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The purposes outdoor education does, could and should serve in Singapore

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This paper discusses the purposes that outdoor education does, could and should serve in Singapore. Gert Biesta's conceptualisation of three functions of education is adapted to frame deliberations on the purposes of outdoor education in Singapore's socio-political and educational milieu. The author suggests that outdoor education in Singapore could and should give high priority to serving three educational purposes; namely, building resilience, building emotional bonds with the place that constitutes Singapore, and building ecological literacy. In pursuing such purposes, outdoor education in Singapore might lessen the gap between the educational outcomes it currently produces and those it could achieve in the future.

Keywords: *Outdoor education; Purposes; Singapore*

Introduction

Outdoor education has gained wide acceptance in Singaporean schools as a distinct curriculum offering in recent years (Wang, Liu, & Khalid, 2006). Some schools include outdoor education options as part of their physical education curriculum while others offer them under the leadership or co-curricular activities programmes. However, the abundance of outdoor education programmes in Singapore schools does not necessarily mean that outdoor educators are satisfied with, or are clear about, the purposes of these programmes.

Outdoor education in Singapore is not a formalised curriculum and programming can take a variety of forms. It could be in the form of a camp experience for a cohort of 300 students at one of the four adventure centres managed by the Ministry of Education (MOE) or as an Outward Bound experience for segments of the student population. Schools with larger budgets may even organise overseas expeditions for their pupils.

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Generally, outdoor education programmes in Singapore schools aim to produce positive changes in participants by introducing them to adventure activities designed to encourage self-discovery and character building (Wang et al., 2006). Support for outdoor education is evident in the education ministry's policy of encouraging all secondary schools to provide opportunities for their students to participate in at least two camping experiences in their four to five years of school life (Shanmugaratnam, 2004). Although there is strong government support for the beneficial role that outdoor education can play in the development of young people (Tay, 2006), a review of the local literature shows that there is little research on the purposes of outdoor education in Singapore. Hence, the primary aim of this paper is to discuss the purposes of outdoor education in the broader context of the Singapore education system.

In this article, I begin by discussing some of the purposes of outdoor education, through a theoretical interpretive framework constructed based on Biesta's (2009) conceptual framework of education. This is followed by an account of the evolving landscape of outdoor education globally and locally to signal anticipated shifts in emphasis within outdoor education practice. I conclude with a proposition of the purposes that outdoor education does, could and should serve in the context of Singapore's socio-political and educational milieu.

Purposes of outdoor education

Biesta (2009) argues that the question of purpose is a composite question and that, in deliberating about the purpose of education, one should make a distinction between three functions of education; namely, qualification, socialisation and subjectification. He asserts that one of the three functions of education lies in the qualification of our students, providing them with the knowledge, skills and understanding to 'do something', which can range from the very specific (e.g. training for a particular job) to the much more general (e.g. teaching of life skills). Biesta (2009) refers to the second function of education as the socialisation function that has to do with the many ways in which, through education, we become members of and part of particular social, cultural and political 'orders'. Biesta (2009) argues that education not only contributes to qualification and socialisation but also impacts on processes of the third function, subjectification. He explains that the function of subjectification might be best understood as the opposite of the socialisation function, which is about 'ways of being in which the individual is not simply a "specimen" of a more encompassing order' (Biesta, 2009, p. 40).

Based on Biesta's (2009) conceptual model, I have constructed a theoretical interpretive framework, shown in Figure 1, to portray the purposes of outdoor education. This could be applied to the purposes of outdoor education in Singapore that will be discussed later on. It should be noted that the framework presents only the general image of a much more detailed process.

I have differentiated the three functions of outdoor education: socialisation, qualification and subjectification. The socialisation function refers to the creation of a particular social order; for example, participating as members of outdoor clubs. The

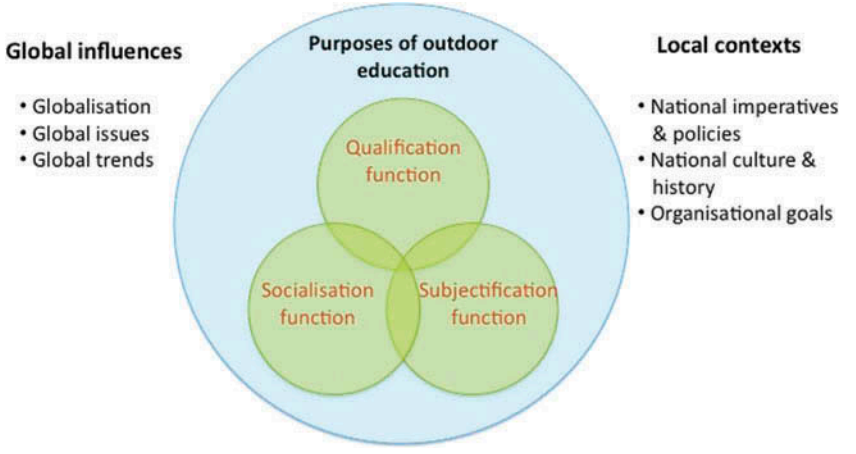

Figure 1. Theoretical interpretive framework of the purposes of outdoor education

qualification function points to the acquisition of outdoor skills ranging from the specific—for example, kayaking—to the general, such as life skills. The subjectification function is about developing the critical and independent individual, such as an explorer. These functions collectively describe the purposes of outdoor education.

However, these purposes are influenced by global and local settings. Globalisation, global issues and trends could subject the purposes of outdoor education to changes. For instance, the current global warming issues are shifting the emphasis in outdoor education in the United Kingdom to one that embraces environmental consciousness, which can be considered as satisfying the socialisation function of outdoor education.

In the same vein, local settings such as the culture, national policies and imperatives could also impact on the purposes of outdoor education. For example, the primary function of outdoor education in Singapore in the 1960s was building military defence. This was to serve the nation's need for building its military, owing to its newly found independence. Building the physical capabilities of teenage boys who are due to be enrolled into the army can be considered as serving both the qualification and socialisation functions of outdoor education. The qualification function of acquiring physical strength and the socialisation function of creating a strong army are illustrations of how national imperatives could drive the purposes of outdoor education in Singapore.

Outdoor education: an evolving landscape

Kurt Hahn's philosophy seems to have been pivotal in transforming the character-building movements in outdoor education from their militaristic, nationalistic and imperialistic roots (Brookes, 2003b). In the early years of the twentieth century, fitness for war and service in the British Empire, especially in nations allied with Britain during World War I, underpinned the uses of the outdoors for educational purposes

for boys (Cook, 2001). Subsequently, progressive educationists, in reacting against militarism and blind obedience to duty, considered the development of initiative and self-discipline to be the basis of character building. Brookes (2003b) argues that the aim of character building, although persistent in outdoor education literature and programmes, is a flawed and uncontested concept. Brookes (2003a) coined the phrase 'neo-Hahnian outdoor education' to describe approaches based on the assumption that adventure experiences 'build character' or 'develop persons'. He argues that, in the absence of any strong evidence, outdoor experiences can change personal traits and neo-Hahnian outdoor education should not be considered 'foundational' to outdoor education research, theory and practice.

This persistence of a neo-Hahnian approach to outdoor education seems most pervasive in the USA (Brookes, 2003b). Two influential scholars in the US adventure education field, Priest and Gass (1997) conceptualise four main purposes of adventure programmes. They argue that recreational programmes aim to change the way people feel; educational programmes aim to change the way people feel and think; developmental programmes aim to change the way people feel, think and behave; and therapeutic programmes aim to change the way people feel, think, behave and resist.

Loynes (2002) criticises US experiential educators for adopting a highly structured approach towards outdoor education programmes and proposes 12 characteristics of an emerging generative paradigm for outdoor experiential learning. One of his proposals is to restore 'place as a central and critical dimension of equal value for learning and meaning as the self and the group' (Loynes, 2002, p. 123). Responses to Loynes' (2002) critique include two linked articles (e.g. Baker, 2005; Knapp, 2005) that outline the emerging field of place-based education and offer suggestions on incorporating place-based education into adventure programmes.

Neo-Hahnian outdoor education remains a pervasive influence on the field in many places. For example, outdoor education in Scotland has its origins in Hahn's philosophy (Higgins, 2002), being one of the first countries in the world to formalise outdoor education. The initial emphases on physical fitness, endurance, craftsmanship and community service have been translated into contemporary terms such as the pursuit of 'outdoor activities and sports' and 'personal and social education' (Higgins, 2002, p. 155). Such approaches are now widely adopted by the majority of the outdoor service providers in the United Kingdom. However, Higgins (2002) cites the World Summits (e.g. Rio in 1992 and Kyoto in 1997) as global environmental imperatives that have influenced outdoor educational practices in the United Kingdom, which now include addressing environmental concerns. Higgins (2002) also notes that the educational uses of the outdoors are similar in Scotland to other parts of the United Kingdom, Europe and countries further afield. For example, prior to the 1940s, outdoor education in New Zealand was primarily recreational but has since become more explicitly educational in its intent. Zink and Boyes (2006) observe that, since the 1970s, outdoor education has also become more focused on developing the skills and values associated with employability. It was not until 1999 that outdoor education gained an official place in the New Zealand curriculum. It became one of seven key learning areas in the Health and Physical Education curriculum aiming specifically to

provide students with opportunities to develop personal and social skills, to become active, safe and skilled in the outdoors, and to protect and care for the environment (Zink & Boyes, 2006).

Considering that the aims of outdoor education have shifted over time within the broader context of changes in the education system (Zink & Boyes, 2006), 'a focus on outdoor pursuits and adventure education with the aims of personal development appears to have been an enduring phenomenon in the history of outdoor education in New Zealand' (Lynch, 2006 cited in Cosgriff, 2008, p. 20). Cosgriff (2008) suggests that this emphasis on neo-Hahnian personal development outcomes has served to keep outdoor pursuits and adventure activities dominating many school programmes in New Zealand, despite 'the need to foster environmental appreciation, understanding and action' (p. 14). She argues for a more 'environmentally attuned' outdoor education as a relevant way forward in New Zealand schools, central to which 'are "skill-full" adventures that foster students' connectedness with local environments, help develop sustainable human–nature relationships, and promote orientation towards action' (Cosgriff, 2008, p. 23).

According to research by Lugg and Martin (2001), most outdoor education teachers in schools in Victoria, Australia, perceive outdoor education to be predominantly focused on personal development. Lugg and Martin (2001) suggest that outdoor education teachers who would prefer the subject to develop more distinctive educational purposes (such as pursuing environmental education through outdoor activities) face a number of difficulties in establishing and implementing such programmes in schools: the majority of principals (as well as teachers) saw the value of outdoor education as primarily being related to its personal development objectives; there was greater emphasis on outdoor education as a process rather than content; and people teaching the subject had qualifications in disciplines other than outdoor education. Alternatives to traditional outdoor adventure activities have also been suggested by other scholars (e.g. Payne & Wattchow, 2008; Stewart, 2003) who see outdoor education as having a role to play in helping participants to develop strong connections with local places via 'slow' outdoor education that allows participants time to pay attention to the unique qualities of particular places.

During the last decade, the relationship between outdoor education and environmental education has been a topic of debate and discussion in Australia (Lugg, 2004). For example, Bucknell and Mannion (2006) argue that it is within the broad environmental goals that outdoor education might be able to claim a unique place in contemporary curricula. They advocate a new focus in the outdoor education curricula to prepare students to deal with a range of complex environmental issues. Neill (2001) also notes that delegates to a national outdoor education conference in Australia proposed the following statement of ethical purpose to emphasise a broad, underlying aim of outdoor education in Australia:

> Through interaction with the natural world, outdoor education aims to develop an understanding of our relationships with the environment, others and ourselves. The ultimate goal of outdoor education is to contribute towards a sustainable community (Neill, 2001, p. 2).

This statement is aligned to Martin's (1999) concept of critical outdoor education, according to which the key purpose of outdoor education is to help students develop a critical perspective on understanding people's relationship in and with the outdoors. Outdoor education can therefore have a primary function in educating for environmentally sustainable living by focusing on cultural beliefs and practices that are perpetuating the current ecological crisis (Boyes, 2000). Although sustainability is a keyword in today's environmental studies, problems of sustainability differ from place to place. Hence, a new focus on sustainability in outdoor education curricula might help students to engage with these issues in their society. In order to do so, Webster (2004) argues that educators need to be up-to-date with new knowledge, especially about design and technology, systems and economics and how they are intertwined.

A scan of the literature on purposes of outdoor education in various countries reveals that they have expanded beyond neo-Hahnian personal development to include environmental education dimensions. A range of practice-based possibilities in the literature provide a way forward for thinking about how to reconfigure outdoor education in the light of increasingly pressing social, political and environmental imperatives. These include the possibilities offered by place-based approaches (e.g. Brown, 2008; Payne & Wattchow, 2008; Stewart, 2003, 2004; Wattchow, 2001); approaches addressing sustainability and ecological literacy within outdoor education (e.g. Higgins, 1996; Lugg, 2007; Martin, 2008; Martin & Ho, 2009; Orr, 1992); and critical outdoor education (e.g. Hill, 2008; Martin, 1999; Payne, 2002).

In highlighting a number of 'blank spots and blind spots' (Wagner, 1993, p. 16) of outdoor education research in the United Kingdom, Rickinson et al. (2004) conclude that outdoor education research would benefit from greater attention given to the 'historical and political aspects of outdoor education policy and curricula' (p. 57). Brookes (2003b) further emphasises that when exploring the purposes of outdoor education, it is essential to look at outdoor education's connection with its past. Therefore, as a means to rightly situate outdoor education as a contributor to education and society in a complex milieu, I recount the Singapore story in the next section. This historical overview seeks to highlight some key traditions and values that may have influenced and shaped the outdoor education practice, provision and development in Singapore.

Singapore outdoor education: in the service of nation-building

The beginnings of outdoor education in Singapore can be traced to the days of the country's independence. In order to have a contextual understanding of outdoor education in Singapore, it is crucial to look not only at its historical development but, more importantly, to consider what people are learning from it today and where it may lead us in the future.

Outdoor education in Singapore arose from the need to build its defence capability. After its independence from Malaysia in 1965, all able-bodied male Singaporeans had to enlist at age 18 for National Service for a minimum of two years, and thereafter remain operationally ready as part of the reserves for another 20 years (Neo & Chen,

2007). The announcement in 1967 of the impending withdrawal of the British troops made the formation of the national army even more urgent.

The build-up of Singapore's defence capability was an uphill task as there was a need to reorientate people's minds to accept the need for a people's army and to overcome their traditional dislike for soldiering (K. Y. Lee, 2000). Extra-curricular activities[1] such as the National Cadet Corps and National Police Cadet Corps were set up in all secondary schools so that parents could identify the army and police with their sons and daughters. This was to dispel the fear and resentment towards the army and police as symbols of colonial coercion. Therefore, the onus was on the MOE to improve the physical condition of youths by getting them to participate in sports and physical activity of all kinds, and to develop a positive attitude toward adventure and strenuous activities. Schools started organising adventure courses for their students in response to Singapore's leaders' call for the building of a 'rugged and dynamic' (K. Y. Lee, 2000, p. 25) society. Therefore, the early days of outdoor education were in the form of adventure courses to build ruggedness in the young to prepare for Singapore's military defence.

In need of a rugged society

Taking a leaf from the British Empire, the ruling elites in the once colonised Singapore persisted with the early-twentieth-century notion that outdoor activities should be used to develop fitness for war and ruggedness in our young. In 1967, Dr Goh Keng Swee, the Minister for Defence and Interior, mooted the idea of an Outward Bound School (OBS) in Singapore. Two New Zealanders, Hamish Thomas and Al Cameron, were invited to help set up OBS that year. The OBS was intended to help build the 'rugged' society (Outward Bound Singapore, 2007). The first OBS course in February 1968 was improvised with few resources. When Thomas and Cameron returned to New Zealand, local instructors began to develop more localised OBS courses in 1969. For instance, the instructors built an obstacle course in the waters surrounding Singapore in addition to the conventional land-based obstacle courses. They learnt from *kelong*[2] operators how *kelongs* were built, and then used those techniques to build an obstacle course that extended from the beach into the sea (Outward Bound Singapore, 2007).

On more than one occasion, the first Prime Minister, Lee Kuan Yew, called on Singaporeans to work to be a 'rugged society' (The Straits Times, 1990, p. 1). He said that if the trend of rising obesity was left unchecked, it would have adverse effects for the nation as a whole, and the Singapore Armed Forces in particular. The need for a rugged society came into sharp focus once again in 1990 when then First Deputy Prime Minister Mr Goh Chok Tong observed that more Singaporeans were becoming 'flabby' (Chua & Tan, 1990).

The emphasis on building a rugged society led to the Physical Education (PE) curriculum coming under close scrutiny. In 1990, the College of Physical Education[3] (CPE) appointed a specialist from Britain, Malcolm Gilbey, to head the outdoor education department. According to Lim (1990), the department had four lecturers

concentrating on sailing, orienteering, canoeing, campcraft and personal development. The idea was for PE teachers who had been through the course to introduce these outdoor pursuits as extra-curricular activities in schools. It was uncertain whether such adventure activities that had been developed for an individualistic culture like that of the United Kingdom and the USA would be appropriate for a Singaporean society that places emphasis on community and interdependence. Nevertheless, these activities seemed to have been widely and uncritically accepted.

With rising interest in adventure activities among young Singaporeans, the number of adventure clubs within community centres rose from 11 in 1985 to 20 in 1990 (E. Tan, 1990). In support of the nation's call for a rugged society, the MOE endorsed a policy[4] to ensure that every secondary school student goes through at least one residential camping experience in his or her school life. As a result, camping became the most popular outdoor education activity offered by schools. A survey conducted by the MOE in 1991 showed that 98% of primary schools conducted camps for their students (Extra-Curricular Activities Centre, 1991). Therefore, since the 1990s, camping has been established as an important aspect of the education system in Singapore.

To support the nation's efforts, the MOE formalised OBS programmes for secondary schools by setting aside a yearly budget to subsidise their students (L. H. Ong, 1990). However, not all students would have a chance to go through the OBS due to its limited capacity. Therefore, the MOE resourced two adventure centres at Jalan Bahtera and Ponggol with outdoor adventure facilities to cater to schools' outdoor camping programmes. A climbing tower and other team-building activity stations were added to the camping and canoeing facilities. About 40,000 students up to the junior college level each year were able to get a taste of outdoor living and adventure at these centres (Phua, 1996).

Surge of outdoor activities

In 1999, outdoor education was included as one of the learning activities at the college level in the revised physical education syllabus produced by the MOE (Wang et al., 2006). In the same year, an outdoor education department was formally set up in ECAC[5] (Extra-Curricular Activities Centre) under the MOE. The large amount of resources committed to schools' outdoor education programmes and a department to oversee its implementation underscores the important role it plays in the Singapore education system. Along with the surge in camping programmes organised by schools, another emerging trend was for schools to take students on overseas trips to learn more about other cultures. According to Davie (2001), 264 schools conducted 786 study trips overseas in 2001. Most of these trips were conducted during school holidays and combined lessons with outdoor pursuits and community service. Schools were sending students abroad to pick up skills they could not learn in the classroom in a bid to 'toughen up' the country's youths (Almenoar, 2005a). According to tour operators, adventure trips overseas have become popular with secondary school and junior college students. In the past few years, hundreds of youngsters have headed for the jungles of Thailand, the mountains of New Zealand and the deep waters off Malaysia, and the numbers appear to be rising (Almenoar,

2005b). The trend is not surprising. According to Almenoar (2005b), the ministry has set aside $4.5 million a year to help finance such programmes for students to become more rugged.

Since 2004, the MOE has launched two new and purpose-built adventure centres at Dairy Farm and Changi Coast to cater to the adventurous teens. The management of the MOE adventure centres has been outsourced to private operators and they run programmes for schools throughout the year, catering to about 70,000 students annually (Lui, 2006). This move has unwittingly resulted in more schools taking up the standard three-day, two-night camping packages for their students. The outsourcing of outdoor education programmes may have worked against the MOE's intent of creating a more diversified landscape in education. The camping packages[6] offered by these vendors are usually targeted at mass participation to meet the MOE's policy of conducting at least two camps for each secondary school student.

In fact, the adventure centres were part of an effort to address the view that Singaporean youths were becoming soft (Ng & Chan, 2004; Soh, 2004), a situation which former Education Minister Tharman Shanmugaratnam described as a bigger challenge for the country than the economic one (Goh, 2004). Shanmugaratnam (2004) stressed the importance of providing our children with a holistic and broad-based education, with a strong emphasis on activities that develop tenacity and strength of character. He felt that sports and rugged activities, such as outdoor camps or expeditions and uniformed groups, lend themselves to building these qualities. This deviates from the earlier emphasis on building defence capability through outdoor education. The emphasis in MOE (2010) appears to have shifted towards inclusiveness so that each child can develop the tenacity to thrive in the globalised environment.

Carlsson-Paige and Lantieri (2005) point out that the climate of contemporary education, where teachers focus mainly on the academic matters, leaves little time for children to pursue such meaningful connections that could lead to responsible global citizenship. The recent Singaporean primary school review by the MOE (2009a) recognises that the fundamental task of education is to go beyond academic achievement and that the most effective way to promote knowledge, attitudes and skills to bring about responsible global citizenship is still unclear. The MOE review committee is of the view that learning is holistic, and understanding emerges from active experiences that make sense to learners. In the same review, outdoor education has been selected as one of the means of teaching the concepts, values and skills of global education, because it can provide students with authentic experiences that engage them actively and holistically.

The purposes outdoor education *does* serve

The final part of this article explores the distinctive purposes that outdoor education currently serves in the context of the Singapore education system and society. Context is important because outdoor practices, if they continue to be grounded in universalist assumptions, may gradually lose their relevance, especially in the fluid educational landscape of a globalised nation-state like Singapore.

Building resilience

Outdoor education in Singapore serves the purpose of building resilience in its people. The local literature on outdoor education demonstrates the pervasive notion of building resilience through outdoor education and the changing context of this notion over time. From the political rhetoric of building a 'rugged society' (The Straits Times, 1990, p. 1), the notion of resilience is expanded to embrace mental and emotional toughness through outdoor education (Shanmugaratnam, 2004). Despite Brookes' (2003a, 2003b) and Cosgriff's (2008) argument that character and personal development through outdoor education is a flawed concept, outdoor education practices in Singapore continue to be entrenched in a neo-Hahnian outlook. The strongly held belief that outdoor education is an effective means of developing healthy and fit youths, as well as a pathway to character, personal and social development, is reflected in the local government officials' speeches (see Lui, 2006; Shanmugaratnam, 2004).

After four decades of independence, the challenges facing Singapore remain the same, although they may take various economic, ideological and/or cultural guises. Singapore's challenges, as interpreted by many local scholars, are always forms of threat (Velayutham, 2007), as a result of its lack of natural resources, small land mass and being surrounded by bigger countries such as Malaysia and Indonesia. Hence, building resilience can be seen as fulfilling the qualification function from Biesta's (2009) conceptual framework, which fits well with the government's emphasis on the economic progress of the country.

At the same time, building resilience appears to fulfil what Biesta (2009) terms the socialisation function of education. This has to do with the many ways in which, through education, we become members of and part of particular social, cultural and political 'orders'. Outdoor education (typically in the forms of cohort camps) influences each individual through group activities that engage teams of students in problem-solving situations.

Biesta (2009) argues that any education worthy of its name should contribute to processes of subjectification that allow for those educated to become independent in their thoughts and actions. Building resilience could fulfil the subjectification function of outdoor education because this neo-Hahnian outlook for outdoor education could emphasise Hahn's first expeditionary learning principle (primacy of self-discovery). Although building resilience fulfils the qualification and socialisation functions of outdoor education in Singapore, there appears to be a lack of focus on the subjectification function in the outdoor education programmes in schools.

The purposes outdoor education *could* serve

Building social skills

The MOE recently introduced to schools a set of socio-emotional competencies that should be taught and developed in students over time. These socio-emotional competencies refer to a set of skills 'to recognise and manage emotions, develop care and concern for others, make responsible decisions, establish positive relationships,

and handle challenging situations effectively' (MOE, 2009b, p. 1). The MOE believes that such skills and attitudes are necessary for students to understand and appreciate the interrelatedness among people and their individual differences, along with the ability to communicate effectively, which are considered crucial in the current era of globalisation.

This concept of building social skills through outdoor education is not new. As noted in the literature, the aims of developing personal and social skills appear to have prevailed in the history of outdoor education in countries such as the United Kingdom, Scotland, New Zealand, Australia and the USA. In the light of my theoretical interpretive framework, building social skills could be considered as fulfilling largely the socialisation and qualification functions of outdoor education in Singapore. Building social skills help the individual acquire the competency (qualification function) to interact with others, thereby creating a socially desirable behaviour for a certain social order, as described in Biesta's (2009) socialisation function of education.

Building an emotional bond with the nation

Outdoor education in Singapore could serve the purpose of building an emotional bond with the nation. Politicians and local scholars have raised issues of political apathy and a lack of emotional attachment to the country, as discussed earlier. Living in an era of globalisation, coupled with a hectic pace of life, local scholars (e.g. Horsky & Chew, 2004; Neo & Chen, 2007; Ooi & Shaw, 2004; Ooi, Tan, & Koh, 1999; Velayutham, 2007; Yeoh & Kong, 1996) from various fields are beginning to express their concern over the way people are becoming placeless, or rootless, and the impact this has on our relationship with the world around us (Stewart, 2003). In Yeoh and Kong's (1996) study of the notion of place in Singapore, the authors express a concern over an emerging trend that could see future generations of displaced Singaporeans who have little sense of their history. According to Yeoh and Kong (1996), few people in Singapore stay in places long enough to develop deep relationships with those places. They argue that place and history are closely intertwined in the rich texture of individual and social life; there is no history without place and no place without history (Yeoh & Kong, 1996). In recent research, Velayutham (2007) describes the Singapore home as, 'a hotel for emigrant Singaporeans who come on short visits and play tourists taking in things that they have missed about Singapore and leave once the nostalgia fades' (p. 181).

Since the early 1990s, the Singapore government has shifted its strategic direction to embrace globalisation through the restructuring of its economy. This strategy of 'going global' brought with it some new challenges such as the problem of emigration and the drop in fertility rate (Velayutham, 2007). The government not only had to persuade the more mobile and affluent Singaporeans to stay, it also had to attract 'talents' from overseas to meet the demands of the new economy. The extent of this issue is portrayed by Koh (2008):

> Minister Mentor Lee Kuan Yew said in February that Singapore is losing 1,000 capable people 'at the top end' every year. The Government has attracted foreign talent, so despite losing our own and our low fertility rates, we have a net 'brain gain'. What is unclear is whether a higher presence of foreigners might not precipitate an even greater exodus of Singaporeans (p. A22).

The government realised that it took more than economic success to bind Singaporeans in an affective commitment to the nation-state. Velayutham's (2007) research findings indicate that in spite of the government's quick response to global and local dilemmas, the task of nurturing a citizenry with a positive emotional attachment to the country could not be imposed. S.Y. Tan, Lee, and Tan (2009) also lamented that 'building new and active citizens who not only understand and accept issues, but take it upon themselves to get involved and even lead such efforts' (p. 272) is an even steeper hill to climb.

I agree with Orr (1992) that developing a sense of place is important and the importance of place in education has often been overlooked. He reminds us that those things closest to us were often the most difficult to see and, moreover, place has always been a nebulous concept. Outdoor education in Singapore could serve the purpose of shaping in our youths a strong connection with Singapore, particularly with their local places. Outdoor education, with its emphasis on experiential learning in particular (often natural) settings, could provide multi-layered opportunities for place-based education. However, attachment to place grows over time until 'mere words and thoughts give way to something deeper' (Orr, 2005b, p. 102).

Outdoor education can deliberately 'slow down' learners' experiences so that they could be awakened to the details of a particular place (Stewart, 2003) and therefore deepen their sense of connection to it. However, it takes time and patience for such deep connections to develop. Therefore, outdoor education in Singapore could emphasise the development of the learner's sense of place to help them connect to their community and, eventually, instil in them a commitment to serve as active, contributing citizens. For such an education to occur, we as outdoor educators must allow our students (and ourselves) the time and space, 'to give ourselves up to a particular landscape, to dwell on it, wonder about it, imagine it, touch it, listen to it, and recollect' (Orr, 2005b, p. 106).

The purpose of building an emotional bond with Singapore through outdoor education may be construed as socialising an individual into what Biesta (2009) terms a '"specimen" of a more encompassing order' (p. 40). I also view this purpose as serving a subjectification function. Through place-based education, I believe that students could be more actively involved in national issues, to which Singaporeans do not currently appear to form a deep sense of ownership. By helping students develop strong connections to Singapore, outdoor education could alleviate the current political apathy among Singaporeans, in which national issues are deemed to be the government's responsibility. Outdoor education could influence students at a more individual level by creating, in each learner, a heightened sense of national identity and pride. Although building an emotional bond with the country could create a particular kind of social order for Singapore, it could also produce individuals

who think independently and resist the order that has been created. This could create a more dynamic and diverse society, with a sense of connection to the country, especially in the light of the government's willingness to consider broader views and approaches to national issues (H. L. Lee, 2010).

Building ecological literacy

Outdoor education in Singapore could also serve the purpose of building ecological literacy in students. Ecological literacy is best understood as, 'a basic comprehension of ecology, human ecology and the concepts of sustainability, as well as the wherewithal to solve problems' (Orr, 2005a, p. xi). I agree with Bucknell and Mannion (2006) that, to justify and establish outdoor education in contemporary curricula, it is in relation to its contribution to broad environmental goals that outdoor education might be able to claim a distinctive purpose. Building ecological literacy could lead to an understanding of environmental issues, faced locally and globally, thereby creating awareness as well as generating possibilities for these issues to be tackled.

Although Singapore has achieved a balance between economic growth and environmental sustainability, the government recognises that the global environmental challenge is becoming greater as we progress (S. Y. Tan et al., 2009). Therefore, as a first-world nation, Singapore has a responsibility to be proactive in addressing global environmental challenges as well as addressing the root causes of excessive consumption (Martin & Ho, 2009). S. Y. Tan et al. (2009) also observe that as the residents of Singapore become more affluent, many of them seem less willing to sacrifice consumption and convenience for the efforts needed to improve the environment. This indifference, which is not unlike the political apathy and a lack of emotional bond with the country cited earlier, is compounded by the public's notion that such issues are to be addressed by the government. The general indifference of Singaporeans to global environmental issues adds to the importance of building ecological literacy in students.

This purpose of building ecological literacy through outdoor education primarily fulfils the qualification function, in that students could be equipped with the fundamentals of ecology. Although the Singapore education system has an excellent reputation for having a rigorous academic curriculum, especially in reading literacy and numeracy, the curriculum appears to have neglected ecological literacy, owing to the lack of awareness and discussion of ecological issues in Singaporean society at large. There is considerable attention given to teaching our young to read, count and compute, but not nearly enough has been given to ecological literacy. No responsible education system today can ignore environmental issues. Although there have been efforts in Singapore to incorporate environmental elements into the formal curriculum, in subjects such as social studies, geography and biology, since the 1980s (S. Y. Tan et al., 2009), the impact of these efforts appears to be limited.

Tay (2006) found in a typical secondary school-level camp in Singapore that there was an absence of environmental education, and he interprets this as indicating that environmental education is not seen as important. He concludes that it is essential

for local schools to play a more direct and focused role in developing environmental awareness and sustainability among our young through outdoor adventure programmes. Ideally, outdoor education curriculum should be introduced in primary schools. Although there have been attempts made by some schools to delve deeper into environmental issues through the introduction of topics such as climate change (D. L. Ong, 2009), more could be achieved if these environmental issues could be taken beyond the classrooms into the outdoors.

I feel that if we could develop an outdoor education curriculum that builds ecological literacy, it would have great potential for helping our students to understand and be engaged with environmental issues. Beyond fulfilling the qualification function, outdoor education in Singapore could serve the purpose of building ecologically literate individuals who could engage in critical discussion and deliberation about environmental issues, thereby fulfilling yet another aspect in what Biesta (2009) terms the subjectification function of education. Over time, a social order comprising the ecologically literate could be created, thereby impacting the socialisation function as well.

Other purposes outdoor education could serve

Outdoor education practices from other parts of the world reveal some of the other purposes that outdoor education could serve in Singapore. For example, critical outdoor education as discussed by Hill (2008), Martin (1999) and Payne (2002) could help students to develop critical perspectives on pressing social, political and environmental imperatives as these relate to people's understandings of their relationships in and with outdoor environments. Outdoor education could also serve the purpose of educating students about environmentally sustainable living (e.g. Boyes, 2000; Webster, 2004), by focusing explicit attention on specific cultural beliefs and outdoor pursuits and practices that may be perpetuating (or doing little to ameliorate) the current ecological crisis. However, problems of sustainability differ from place to place, and unless basic ecological literacy is taught in Singapore, efforts to promote sustainability through outdoor education may prove futile. An emphasis on critical perspectives and sustainability issues in outdoor education could contribute to the fulfilment of Biesta's (2009) subjectification function, which is the function of education that receives the least attention in Singapore.

The purposes outdoor education *should* serve

Education in Singapore has always been a handmaiden to the nation's dual role of sustaining economic development and establishing a sense of national identity (Horsky & Chew, 2004). In a nutshell, education in Singapore appears to be developing what C. Tan (2008) describes as the 'ideal citizen', who is 'an expert problem-solver who has the drive to innovate, learn continuously, think globally but be rooted locally' (p. 111). I agree with C. Tan and consider the expert problem-solver, with the drive

to innovate and think globally, the result of the subjectification process that good education should fulfil, the ability to learn continuously and think globally, as an outcome of the qualification function, and, finally, the act of staying rooted locally, as an outcome of the socialisation function that education in Singapore should serve. In this respect, good outdoor education in Singapore should also seek to develop C. Tan's 'ideal citizen'. To do so, outdoor education in Singapore should seek to go beyond the purpose of building resilience, to also serve the purposes of building an emotional bond with the country and building ecological literacy. Working towards these three purposes would contribute to developing C. Tan's (2008) ideal citizen, and would also assist in building an emotional bond with the country and building ecological literacy, neither of which are adequately addressed within the current Singapore education system.

These three purposes contribute to the functions of qualification, socialisation and subjectification. Outdoor education, being a practice-based discipline that includes risk-taking adventures, obviously lends itself to building resilience. Although there is a strong tendency in Singapore to confine outdoor education to qualification and socialisation, there is room for subjectification to be fulfilled, especially in the way an outdoor education programme is being designed and delivered. The inclusion of solo walks and self-reflection, for example, could contribute the subjectification process. Hence, building resilience could contribute to qualification, socialisation and subjectification.

The emphasis on place-based education in recent outdoor education literature suggests how it could contribute to building an emotional bond with the country. Place-based education emphasises repeated field trips to one site (or a small number of sites) over a sustained period of time, and these could help to develop young people's sense of connection with the country. Although the purpose of building an emotional bond with the country emphasises the socialisation function of education—that is, the representation of a social order into which students should fit—it could and should also contribute to subjectification by creating in students the desire to take national issues seriously (deemed to be the responsibility of the government).

In the light of pressing global environmental concerns, it is timely and appropriate for outdoor education in Singapore to contribute to the purpose of building ecological literacy. Although ecological literacy can also be taught in subjects like geography and science, outdoor education presents authentic learning situations beyond classrooms, which could accentuate the relevance of ecological literacy. Building ecological literacy fulfils the qualification function, with the possibility of contributing to the subjectification and socialisation functions, as previously discussed.

Clearly outdoor education in Singapore can and does serve many other purposes, such as building social skills, but these skills should not necessarily be a high priority for the attention of outdoor educators because they can be honed in many settings, of which outdoor education is just one. Other possible purposes that outdoor education in Singapore could serve, such as developing critical perspectives and sustainability issues, can also be served by areas other than outdoor education. The purposes on which I have focused—that is, building resilience, building an emotional

bond with the country and building ecological literacy—can be interpreted as bridging the gap between the educational purposes that outdoor education currently serves in Singapore and those that it should serve into the future.

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Notes

1. Renamed co-curricular activities in 2000.
2. A Malay word to describe fishing villages built on stilts.
3. The CPE was established in April 1984. Its primary function was to train specialist teachers of PE for secondary schools and junior colleges. The philosophy of the CPE was expressed in its motto 'Physical Education for Life' and aimed to produce 'thinking' PE teachers (Aplin, Kunanlan, Tan, & Jong, 2010).
4. The policy has since been revised in the year 2004 to providing every child with at least two camping experiences in their secondary school years.
5. Known as the Co-Curricular Activities Branch from 2000 to 2011. The department is now part of the Physical and Sports Education Branch, formed since December 2011.
6. These usually come in the form of three-day camps that cater to a level of about 300 students at a time.

Author biography

Susanna Ho is one of the pioneers who started the outdoor education department within the Singapore education ministry in 1999. She is currently a senior specialist overseeing outdoor education curriculum in Singapore schools. Prior to the MOE HQ posting, she was teaching physical education and mathematics in the secondary levels. She was awarded the MOE postgraduate scholarship in 2007 and she has recently received her doctoral degree from the Centre for Excellence in Outdoor and Environmental Education at La Trobe University. Since returning to the MOE from her studies, she has been working with schools on the implementation of their outdoor education programmes and is actively involved in the review of the national physical education curriculum.

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