transition from which both conceptual and managerial contributions emerge.

The practice-oriented transition framework identifies signs of practice transition as well as conceptualises the relationship between signs and practice reconfigurations. Practice reconfiguration processes, triggered by programme implementation, are ongoing under the

surface. Signs, relating to the doings and sayings of everyday practice enactments by a range of school actors, are merely the ‘tip of the iceberg’ (Maller, 2015). Our framework draws particular attention to signs of practitioner *effort*, signs of *resistance* and signs of *habituation* (figure 1) that can indicate how practice ecosystem transition is unfolding across a spectrum from practice differentiation to routinisation. There is complexity and necessary flexibility in interpreting these signs but our illustrative examples from the Estonian Schools in Motion programme show how the model may help programme managers to recognise signs of transition and plan appropriate managerial activities.

The efficacy of the framework stems from its conceptual strengths. First, the practice-oriented theoretical framing shifts the focus away from adherence to implementation schedules. Rather, flexibility and reflexivity are emphasised. Schools have their own codes of conduct, infused with situational characteristics (Poland *et al.*, 2009) within a framework of practices that are templates to action (Molander and Hartman, 2018). Practices interrelate and co-evolve, with “something of a life of their own” (Blue *et al.*, 2016, p.41), and the dynamic unfolding of practices, as interventions recraft or substitute practices, will vary depending on the particular configuration of practices in any school (Spurling *et al.*, 2013). The way physically active practices interrelate with others in the school practice ecosystem will require careful watching and reflection by managers. Signs of transition are an indication of complex interrelationships, conflicts and harmonisations happening below the surface. Conceptualising signs as such allows the systemic nature of schools to remain the focus of intervention.

Second, our practice-oriented framing reimagines apparent failure or problems with implementation as signs of the unpredictable flow of practices as they are reconfigured and form new arrangements (Alkemeyer and Bushman, 2017). The response of actors, for example through resistance, is not the focus of conceptual understanding about the transition, so actors are not viewed as ‘blocks’ or problems. Rather, their responses are understood to be contingent on the practices that contain the seeds of constant change (Warde, 2005). Resistance, for example, may be a healthy sign of transition as practitioners negotiate their relationship with practices taking hold and recruiting practitioners. Similarly, nonchalance or indifference about a programme’s effectiveness may be a sign that habituation is driving performance.

Third, a practice theory framing conceptualises performances as unique and open ended (Molander and Hartman, 2018) and so emphasises that the responses, reactions, perceptions

and understandings of all actors are important for managers for understanding and managing school transition. Multiple, ongoing and adaptive research methods are required to understand how practices are evolving. This multi-dimensional and ongoing research project is necessary for managers to adapt their implementation plans to the unique and unpredictable pattern of transition in their particular setting. A practice-oriented approach to transition management therefore advances from extant evaluation approaches that seek causal influence as a result of uniform programme implementation (Avitsland *et al.*, 2020).

Finally, placing practices, not people, at the heart of analysis (Schatzki, 2002) is a significant contribution to prior conceptualisations of whole school physical activity programme implementation and transition. It recognises that interventions seek to strengthen or weaken connections between practices and reconfigure persistent physically active collective conventions (Southerton, 2013). Furthermore, neither individual action nor social context is privileged (Blue, 2019) in conceptualising the process of school transition and programme implementation, but the recursive nature of both is held centre stage. This brings into focus the actions of practitioners as an important ongoing part of transition, yet understands the limitations of the signs their actions provide, ensuring that the focus of programme management is on practice configurations, practice and practice element conflicts and interrelationships. Accordingly, the conceptual slippage from systems to individual responsabilisation noted by others (Noordin *et al.*, 2019) can be avoided. Practice theories emphasise complexity and contingency and provide an opportunity to those involved in the management of social change to move away from the expectation of linear processes and rather to situate the dynamics of practices at the heart of transition management (Weenink and Spaargaren, 2016).

Conclusion

Reis *et al.* (2016) highlight the limitations of physical activity intervention evaluation and recognise the challenges in scaling up, calling for intervention research that can demonstrate impact in “natural” settings. Our practice-oriented model of whole school physical activity transition focuses on signs of practice ecosystem transition, and links these to processes of practice ecosystem reconfiguration. It therefore provides a flexible way of identifying emergent signs and practice evolution that are inherently naturalistic. Rather than rely on rigid conceptualisations of programme progress and success, and dismiss actor experiences as

problems or blocks, our practice framing implies a reimagination of whole school programme management based on principles of adaptive practice-oriented transition management. Future research should focus on collating more evidence of signs from other whole school physical activity programmes. Research with programme managers in exploring ways to render the model useful in everyday management practices is essential.

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