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The place and approach of outdoor learning within a holistic curricular agenda: development of Singaporean outdoor education practice

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This paper details the potential contribution of outdoor education (OE) in Singaporean education given the recent raft of national curricular reforms aimed at fostering holistic and exploratory learning opportunities. In this context, we contend that increasing recognition of the value of OE, both internationally and locally, heralds specific challenges within unique Singaporean educational conditions that must be taken into account for this subject area to flourish. In particular, we seek to distil the ways in which local community, cultural and school conditions signal the need for a more place-based and contextualised version of OE. Our analysis further addresses the need for adequate professional development frameworks to be installed in order to enhance existing local teachers' capacities to substantially educate pupils through the outdoors, within a Southeast Asian urban context.

Keywords: outdoor education; holistic learning; curriculum change; place-based learning; Singapore education

Introduction

Learning in outdoor environments, such as through outdoor education (OE) programmes, began in Singapore four decades ago. In comparison with the USA, Canada, Australia, New Zealand, the United Kingdom and many other European countries, this is a relatively short history (Ho, 2011). Yet we suggest that OE can gain increasing currency given the recent policy turn in Singaporean education towards a more holistic and student-driven orientation of the curriculum. OE also seemingly links with innovative pedagogical strategies that intend to support this emerging curricular guidance. The Singaporean Ministry of Education (MOE) is indeed pursuing a learning agenda aimed at fostering pupils' cognitive development, as well as catering to a more expansive holistic '21st Century skills' learning agenda. Core value-based outcomes outlined by the MOE (2010a) as follows are now expected to be infused in all subject areas across different levels of schooling:

- A confident person who has a strong sense of right and wrong, is adaptable and resilient, knows the self, is discerning in judgement, thinks independently and critically, and communicates effectively.
- A self-directed learner who questions, reflects, perseveres and takes responsibility for his/her own learning.

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- An active contributor who is able to work effectively in teams, is innovative, exercises initiative, takes calculated risks and strives for excellence.
- A concerned citizen who is rooted to Singapore, has a strong sense of civic responsibility, is informed about Singapore and the world, and takes an active part in bettering the lives of others around him/her.

It can therefore be observed in this context that knowledge and skill acquisition are to be explicitly aligned with the personal, social and moral development of pupils. In addition, the MOE has expanded the remit of physical education (PE) from one hour to two hours per week, with a renewed commitment towards increasing the number of PE teachers hired and the provision of enhanced professional learning opportunities. Crucially, within the domain of PE, the MOE is currently contemplating the merits of introducing a nationwide OE curriculum in 2014. Outdoor curriculum specialists from the MOE are currently tasked with developing a formal curricular framework, which will be incorporated into the PE curriculum for both primary and secondary schooling. A recent trend has involved individual schools contracting external 'vendor' companies to direct OE practice; from 2014 onwards, however, local PE teachers will be required to teach and lead this subject area.

As teacher educators and policy-makers who will be integrally involved in conceptualising and sustaining this new OE learning agenda, we wish to raise pertinent issues made clear in the literature. In so doing, we aim to more significantly articulate a rationale for and direction of the future Singaporean OE curriculum. Our discussion follows on the belief expressed by Beames, Higgins, and Nicol (2012) that outdoor learning involves practical and experiential activities conducted outdoors in school grounds and in other nearby locations. The authors also posit that learning can be curricular-based, cognitive and related to indoor learning contexts. In Singapore, developing local spaces for outdoor learning to occur remains a crucial issue within a small urbanised island nation (704 square kilometres with 4.48 million inhabitants, according to Martin and Ho [2009]). Significantly, Beames, Atencio, and Ross (2009) further declare that outdoor learning can encompass cross-disciplinary learning processes, as well as learning focused on pupils' social, emotional and moral development. Indeed, as we suggest later in this paper, this latter vision of OE can be crucially drawn upon to underpin the '21st Century skills' model that increasingly characterises Singaporean pupils' learning experiences.

We pre-empt our eventual articulation of how Singaporean OE might be best constituted and deployed by first outlining key discourses underpinning Singaporean education policy. Subsequently, we make recourse to existing literature to make the case for a locally based version of OE that is simultaneously contextualised and experienced authentically. Scholars such as Brown (2009), for instance, have speculated that authentic learning in OE entails pupils' meaningful engagement with lessons that are transferrable to broader social and educational contexts. We also attend to potential barriers and conditions that arguably need accounting for so that Singaporean OE can gain purchase and sustainability in the long term.

Background: the Singaporean education system

Martin and Ho (2009) note that Singaporean education until the late 1970s was driven by policies aimed at mass education in which academic achievement was considered paramount to national development. Later iterations of the education system increasingly

focused on the notion of academic excellence, with the education system focused on standardised efficiency through a hierarchical and centralised system led by the MOE. Gopinathan (2012) likewise explains that the enactment of clear learning goals mandated by a central ministerial authority has been the hallmark of the Singaporean education system until recent times. Mok (2003) further speaks to a more recent incarnation of Singaporean education when he posits that since 1986 the MOE has called for the, 'education of each individual to his [*sic*] maximum potential, and the development of creativity and flexible skills in order to maintain Singapore's international competitiveness in the global economy' (2003, p. 353). In this manner, then, the initiation of de-centralisation through educational reforms since the mid-1980s has meant that schooling is increasingly expected to improve pupils' broader development in areas such as critical thinking, problem-solving and creativity. The remit for teachers in this context is to teach in less direct and behaviourist ways in order to support more exploratory student-driven learning. Koh (2004) explains that this new pedagogical trajectory can be traced to the context of 'new times', whereby education systems must become more relevant in a globalised knowledge economy; developing student creativity, cooperation and flexibility is considered indispensable in this context. Simply put, Singaporean policy investment in the holistic education discourse reflects the belief 'that old ways of doing education were for an old economy' (Koh, 2004, p. 338).

This perspective of 'new' education for 'new times' became distilled in Singapore through the introduction of various curricular initiatives known as 'Thinking Schools, Learning Nation' (TSLN) in 1997. Gopinathan (2007) outlines the various curricular changes embarked upon under the TSLN vision, including more inter-disciplinary and project-based learning, as well as greater emphasis on developing pupils' thinking skills and problem-solving abilities. Koh (2004, p. 336) further states that this 'new blueprint for education change' incorporated a range of new approaches to pedagogy, curriculum and assessment. This re-articulation of the curriculum was seen as a response to the 'trajectories of (global) economic conditions, concomitantly framed by (local) sociopolitical and cultural–ideological needs' (2004, p. 336). Koh goes on to mention that TSLN aims to constitute 'a citizenry with the necessary skills to go global, while maintaining its (local) roots and identity' (2004, p. 338).

This view of TSLN has been expanded upon since 2005, when TSLN was complemented by another curricular vision statement deemed as 'Teach Less, Learn More'. In a parliamentary statement, the MOE offered the following explanation of this newer curricular vision:

> The 'Teach Less, Learn More' (TLLM) movement, started in 2006, helps our teachers and schools to focus on the fundamentals of effective teaching, so that our students are engaged, learn with understanding, and are developed holistically, beyond preparing for tests and examinations (It is not about teachers literally 'teaching less'). To do so, schools have innovated in curriculum (what to teach), pedagogy (how to teach) and assessment (how much have learners learnt). (Ministry of Education, 2010b)

The recent introduction of a complementary '21st Century skills' framework is integrally linked with the curricular conditions formulated above, with the aim of instilling 'life-ready competencies like creativity, innovation, cross-cultural understanding and resilience' (Ministry of Education, 2010c) as well as a core grounding in values that constitute moral citizenship. Numerous programmes have recently been infused with this twenty-first-century competencies core learning model. For instance, the MOE has

recently introduced OE components into the revised primary school curriculum under the 'Programme for Active Learning' (PAL). OE is now one of several components expected to connect with PAL's aim of fostering more student-driven and exploratory learning pedagogies within the primary school curriculum. While skill and knowledge acquisition specific to the outdoor domain are critical here, significant attention has also been given to the moral and holistic education of Singaporean students, with an eye towards them becoming more adaptable, resilient, inventive, ethical and socially adept within a global knowledge economy. Taken together, the myriad initiatives outlined above underpin a broader holistic curricular trend within Singaporean education; as such, we turn now to comment on how this curricular vision resonates with diverse modes of OE conceptualised elsewhere and locally.

Diverse visions of outdoor education

Premised on the belief that learning through the outdoors can be successfully infused within school contexts on a regular basis (Beames et al., 2012), we later describe in more specific terms how a national OE curricular agenda might be best placed to support pupil learning in holistic ways. Before embarking on this discussion, however, we now turn to illustrate relevant debates within the field of OE more broadly in order to consequently advocate for a particular orientation of OE in Singapore.

When considering the potential benefits of OE in Singapore and the exigency of incorporating this learning model within the raft of curricular reforms enacted by the educational ministry, it becomes crucial to discern which specific approach might be best suited in this context. Globally, the literature reminds us that given the contemporary estrangement of youth from their natural worlds, OE has a key educative role to play. Yet divergent visions of OE currently underpin teachers' existing practices and perspectives. In curricular terms, OE is viewed as potentially underpinning compelling learning contexts that differ from the tradition of formal classroom-based schooling, whilst remaining relevant and enjoyable (Waite, 2009). It has also been noted that, despite the tendency for oversimplification at times, learning in and about the natural environment as well as understanding sustainability issues through outdoor activities can occur in conjunction with key curricular frameworks (Higgins, 2009). Furthermore, outdoor learning can also invoke more engaging reflective and problem-solving learning experiences, so that students can develop in more personally meaningful ways:

> … a more complete engagement with an experiential philosophy of learning 'through' requires students to identify issues, topics, problems and challenges in which they are interested, and which are then used as the context for trying solutions, reflecting on their success and progressively engaging in an upward spiral of engaged learning … we consider outdoor education as being beneficial in helping students to explore their own values, preferences and histories and to make decisions about how they want to live their lives. (Thorburn & Allison, 2010, pp. 99–100)

Taken together, the statements above align with the perspective that young citizens generally lack engagement with the natural world, with severe implications in terms of their physical, personal, social and moral advancement. In view of this gap, Beames et al. (2012) critically address how OE programmes are often oriented towards personal and social development, environmental education and the acquisition of skills useful for adventure activities. Indeed, Beames and Atencio (2008) pose in their review that some literature sourced from North America, Australia and the United Kingdom problematically

defines OE in terms of small groups operating within expeditions and at residential centre or camp locations. The authors critique this approach and accordingly suggest that endemic to this conception of OE is the problematic belief that positive experiences in these away-from-school contexts are expected to translate into improved student development and social interaction within the school environment. A central (yet heavily debated) rationale supporting OE's place within the core curriculum thus involves the notion that students can transfer knowledge, skills and social learning from adventure education contexts to more everyday life conditions (for further discussion, see Brookes, 2003; Brown, 2009).

Wattchow and Brown (2011) further comment that current approaches to OE rely heavily upon the elements of risk and adventure, aligned with ideals of social and personal development. They challenge this perspective and argue for OE to be situated within local contexts and cultures. Beames et al. (2012) also remind us that local-based or place-based outdoor education can greatly enhance the reach of traditional curricular guidelines. In this vein, the authors state that local gardens and green spaces even within urban environments are tremendous resources to help develop children's intellectual and social capacities. Beames and Atencio (2008) also advance the notion that a 'place-based' approach can lead to beneficial states of social capital generation within the learning group, the school and the community more broadly. Beames and Ross (2010) further state that when OE is situated within and across local school and community conditions, this learning model can engage coherently with national curricular frameworks. Arguably, this alignment can work to reflect learning processes characterised as cross-curricular and authentic whilst promoting higher states of student civic responsibility. Beames et al. (2009) go on to suggest that outdoor learning can be reframed in quite local terms in order to provide a viable space where more constructivist and student-driven learning can occur. They argue that locally positioned programming focusing on available architecture, ecology, geography and history significantly connects with holistic learning aims found in the new Scottish national curriculum document, the 'Curriculum for Excellence'. Indeed, Beames et al. (2009, p. 38) note that the Curriculum for Excellence 'challenges the existing emphasis on disciplinary content as the central curriculum driver', and they advocate for a more situated understanding of various subject matter to evolve.

However, despite this potential way forward under a locally based vision, Beames and Ross (2010) note that further research is required to understand how teachers and students alike specifically engage with this version of OE, through recourse to overarching national curricular guidelines. Thus, while a key perspective signals how OE programmes based in or near schools (within a 700-metre radius in the case of Beames et al.'s [2009] study) can offer significant benefits to students, it must also be raised that teachers often face significant barriers when attempting to teach this subject area. Key barriers here include lack of training as well as high teaching workloads and class sizes (Beames et al., 2012). Indeed, even without the implementation of complex 'high-adrenaline' activities, these barriers can still preclude teachers from developing and implementing an appropriate OE curriculum. In addition, teachers still require practical guidance that is underpinned by deeper and reflective understandings of how OE can exemplify local, national and geographic contexts (Beames et al., 2012).

The review and discussion in this section has illustrated the potential benefits to students' learning that might emerge through enhanced engagement with sustained and locally positioned OE programming. Based upon an interrogation of existing literature, differing visions and approaches to OE were surfaced above as well as potential issues associated with implementation. This variation was reflected in adventure education

experiences that are typically offered in an 'off-site' and expert-driven manner, as well as more local-based or place-based outdoor learning opportunities that fuse with local communities, societies and circumstances.

A vision for outdoor education in Singaporean schooling

Local-based provision

Following on from our earlier consideration of Singaporean education, we suggest that OE attempts to find curricular space and value within an education system marked by heavy government investment and ranked as one of the world's premier (McKinsey Report, 2010). The ensuing discussion specifically takes into account Martin and Ho's (2009) recommendation that OE as a field must come to account for the unique histories and socio-cultural contexts found within Asian contexts—these can significantly diverge from traditional sites of OE based in North America, Australia and Europe.

Historically, OE in Singapore came about after the country achieved independence in 1965 and building defence capability became top of its agenda (Ho, 2011). Aiming to improve the physical condition of students and to develop positive attitudes towards adventure and strenuous activities, this investment in OE became translated into the establishment of extra-curricular activities such as the National Cadet Corps and the National Police Cadet Corps in all secondary schools. Changing the term extra-curricular activities to co-curricular activities in 2000 meant that co-curricular activities took on a more integral role in the non-academic development of students (Teo, 2000). The re-positioning of OE within the co-curricular activities curriculum reflects how this subject area is now considered a vital school-based activity in service of nation-building, endeavouring to 'toughen' students both physically and mentally.

Reflecting social and political concerns, then, the emphasis on OE in Singapore is allied with the growing interest in developing a 'rugged' nation (Outward Bound Singapore, 2007), as seen in the surge of outdoor and adventure activities that have been introduced. For instance, the Outward Bound School, which was installed in 1967, not only emerged as a conduit for providing adventure and leadership training to young men and women, but also gave ordinary Singaporeans a close-up view of military life. Additionally, in this vein, the MOE has also endorsed a policy to ensure that every secondary school student goes through at least one residential camping experience in his or her school life.

Along with the increase in residential camping programmes organised by schools, another key facet of Singaporean OE is the practice of taking students on overseas trips for adventure activities. Since 2004 the MOE has also launched two purpose-built adventure centres; these adventure centres were created to counter a Singaporean lifestyle that is seemingly producing youths who are becoming too 'soft' (Ho, 2011). Indeed, Ho (2011) recounts how the former Education Minister Tharman Shanmugaratnam claimed that this situation was a major social challenge for the nation.

The prioritisation of residency experiences, overseas trips and immersion within adventure centres by the MOE requires critical evaluation. Indeed, Christie, Higgins, and McLaughlin (2014, p. 2) remind us that scholars have previously made strong claims as to the impact of outdoor residential experiences on 'self-confidence, social skills, motivation and their academic attainment'. Yet the authors' own mixed-methods study demonstrates the inconclusiveness of these claims, highlighting the variable and even detrimental learning conditions that students in their study experienced. While they found

some initial qualitative evidence where pupils self-reported positive development in social, personal and academic ways, they also noted 'a degree of variability in self-reported outcomes. The effect on some pupils was clearly more pronounced than for others, and for a few the experience was interpreted as negative' (Christie et al., 2014, p. 16). They further noted that the quantitative element of the study called into question many initial qualitative findings.

Highlighting practitioners' perspectives, Allison, Carr, and Meldrum (2012) further note in their study that professionals can have 'mixed' views on the value of outdoor learning contexts such as those sanctioned by the MOE. Within residential centres, for instance, an over-emphasis was often identified regarding the need for students to hone practical skills, in addition to a superficial emphasis on environmental stewardship. The authors highlight that during residential camps 'very little attention to personal and social education could be found' (Allison et al., 2012, p. 51). These findings reveal how residential camps and other non-local adventure settings can be associated with a skills-based approach, rather than a more situated form of engagement associated with promoting moral reasoning as well as social and emotional learning (Allison et al., 2012).

The prioritisation of residency experiences, overseas trips and immersion within adventure centres by the MOE aligns with the stated aim of configuring a 'rugged' society despite the apparently 'soft' nature of domestic cultural life. This view is further rooted in Singaporean national defence concerns. This rationale for OE provision has been noted elsewhere; Cook, for instance, has extensively outlined the historical characterisation of OE in the United Kingdom since 1944, along the lines of character-building and even developing a capacity for war and battle, for the sake of constructing citizens with 'ideal' attributes (1999, p. 158). Endemic to this version of OE has been 'moulding' the behaviour of young people through adult intervention (1999, p. 158).

We further suggest that the emergence of the Singaporean OE vision also parallels the historical constitution of PE in certain western countries. Kirk (1998) has noted, for example, that concerns with the state of fighting men to perform in requisite manner within Australian and English post-war contexts led to the reproduction of militaristic (and indeed masculine) forms of PE over subsequent decades. This trend became subsequently inflected through discourses of competitive sport. A more recent iteration of PE further calls for the eradication of obesity through high states of physical activity participation and accompanying behaviourist practices concerned with disciplining bodies. Consequently, various contemporary PE scholars have critiqued the instrumentalist orientation of this subject area, whilst advocating for a more socio-culturally situated and holistic course of learning to occur (Evans, Rich, Davies, & Allwood, 2008; Wright & Harwood, 2008). This latter perspective, which can be applied within Singaporean OE, draws heavily upon a constructivist learning viewpoint, placing great emphasis on students' active engagement within physical, social and cultural environments that impact upon 'individuals' meanings, actions, development, and learning' (Rovegno, 2006, p. 271).

Thus, while it has been espoused by the MOE that OE can play a vital role in providing students with holistic and broad-based educational experiences, the focus on outdoor contexts predicated upon the development of militaristic character values such as 'tenacity' (Shanmugaratnam, 2004) can be seen as problematic. This interpretation of OE can be seen as potentially fostering non-reflective and 'top-down' conditions and instructional practices for the sake of behavioural and character transformation. A tension exists whereby this prevailing OE vision contradicts recent MOE educational policies regarding social, emotional, physical and moral learning housed within the twenty-first-century

competencies framework. We advocate for a more contemporary OE vision that is cross-curricular, place-responsive and locally contextualised in line with broader policy perspectives.

Curricular and pedagogical concerns

OE has already been identified as having a pivotal role in the broader education of Singaporean pupils, especially in relation to developing pupils' traits and competencies that are in line with the current goal of education in the twenty-first century. While established elements such as the Outward Bound School remain as central features of the national curriculum, newly unveiled programmes such as OE within the PAL have been given the specific remit of enhancing student exploration, developing students' character, knowledge and skills, and also providing contexts for their social and emotional development. Yet, even in the context of OE found within the PAL, concerns exist regarding how discrete and often *ad hoc* activities such as rope-tying and wall-climbing can significantly contribute to such key learning ideals. Indeed, our work as researchers based in schools reveals how primary classroom teachers are often unprepared to develop and guide OE lessons on their own, and require much more extensive training and professional development in this area. Thus, while there has been a rather preliminary articulation of OE within an emerging curricular environment in the primary context, we submit that further explication regarding the nature and role of OE is necessary as the nation embarks on the task of carving out a legitimate curricular space for OE within a much broader curricular vision.

In this regard, Martin and Ho (2009) reflect upon data generated through Singaporean teachers to propose that OE can encompass three complementary and multivalent foci: ecological literacy; resilience; and critical thinking. Ho (2011) similarly argues for OE in Singapore to give high priority to serving the three educational purposes of building resilience, building emotional bonds with the places that constitute Singapore and fostering ecological literacy. Building upon this emerging conception, we argue that schools undertaking OE in Singapore should take advantage of existing gardens, parks and other spaces within close proximity. Furthermore, we advocate that rich forms of outdoor learning can occur through vibrant urban neighbourhoods, the inherent multi-culturalism of Singaporean society, and the unique historical and cultural heritages of Singapore. Urban spaces that are local and familiar can foster meaningful and authentic learning experiences that are valuable to learners.

In the Scottish context, Allison et al. (2012) and others speak to the ideal of aligning OE with prevailing holistic curricular strategies embedded within the national education curriculum. Christie et al. (2014), for instance, claim that four key capacities undergird the 'Curriculum for Excellence' (e.g. pupils should develop into 'successful learners', 'confident individuals', 'responsible citizens' and 'effective contributors'); these four capacities are considered by the authors as being highly resonant with the aims of contemporary outdoor learning. Yet while Nicol (2010, p. 167) has likewise stated that outdoor learning has significant 'curricular potential', he also reminds us to acknowledge the barriers faced by teachers developing and delivering OE. We consequently speculate as to how the positioning of OE within a new curricular framework in Singapore might require elucidation in terms of teachers' understandings, their capacity and the barriers they might face in schools.

In this regard, Martin and Ho (2009) have investigated teachers' engagements with OE in Singapore. They found that while the majority of their participants agreed that

specialised knowledge is vital in carrying out the activities associated with OE, only about one-third of them felt that they had the expertise and knowledge for engaging their students with activities in this subject area. This disparity in Martin and Ho's findings indicates the need to further explore the meanings teachers ascribe to OE, what they perceive as specialised knowledge within OE and perceptions of their own teaching competencies. In Singapore, PE teachers are regularly tasked with teaching this subject area; without subject-specific training and specialisation, issues of teacher capacity and professional development come to the fore.

Providing high-quality OE learning opportunities for pupils indeed requires significant investment in enhancing teacher pedagogy through sustained and specific professional learning opportunities. A further concern to us is how several MOE outdoor adventure centres and school programmes such as the PAL have been increasingly directed by private vendor companies. We argue that this sub-contracting approach may result in schools and teachers running the risk of being disempowered by the lack of control and ownership in the process. Worse still, this might promote inadequate teaching practices. Our research within schools suggests that many vendor instructors in the local context lack training as well as close knowledge of specific students and schools, resulting in the potential loss of valuable learning opportunities for both teachers and students. Quite simply, the use of external vendor companies and their own instructional staff may result in variable and even low-quality provision. Arguably, teachers based in local schools are best positioned to understand and support the needs of their own students, even if they require high levels of resource and training support.

A new vision for Singaporean outdoor education

A view that highly urbanised settings can be places of value for outdoor learning has been noted elsewhere, such as in Sweden (Fägerstam & Blom, 2013) and Scotland (Beames & Atencio, 2008). Recourse to the locally based urban environment may be appreciated, in Singapore's context, in terms of nearby and readily accessible spaces with which the students are familiar, such as parks and gardens, school grounds or their local communities and neighbourhoods. Nicol (2010, p. 167), amongst others, indeed makes that case that more localised 'school based approaches represent the greatest potential for the development and growth of outdoor learning'. This statement cements the view that the school should be the focal point where outdoor learning takes place, with students and teachers exploring these sites and other complementary ones for the sake of more authentic knowledge generation and pupil development.

Nicol further claims that, 'when outdoor learning is perceived as starting in the classroom and making local journeys then the qualifications that teachers already possess are sufficient for high quality outdoor learning' (2010, p. 167). Yet, although the locally based provision of OE reflects a significant departure from the complexities of leading 'high thrill' activities, we are still left concerned that teachers might struggle to 'make the leap from indoor teacher to outdoor teacher' (2010, p. 167). We thus propose that further study can be orientated towards generating teachers' original perceptions regarding teaching OE as it is currently placed in Singapore within the domain of PE. In this sense, we purvey the view that positioning OE within a broader PE framework can be problematic, because these subject areas may find sympathy in some ways yet diverge significantly. PE can represent a limiting and constraining view of learning outdoors. For example, certain dominant underpinnings of contemporary PE linked with obesity prevention, instilling discipline and fitness-building have been critiqued as having limited

and even negative impacts upon children's and young people's overall (e.g. physical, social, emotional and cognitive) development (Jess, Atencio, & Thorburn, 2011; Wright, 2004). Taken together, these influences could potentially represent a red herring that takes away from the more holistic and student-driven aims of contemporary Singaporean educational policy. We accordingly speculate that OE must be given significant curricular focus and space; teachers should be supported to draw upon the natural outdoor environment as a point of entry for facilitating more reflective, exploratory, student-driven and situated learning experiences. While we contend that an emerging PE agenda grounded in pedagogical constructivism resonates strongly with outdoor learning that is student focused and locally intertwined, we also conclude that OE can be fused with other subject areas outside the traditional domain of PE.

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