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Gross National Happiness for Children: Embedding GNH Values in Education

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Abstract

Children's wellbeing is of increasing concern globally, as seen by the development and implementation of the UN convention on the rights of the child. Increasingly, children are being diagnosed with problems associated with lack of physical fitness and obesity, or mental health problems including depression. Schools and educational establishments play a key role in supporting children's intellectual, physical and emotional development. Educational models are now more aware of the importance of a holistic approach to children's education, focussing not only on academic knowledge, but also physical and mental health and wellbeing, especially personal, social and emotional development. Reconnecting children with nature, through learning in the natural environment, is seen as a way forward in many countries. The cultural value of the natural environment is clearly identified in ecosystem services frameworks, and in national ecosystem assessments. This paper reviews the role of learning in the natural environment in supporting children's education and wellbeing, drawing on the author's empirical research on farm education, forest school and outdoor science learning. It concludes with a discussion of the challenges of identifying suitable indicators for such a holistic model of education.

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Introduction

This paper considers the importance of considering children's wellbeing within educational systems. It argues that educational systems have a role to play in ensuring that children develop holistically, developing not only knowledge and skills, but also learning broader life skills and coping strategies. Central to this is a child-centred approach which considers children's personal, social and emotional development. The paper reviews the potential benefits of time outdoors in nature for children's wellbeing. It then considers the potential of common outdoor learning practices in the UK to contribute to children's development. The paper relates these to the GNH principles and values embedded in the educational system in Bhutan, and suggests that adopting more outdoor learning in schools in Bhutan could contribute towards teaching these GNH values in the Bhutanese educational system. It concludes by considering how such an intervention might be evaluated.

Children's Wellbeing

Children's wellbeing is of growing concern nationally and internationally. Children's wellbeing requires that their fundamental needs of food, water, sanitation are met, and health and education services can support their development as they grow. However, there has been a move from concern about survival towards consideration of wellbeing, and from traditional indicators towards more child-centred indicators (Ben-Arieh, 2008). The UN's convention on the rights of the child sets out 42 areas of concern for children's wellbeing. These include the right of the child to a good education, appropriate health care, the right to play and rest, and the right to express themselves in terms of language, culture and religion. In addition, there are specific areas of concern regarding challenging circumstances such as those living with disabilities, experiencing child labour, or separated from their parents. The Good Childhood Report (Children's Society, 2013) distinguishes between subjective (hedonic) wellbeing comprising affective (positive and negative feelings) and cognitive assessments (e.g.,

life satisfaction), and psychological (eudaimonic) wellbeing which relates to self-acceptance, environmental mastery, positive relationships, autonomy, purpose in life and personal growth.

International assessments of children's wellbeing (e.g., World Happiness Report, 2015 (Helliwell et al, 2015)) attempt to measure and compare populations across different economic and cultural settings, using objective indicators such as human development index (HDI), quality of life, and more subjective indicators such as people's self-assessment of life satisfaction and positive or negative emotions. Priorities for achieving wellbeing for children vary across nations according to level of development, provision of services such as education and healthcare, cultural values and social and political circumstances. Cultural and religious values shape and define goals for wellbeing. In many western countries challenges for children's wellbeing include maintaining levels of physical fitness and avoiding the obesity pandemic; growing concerns about children' mental health, particularly depression, fatigue and antisocial behaviours; and the rise in diagnosed learning disabilities such as dyslexia, autism and attention deficit hyperactivity disorder (ADHD).

Valuing Biodiversity: Societal Benefits from Environmental Capital

Biodiversity has traditionally been valued in many ways (Harris, 2012) from clearly economic uses (timber, fuel, crops, medicinal plants), to biological uses (genetic diversity, elements for biological control) through to its role as a recreational environment. These uses can be direct or indirect (e.g., watershed protection, regulating global ecosystems). The Millennium Ecosystem Assessment (2005) has highlighted the societal or cultural value of biodiversity, its role in providing space for recreation; its religious and spiritual value; its aesthetic value.

The enjoyment of natural spaces for recreational purposes is common, and there is a long history of societies which promote rest and relaxation in nature (e.g., Sierra club in USA). Increasingly, people are

recognising that it is not just recreation but a deeper sense of personal wellbeing which can be found in nature and the potential role of outdoor activities to stimulate health, well-being and learning. Nature has been used to promote healing, engender a sense of well-being, restore calm, and deal with modern society's ills of anxiety, stress and aggression, leading to the assumption that the natural environment can provide an arena for personal, social and emotional development to combat modern societal problems (Frumkin, 2001; van den Berg, 2005; Health council for the Netherlands and Dutch Council for research on spatial planning, 2004; Pretty et al., 2003).

Fish and Church (2014) summarise the cultural goods derived from environmental spaces and activities undertaken within the natural environment. Their work recognises that there are benefits arising from people being in the natural environment, and also through people engaging in activities with the natural environment. They identify how biodiversity provides environmental spaces such as gardens, parks, farmland, woodland and waterways in which people can interact with nature, alongside a range of activities and cultural practices people engage in while in the natural environment, which lead to their connection to those places and the natural world. Such activities may result in a sense of place or belonging, of rootedness, which impacts on a sense of identity. The experiences can contribute to tranquillity and inspiration. Through these activities, Fish and Church argue, people develop capabilities relevant to wellbeing, such as increased knowledge, improved health, greater dexterity and improved judgement.

The value of (re)connecting with nature is also gaining recognition, sparked by theories of people's innate connection with nature (Kellert and Wilson, 1995, Kaplan, 1995; Louv, 2005) and the role of natural settings in creating a restorative environment (Hartig, et al., 2003; Berto, 2005). Together these ideas have generated a 'back to nature' movement which encourages children to enjoy more time outdoors, and more free and unstructured play activities. In the US there is the Children and Nature Network, in Canada the Children and Nature

Alliance, and in the UK several initiatives including Project Wild Thing, the National Trust's '50 things to do before you are 11 ¾', and more recently the Countryside Classroom initiative, which supports schools to take children outdoors.

The Role of Education

Children spend a large part of their wakeful hours in schools; hence schools and teachers play a significant role in shaping children's ideas, habits, and development. Schools and educational establishments play a key role in supporting children's intellectual, physical, social and emotional development.

International league tables are often used to compare national education systems. The OECD's Programme for International Student Assessment (PISA) involves more than 70 nations in standardised tests of student ability to assess performance. Asian countries are often at the top of the league table, although China and India are not included in the participating nations. Singapore tops the league table, and Finland, at number 6, if the highest scoring western country. Such league tables encourage comparison of teaching methods and educational systems.

There are a range of educational models which aim to produce children ready for the challenges of the 21st century. Discipline, perseverance, rote learning, and memorisation may result in higher knowledge and test scores; however education is about more than facts. Debates around education are influenced by a growing awareness that in a rapidly changing, modernising, and globalising economy, we can never be sure what the future will hold both in terms of political and economic uncertainties but also uncertainties about global climate change and the impact this may have on the environment. Students need to learn how to cope in, and respond to, rapidly changing economic, ecological and social environments to which they will apply the knowledge they have. Key buzzwords in education centre on concepts such as resilience, adaptability and creativity.

However not all children learn in the same way, so that educational systems are challenged to respond to the variety of children and their needs rather than try to get all children processed through a single 'system'. Child-centred models of teaching such as the child-initiated learning of Montessori and Steiner are notable examples of educational systems focusing on the development of the whole child. A more holistic view also takes into consideration the personal and social development of the child - their fundamental wellbeing.

Wider trends, described by Vosniadou (2003) include a move from teacher to student centred learning, campaigns to connect learning to real life situations, and encouragement to foster the development of understanding and thinking rather than memorization. Traditional models of education are being challenged by a new emphasis which promotes a change in focus from delivery of topics within a curriculum towards learning which equips children to cope with whatever the future may bring (Posch, 1994). Claxton's "Building learning power" (Claxton, 2002) promotes building resilience, resourcefulness, reflection, and relationships (including teamwork), rather than the traditional 3 R's (**R**eading, w**R**iting and a**R**ithmetic). Claxton's new 4 R's are characteristics which endow the learner with skills for lifelong learning and the ability to adapt and change according the changing needs and circumstances through life. Vygotski argued that learning opportunities should be presented using styles of learning which suit the child (Mooney, 2000). Children may also benefit from the more hands on and exploratory learning style offered in outdoor learning environments (Ballantyne and Packer, 2009), which provide a level of stimulus combined with immersion in the practical task, which is more conducive to flow learning (Csíkszentmihályi, 2008). The model of education in Singapore which tops the PISA tables focusses on the development of the individual's character, while also leading to educational attainment. A critical part of this model includes outdoor learning and team building (Ho, 2005).

Outdoor Learning

Outdoor education is seen to offer a broad potential in education: contributing to cognitive learning as well as social development and the development of physical skills. Outdoor learning can involve fieldtrips to learn from new environments (commonly, though not always, associated with geography science or history), or fieldtrips aimed at promoting physical activity and learning to overcome physical challenges (sport, outdoor pursuits such as climbing, abseiling, orienteering etc). Thus, outdoor education is similar to, but not always the same as, environmental education.

In the UK, the Learning outside the classroom manifesto (DfES 2006) called for greater diversity of learning sites, especially outdoor learning, and the Campaign for Real World Learning promoted hands on learning in the natural world, and there is now a Council for Learning Outside the Classroom. The Rose review of the primary curriculum (Rose, 2009) called for cross-curricular learning, and the Every Child Matters manifesto (DfES 2003) encouraged consideration of children's personal, social and emotional development. These educational policies operate alongside wider government campaigns to increase children's fitness and combat obesity in the under 11's (www.nhs.uk/change4life). Natural England's strategic objectives include "people are inspired to take action and conserve the natural environment (Hanna, 2008) as well as their efforts to get "one million children outdoors". The National ecosystem assessment (UK NEA 2011) and the Marmot review (Marmot, 2011) highlight the positive impact of nature on health, including referring to "nature's health service" (Marmot, 2011).

The natural environment provides a natural classroom in which to study topics such as biology, geography, and science. However it also provides opportunities to expand vocabulary, learn about local history or religious festivals, food and cultural practices. The experience can be used to stimulate writing, stories, photography, art, role play and drama

activities. In the UK, visits to farmland and countryside have been shown to stimulate learning across the curriculum (Figure 1).

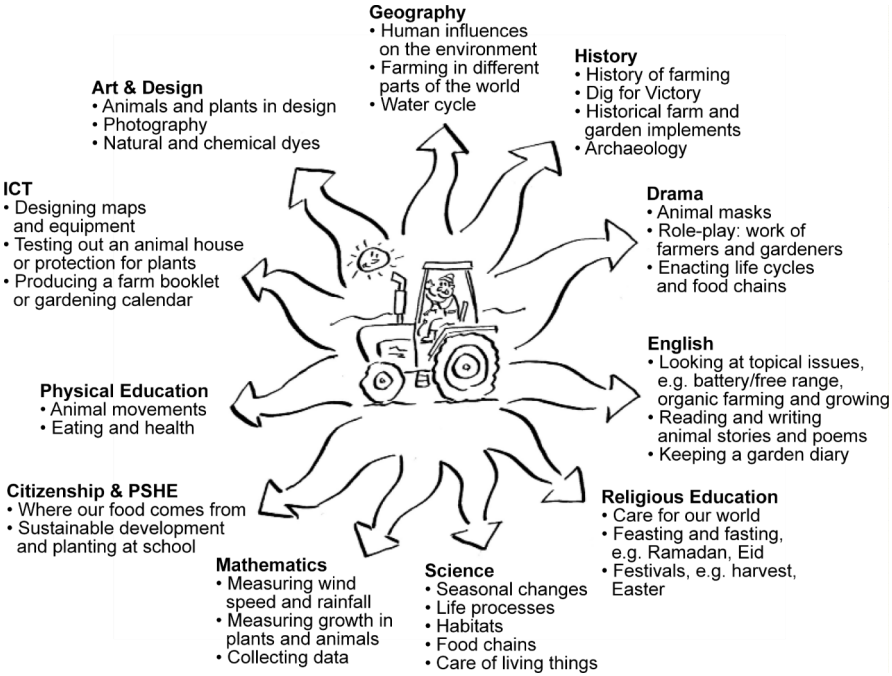

Figure 1: The potential of farm education to contribute to teaching and learning. Adapted from FACE (Farming and Countryside Education, Stoneleigh, UK).

In addition to these curriculum topics, outdoor learning also presents students with challenges, opportunities to work in new teams, to negotiate, and develop social and interpersonal skills. Research on outdoor learning claims many benefits arising from these activities. They range from making teaching more exciting, interesting and memorable (Dillon et al. 2006; Dierking and Falk, 1997; Nundy, 2001, National Research Council, 2009) though learning to face and cope with challenges, think creatively and develop problem solving skills (Cooper, 2003). Learning outdoors can enable teachers to teach abstract concepts in settings which make learning more relevant. Real

world learning can often embrace multiple subjects at one. While learning outdoors children are more active, so contributing to physical fitness, as well as being more conducive to children who find the rules of classroom behaviour difficult to follow (Fiskum and Jacobsen, 2013)

There is a cultural dimension to outdoor learning, based on the natural resources available and the characteristics of the local environment (Bentsen et al., 2009; Rea and Waite, 2009). Scandinavia and Germany are noted for their outdoor kindergartens, Sweden for "Friluftsliv" which has some parallels in Canada (Henderson and Vikander, 2007), and Denmark for "Udeskole" (Bentsen et al., 2009). Other countries have their particular interpretation of outdoor education (e.g., Turcova et al., 2003,).

The value of free play in children's development has long been recognised by educationalists such as Froebel, Issacs and Piaget, as well as the need to engage with natural materials, promoted by Froebel and Steiner. Learning through play enables children to learn experientially, through trial and error, and such experiential learning is associated with deeper level learning (Laevers, 2000). Connecting with nature and learning through play come together in many forms of outdoor learning. In some countries such as Scandinavia and Germany the philosophy is embedded in outdoor kindergartens, with children postponing more formal educational styles until aged 6-7. In the UK, policies have tried to ensure children have greater opportunities for outdoor play at pre-school and early years learning. Since 1995, some schools have participated in an educational movement called forest school, which draws on Scandinavian philosophies of outdoor learning.

Forest School

Forest school draws on Scandinavian practices of outdoor kindergarten (O'Brien, 2009, Knight, 2009). In the UK, forest school generally involves two hour sessions repeated weekly or biweekly for a length of time (possibly a half term (6 weeks) or term, sometimes throughout the school year). During these sessions, children are given a choice of

activities to do. Activities may be repeated in subsequent sessions, although the choice of activities often changes in response to environmental conditions (seasons, weather conditions etc.). Forest school sits at the nexus of many initiatives relating to children, nature and education (Figure 2). Those leading forest school sessions act as facilitators of learning, so that children pursue learning styles and a learning pace that suits them, using short achievable tasks to build their confidence.

Figure 1: Forest school and its relationship to educational initiatives.

While at first glance forest school may appear to focus on learning about nature, in fact, research with those leading forest school sessions has shown that social development is the key outcome of learning at forest school (Harris, 2015) while learning about nature, and engaging with nature, are also important outcomes. Table 1 shows areas of learning at forest school. The mixture of social skills, traditional survival skills (e.g., fire lighting, cooking and den building) and curriculum topics covered in forest school show that it can contribute to teaching across a range of areas of education.

Table 1: Learning at forest school (adapted from Harris, 2015).

What do children learn?	How do they learn?	Impact of being outdoors
Relationship with nature and with place	Kinaesthetic learning	Greater physical space,
Nature education	Improvisation/ resourcefulness	Accommodates a wider range of behaviours
Nature engagement	Discovery/ experimentation	More physical activity
Responsibility/ risk	Imagination	Development of fine and gross motor skills
Self-esteem and self-awareness	Sensory learning	Exuberance and joy in learning

Not only does forest school contribute to children's learning in a range of ways, the move outdoors supports learning in several other ways (Table 1 and Harris, forthcoming). The greater physical space (as compared to being crowded inside a classroom) accommodates a wider range of behaviours. Children are able to move more, rather than sit still; they are allowed to be noisy and maybe shout; the more physically demanding tasks of outdoor learning allow them to burn off energy. The lack of boundaries and removal from the classroom creates a more relaxed and calm atmosphere. It is felt by those leading forest school sessions that this more relaxed environment makes the children more receptive to learning (Harris, forthcoming). For children who do not thrive within the norms and expectations of classroom learning, taking lessons outdoors into the local environment can result in learning appearing more relevant and fun, and so encourage children to become more engaged with school and enthusiastic to attend.

Education in Bhutan

Bhutan's remote location and historical independence has enabled it to be fairly sheltered from modernisation and global influences on society. There is a high regard for traditional culture and practices, and a

determination to manage the introduction of the benefits of development while preserving culture and heritage.

The public educational system in Bhutan has been developed since the 1950's. Prior to this time, education was either in private schools or monastic education (Schuelka, 2013). Over 50-60 years there has been the development of schools, a ministry of education, and two teacher training colleges. A rapidly growing population, a high percentage of which are still of school age, has required rapid growth in the number of schools, and teachers, required to meet the needs of its population (Schuelka, 2013). Schools initially used a curriculum from India, which has gradually been replaced with a Bhutanese national curriculum. Successive reforms of the education system have sought to address key concerns regarding the curriculum and the quality of teaching. Most recently, in 2008, it was decided to embed GNH principles into the educational system. This was implemented in 2010, with training provided to head teachers and then rolled out to individual schools (Sherab et al, 2014).

Bhutan's philosophy of Gross National Happiness is based on 4 pillars

- Sustainable and equitable development
- Environmental conservation
- Preservation and promotion of culture
- Good governance

These pillars are the basis from which 9 foci for learning have been defined, which form a basic structure for the educational system (Ministry of Education, 2014). The 9 attributes define the scope (world knowledge) of the curriculum and the breadth (intellectual competence, physical wellbeing, spirituality and character) of education. Some of the attributes are more readily defined and tested (e.g., intellectual or communicative competence) compared to others (e.g., spirituality and character and world readiness).

GNH principles and values are to be embedded in the educational system and curriculum throughout all levels of education. According to Hayward and Colman (2010) the principles and values are

- Deep, critical and creative thinking
- Eco-literacy
- Practicing ancient wisdom and culture
- Contemplative learning,
- Holistic learning concerning the world
- Genuine care for nature and others
- Competency to deal with the modern world
- Preparation for right livelihoods
- Informed civic engagement

Forest school and educational visits to farms and the countryside are only two of many examples of outdoor learning. Each has its value in contributing to a more holistic view of education, enabling children to learn about their local world, gain knowledge and understanding as well as developing values and personal wellbeing. There is potential for outdoor learning to be incorporated in curricula to enhance values education. Bhutan's natural environment, where 60% of forest is conserved, provides many opportunities to embrace outdoor learning.

While Forest school cannot claim to encompass all GNH values, this outdoor learning activity goes some way towards teaching the values: particularly learning about and valuing nature; developing world-ready students who can cope with challenge and have resilience and independence; developing a sense of place and valuing that place; as well as physical fitness and joy in learning.

Conclusions

There is growing recognition of the importance of assessing and supporting children's wellbeing. There are many agents to support this, primarily parents and family members, but also medical and social workers. Schools offer significant opportunities to nurture the wellbeing, social and emotional development of children through activities and

discussions embedded with the timetable and curriculum, as well as through opportunities for informal and experiential learning from peers or from teachers acting as mentors. Outdoor learning provides a space in which children's development and wellbeing can be nurtured, while also supporting teaching and curriculum topics.

How would such an initiative be evaluated? How would success be measured? Objectively assessing the success of such initiatives is fraught with ethical and practical challenges (Harris et al, 2010). However, indicators might be found in the following areas:

- Increased knowledge of key subjects e.g., biology, geography, sciences
- Raising attainment, particularly of specific groups e.g., disengaged learners, those with learning disabilities
- Increased attendance and enthusiasm for school
- Higher levels of physical activity and improved physical health
- Improved mental health
- Increased time spent outdoors.

Environmental conservation is one of the 4 pillars of GNH, and development of a genuine care for nature is one of the core values of the educational system. Research shows that childhood is a formative period for development environmental knowledge and ethos and practice of care of the natural world (Pretty et al, 2009; Chawla, 1999 and 2009; Ward-Thompson et al, 2008). Increasing outdoor learning, where teachers model engagement and conservation of the natural environment, may result in increased sense of connection to nature as children, and potentially also impact on life choices and environmental behaviour when older.

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