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Exploring 'Disability' and 'Inclusive Education' in the Context of Bhutanese Education

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The meaning of disability and inclusive education presented here is based on a review of relevant literature and aims to inform relevant stakeholders in Bhutan. A clear and shared understanding of the concepts of disability and inclusive education is crucial to ensure that efforts towards inclusion are designed and implemented in line with Bhutanese values and ethos. Some prominent models of disability are described and key benefits of inclusive education are discussed to inform planning for inclusion in Bhutan. To position this discussion in the Bhutanese context, inclusive education is related to the Educating for Gross National Happiness reform initiative, to explore connections in terms of principles and values of education.

Key words: *inclusive education, special education, integration, mainstreaming, disability, handicap, and Gross National Happiness Education.*

Introduction

This paper primarily seeks to clarify for policy makers, educationists, teacher educators, schoolteachers, curriculum developers, parents and other relevant stakeholders in Bhutan, the meaning of disability and inclusive education. Five prominent models of disability are discussed to help understand how the perception of disability influences inclusive education development. A discussion of how inclusive education differs from special education and integration is presented for conceptual clarity. Key benefits of inclusive education focused on the potential benefits to the Bhutanese education system under the umbrella of Educating for Gross National Happiness reform initiative in Bhutan are also examined. This clarification is expected to help Bhutan ensure that inclusive education initiatives and interventions are formulated respecting the Bhutanese context.

Globally, the Salamanca Declaration made a universal commitment to reorganise and restructure educational practices to include children with special educational needs (SEN) and disabilities (UNESCO, 1994). The Dakar Framework for Action of Education for All further reaffirmed the World Declaration on Education for All, passed in Jomtien, Thailand in 1990 (UNESCO, 2000). The Dakar Framework for Action explicitly stated that:

... all children, young people and adults have the human right to benefit from an education that will meet their basic learning needs in the best and fullest sense of the term, an education that includes learning to know, to do, to live together and to be. It is an education geared to tapping each individual's talents and potential, and developing learners' personalities, so that they can improve their lives and transform their societies (UNESCO, 2000, p. 8).

These commitments not only support, but demand improvement in access and equity in education, especially for marginalised populations including children with disabilities. These documents call for the development of policies and legislations that promote and protect the rights of these special groups. In the past few decades, inclusive education has transformed education systems around the world into more inclusive systems to prevent exclusionary practices (Alur, 2009). Inclusion has evolved as a pedagogical strategy as well as a political means to address the social, economic and political inclusion of persons with

disabilities and has become an important agenda in the international human rights movement. Alur (2009) cites Rioux (2001) who considered education for the disabled as a matter of entitlement and human right rather than a privilege.

Most governments and countries are increasingly viewing the rights of their citizens in a manner more consistent with international declarations and instruments (e.g., The Salamanca Statement and Framework for Action on Special Needs Education and Convention on the Rights of Persons with Disabilities). This has resulted in a shift in society's perception of disability, where disability is increasingly perceived as a social construct rather than viewing it as an individual limitation (Alur, 2009). Many countries such as the UK, USA, Australia, Spain, Portugal, and Canada have succeeded in putting in place legal frameworks that support comprehensive schooling for all and standards for inclusion. However, the developing countries are still in the stages of "experimentation and progression towards enabling policies, establishing infrastructure as well as developing human resources for the implementation" (Mukhopadhyay, 2009, p. 70).

Bhutan is a typical example of a country where initiatives to include children with special educational needs and disabilities in mainstream education is at the initial stage. The Ministry of Education (MoE) in Bhutan has already drafted a National Policy on Special Educational Needs to promote inclusive education and a number of pilot initiatives are being implemented to encourage inclusive practices in mainstream schools (Schuelka, 2013; UNICEF, 2014). Schuelka (2013) also reinforces that the educational policy to include children with special educational needs (SEN) and disabilities in education is progressing well with GNH Education transforming schools into "positive centers of learning and inclusiveness" (p. 71). Despite the Bhutanese government's support to make education accessible and effective for children with disabilities, a recent study by UNICEF (2014) shows a great deal of confusion and lack of clarity in the Bhutanese policy documents. For instance, SEN and inclusive education are used interchangeably and SEN is often understood to mean disability and vice versa.

Bhutan does not seem to be the only country facing the confusion regarding the use of educational terminologies related to disability. A similar problem has been noted in India too, where government officials and education practitioners use inclusive education and integration interchangeably in educational discourse and practice (Singal, 2006b, 2008). This problem of "terminological ambiguity" (Singal, 2005, p. 334) is also indicated in several other publications (e.g., Hodkinson & Devarakonda, 2009; Johansson, 2014; Selvaraj, 2014; Starczewska, Hodkinson, & Adams, 2012). Because of this confusion and lack of clarity, Hardy and Woodcock (2014) state, "inclusion in schooling policy is a fraught issue... Inclusion is often effectively obscured, 'camouflaged' or insufficiently valued" (p. 1). Armstrong, Armstrong, and Spandagou (2010) add that different people interpret inclusion differently and risk ending up "meaning everything and nothing at the same time" (p. 29).

Since the way disability is perceived provides a basis for social policy and efforts towards inclusion (Anastasiou & Kauffman, 2012; Singal, 2006a), a discussion of five models of disability is presented in the following section.

Models of disability

Scholars have used several models to explain disability because defining disability is “knotty and complex” (Kaplan, 2000, p. 352). Disability is often understood differently in different social contexts, depending on the individual’s performance and the expectations and demands of the social group that the person belongs to (Anastasiou & Kauffman, 2013, p. 447). This conception of disability may be influenced by how disability is viewed by a particular society as explained through different models of disability.

Moral model

The moral model views disability as a “manifestation of sin or of God’s displeasure, a test or challenge for nondisabled people, an opportunity for nondisabled people to achieve salvation through serving disabled people” (Arneil, 2009 & Longmore, 2003 as cited in Mackelprang, 2010, p. 88). Disability in this model is associated with sin, shame and guilt (Kaplan, 2000) and has resulted in general social ostracism and self-hatred even in less extreme circumstances. The Bhutanese perception of disability somehow is characteristic of this model although no studies are available to substantiate this claim. The moral model is the oldest and less prevalent view of disability.

Traditional model

Similar to the moral model, the traditional model views disability as a condition imposed by people’s beliefs in fate and deities (Rieser, 2009). The traditional approach and Kaplan’s (2000) moral model of disability may concur with the beliefs and perception of disability in most developing countries like Bhutan as stated in the preceding section, where religious beliefs, superstitions and the belief in *karma* (Schuelka, 2013) influence people’s perception of disability. Yang (2013) for instance, reports about how Bhutanese attribute disability to the acts of supernatural elements such as spirits and deities. Consultations to seek modern medical assistance and treatment become secondary in such a society where people’s way of life is deeply entrenched in their religious values and beliefs. Rinchen Pelzang (2010) in a study of religious practice of patients and families during illness and hospitalization in one of the referral hospitals in Bhutan found that 105 patients out of 106 had performed religious rituals before seeking modern medical treatment.

Medical model

During the 20th century, and particularly in western countries, the medical and social models have dominated disability studies. The medical model views disability as less than whole and consequently sick, diseased and less able (Oliver, 1996), and disregards the role of the environment and societal attitudes toward people with disabilities (Michailakis, 2003). The International Classification of Impairment, Disability and Handicaps (ICIDH), as proposed by the World Health Organization (2001), is founded on the medical model of disability where impairment, disability and handicap are described as follows.

Impairment: any loss or abnormality of psychological, physical or anatomical structure or function (p. 47);
Disability: any restriction or lack (resulting from an impairment) of ability to perform an activity in the manner or within the range considered normal for a human being (p. 143); and,
Handicap: a disadvantage for a given individual, resulting from impairment or a disability that limits or prevents the fulfillment of a role that is normal for that individual (p. 185).

It is apparent that *disability* is understood as some limitation imposed by an individual abnormality or biological condition that restricts a person from performing tasks, putting him or her at a social disadvantage. *Impairment* on the other hand, is more to do with the individual condition, a loss of functional ability due to an injury, illness or congenital condition (Burke, 2008). Oliver (1996), a scholar with disability, calls the medical model the personal tragedy theory of disability given its obsession of viewing disability through bodily impairment. Although disability and impairment mean different things, Bhutanese in general tend to see them as one. In Bhutan, disability is mostly seen as a tragedy, disease and illness looked upon with sympathy and pity (Rinchen Dorji, 2008).

Social model

In contrast to the medical model, Terzi (2004) says that the social model considers disability as the product of specific social and economic structures. This model aims to address issues of oppression and discrimination of disabled people, caused by institutional forms of exclusion and cultural attitudes embedded in social practices. According to the social model, disability is defined as “all the things that impose restrictions on the disabled people; ranging from individual prejudice to institutional discrimination, from inaccessible public buildings to unusable transport systems, from segregated education to excluding work arrangements, and so on” (Oliver, 1996, p. 33). The social model emphasises that disability arises socially and is not a result of an individual biological pathology.

The social model, despite its increasing popularity, has been criticised for failing to acknowledge the role of impairment in disability. To support this, Terzi (2004) cites French (1993) who described how her visual impairment imposed social restrictions, like not recognizing people or not reading social and non-verbal languages in social interactions. Challenging the credibility and currency of the social model, writers such as Shakespeare and Watson (2001) argue for the abandonment of this model declaring it as problematic and dated in its usefulness. They contend that impairments do play a role in causing disability and argued that disability is a result of both social barriers and bodily impairment (Shakespeare & Watson, 2001). At the core of their criticism was the social model’s separation of impairment from disability and rejection of the role of impairment on disability (Thomas, 2004a, 2004b). Anastasiou and Kauffman (2013) also critique this model saying it disregards “the biological world of human beings” (p. 453) and detach people with disabilities from their daily experiences.

Social relational model

As an alternative to the medical and social models, Reindal (2008) proposes a social relational model as a basis for understanding special educational needs by explaining the interplay between impairment and disability, which has been ignored by the social model. The social relational model retains the key elements of oppression and discrimination of the social model and explains the interplay between impairment and

disability by drawing a clear logical distinction between necessary and sufficient conditions. According to Reindal (2001), as cited in Reindal (2008), a necessary condition is a precondition that has to be there but is not a sufficient condition to perform an activity. For instance, being able to read is a necessary condition to make sense of a text but is not a sufficient condition because one might be able to read, yet still fail to make sense of the text because the text is too abstract. Having a particular impairment is a necessary condition for experiencing disablement in certain circumstances but this is not a sufficient condition because whether impairment results in disablement is dependent on time and changing contexts or situations. This relational aspect between the necessary and sufficient condition was what the previous social model ignored.

In the social relational model, a reduced function is a necessary condition that has both personal and social implications for the individual. But whether the reduced function and its effect becomes a disability is contingent upon the restrictions within the various macro levels in society that are imposed on top of the social effect that the reduced function implies for that individual. Reindal (2008) illustrates the interplay between reduced function and disability as shown in Figure 1.

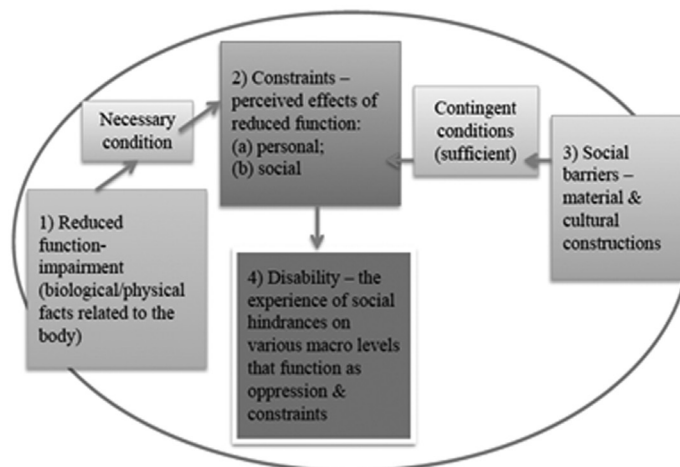


Figure 1. *The interplay between reduced function and disability: A social relational model (From Reindal, 2008, p. 143).*

In Figure 1, points 1 and 2 are the grounds for defining and classifying “*additionality*” – individual approach to disability (Norwich, 2002 as cited in Reindal, 2008), whereas points 3 and 4 are the grounds for making changes at the macro level to encourage inclusion, thereby lessening the consequences of issues related to point 4 from coming into being. None of these four points are static. They are constantly interacting with each other at various levels.

In Bhutan, Schuelka (2014) reports that the social model or the rights-based disability discourse is limited to “a small and identifiable group because this discourse is still quite new in the country” (p. 135). Bhutanese perception of disability is more likely to be limited to functional limitations or deficiencies as stated earlier. Similar to the moral and medical models of disability, most Bhutanese are likely to view

disability through their religious beliefs in ‘karma’ (UNICEF, 2014). Explaining the Buddhist belief in the ‘theory of karma’, Karma Phuntsho (2004) states:

In Bhutan, the law of karma often referred to as *le judre* or just *le*, certainly features as a very popular religious concept. People view it as an infallible law of virtuous actions leading to happiness and happy rebirth and non-virtuous actions leading to suffering and unhappy rebirth ... Giving it a role akin to that of God in theistic religions, *le judre* is also feared and seen as both the explanation for the past and present state of being and the answer for the future (p. 568).

This explains the powerful influence of religious values such as karma in the Bhutanese society and ‘karma’ indeed is seen as “the most common explanation for disability in Bhutan” (Schuelka, 2014, p. 165). Any misfortune or disability is likely to be attributed to an individual’s transgressions in the past. The social structures may hardly be seen as a cause of disability.

From the discussion of different models of disability, it becomes evident that the kind of educational provision for persons with disability is dependent on the ways disability is conceptualised. If disability is perceived as an abnormality or illness, separate and curative strategies of special education may be adopted. On the contrary, if disability is viewed as one that reflects social exclusion and oppression, the educational practices will involve removal of social and cultural barriers. Inclusive education is developed on this latter premise, as discussed in the next section.

What is ‘inclusive education’?

Inclusive education refers to the restructuring of special education that supports the integration of all kinds of students in mainstream classrooms through reorganisation and instructional innovations such as co-operative learning, collaborative consultation and team teaching (Booth, 1995; Clark, Dyson, & Millward, 1995). Inclusive education is different from ‘special education’ because it aims to bring together children with disabilities into regular classrooms alongside nondisabled peers with appropriate modifications and adjustments to enable participation of all students (Booth & Ainscow, 2011).

Ainscow (2005) explains that inclusion is a process of addressing and responding to the diverse needs of all learners through increasing participation in learning, cultures and communities, and reducing exclusion within and from education. Inclusion refers to a system where the regular educational setting takes responsibility, with conviction and commitment, to educate all children by genuinely accommodating changes and modifications in content, approaches, structures and strategies, with a common vision to address the needs of all children by welcoming and celebrating diversity. UNESCO (2005) describes inclusion as a never-ending process and search to find better ways of responding to diversity; the identification and removal of barriers through improvements in policy and practice; the presence, participation and achievement of all students. Bailey (2004) adds that inclusion education also implies the provision of continuing support to classroom teachers and children by a specialist.

Rather than seeing inclusive education as a marginal issue meant to integrate learners with disabilities into mainstream education, it may be viewed as an approach that is aimed at transforming education systems and other learning environments to respond to diverse learning needs. Ainscow (2005) argues that inclusion can be considered as offering opportunities that enable both teachers and students to be

more creative and innovative in handling differences and presents the challenge of enriching the learning environment.

Armstrong, Armstrong, and Spandagou (2011) are of the opinion that the meaning of inclusion has become so blurred that it can mean different things to different people. Ainscow et al. (2006) explain inclusion through two distinctive definitions. Descriptive definitions of inclusion refer to those that specify the variety of ways inclusion is used in practice, whereas prescriptive definitions indicate the way inclusion is intended to be and how others will use inclusion. Ainscow and colleagues also suggest another distinction called the narrow and broad definitions. The inclusion of a specific group of students in mainstream or regular education is referred to as narrow definition of inclusion. Broad definitions, on the contrary, do not focus on a specific group of students but rather focus on responding to the diversity of all students and every other member of the school community.

The lack of understanding in distinguishing inclusion from educational concepts such as integration and special education occurs commonly among educators. Confusion is certainly the case in Bhutan where schoolteachers and educationists lack conceptual clarity in distinguishing inclusion from special education, integration and mainstreaming (UNICEF, 2014). Figure 2 illustrates how inclusive education differs from special education (UNESCO, 2005) and also shows that inclusive education requires a shift from seeing the child as a problem to seeing the education system as the problem (UNESCO, 2009). The conceptual differences presented here may not be true of all education systems. However, for Bhutan, where confusion in the use of these terminologies has been reported (UNICEF, 2014), the distinction drawn in Figure 2 is undoubtedly useful.

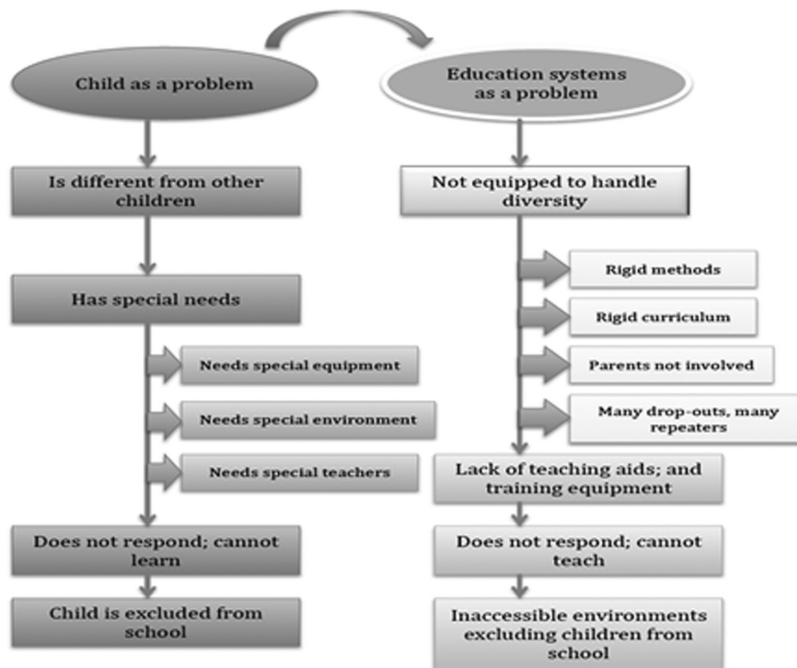


Figure 2. Education through the inclusion lens (From UNESCO, 2005, p. 26).

Loreman and Deppeler (2001) suggest that it is sometimes easier to understand inclusion by talking about what inclusion is *not* rather than what it *is*. They warn that educating students partly in special and regular schools is not inclusion. Neither is inclusion educating students in regular classes requiring them to follow substantially different curriculum in terms of content and learning experiences from their peers. They contend that inclusive education is not integration and is not concerned with assimilation or accommodation of discriminated groups or individuals within existing socio-economic conditions and relations. Inclusion is not about normalising people, which is characteristic of integration and mainstreaming. Integration and mainstreaming expect the students with disabilities to adapt to the existing model of schooling instead of the system making organisational changes and adaptations to fit to the needs of the individual learners as advocated in inclusive education (Mariga, McConkey, & Myezwa, 2014; Mukhopadhyay, 2009).

Miles and Singal (2009) suggest that the success of inclusive educational practices at a country level depend on the development of a clear understanding of the concept in the context of the culture in which it is developed. In Bhutan, inclusive education needs to be understood within the context of Bhutanese social and cultural ethos, guided by the country’s pursuit of Gross National Happiness.

It is apparent that inclusive education entails more than the inclusion of children with disabilities and special needs in mainstream school. However, in this paper, inclusive education will be understood to mean inclusion of children with SEN and disabilities in regular classrooms alongside their peers without SEN. This is done to ensure that the educational needs of children with SEN and disabilities in Bhutan receive appropriate focus and attention in policy formulations and educational discourses. Ainscow et al. (2006) call this a narrow definition of inclusion. Inclusive education according to this definition refers to schools that make appropriate provisions in terms of teacher preparedness, teaching pedagogy, assessment of learning and curriculum modification, physical access, appropriate funding and positive school ethos that maximize learning and development of every individual child. This perspective of inclusive education supports Bhutan’s education reform initiative of Educating for Gross National Happiness (Ministry of Education, 2011a, 2011b) that aims to nurture Green Schools for Green Bhutan. Thakur Singh Powdyel (2014), explains that a green school engages and empowers the learner holistically addressing the learner’s natural, intellectual, academic, social, cultural, spiritual, aesthetic and moral needs, producing in effect a GNH graduate as described in Figure 3.



Figure 3. A portrait of a successful GNH school graduate (From Ministry of Education, 2009, p. 44)

These goals are indisputably noble but also appear ambitious considering the existing difficulties that challenge the Bhutanese education system in terms of mediocre teachers, poor teacher motivation, inadequate teacher education, ineffective assessment practices of assessing students' learning and teacher-centric classroom teaching (iDiscoveri Education & Royal Education Council, 2009; Van Balkom & Sherman, 2010). The GNH school graduates' characteristics may even be difficult to measure objectively because they are values based and extremely subjective. Although the Green Schools project under GNH Education does not address the learning needs of students with disabilities, the underlying principles do support inclusive values. GNH Education can become much more comprehensive and wholesome by incorporating an element of inclusive education. The next section presents a discussion of the key benefits that inclusive education can potentially bring towards the systemic improvement of an education system.

Benefits of Inclusive Education

The Salamanca Statement, arguably the most significant international instrument for inclusive education, considers inclusive education as the most effective means of combating discriminatory attitudes and achieving education for all (UNESCO, 1994). This Statement claims that inclusive education is not only cost effective but also improves the efficiency of the entire education system. Studies have also highlighted the need to view inclusive education as an effort to improve the overall school performance (Ainscow, 2005; Bailey, 1995; Clark, Dyson, Millward, & Skidmore, 1995) instead of considering it as an initiative to address the educational needs of children with disabilities.

Earlier research evidence has shown that students with SEN in mainstream settings acquire significantly better academic and social learning achievements and effective involvement with their local communities than their counterparts in non-inclusive settings (Ballard, 2011; UNESCO, 2005). Studies have also pointed out the need for improvements in curriculum, pedagogy and assessment practices (Loreman, Deppeler, Harvey, 2010; Slee, 2012) to cater for student diversity. In education systems such as that of Bhutan, where a common standardized curriculum is taught with textbooks and resources supplied centrally by the Ministry of Education (MoE), the quality of students' learning is likely to be hampered due to teaching practices that are unresponsive, lacking in creativity and innovation. Jagar Dorji (2005) reports that the textbooks, which serve as the primary source of knowledge and skills for learning in Bhutanese schools, often lack adequate information for the delivery of meaningful teaching and learning. To make matters worse, textbooks supplied by the MoE are often not sufficient in numbers for school use, or sometimes, are not supplied on time.

Loreman et al., (2010) asserts that everyone benefits from successful inclusion. The professional practices of inclusive teachers benefit in improving the learning of all students, irrespective of their individual differences. In a review of some selected studies to examine the benefits of inclusive education, Loreman et al., (2010) have identified the following as some of the positive outcomes of inclusive education.

- All students experience better academic achievement and improved learning than do their counterparts in non-inclusive settings because of the use of innovative instructional strategies and resources by the teachers.
- Students involved in helping others through peer tutoring and other similar opportunities in inclusive

settings benefit from improved social and communication and also experience improved self-esteem and value for differences.

- Inclusive education benefit teachers by acting as a catalyst for continuous development of their knowledge and skills for teaching.
- Inclusive education is more cost-effective in the long-term considering the positive impact on post-school outcomes in preparing children with SEN for gainful employment and independent living.

Several other studies also point to similar benefits of inclusive education (Hodkinson & Devarakonda, 2009; Starczewska et al., 2012). The arguments favouring inclusive education are so compelling and powerful that any opposition to inclusion is difficult to sustain. The next section provides a brief discussion of how inclusive education is applicable to Bhutan's education system.

Given the overarching benefits of inclusive education where all children benefit immensely through proven principles of sound pedagogy in classroom teaching, the Bhutanese education system has also begun to initiate efforts to make the education system more inclusive, grounded on the principles of the Gross National Happiness (GNH) philosophy. Schuelka (2012) suggests that while the Buddhist belief in 'karma' can be problematic in the conceptualization of disabilities, the "Bhutanese GNH-influenced policies are supportive of persons with disabilities through a Buddhist lens" (p. 151). In addition, the Buddhist belief in compassion and inter-connectedness of all sentient beings further provides opportunities for the formulation of policies and practices supportive of inclusion.

Efforts to include students with disabilities in mainstream education and encourage inclusive practices have begun at an opportune moment when serious concerns about the quality of education in Bhutan have been expressed at different levels of society (Ministry of Education, 2014). Inclusive education fits in very well with GNH education. Both aspire to transform schools and their context of learning to truly cater for all children (Mariga et al., 2014, p. 26) and improve schools for not just children with SEN but for the whole society.

The way forward

Inclusive education in Bhutan is challenged by a plethora of difficulties. There is no legal statute or policy to support the rights of person with disabilities (Rinchen Dorji, 2008). Dawa Dukpa (2014) and Schuelka (2014) also report of the teacher incompetency, rigid curriculum, lack of collaboration among education stakeholders and financial resources as serious impediments of inclusive education in Bhutan. To address these challenges, the Bhutanese education system needs to identify key change agents and focus inclusion efforts on what Ainscow and Sandill (2010) call "levers" of change. These authors urge educational institutions to focus on actions and efforts that have 'high leverages' to bring systemic improvements than investing on 'low leverages' such as policy documents, conferences and in-service courses that fails to bring noticeable changes in thinking and practice (Fullan, 2007).

Given below are some target areas that are likely to have 'high leverages' to help propel systemic changes towards inclusive education in Bhutan. These include: attitudinal changes, teacher competence and teacher education, inclusive practices, school leadership, policy and legal frameworks, networking and collaboration, and, promotion of research.

Change of attitude

The social stigma and negative attitudes towards persons with disabilities can be a barrier to inclusive education. Schuelka (2012) indicates that this belief has a huge influence on how people with disabilities are treated by the general society. They are held accountable for their own fate and “often ostracized and marginalized by the people in the community” (Dawa Dukpa, 2014, p. 17). The general attitudes of Bhutanese towards disability and inclusion need to change if inclusive education is to succeed.

In school, students who cannot be easily educated within the normal established settings should be seen as “opportunities” to challenge educators to re-examine their current practices to make them more responsive and flexible in their approaches to teaching. The Bhutanese schools need to break open from the teacher-centric and textbook based mode of teaching (Education Sector Review Commission, 2008; Van Balkom & Sherman, 2010) to schools with “adhocratic” configurations that stimulate and support processes of critical inquiry and reflection (Skrtic, 1991 as cited in Ainscow & Sandill, 2010).

Teacher competency and teacher education

Teachers play a critical role in the success of inclusive education. Reports suggest Bhutanese teachers are lacking in knowledge and competence to teach children with disabilities in mainstream regular classrooms (Dawa Dukpa, 2014; Schuelka, 2013; UNICEF, 2014). The Ministry of Education and Royal University of Bhutan need to work together to address this challenge of building highly quality teachers – academically and professionally competent in dealing with diverse groups of learners.

Inclusive cultures

Developing “inclusive cultures” should be the prerogative of Bhutanese schools because inclusive schools are characterised by high levels of collaboration, trust and confidence, team efforts, joint problem-solving and positive work culture (Dyson, Farrell, Polat, Hutcheson, & Gallannaugh, 2007). The goal of Educating for GNH and producing successful GNH graduates might remain a distant dream if Bhutanese schools do not adopt an inclusive approach to address the current challenges that impedes systemic improvement.

School leadership

School leaders need to be committed to inclusive values and trained to lead in a participatory style. School leaders should encourage schoolteachers and other staff to participate in leadership functions (Ainscow & Sandill, 2010; Dyson et al., 2007). The typical autocratic, top-down and hierarchical approach of managing schools needs to give way to a more shared and distributed leadership approach/style that encourages participation based on shared values and hopes.

Policy and legal frameworks

The draft National Policy on Special Educational Needs (NPSN) (Ministry of Education, 2012) needs to be reviewed carefully before implementation as it has been criticized for being overly ambitious and unrealistic (Schuelka, 2014). In December 2014, the Royal Government of Bhutan directed the GNH Commission to form a multi-sectoral group to study and come up with a policy proposal to address disability needs in Bhutan (Tshering Palden, 2014). The result of this study is expected to yield outcomes that will expedite

the process of making NPSEN a better policy document, getting it endorsed for implementation, and also generate proposals to guide the formulation of legal frameworks such as the Disability Discrimination Act of Bhutan or Bhutan Education Act.

Networking and collaboration

Studies have reported the need for better collaboration and networking among the key stakeholders (Schuelka, 2013; UNICEF, 2014). The different agencies such as the Ministries of Education, Health, Finance, Labour and Human Resources, Royal Civil Service Commission, Royal University of Bhutan, Civil Society Organisations and International Development Partners need to work very closely to avoid any duplication of efforts that would put an unnecessary strain on resources. In addition, school-to-school collaboration needs to be encouraged for sharing good practices and resolving challenges to respond to learner diversity and school improvement. Ainscow and Sandill (2010) argue that inclusive school development is likely to be more effective when schools are a part of the wider strategy.

Promote research

Research on disability and inclusive education in Bhutan conducted by Bhutanese scholars is limited. This makes it difficult for the government to initiate evidence-based intervention programs and policy development (Ministry of Education, 2014). Collaborative research needs to be encouraged as being linked to training and advocacy in changing people's attitudes and creating a platform for educational discourses on inclusive practices (UNICEF, 2014). For instance, joint research projects on disability and inclusive education could be initiated with representations from different stakeholder agencies to build research capacity of these institutions, promote scholarly enterprise and research culture.

Conclusion

Inclusive education needs to be understood by considering the social and cultural context of a particular society. Any inclusive education efforts are influenced by how disability is perceived. A medically oriented perception of disability would result in special or segregated forms of educational provision whereas a more socially oriented perception of disability would give rise to inclusive education that celebrates differences and diversity by including children with SEN and disabilities in mainstream classrooms.

For countries such as Bhutan, where inclusive education initiatives and policy formulations regarding issues of disability are just beginning, a clear understanding of inclusion and disability, derived from the Bhutanese social and cultural ethos is essential to ensure that future planning on inclusive education is well focused and specific. Furthermore, GNH Education could be used as a lynchpin (UNICEF, 2014), or as levers of change (Ainscow, 2005) in transforming the Bhutanese education system into a model inclusive education system.

This paper provided a framework for conceptualising disability and inclusive education to be used when reviewing Bhutan's current policies and practices of inclusion. Although this paper merits an in-depth discussion about the Bhutanese perception of disability, the paucity of research regarding disability in the Bhutanese social and cultural context has been a challenge. Bhutan's inclusive education initiatives and transition from special education towards inclusion of children with SEN and disabilities in mainstream

education will be discussed in a separate publication forthwi

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Bhutan: Experiences of education change in a compact context

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In an expanding globalised world where education is considered central to economic growth, aid-funded projects that seek to improve the educational outcomes of school-aged children are increasingly common between large, comparatively wealthy countries and smaller so-called 'developing' nations. The curriculum and teacher development projects are usually presented as partnerships and typically aim to provide students in the partner nation with access to purportedly more progressive educational opportunities. Aid-funded projects in smaller educational jurisdictions, oftentimes seek to find a balance between depending on international policy borrowing and finance and local developments that both form and respond to local priorities. This article investigates the case of an educational partnership involving Bhutan. Using a qualitative approach, this article reports on the outcomes of an analysis of curriculum documents, interviews conducted with key stakeholders, and classroom observations directly connected to the 2006 adoption of the Process Writing Approach (PWA) in the Bhutanese English as a Foreign Language (EFL) curriculum. The critical examination of the logistics of implementing this curriculum intervention in the Bhutanese context reveals the complex interplay of culture, economics and hegemony that frequently characterises curriculum innovation but is often less visible in larger, more bureaucratically involved jurisdictions. This instance is also significant for the absence of teacher resistance to curricular innovation; a factor that contrasts with the experiences of other nations instituting similar changes in teaching methodology. Specifically, this article reports on the logistical experiences of Bhutanese English teachers during the curriculum reform and its implementation in their English classrooms, five years after becoming mandatory within the context of a jurisdiction that has a high degree of teacher compliance. Results indicate that, despite teacher good will and dedication, the implementation of the PWA was an ultimate failure for reasons including lack of professional development, paucity of resources, and a cultural clash between the individualistic intentions of the PWA and the collectivist culture of education in Bhutan. Researchers recommend that future education and curriculum innovations imported to by Western countries are better resourced and complement existing cultural mores of the host nation.

Introduction: Context and Literature

This article details a specific partnership between the Canadian International Development Agency (CIDA) and the government of Bhutan, which led to the 2006 adoption of the Process Writing Approach (PWA) in Bhutanese English as a Foreign Language (EFL) education. Bhutan is a small nation state covering approximately 38,394 square kilometres, measuring 170 km north to south and 300 km east to west, with a population estimated at 748,931 (National Statistics Bureau, 2012). It is a landlocked country sharing borders with Tibet and China in the north and India in the south. The local population speaks Dzongkha; and Choke (a classical Tibetan language) is used for religious and ceremonial purposes. Bhutan is similar to other small nation states in that it draws on educational experiences from larger jurisdictions. However, Bhutan presents as an interesting case because it does not rely solely on economic metrics to determine the nation's projected value. Rather, it makes use of a Gross National Happiness Index. This Index relies on its citizens completing a biennial survey and takes the view that "...sustainable development should take a holistic approach towards notions of progress and give equal importance to non-economic aspects of wellbeing" (Centre for Bhutan Studies and GNH Research, 2014, p. 1). The four pillars of GNH—good governance, sustainable socio-economic development, cultural preservation, and environmental conservation—represent a significant departure from current and overriding Western capitalist values that

commonly privilege economic improvements as the prime indicator of a nation's success and strength. As such, the adoption of the PWA in Bhutan provides a unique insight into the process via which an externally derived teaching methodology, informed by the ideological partialities of a particular cultural context, is implemented in a setting with markedly different cultural and social underpinnings.

For the Bhutanese, preserving and promoting cultural and traditional values plays a central role in school education. Preserving culture and heritage has been repeatedly emphasised in developmental strategies (see, for example, The Planning Commission, 1999) and is one of the guiding principles embedded in educational reforms (National Education Framework, 2009). The National Education Framework describes the Bhutanese set of values based mainly on two concepts: the *ley judrey* and *tha damtshig*. *Ley judrey* means 'actions have consequences' and *tha damtshig* means 'sacred commitment to others.' These values of sacred commitments are identified as relationships between various pairs such as:

pha da bhushi gi damtshig (parent and child), *lobey da lobtu gi damtshig* (teacher and pupil), *nyen da drok gi damtshig* (husband and wife), *poen da yok gi damtshig* (master and servant).
Such pairing of relationships is used to state the duty and obligations of one to the other (National Education Framework, 2009).

History of Curricular Innovation in Bhutanese EFL Education

The current education structure in Bhutan comprises eleven years of free education (Grades Pre-primary to Ten). This includes seven years of primary education - Pre-primary to Grade Six and six years of secondary divided into two years for Lower Secondary - Grades Seven to Eight, two years of Middle Secondary - Grades Nine to Ten and two years Higher Secondary – Grades Eleven to Twelve (Policy and Planning Division, 2011).

Curricular innovation regarding the teaching and learning of the English language in Bhutan has not always been successful. This is particularly the case where the cultural underpinnings of externally derived educational practices have been misaligned with Bhutanese culture and/or the Bhutanese education system. The Canadian International Development Agency (CIDA) initiative with which this article is concerned was not the first time an international agency had partnered with Bhutan in order to improve educational outcomes. An earlier, unsuccessful, implementation took place in 1986 when the Royal Government of Bhutan, with assistance from the United Kingdom, attempted to introduce a New Approach to Primary Education (NAPE). The unsuccessful implementation was due, in no small part, to the change in educational pedagogy from a teacher-centred to child-centred approach and failure to adequately account for the specificities of the classroom context in Bhutan (such as access to resources and class size).

The project was pilot tested, teachers were trained, and it was implemented nationwide. However, a number of issues became evident concerning English learning competency, class size, cultural preferences for learning, and lack of resources. The activity-based learning style demanded resources that the schools in Bhutan lacked and students could not communicate confidently in English. An important factor to recognise is Bhutanese classes are characterised by 50-60 students congested together in one room and such large class sizes are not conducive to group activities taking place. The nature of the approach did not match the local context (in terms of both cultural mores and infrastructure). The PWA demanded interactions between

the teacher and the students that were problematic because it is generally not accepted in Bhutanese culture for students to have free and flexible interactions with teachers (Dorji, 2005). With such failure to consider these specific social and cultural characteristics of the Bhutanese context, it is unsurprising that the student-centred approaches to learning failed and the reform was abandoned after fifteen years. It is of interest to note the significant length of time that teachers and other education stakeholders persisted with the curriculum program, despite the reality of needing to teach in the traditional manner in order to ensure students were successful in their high stakes end of year examination.

Yet problems can also present through locally initiated curriculum reform. In 2006, in response to student difficulties with the English language; coupled with a Bhutanese national desire to maintain and develop their local culture, an attempt was made to rewrite aspects of the History curriculum, so that it had at its focus local, rather than foreign, roots. In order to achieve this goal, the language of instruction for grades six to ten was changed *from* English *to* the local Dzongkha. During the implementation of the change in language and translation activities, several workshops were conducted to support History teachers to teach the new curriculum (Sherab, 2008). After pilot testing, the new curriculum was implemented nationwide. However, the History teachers who taught this subject in English could not teach it in Dzongkha due to their own difficulties in that language; and the Dzongkha teachers did not have sufficient History content knowledge (Sherab, 2008) to teach this subject effectively. The students had similar difficulty with the Dzongkha terminology. Thus, teachers during History lessons ended up teaching Dzongkha language rather than History. These problems were not taken into account during the planning and curriculum development periods and as a result of the issues, teaching History in the Dzongkha language ceased in 2009. The costly and time-consuming curriculum innovation process ultimately could not be implemented as the (lack of) language expertise of the teachers was not taken into consideration.

Context of Implementing the Process Writing Approach

Previous studies show that teachers typically reveal frustration and resistance during curriculum change (Ling, 2002). For example, Hamad (2006) found that English language teachers in the United Arab Emirates (UAE) initially expressed total resistance towards a proposed curriculum change by pointing out drawbacks of the curriculum materials and other aspects without actually consulting the relevant Teachers' Guide. Published research has made recommendations in order to gain and sustain teacher acceptance for effective curriculum change, suggesting different ways of facilitating acceptance of change, for example: creating awareness of the change (Fullan, 2001; Barrow, 1984); exploring teachers' views; and involving teachers in curriculum material selection (Burns, 1995).

The Process Writing Approach (PWA) became a part of the national English curriculum in Bhutan when internal dissatisfaction arose over an apparent decline in students' level of writing in English. Local studies and classroom observations revealed that the methods of teaching writing used in the Bhutanese classroom followed a traditional, teacher-directed method whereby the teacher verbally explained all the texts and students either took notes or answered questions. First, a 2002 study investigated the teaching of writing in Bhutanese classrooms. It revealed that secondary school teachers in Bhutanese English classes emphasised answering questions from texts that they had explained to their students. The students

passively listened to the teachers and took down notes for answering the subsequent questions (Centre for Educational Research and Development, 2002). The report revealed that there appeared to be very little direct teaching of writing by the teachers and limited opportunity for the students to practise writing in English. A second study, a follow up to the 2002 research, was undertaken by the Curriculum and Support Division (CAPSD). It examined the standard of the students' writing in English and confirmed that the standards of students' writing in English fell far below official expectations (Curriculum and Professional Support Division, 2006a). This pedagogical approach meant that no meaningful student writing practice took place. Subsequently, the Royal Government of Bhutan, drawing on expertise and funds from Canada, responded to this by mandating, through English curriculum reform, that the Process Writing Approach replace this method of teaching. This curriculum approach is based on the ideology of child-centredness, a completely different pedagogical approach to the indigenous Bhutanese sentiment of *tha damtshig* (or, 'sacred commitment to others' whereby the hierarchical relationship between teacher and student is more pronounced than that promoted by child-centredness). The implementation of the PWA into Bhutanese schools appears to have been implemented without any attempt to study the local cultural and educational contexts to ascertain its suitability for Bhutanese classrooms.

While the PWA itself can be problematic (see, for example Onozawa 2010; Badger & White, 2000), this article concentrates on mapping how implementing curriculum reform from a foreign nation with a significantly different culture fares in a context where any systematic pattern of teacher resistance is absent (in this case, in Bhutanese schools). Given the cultural context of Bhutanese reverence to authority, the results of the project suggest that the issue of teacher compliance with the curriculum reform may have been similar *regardless of the actual reform* taking place in schools. Consequently, the remainder of this article will generalise the findings of the project as a reflection of the process of curriculum implementation in smaller, often project based, or aid funded, educational jurisdictions.

Methodology and Data Sources

The methodology for this research project took the form of qualitative analysis, separated into three phases, with the data used for this research project including: Phase 1: Curriculum document analysis; Phase 2: Semi-structured interviews with Principals; and Phase 3: Observations of classrooms and interviews with teachers. Qualitative research can help to understand the "central phenomenon" through a detailed study of people and sites (Cresswell, 2008, p. 213) and such approaches have been identified as particularly suitable for research that address curriculum innovation (Janesick, 1994), as is the case for this research. Curriculum documents, relevant to the teaching and learning of English were selected for analysis in order to critique the implementation of the PWA in Bhutan. Official curriculum documents such as *English Curriculum Guide for Teachers: Grade seven* (Curriculum and Professional Support Division, 2006a: hereafter referred to as *The Guide*); and two other supporting curriculum documents, *Reading and Literature: Grade seven* (Curriculum and Professional Support Division, 2006b: hereafter referred to as *The Reading and Literature Book*); and *The Silken Knot: Standards for English for Schools in Bhutan* (Centre for Educational Research and Development, 2002: hereafter referred to as *The Silken Knot*), were selected for document analysis. In addition to a curriculum analysis, eight interviews were conducted with a group of lower secondary

principals who had taught the mandated PWA in its initial implementation stage. In the series of hour-long, in-depth, semi-structured interviews with each of the eight principals they discussed the kind of support and training received and the usefulness of the official curriculum as well other factors that affected the implementation of the PWA. In order to determine *how* the mandated PWA was received and enacted in actual classroom situations, three classroom observations took place via video recorded lessons and follow up interviews were held with two groups of participating teachers. The key findings from the three phases of data listed above are briefly presented in Table 1.

Table 1: Findings from the data sources.

Main Data Source: The key findings	Support from other data sources
<p>Phase 1: Curriculum document analysis</p> <ol style="list-style-type: none"> 1. Misalignment of <i>The Guide</i> 2. Ambiguity of instruction on the writers' workshop 3. <i>Reading and Literature (book)</i>: lacked clear instruction for the process approach to teaching writing (PWA) 	<p>Phase 2: Semi-structured interviews with principals Principals support expectation of misalignment and ambiguity raised by documentary analysis</p> <p>Phase 3: Observation of and interviews with teachers Rural teachers noticed the misalignment and ambiguity of <i>The Guide</i></p>
<p>Phase 2: Semi-structured interviews with principals</p> <ol style="list-style-type: none"> 1. Adverse impact of curriculum misalignment 2. Issues on mixed training background 3. Issues with local educational and cultural factors. 4. positive attitudes, commitment and initiatives 	<p>Phase 3: Observation of and interviews with teachers Captured impact of inconsistency and misalignment of <i>The Guide</i> in classroom implementation. Upholds issues with educational and cultural factors The same positive attitudes and commitments observed Support educational and cultural differences and common practices in terms of Bhutanese culture</p>
<p>Phase: 3 Observation of and interviews with teachers</p> <ol style="list-style-type: none"> 1. Observed partial implementation of PWA 2. Captured educational and cultural context in its natural setting, extended knowledge on factors mentioned in Phase 2. 	<p>Phase 3: Observation of and interviews with teachers Supported common practices and Bhutanese culture</p>

Specific findings from Phase 1, the semi structured interviews with the eight participating school principals indicate: that the misaligned Guide had a negative impact on implementation; there was inconsistent and weak professional development for the implementation of the PWA; and unresolved tensions existed between using the PWA as a pedagogical approach in the classroom and the local educational and cultural context. Interestingly, the findings also revealed principals held positive attitudes about implementing the PWA, wanted it to be successful and were keen to participate in professional development to aid its implementation.

I find that this [PWA] is a very good practice, one of the ways for students to learn better because this process gives students [an opportunity] to make mistakes and to correct their own mistakes and also to explore. It [writing] is not confined to their own knowledge...what the process does is this process gives them room to go out of their knowledge, ask experts, refer [to] books, like correcting their own mistakes. So that is one of the characteristics which appeals to me [Principal 4, Transcript p. 2]

Phase 3 data shows that teachers only partially implemented the PWA. This partial implementation needs to be understood in context of the support, or lack thereof, for the implementation of the PWA provided to teachers. During the interviews, teachers reported that their concerns with the implementation of the PWA were realised due to lack of quality curriculum support and sustained and effective professional development.

... the orientation I feel is not enough because we were 200, more than 200 English teachers from six dzongkhags (districts). There were only 5 or 6 facilitators. They could hardly break us into smaller groups for proper orientation. Of course we grasped a few things but more is needed when we have such programs [Principal 3, Transcript p. 2].

The teachers also reported that the PWA did not take into consideration the Bhutanese classroom culture and typical classroom practices within that culture.

Teacher-led is okay when teacher discusses the students take interest and they concentrate and give serious thoughts but when it comes to peer-conference, our Bhutanese—now when I say Bhutanese we should have some exceptions but most of the children in our Bhutanese classrooms when we say peer-conferences, they don't take it very seriously...it might take time for doing peer conference especially in the remote corners. If it is in the urban areas like in Thimphu and Paro [it is ok] [Principal 2, Transcript p 8].

It is clear then, from the interviews, that school staff had the best intentions to enact the PWA and to comply with the curriculum requirements. However, broader factors of lack of professional development for school staff, general under-resourcing, and a clash of cultures within the individualistic approach that the PWA advocates jarring against the more collectivist, community orientated culture of Bhutan contributed to the ultimate failure of the PWA implementation.

Issues with the logistics of various forms of training

The findings of the semi-structured interviews, one for each of the eight participants, indicate that the principals received various forms of training. Those who received a combination of an orientation (a broad overview of the structure of the new curriculum) and the writers' workshop (specific PWA information and experience) were more confident in their understanding and implementing of the PWA.

I really got experiences and it really did help me because I knew how to use it [PWA & The Guide]. For instance I knew how to go about writing and writing process ... because I already have the idea about the organogram, organization, structure of the English curriculum, how it is structured, the standard and the activities and the assessments and all these. So I was confident while teaching [Principal 7, Transcript p. 1]

However, this research shows those who received only a single orientation or writers' workshop or those who received only cascaded, school-based, in-service training from their trained peers were not sufficiently able to conceptualise and implement the PWA. The latter group of principals defined the PWA merely as making multiple drafts, a highly impoverished view of process writing.

Actually first prewriting after the brain storming and then they do the first writing. Then I ask them to submit to me and I correct...drafting, redrafting, again to make so many drafts is problematic to do because we cannot edit their work somehow and if peer do but it's quite difficult because they don't find the mistakes of their friend. And in a way that part is neglected [Principal 6, Transcript p. 6].

Studies in other educational jurisdictions have reported similar experiences of teachers holding varying understandings of the PWA based on the level of professional development they have received prior to implementation (see for example, Caudery, 1995). This project demonstrated the negative impact of training deficiencies and ambiguous core curriculum documents (*The Guide*) have in creating a negative domino effect on teaching and learning in the classroom even five years after the implementation of PWA. Although curriculum planners cannot anticipate in advance all potential problems and factors that influence experiences of proposed changes, implementation difficulties sometimes lead to teachers being accused of being recalcitrant, uncooperative and unknowledgeable (Graves, 2008; Widdowson, 2004). A contemporary media report (Bhutan Times, 2008) suggested that this was the case in Bhutan when the medium of instruction for History was returned to English, with teachers being blamed for a failure in curriculum implementation that had much more complex problems than a teacher could possibly deal with, or solve, in their day to day teaching.

Different approaches to in-service training.

It is likely that the number of teachers using the PWA increased when the implementation of the PWA expanded to lower years of schooling and that this led the curriculum planners to adopt a cascade training pattern, a pragmatic decision given the number of teachers and schools to cover. Hayes (2000, p. 137) warns that this “dilution of the training” may decrease effectiveness of implementing curriculum change. Inadequately facilitated, brief training that broadly covered too many topics echoes Phillips and Ochs’ (2003) warning of ‘theoretical’, ‘quick fix’ and ‘phoney’ government decisions that become too broad and difficult to implement.

...Process Writing Approach when we teach, differs from place to place, background of the children that counts a lot the background of the children. Where before I was teaching was urban, the children are from mixed background but at present where I am teaching at present are only rural background and there I find it very difficult to teach... even my previous teachers said... The educated parents’ children do much better than those who come from the villages ... [Principal 2, Transcript p. 3].

The increasing focus on the general review of the curriculum as the number of teachers involved grew, seems to have obscured the importance that the initiators had placed on the PWA. The brief time provided for training as implementation loomed was not sufficient to bring the approach back into clear focus, echoing the lament that the “cascade is more often reduced to a trickle by the time it reaches the classroom teacher” (Hayes, 2000, p. 135).

Partial implementation of PWA and positive attitudes of teachers

Observations of the three lessons for each participant indicate only a partial implementation of PWA in Bhutan’s rural schools occurred. This can be seen as a response to the lack of professional development teachers received prior to commencing the PWA in their classrooms. As an example of the lack of professional development, the suggested ten day writers’ workshop was altered to a single information lesson. The stages identified as being difficult, the multiple drafting and peer-conferencing, were not implemented in the classroom; which left only the prewriting activities. The teachers commented that the prewriting

activities were suitable to the needs of the students and an improvement on their previous practice that they thought was worth implementing. Consequently, this group of Bhutanese teachers generally only implemented the prewriting stage of the PWA using transmission methods that are typical of the more traditional product-based approach to writing.

Observations of the lessons also showed that teachers taught writing by collecting student work for correction, which seemed to be the normal classroom practice. When informal peer conferences were introduced to the classroom, they were adapted in such a way that students simply exchanged their exercise books with their desk partner to mark spelling mistakes and other grammar errors. This outcome echoes earlier studies (Pennington et al, 1997) that reported that teachers from Hong Kong, Japan and Singapore took a middle path approach by combining product and process when asked to teach the PWA in their classes. Knowledge of the existing literature makes much of what was observed unsurprising. What is more surprising is that, despite all of these challenges, the Bhutanese principals and teachers participating in this project were still very positive about the PWA as evidenced from the semi-structured interviews with one of the teachers:

In order to make the topic clear, easy and understandable I tried to link with some examples like cooking rice. Everybody including a small child to big, they have seen how the parents cook at home. So in order to show that everything has a process like the topic of writing process, I have given the process of cooking as example so ... there is process in everything [Teacher 1, Transcript p. 1].

The findings from the semi structured interviews showed that all the principals share very positive attitudes towards the mandated PWA. The positive attitudes were evident from both the principals who received longer training and implemented the PWA with confidence and from those who taught after only limited training and without a lot of confidence.

I find that this [PWA] is a very good practice, one of the ways for students to learn better because this process gives students to make mistakes and to correct their own mistakes and also to explore. It[writing] is not confined to their own knowledge...what the process does is this process gives them room to go out of their knowledge, ask experts, refer books, like correcting their own mistakes. So that is one of the characteristics which appeals to me [Principal 4, Transcript p. 2]

The principals who taught the PWA indicated approval when reporting that students developed confidence in writing, the PWA helped the teachers to identify weaker students so that remedial help could be provided and it also helped teachers improve their own writing.

So in a way when I follow this [PWA] I will know who are weak and then in the process of teaching I will know my students who are good in writing...if they are not good how many times they need to do redrafting....those students who are good...then move to next level..[Principal 7, Transcript p. 2].

Those principals who did not receive adequate training and were less successful in implementing the government mandate apparently saw it as their own failure, indicated sincere regret and expressed their strong interest in trying again.

...my failure part is that doing justice of correcting all the papers. In Process Writing as far as the steps say we have to do drafting, editing, and we keep on editing till we get the expected result. And it is very difficult. I have done with a few selected students but I could do with all the children. And then when you don't do with

others then sometimes children, they feel biased... [Principal 2, Transcript p. 6].

The teachers participating in this study reported taking a variety of initiatives as they attempted to implement the PWA. The rural teachers revealed positive attitudes towards the PWA, reasoning that the approach helps students to write. This suggests that Bhutanese principals and teachers were not resistant to this proposed change; on the contrary they were committed to making the PWA successful in their schools. In this project, for this group of Bhutanese educators, accepting change was not an issue; a key difference to research findings regarding innovation in English language instruction in other contexts. The Bhutanese teachers began by glorifying the approach and accepted it readily, including taking risks in implementing the PWA even though they lacked confidence as a result of insufficient and poor quality professional development.

Summary of the combined findings

As a result of a combined document analysis of curriculum documents, semi structured interviews and classroom observations, this article has identified several misalignments within *The Guide* and other curriculum documents for teaching the PWA in Bhutan. These misalignments had negative effects on the experience of the principals who were involved with the initial curriculum implementation; and later, the teachers in implementing PWA in their classrooms experienced similar negative effects. This implementation was significantly impeded by several factors such as inadequate training of the teachers, inconsistency of importance given to the PWA in the core curriculum documents, and factors specific to the location of schools and strain between the foreignness of the PWA to the local culture. These external factors more strongly motivated teachers to stop using the PWA in their classrooms, rather than any resistance to change on their part.

Implication for curriculum planners and teacher-trainers

The inconsistency of importance placed on the material in the core curriculum documents outlining the PWA as opposed to the set activities and assessment seems to have forced teachers to cover the local Syllabus rather than implement the PWA in a meaningful manner. Not covering the Syllabus in depth could mean students would fail their end of year, high stakes examinations and, importantly, the examinations did not include the PWA or recognition that students would have learnt using this curriculum approach. Not meeting the standards of the end of year examinations means that students have to repeat their school grade and teachers receive an official reprimand. In light of this information, the limited implementation of the PWA was almost inevitable. Thus, if implementation of curriculum change is seriously intended, change managers and curriculum planners need to work towards consistency of objectives, activities and assessment and diverse groups of curriculum writers need to be coordinated to ensure alignment between the various parts of all material prepared to support curriculum implementation.

The findings from this project indicate that receiving both the orientation to the new curriculum and the writers' workshop generated more understanding and confidence in the principals, while the single workshop orienting teachers to the PWA was not sufficient to change teachers' instructional beliefs and

classroom behaviour.

Teachers' compliance for future change

The findings of this project demonstrate that principals had positive attitudes at the initial stage of the curriculum change, that their attitudes remained positive even after the challenges they faced in implementing the PWA and that such positive attitudes were shared by the participating teachers involved in classroom observation. They were generally excited about the innovation, even five years after its mandated implementation. Although it has generally not continued due to insurmountable challenges, many principals and teachers remained committed to the implementation of the PWA. This clearly indicates that external forces influenced teachers to cover the Syllabus and prepare students for the end of year examination, rather than focus on implementing the PWA in the learner-centred way it is intended to be taught. This implies that implementation might be more successful if such external constraints were removed.

Conclusion

Pilot testing the PWA locally, before introducing it nationally, would have allowed the appropriateness and suitability of the methodology to be considered before committing resources to its implementation. Appraising the local level and considering these differences during decision making processes is vital as this can save both time and money without having to wait for the innovation to fail. Biggs' (2003) work suggests the importance of having a clear understanding of the reasons and motives for implementing curriculum change and the essential nature of alignment between what is intended, what is taught and what is subsequently assessed.

Overall, the educators placed greater importance on covering the Syllabus requirements, rather than the PWA due to the clear misalignment between what was written about the PWA in the core curriculum documents, and the set activities and assessment practices against which their work would be measured. This appears to be a reaction to external constraints, rather than any indication of teacher resistance to using the PWA. As the consequences for students of teachers failing to cover the Syllabus are significant (students who do not succeed at the final examinations are not promoted to the next level); teachers could not continue teaching writing through the PWA and have students maintain their success. This clearly suggests that curriculum planners need to work towards consistency of objectives, activities and assessment if the intention to implement curriculum change is genuine.

The findings from the semi-structured interviews suggest that a single workshop orienting teachers to this curriculum change was not sufficient to engender a comprehensive understanding of the requirements of the PWA. Although most of the principals interviewed were keen to implement the approach, only those who received longer and more appropriate training appeared to have gained understanding and confidence. The findings also suggested that involving different groups of people in writing the curriculum documents created ambiguity and confusion as different groups exerted focus on areas they considered important (for example, the focus on multiple drafts of work). Curriculum writers need to develop proper coordination among diverse groups to maintain consistent links between curriculum components and proper consultation with various stake-holders to ensure an approach that, as far as possible, acknowledges the existing cultural schema for education.

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Universal Human Values and Ethics: A Recent Initiatives and Its Impact to the Students and Faculties of College of Science & Technology and Gaeddu College of Business Studies

**TSHERING, CHENCHO, UMESH NAMDEV YADHAV, LHENDUP WANGDI,
AND SONAM WANGMO**

An experiment carried out by Kumar, Sangal, Mitra, Singh, & Karlapalem, 2005 has shown that Universal Human Values and Ethics(UHVE) course has made a significant impact on community in International Institute of Information Technology, Hyderabad, India. Royal University of Bhutan (RUB) introduced UHVE as an intervention for practice and implementation of Gross National Happiness(GNH) in its member colleges as a foundation GNH curriculum. In this context, in our research, we examined the impact of UHVE to the students and faculties of two colleges, Gaeddu College of Business Studies (GCBS) and College of Science and Technology (CST). 650 individuals who attended eight days workshop and credited course were assessed. Study adopted mixed method of exploratory, descriptive and human ecological approach. Fact-finding enquiries were accomplished through pilot study, focal group discussion, informal talk, questionnaire, essays reflecting their life before and after UHVE, peer evaluation and interview to grasps narration of the state of affairs. The study revealed that human values can be taught, practiced and implemented. The study of UHVE complemented practice and implementation of GNH. It indicated that respondents are practising and changes have been already taking place in them like giving importance to relationship and limiting their physical facilities.

Background

In January, 2010, Vice Chancellor of Royal University of Bhutan Dasho (Dr.) Pema Thinley was invited to International Institute of Information Technology (IIIT), Hyderabad, India to deliver keynote address in three days international conference on 'Universal Human Values and Professional Ethics'. After attending the conference, he was convinced that practice and implementation of GNH can be achieved through the content of UHVE. Upon his return from Hyderabad, Dasho proposed Directors and Deans of RUB colleges to attend eight days workshop at Indian Institute of Technology (IIT), Kanpur to explore the feasibility of introducing Universal Human Values and Professional Ethics in the tertiary education of Bhutan. The concept paper was submitted and discussed in 26th and 27th RUB academic board meetings.

The modality of offering 'Universal Human Values and Ethics' across all the colleges of RUB was endorsed in 28th RUB academic board meeting. Starting academic year 2012, the colleges had sent number of faculties to Hyderabad and Kanpur to attend workshop on Universal Human Values to train them as facilitator. From July 2013, RUB colleges have unanimously accepted 'Universal Human Values and Ethics' as a part of curriculum and adopted to disseminate content by either offering it as module and in the form of eight days workshop.

Introduction

RUB introduced UHVE as an intervention for practice and implementation GNH education by teaching values to transform people as human resource to build a sustainable human order.

Teaching of Universal Human Value is founded on the natural laws of reality (Gaur, Sangal, & Bagaria, 2010) where anyone could understand based on their own natural acceptance through introspection and self-exploration. This enables human to live an informed, purposeful, happy and responsible life as an indi-

vidual, as a member of family, as a member of society and as a unit in nature/existence (Sangal, 2007). The following basic definitions are proposed for verification.

Happiness is a state of harmony within our consciousness unit (mind/self). Human has potential to understand and realize it introspecting within using innate natural acceptance. Competence to live with it can be worked out. It can then be shared with other level of living such as family, society and with rest of nature/existence (Gaur, Sangal, & Bagaria, 2010).

Prosperity is the feeling of having more than required materials for body. For this, it is necessary to understand our body as material unit and to identify the need of it, such as nurturing, protection and right utilization of body through right education and production in the quantity by labour using a cyclic and mutually enriching process (Sharma, 2001).

The ultimate goal of every human being is to work for a happy, peaceful and prosperous society. The education system must enable development in students the competence and self-discipline to live with definite human conduct (Sharma, 2001) and contribute meaningfully to a society generation after generation to ensure;

1. Right understanding or clarity about the essence of reality as it is, in a manner in which the child can understand and realize it within.
2. The capacity to live in relationship with other human beings – leading to mutual happiness
3. The capacity to identify the need of physical facility, the skills and practice for sustainable production of more than what is required – leading to mutual prosperity

However, in contemporary education students learn less of these components and instead learn unverified assumptions and skills to generate and accumulate more physical facilities. It cannot adequately empower students to think independently (Kumar, Sangal, Mitra, Singh, & Karlapalem, 2005). Education should take care of learning skills (HOW TO DO), develop the capacity to decide on WHAT TO DO and WHY TO DO (Kumar, Sangal, Mitra, Singh, & Karlapalem, 2005). This indicates that the current problems are reflection of lack of right understanding. People are becoming more and more unrelated to each other leading to differentiation, domination and exploitation resulting to visible symptoms like increasing debt, unemployment, indiscipline and corruption in society (Kumar R. P., 2007). The important lessons on knowledge (right understanding) in the self, love (feeling of being related to all) in thought and compassion (the expression of the responsibility of being related to all) in behaviour & work are seen missing (Mitra, 2007). The feeling of relatedness that naturally expands from family to world family is the underlying mind-set for an integrated or undivided family-based society. Living in order starts with family order and naturally expands to living in a group of families and onwards up to world family order, which is the basis for universal human order (Gaur, Sangal, & Bagaria, 2010).

This foundation course is complementary to genuine efforts being made for the well-being of all. Its content were shared with the students/faculties in the form of dialogue as a set of proposal to verify based on their natural acceptance with Self Exploration. One can observe that the course is able to help the students to develop sensitivity to appreciate the importance of fundamental issues related to their happiness and success in the life & profession leading to self-confidence, self-discipline and commitment. It is expected that the course encourage to act on the basis of their own understanding, rather than merely on the basis of influence of others or assumptions.

The vision and aspiration of the Royal University of Bhutan is GNH inspired excellence in human development and opening new paths to a better future (Prospectus 2010-11). It is expected that such programmes and education will have benefits. Hence this study was conducted with the aim to document the recent initiatives on the implementation of UHVE and its impact in Engineering College (CST) and Business Colleges (GCBS) to address the following questions;

Whether values can be taught?

The impact of UHVE on the students and faculty

Complementary of UHVE and GNH

Methodology

In this study, mixed method of exploratory, descriptive and human ecological approach was chosen. The purpose of exploratory (Stebbins, 2001) is in context of exploration of thoughts as a perspective, 'a state of mind, a special personal orientation' toward approaching and carrying out social inquiry. In addition, fact-finding enquiries were accomplished through pilot study, focal group discussion, informal talk, questionnaire, essays reflecting their life before and after UHVE, peer evaluation and interviews as descriptive approach to grasp narration of the state of affairs as it exists (Kothari, 2004). Finally to elicit behaviours, conducts and perceptual information from the participants to meaningfully determine the impact of Universal Human Values Education implementation, study also adapted a human ecological approach which refers to the study of the dynamic interrelationships between human population and the physical, cultural and social characteristics of the environment and biosphere (Lawrence, 2003; Ogata, 2013). The holistic perspective of human development incorporated encompasses range of areas, starting with the individual level to the whole existence. A comprehensive review and analysis of the existing literature were made to obtain both theoretical insights and secondary data on the concept of GNH and contents of UHVE. The collected primary data and information were qualitatively and quantitatively analysed using figures, tables, narration and description under relevant themes.

Questionnaires were personally distributed to the participants in microsoft word format (soft copies). The target population for the study was estimated 100% sample size. However, only 195 out of 230 from CST and 480 out of 570 from GCBS responded. On data validation, 25 were found incomplete. Impact analysis is based on 650 samples which represents 91.55 % of estimated sample size. The sample consist of 96.30% students and 3.70% staff.

Findings

From the study, it recognised that 73.39% (Strongly Agree, Agree) of the respondent agreed that Universal Human Values and Ethics can be taught and 93.69% indicated it can be practiced and implemented (Fig. 1 and Table 1 respectively).

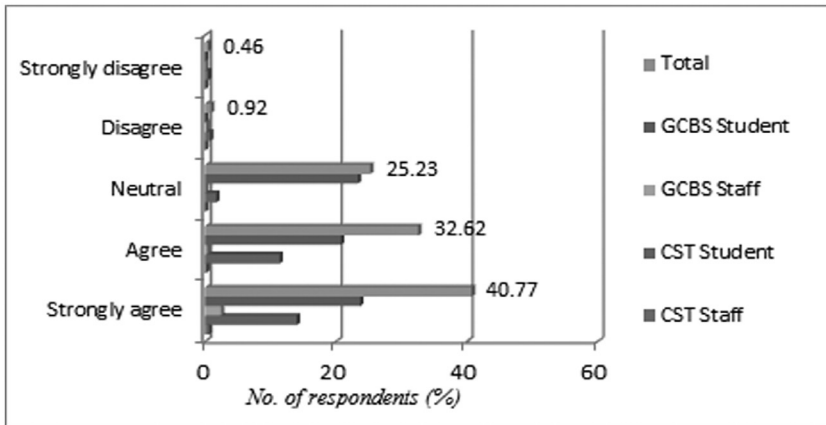


Figure 1: UHVE can be taught

Table 1: UHVE can be practiced and implemented

	CST		GCBS		Total (%)
	Staff	Student	Staff	Student	
Strongly agree	0.62	17.38	2.77	35.54	56.31
Agree	0.15	9.69	0	27.54	37.38
Neutral	0	0.92	0	3.69	4.62
Disagree	0	0	0	0.77	0.77
Strongly disagree	0	0	0.15	0	0.92

A respondent in essay wrote “Universal Human Value and Ethics, I thought it can’t be taught in form of lessons. Eight days workshop proved that it can be taught”.

A student also stated “Human Value and happiness was thought to be unteachable by people. I too thought the same way. Until I came to CST, I had no idea on correlation between values and happiness”.

Table 2 shows that Universal Human Values and Ethics also provides clarity on a comprehensive human goal and methods/procedures for fulfilling it. 90.45% (strongly agree, agree) of the respondents agreed that the basic aspiration of all human being is the continuity of happiness (spiritual wellbeing) and prosperity (Material wellbeing) as indicated in Figure. 2.

Table 2: Response on UHVE providing Clarity of the Comprehensive Human Goal

Response	CST		GCBS		Total	blank
	Staff	Student	Staff	Student		
yes	6	169	19	410	604	18
no	0	13	0	15	28	

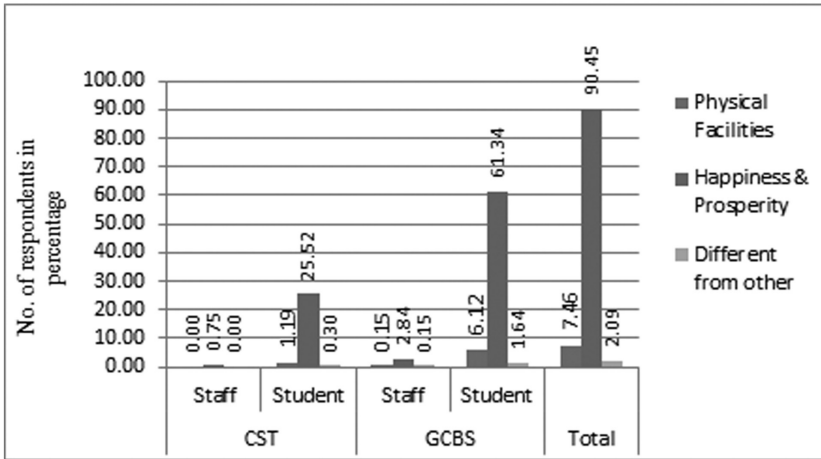


Figure 2: Basic Human Aspirations

A student in his essay stated “After attending eight day workshop, I understood that becoming engineer is a method to earn money and money is not the ultimate goal; happiness, prosperity and its continuity is common goal of each human being”.

The feeling of prosperity is derived from physical facilities. The attentions for the need of physical facilities are drawn towards nurturing, protection and right utilisation of body (Gaur, Sangal, & Bagaria, 2010). For some of us, it is believed that accumulation of physical facilities is happiness and most of the physical facilities are accumulated as a result of sensations, precondition and advertisements without even verifying if these are important for us. As a result, exploitation of nature, corruption like activities are being carried out. It confirmed that UHVE course/workshop made the participants to understand the true meaning of Happiness (Fig. 3) and Prosperity (Fig. 4).

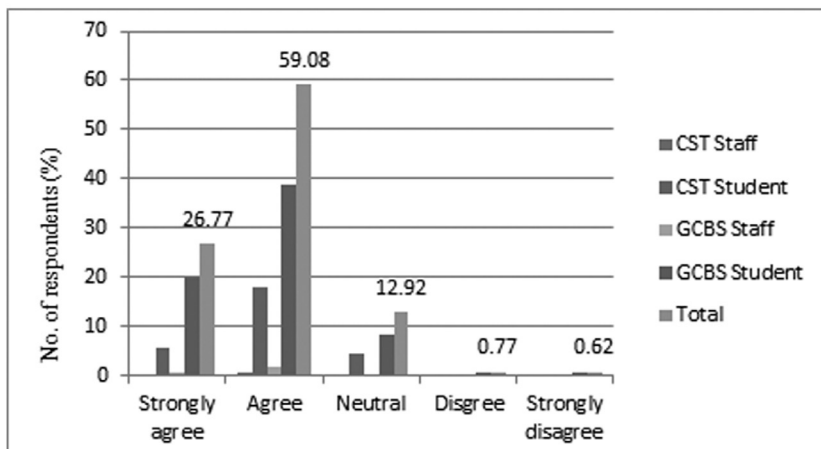


Figure 3: Percentage of respondents understanding the meaning of happiness

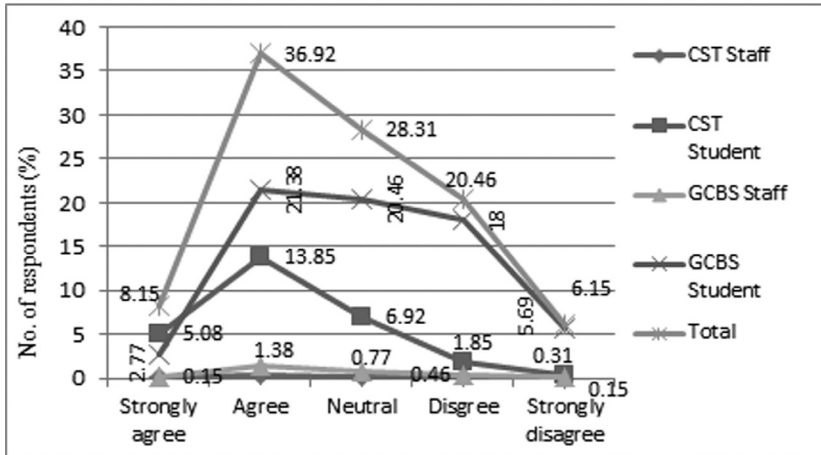


Figure 4: Percentage of respondent understanding the meaning of prosperity

Also it was indicated that UHVE course helped them to decide the required physical facilities for themselves, 69.69% (strongly agree, agree) (Figure.5).

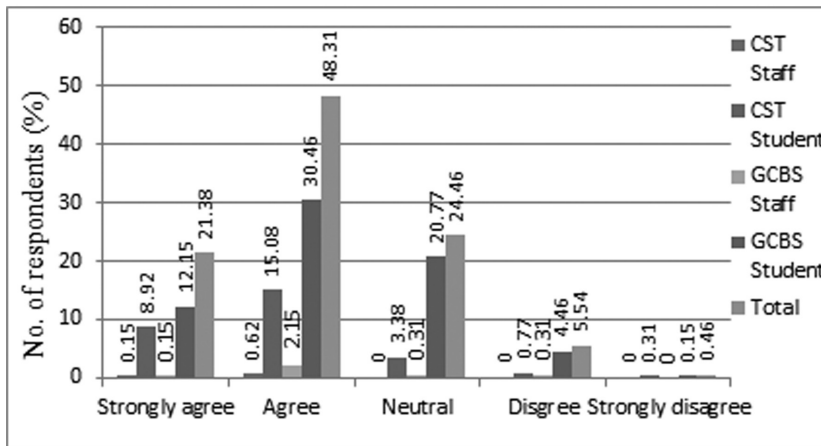


Figure 5: UHVE helps to learn to decide the required physical facilities

Student wrote following statements in their essay showing positive indicator.

“I stopped buying heel slipper/shoe; it does not increase protection of my leg”

“I was paying for fashion not for value”

“I have reduced my shopping and now, I only buy what I require. For example, I haven’t bought a single nail polish in this semester because I realise that applying nail polish does not nurture my nail and instead poisonous if swallowed with food”.

“It really helped me to sort out the things between the NEED and WANT; hereafter, I’ll go by NEED rather than WANT”.

“After attending workshop, honestly I have started setting limits to my wants and gave priority to my needs”.

“I might have demanded my family for extra pocket money but eight days workshop made me stop doing that”

The technology increased production of variety of physical facilities. Per capital income has increased and people has easier access to more physical facilities. At this generation, people who acquired more physical facilities are seen unhappy most of time. Indeed, they spent more time in accumulating physical facilities than showing importance in the relationship. From this study, the unhappiness is seen more due to lack of fulfilment in relationship than due to lack of physical facility (Table 3, 78% -Strongly Agree, Agree).

Table 3: Table showing the causes of unhappiness due to lack of fulfilment in relationship

	CST		GCBS		Total (%)
	Staff	Student	Staff	Student	
Strongly agree	0.31	12.46	0.31	43.54	56.62
Agree	0.31	8.46	2.46	10.15	21.38
Neutral	0.15	4.15	0	12.31	16.62
Disagree	0	2.46	0	0.92	3.38
Strongly disagree	0	0.46	0.15	0.92	2

UHVE spells out three types of fears; natural calamities, inhuman behaviours and wild animal. Fear of inhuman behaviour dominated the other two and there is need of changing human behaviour i.e. to make human live with definite conduct fulfilling mutual happiness with human beings and mutual prosperity with Nature. Misunderstanding, conflict and dispute are some of indicators of unhappiness within and with others. Study revealed that 79.23% (strongly agree, agree) respondents have reduced unhappiness (Figure. 6).

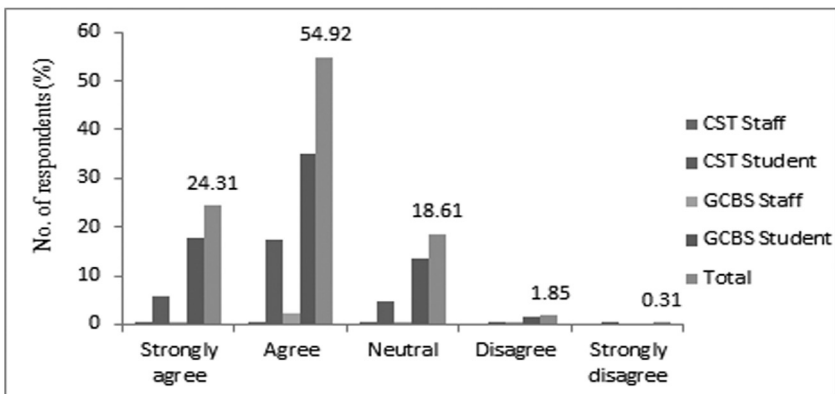


Figure 6: Percentage reduction in misunderstanding, conflict and disputes after the course

Following statements were extracted from the participant’s feedbacks and essays written after the workshop.

“I feel that I have under gone behavioural changes. Before I never interacted and communicated with my parents. Having learnt harmony in family, I understood relationship is important. I have now started making calls to parents, brothers and sisters.”

“After this workshop, I have started calling my brother, mother and father regularly. Before, I use to call them when I need money.”

A student in peer evaluation wrote about classmate as below:

“He was selfish in the matter of studies... But after having attended the human value session and in mid-semester during phase test II, I was shocked to see that he was helping those who were actually competing with him.

It was also found that workshop helped(67.38 % strongly agree, agree) respondents to improve their efficiency and time management (Figure 7).

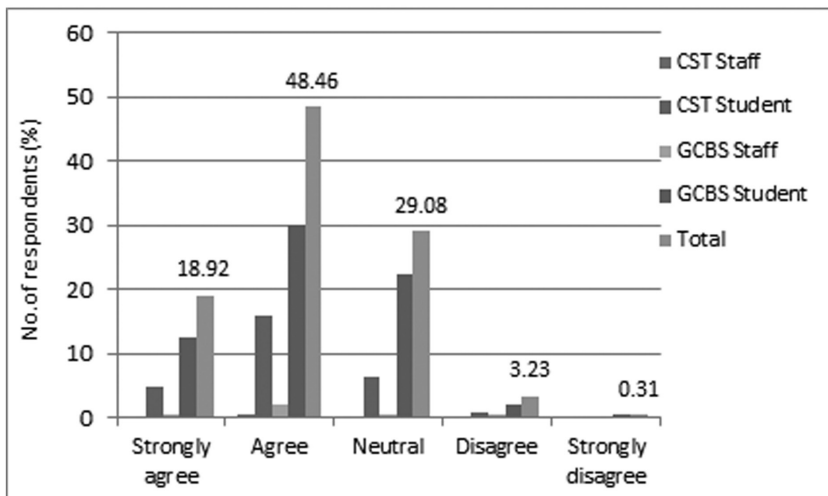


Figure 7: Percentage of respondents seen with improved work efficiency

A respondent stated in their essay that *“After Value Education course, I stopped playing Dota games and gave more importance to my studies. Time management has improved and also became friendlier with colleagues”*.

Another wrote in essay *“After UHVE course, I have stopped drinking, thus chaos and misunderstanding among friends has been drastically reduced. Time management has improved and relationship with friend became better”*.

“After attending the workshop my negative emotions such as anger, greed, jealousy and irritation had reduced, I don’t regret sitting cross leg on floor for 8 days”. – A student Respondent shares.

With all these visible transformation it adhered that, UHVE has seen bringing positive changes, 93.23% (Strongly Agree, Agree) to the respondents as indicated in the Figure.8 and 66.76% (Strongly Agree, Agree) of them believed to have reduced their negative emotions (Figure. 9).

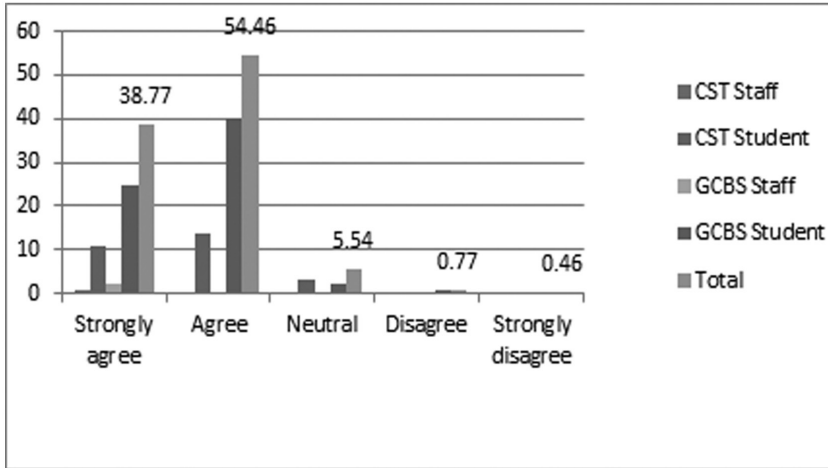


Figure 8: Positive changes to respondents after workshop

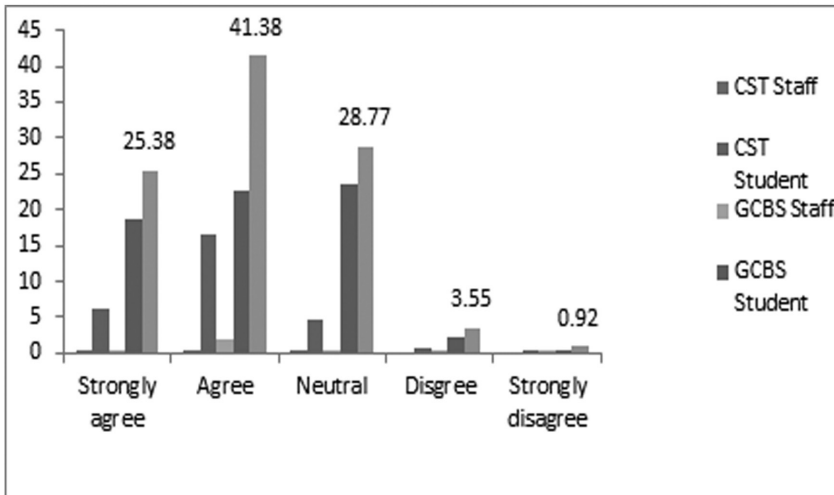


Figure 9: Percentage reduction in negative emotion after the workshop

Participants shared their views, suggest and recommended UHVE workshop for others.

“After attending workshop I thought that every people in this world must get chance to attend this workshop”.

“I started seeing negative attitude in me; workshop must be conducted for all Bhutanese”.

“Cultivation of human values is of paramount importance ... in order to eradicate human miseries, heal environmental wounds and secure true happiness for people”.

Out of 650 respondents, 78 % agreed to share the content of course with their friends and family (Table 4). 20.92% chose to stay neutral, it could be due to the reason that in order to share values, one has to practice and live with it. At times it becomes difficult to teach content if it contradicts with their behaviour and conducts.

Table 4: Table showing percentage respondents willingness to share the content with others

	CST		GCBS		Total (%)
	Staff	Student	Staff	Student	
Strongly agree	0.31	7.54	2.15	15.08	25.08
Agree	0.31	14.92	0.46	37.23	52.92
Neutral	0.15	5.54	0.15	15.08	20.92
Disagree	0	0	0	0.46	0.46
Strongly disagree	0	0	0.15	0.46	0.62

Conclusion

Concerning the first goal of our study, whether values can be taught?, Our first hypothesis was confirmed. Study revealed that UHVE can be taught, practiced and implemented. These result confirmed findings previously reported by Kumar, Sangal, Mitra, Singh, and Karlapalem, 2005. The fact of complementary observed between GNH and UHVE, is noteworthy, since it is a good indicator. 82.61% (strongly agree, agree) of them says Universal Human Value Education is conducive to the concept of GNH as indicated in Figure 13 and 87.53% agreed with the statement that it will reinforce nation effort towards practice and an implementation of GNH(Figure 14) in Bhutan.

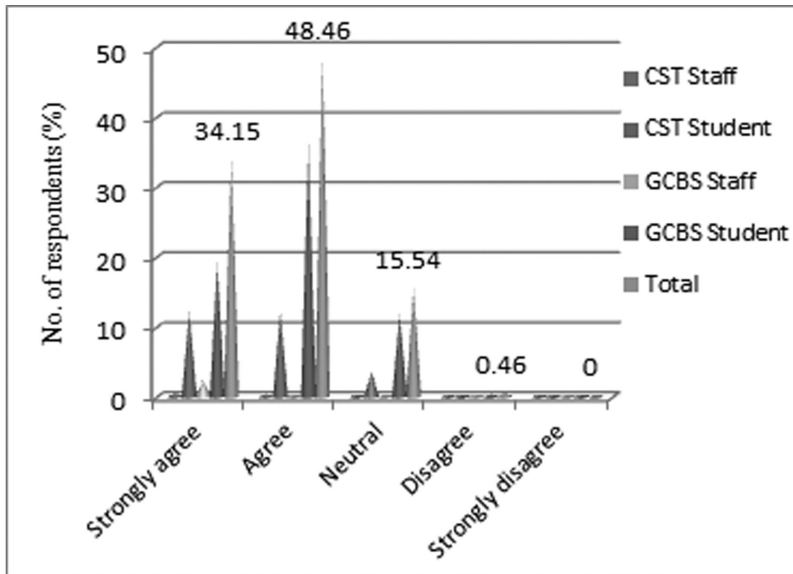


Figure 13: In response to conduciveness of UHVE to the concept of GNH

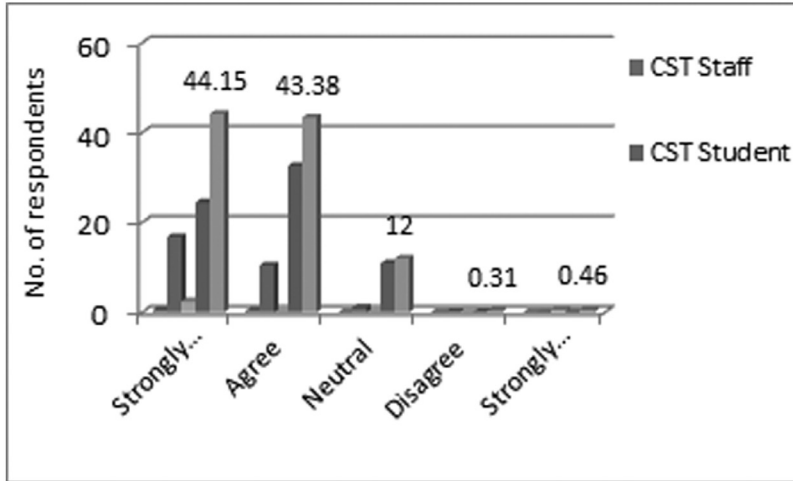


Figure 14: Graph showing UHVE can assist to implement GNH in Bhutan

It can be recognized that UHVE and GNH are complementing each other and teaching of UHVE would help Bhutan to come up with GNH living model. 92.15 % (strongly agree, agree) of them recommends this content to their friends and family members (Table 5).

Table 5: Table showing the recommendation of respondents to others on UHVE

	CST		GCBS		Total
	Staff	Student	Staff	Student	
Strongly agree	0.46	14.31	2.31	17.69	34.77
Agree	0.31	11.69	0.31	44.62	57.38
Neutral	0	1.85	0.15	4.77	6.77
Disagree	0	0	0	0.77	0.77
Strongly disagree	0	0	0.15	0.15	0.31

From the findings, it is definite that UHVE workshop/course has brought positive changes to the students and faculty of both College of Science & Technology and Gaedue College of Business Studies. UHVE helped participant find out what is valuable for the human beings through the process of introspection and self-exploration within. The study also showed that many of respondents are practising and changes have been already taking place in them like giving importance to relationship and limiting their physical facilities.

Acknowledgement

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Grade 9 Bhutanese Biology Teachers' Beliefs and Practices of Inquiry-Based Learning

TSHEWANG DEMA AND KATARIN MACLEOD

This narrative inquiry explores the beliefs, perceptions, and experiences of four Grade 9 Bhutanese biology teachers' use of inquiry-based learning (IBL) while focusing on the use of their local environment as a resource for teaching biology in Bhutan. The findings indicate that teachers believed using inquiry-based learning was important and useful in addressing environmental education outcomes. Through interviews, sharing of classroom artefacts and classroom observations, it seems that these teachers have the theoretical background of IBL which they learned from their teacher training days, but have not had the opportunity to be mentored in the practical, day-to-day experiences of using IBL within their own classrooms. This has hampered the use as well as the comfort of these teachers with the inclusion of IBL within their daily classroom teaching strategies. They reported having had positive experiences using this strategy; however felt that they were unable to implement it into daily practices due to a variety of reasons such as heavy workload, vast curriculum, lack of resources and time constraints. If IBL is to be incorporated as a teaching strategy for Grade 9 biology then several issues need to be addressed including but not limited to a more manageable and localized curriculum, more one-on-one time between students and the teacher, and more class time to cover the content with a balance between teaching time and allocated preparation time. Finally, all participants agreed that IBL should be used within the Grade 9 biology classroom as it allows connection to the Ministry of Education as well as Gross National Happiness principles, preparing Bhutanese children for 21st century Bhutan.

Key words: *Inquiry-based learning, Narrative Inquiry, Teacher Beliefs, Local Environment, Bhutanese biology teachers.*

Introduction

The Bhutanese science curriculum for Grades 4 to 12 encourages scientific inquiry and hands-on learning (Ministry of Education (MOE), 2011). The essence of school science in Bhutan is through discovery learning (MOE, 2009) and so teachers have tried to initiate this through practical work and project work within the classroom setting (MOE, 2009). Bhutanese teachers are expected to practice “holistic, contemplative, eco-literate, and culturally-responsive education and critical thinking approaches to curricular and extra-curricular learning in school” (Thinley, 2011, p. 5). From one of the author's own experiences and observations while being educated and later teaching in Bhutan, this would require a change in the pedagogical knowledge, beliefs, and practices of teachers by “going beyond rote-learning and being open to new ideas and innovative approaches” (Thinley, 2011, p. 5). Lumpe, Haney, and Czerniak (1998) assert that more research is needed into the specific role of teachers' beliefs and how they influence actual classroom practices in order to determine the exact relationship between teachers' beliefs and their implementation of Science, Technology, and Society (STS) curricula in their classrooms. STS curricula, now referred to STSE (Science, Technology, Society and Environment) aims to “equip students with the knowledge and skills to make informed and responsible choices and decisions about socio-scientific subject matter so that students are able to successfully and responsibly engage in action and recognise that science occurs within a social cultural context” (MacLeod, 2012, p. 23). In the context of Bhutan, more research is needed into science teachers' beliefs and practices and this is the focus of this research so that the changes that Thinley (2011) advocated can be moved forward.

Curriculum evaluation research consistently shows that teachers have a greater influence on student outcomes than governments' choices of curricula (Welch, 1979, 1995 as cited in Aikenhead, 2006). Teachers have their own practices that might have been inherited from their days of being students or pre-service teachers (Sherman & MacDonald, 2007). Some may be far better at engaging students than others for a variety of reasons including being resourceful, innovative, and open to new approaches of teaching. Mitchener and Anderson (1989) found that science teachers' STSE education practices, or lack thereof, are "deeply rooted in their beliefs and values, to the point that although the teachers attempted to adjust, their old beliefs and practices lingered in varying degrees" (as cited in Rubba, 1991, p. 306). Researchers (Lumpe, Haney, & Czerniak, 1998; Rubba, 1991) have suggested that the failure of large numbers of science teachers to use inquiry in their science classes may stem from their pre-service experience in which teacher educators failed to recognise the importance of addressing science teachers' beliefs and value systems about science teaching practices before they entered the field. We would concur with Rubba (1991) that even if science teacher educators are aware of how important this is, the challenge is in acknowledging and addressing those beliefs and working towards change prior to entering the field.

Therefore, the purpose of this study was to gain a sense of Grade 9 Bhutanese biology teachers' perspectives and beliefs regarding inquiry-based learning opportunities they offer to students in their biology classes. This study established what a small group of biology teachers think and know about inquiry-based learning and how they use the local environment as a resource for teaching biology. According to MOE (2009) the "local environment" is defined as:

...a natural learning resource, which must be considered while making choices of what should be included in the curriculum and concrete examples from the environment can be cited while transacting lessons in the classroom. The local environment not only includes the natural surroundings, but also the socio cultural context that has a rich source of local stories, folk tales and art that makes the curriculum even richer. (p. 17)

This study sheds light on what supports are needed by these teachers so that a greater number of inquiry-based learning opportunities could be implemented into their daily practice. In turn, this research can inform policy with respect to the needs biology teachers have in order to carry out the teaching of the prescribed curriculum infused with Gross National Happiness (GNH) principles.

The research questions that guided this study were: (a) What are Bhutanese Grade 9 science teachers' beliefs, perceptions, and experiences of inquiry-based learning in their biology courses?, (b) How are these beliefs and perceptions reflected in their teaching?, (c) How do the teachers use the local environment as a resource for teaching biology?, and (d) What supports do teachers perceive are needed in order to implement inquiry-based learning within their biology classrooms?

Literature Review

When considering the relevant literature for this research five areas were identified: Gross National

Happiness (GNH), Environmental Science Education (EVS), teachers' beliefs, inquiry-based learning (IBL), and Science, Technology, Society and Environment (STSE). Environmental conservation is an important part of GNH and STSE and both advocate scientific literacy, scientific inquiry, critical thinking, socio-scientific issues, and problem solving.

Gross National Happiness.

The Bhutanese concept of GNH is a government policy aligned with the ideals of sustainable development (MOE, 2009; Riley, 2011). It is a concept that was introduced by the fourth King of Bhutan, His Majesty Jigme Singye Wangchuck (MOE, 2009; Riley, 2011). GNH considers what are termed the "four pillars of wellness: (1) environmental conservation, (2) sustainable and equitable socio-economic development, (3) preservation and promotion of culture, and (4) good governance" (Ura, Alkire, & Zangmo, 2010). While these are not new concepts for Bhutan, what is different is that these are the ideals that form the basis of all government policy for the country. These are the ideals that are in the forefront of discussions about the manner and pace of development within Bhutan and Bhutanese society. The simple fact that these sustainability concepts are in the discussion on equal terms with economic considerations offers a hopeful alternative to a solely Gross Domestic Product (GDP) approach to development (Riley, 2011). This research embraces one important pillar, environmental conservation, and as Yangtse (2002) suggested, Bhutanese teachers should use the local environment to teach science (in this particular case, biology) in place of the laboratory as, the local environment can be a rich resource for teaching science (Yangtse, 2002).

Environmental Science Education.

Nisbet (2005) explained that even though many people acknowledge environmental problems and issues, and claim they care about the environment, their actions and behaviours do not always align with their words. Nisbet indicated that the personal relationship that people have with nature might give some clues to the way they treat the environment. Nazir, Pedretti, Wallace, Montemurro & Inwood, (2011) explained that "effective environmental education incorporates problem solving, hands-on learning, action projects, scientific inquiry, higher order thinking, cooperative learning, and employs relevant subject matter and topics that actively engage students in the educational process" (p. 6). It follows that ecological literacy and genuine care for both nature and fellow citizens would promote the well being of the Bhutanese people (MOE, 2009). This connection to the local environment of students begins in the early years of their formal education. In the Environmental Studies (EVS) in lower classes (Pre-Primary to Grade 3), children learn about the names of animals and plants in their locality. The children learn about the Bhutanese culture and appreciate the use of traditional tools for farming and rituals. Then, as the child moves through the education system, they will take 'Integrated Science', a science course taught in Grades 7 and 8 whose focus is to encourage children to learn about their environment through various activities designed using local examples. The children learn about the rich biodiversity of the country and about the endangered species found in the country. Further, the children learn about their role within biosphere and how sustainability can be affected through their actions and the actions of others.

Teachers' beliefs.

Eisenhart, Shrum, Harding & Cuthbert (1988) defined belief as “a proposition, or statement of relation among things accepted as true” (p. 53). Philosophers of education, using this definition, directed attention to the impact of teachers' beliefs on teaching practice (Eisenhart et al., 1988). The above view was supported by Roehrig and Kruse, (2005), as expressed below:

Beliefs are personal constructs important to a teacher's practice, and there exists general agreement that beliefs are connected to planned and enacted instructional practices in the classroom. Teaching beliefs have also been reported to dominate teachers' reactions to and implementation of reform based curricula. (p. 413)

Eisenhart et al. (1988) argued, “if people want teachers to change their practice, pertinent evidence must, in some way, be related to teachers' existing beliefs” (p. 51). Similarly, Shulman expected “any innovations in the context, practices, materials, or technology of education to be mediated through the minds and motives of teachers” (as cited in Eisenhart et al., 1988, p. 51). Educational reform programs should take teachers' existing beliefs into account. This is echoed in the research of Haney, Czerniak & Lumpe (1996), “Teacher beliefs are precursors to change and that the teacher is the crucial change agent in paving the way to reform” (p. 972). This is why understanding the Bhutanese biology teachers beliefs about inquiry-based learning through environmental education and Gross National Happiness will help us to better understand where we are and where we need to go as a National education system.

Inquiry-based learning.

Teaching using inquiry-based learning (IBL) has been a movement in education since the 1590s in the academies of Paris and Rome (Harvey & Daniels, 2009). IBL can be associated with any kind of learning that allows students to ask questions about subject matter and find answers to their questions. Students can work individually or in groups, and the teacher acts as a facilitator. It is interdisciplinary, participatory, critical, and can be used at all grade levels (Harvey & Daniels, 2009). Further, these researchers stated “inquiry-based teaching is problem or question driven; it encourages collaboration; it makes kids into explorers and discoverers; it requires kids to think; and it puts teachers in nonconventional roles” (2009, p. 56). Dewey commented, “the ultimate achievement of inquiry is its function as a tool to foster increasingly democratic living” (as cited in Johnston, 2006, p. 8). This is in keeping with the principles of GNH and the Ministry of Education's statements that both the citizens of the country and the associated research aid in the advancement of a more informed citizenship with active participation from the Bhutanese people in the development of their country.

While educational research supports the inclusion of inquiry-based models of teaching in classrooms, there appears to be reluctance on the part of some teachers to implement inquiry-based teaching methods (Twigg, 2010). Teachers in Turkey implementing the International Baccalaureate (IB) Primary Years Programme (PYP) reported some of their reluctance is based on: (a) lack of exposure to inquiry-based teaching methods during their teacher training years, (b) lack of equipment and materials to implement inquiry-based methods, (c) difficulty in managing inquiry-based teaching and learning, and (d) the perception that inquiry-based learning does not work for some students (Twigg, 2010).

Science, Technology, Society and Environment (STSE).

Yetisir and Kaptan (2008), describe Science-Technology-Society Education (STSE) as a way “to understand the relationship between science and technology, identify its effects on social life and the need of involving the interact interactions between science, technology and society in the education” (p. 3). According to May (1992), the goal of STSE should be to “develop a deeper understanding and appreciation of ambiguity, complexity, relationships, and interactions, and our human capacity to envision, choose, and construct meaningful, equitable possibilities for our collective present and future” (p. 74). One supportive argument for STSE given by May (1992) is that STSE gives students the opportunity to examine and understand the evidence obtained from the analysis of our social and environmental contexts, human predicament, and the problems we have created for ourselves and other living things due to our interdependence so that students can make informed and responsible choices and decisions (MacLeod 2012). The diagram below shows how these five areas are connected (see Figure 1).

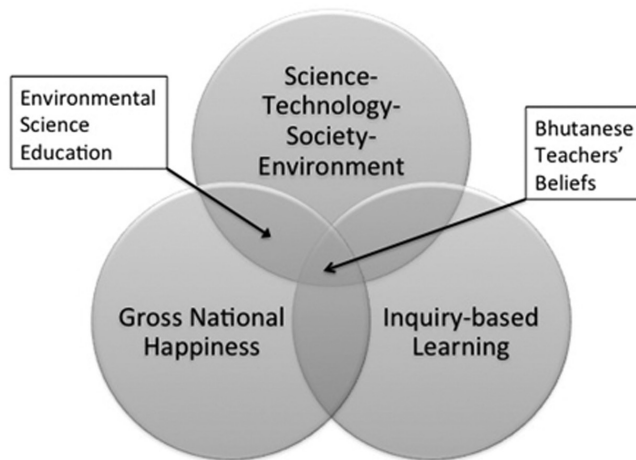


Figure 1. This Venn diagram illustrates the inner-connectivity between STSE, GNH, IBL, EVS, and teachers' beliefs.

The above figure illustrates the interconnection between GNH and STSE in terms of environmental science education. Both GNH and STSE place importance on the study of the environment and society. Inquiry-based learning is related to STSE and GNH as it serves as an effective pedagogy to educate on GNH and STSE. At the centre of the diagram, the Bhutanese teachers' beliefs, these, as stated above, play an important role as the implementation of GNH and STSE using inquiry-based pedagogy solely depend on the teachers.

Methodology

Narrative analysis was used to understand the meaning ‘inquiry-based learning’ situated in their local environments had for four Grade 9 biology teachers in Bhutan. To do this, the Bhutanese researcher travelled from Canada to Bhutan with permissions to interact with four biology teachers. The data collection methods that were used in this research were face-to-face semi-structured interviews, which were used as primary data source, classroom observations whereby the Bhutanese researcher observed biology classes taught by the participants, the researcher also kept a personal journal of what she saw and what questions or clarifications she wanted to ask the participants, and she had an opportunity to view the collection of classroom artefacts which included student work, lesson plans, resources, and laboratory facilities. Individual interviews were conducted, recorded and transcribed to determine the biology teachers’ beliefs, perceptions, and experiences of inquiry-based learning in a local environment. Classroom observations were conducted to compare the voiced beliefs, perceptions, and experiences to the teacher’s activities in the classroom. Artefacts were used as a baseline to encourage discussion surrounding the use of IBL in the local environment and to make a connection between teachers’ beliefs, perceptions, experiences, and student engagement. A personal journal containing field notes was kept to assist the researcher in what was being discussed concerning the use of IBL and the observation of the degree of IBL within the classroom setting. This provided an opportunity for the researcher to reflect on the data from the interview and to assist with further clarification of the observations made during the interview process and classroom observations.

Data analysis included identifying common themes and then to seek clarification as the research proceeded. Observer comments were made during the process of collecting the data and used in analyzing the data. Research was validated and reliability checked by building a good rapport with participants, member checking the interview transcripts, and using triangulation (Merriam, 2009). The researchers’ biases and assumptions were acknowledged to help separate their beliefs, perceptions, and experiences from those of the participants.

Results

Changes to the classroom.

Participants felt that the present number of outcomes in the Grade 9 biology national curriculum needed to be reduced as it was too vast and some topics were repeated. In addition to this, they expressed a need to reduce the number of students per class to make the class more manageable and increase the time teachers have with each student so that they could develop scientific attitudes where students think like scientists and scientific skills where students use a similar skill set as “scientists” instead of only preparing them for the exams. Lhaden commented during one conversation,

I would do away with these chapters, which I think are quite abstract. For example, we have bacteria and fungi [which] I find quite abstract to teach them. So if I had the power I would do away with the chapters. I think we need to [have] more resources. So if I had the power I think I will include more resources, increase the number of periods so that they can practice more - do

more inquiry learning, group discussion, whatever method. Right now we just get three periods [of 50 minutes in a week] so if we get one more period and less classes [fewer sections to teach] we could, we can do that. (Lhaden, August 6, 2012)

Unlike Lhaden, Karma felt that bacteria and fungi are important topics as she mentioned, “bacteria and fungi cannot be eliminated because this is the basic of what they need in Grade 11.” From the STSE and GNH points of view, these topics are important as they concern the environment and its conservation, ecology, and are a vital part of any ecosystem as well as the understanding of both bacteria and fungi have importance in the health and welfare of society (Hodson, 1998; MOE, 2009).

The heavy workload that included a range of extra curricular and administrative duties of the teachers yielded less time for planning and preparation between classes. Due to a shortage of teachers, three of the four participants taught 24 to 28 periods per week. This meant that the participants were teaching eight to nine sections of Grade 9 and 10 biology classes. In addition, Yeshey, even though he had nine teaching periods, had administrative work of the school as part of his responsibility as vice-principal of the school.

Karma shared her desire on the need to reduce the Grade 9 biology curriculum since it was difficult for her to complete it on time. During the interview she commented:

I would like the syllabus to be reduced. It is very vast and very difficult for us to cover the syllabus. And though we say we are not able to complete the syllabus, we are supposed to teach everything that is given in the book. But then, we can't leave it without teaching also because there is a gap between [Class] 9 and 10. What they study in Class 9 is not required in 10 but it is the basic for Class 11 sciences. So, even if we don't teach it, it is not possible because these are basics for Class 11 sciences. And chapters have been shifted from Class 10 to 9. So it is very difficult for us to finish it on time and we really have to rush. (Karma, August 20, 2012)

Dawa shared the same concern as Lhaden and Karma. He expressed the need for more time and the need to take biology education outdoors where students could connect the content and the required outcomes with their own natural environment that at this moment was not happening at all. He commented:

Time constraints and the vast curriculum are factors and one more factor that might contribute to [lack of] inquiry-based learning is the Bhutanese situation. I think inquiry-based learning is just a method, a teaching strategy you learn in our teacher training period and then we never used or we never tried doing, enhance the strategy in the school or any other workshops. (Dawa, August 24, 2012)

As Dawa commented, most of the teachers learn inquiry-based learning in their pre-service teacher training and may have practiced it during their teaching practicum. However, after their pre-service days, they follow the transmission model as practiced by teachers already in the field for a variety of reasons. Lotter, Singer & Godley (2009) explained that teachers' understanding of inquiry is necessary but not a sufficient factor for teachers to implement inquiry practices. Teachers are more likely to engage in these practices when their beliefs about science and learning align with them. They found that supportive mentor teachers helped the pre-service teachers be successful in their use of inquiry teaching practices. Twigg (2010) found that “the knowledge acquired during in-service professional development opportunities pertaining specifically to inquiry-based teaching seemed to have had more of an influence on [teacher's]

transformative inquiry-based teaching practices than had their initial teacher training” (p. 51). Perhaps, similar types of professional development opportunities could aid in increasing IBL within the Grade 9 Bhutanese biology classrooms.

Dawa shared experiences similar to Karma’s, and he described his situation:

Yes, mostly in our context, the learning and teaching of science is basically in the classes. It happens in the class that is not right. We should be having more classes taught outside the class but with time constraints as we have said earlier and then the syllabus coverage, we are really in shortage of time to cover the syllabus. Taking students outside and these things takes lots of time. And in one period we cannot do much outside so we have to take a longer period, longer duration. So that might affect other classes. So actually inquiry-based learning would be the best method in learning of science. And for Bhutanese, it is quite fortunate to study environment because we have good and undisturbed environment right around us, around the school. (Dawa, August 24, 2012)

As Dawa mentioned, and in all the schools that were observed for this research, they had a well-established local environment. This included flower gardens around the school campus and usually a nearby forest both of which could be incorporated into biology lessons where students are required to learn about the diversity of local plant and animal life. Further, these areas could be used as a resource for introducing and imparting environmental science education to the students. This, in turn, would help in inculcating environmental values such as nurturing the plants and protecting our endangered species of plants and animals to the younger generation as prescribed in “Educating for GNH” (MOE, 2009).

Yeshey expressed the need to make the Bhutanese biology curriculum more user-friendly and closer to the Bhutanese context. He felt that the scientific laws and principles, however, can not be changed. He appeared to believe that the knowledge is absolute. As he commented:

First thing I would like to make it more student-friendly if I am permitted . . . make it more localized so that the lessons can be done using the local materials. Have our own textbook, curriculum first and then localize it. Not forgetting that the scientific laws and principles, of course, remain intact. We should not be distorting them but still make student friendly, user friendly, teacher friendly, more resources to be available, more practical, make it more practical, activity centered. (Yeshey, July 28, 2012)

Yeshey’s perception is supported in the literature by the third principle of education as rightly put by Sri Aurobindo: “work from the near to the far, from which is to that which shall be” (as cited in MOE, 2009, p. 17). The child’s community and local environment forms the context for learning and constructing knowledge. The MOE (2009) further stated that:

While children acquire knowledge about different concepts and their relationships it is important to connect this knowledge to the local environment around them, see their relevance in the outside world and derive meaning out of it. Else it becomes a mere accumulation of facts and information. The local environment is a natural learning resource, which must be considered while making choices of what should be included in the curriculum and concrete examples from the environment can be cited while transacting lessons in the classroom. The local environment not only includes

the natural surroundings, but also the socio cultural context that has a rich source of local stories, songs, folk tales and art that makes the curriculum even richer. (p. 17)

The participants' views were similar to the MOE's (2009) making use of the local environment as a resource for learning biology. This in turn this could guide instruction and assessment supporting a more accurate view of the Nature of Science, "an understanding of how scientific knowledge is generated and validated" (Pedretti and Little, 2008, p. 5) by the students and facilitated by the teachers. However, the four participants in the study would benefit from professional development in the area of the Nature of Science and how it connects with IBL. For instance, Yeshey felt that scientific knowledge is absolute and cannot be changed, as he mentioned earlier in one of the conversations (Yeshey, July 28, 2012). The notion that the field of Science is a developing and ever-growing field was a point that was lost in some of the participant's data.

Bhutan's science curriculum has always stressed activity-based learning (MOE, 2009). The four participants in this study agreed with the MOE (2009) that biology should be taught using inquiry-based learning instead of the ongoing didactic method of teaching.

Professional development.

The participants expressed the need for professional development for teachers both in content knowledge and in pedagogy to conduct inquiry-based learning lessons successfully and in using the local environment. This is in keeping with the view of some researchers (Concoran, 1995, as cited in Marshall et al., 2009) who suggested that professional development experiences focusing on content knowledge have larger positive effects on learning than experiences focusing on teaching behaviors. Lee (1995) suggested that the quality of classroom interaction increases with teacher content knowledge, whereas teachers' reliance on textbooks decreases (as cited in Marshall et al., 2009). However, Garet (2001) argued for a more balanced approach to teacher preparation that necessitates inclusion of pedagogical training (as cited in Marshall et al., 2009).

Dawa explained the need for professional development in inquiry-based learning so that he would be able to implement it successfully in his class. He noted:

We do not have many workshops conducted on strategies. Maybe, teachers should be well trained to carry out inquiry learning successfully. We have little bit of an idea of inquiry learning but we really need a deeper understanding and better methods and strategies on this to carry out successfully. (Dawa, August 24, 2012)

Similarly, Karma echoed Dawa's concern for the need of professional development on new pedagogies to upgrade herself as well as to prepare her students for the future world so that, in the words of Hodson (2006), they become "better equipped to make important decisions that affect their health, security, and economic well-being" (p. 296). Karma commented:

Given a choice, I would like to gain further learn more new teaching strategies, which are aligned with 21st century skills. We are teaching 21st century students and the strategies we have are 18th century. This is not working so we would like to upgrade our teaching strategies. (Karma, August 22, 2012)

Unlike Karma and Dawa, Lhaden felt that she was comfortable with the IBL pedagogy. However, she expressed the need for professional development in content knowledge. She commented, "...pedagogy

and all - I think it is fine. But, I would like to attend [professional development sessions] on the subjects which are related to teaching of content” (Lhaden, August 1, 2012). It is interesting to note, however, that in the observations of Lhaden’s class there was still a great deal of reliance on the use of lecture, or direct instruction as it is sometimes called, as the teaching method (Lhaden’s Classroom observation, August 1, 2012). These findings show that professional development is needed in both content knowledge and pedagogical knowledge such as inquiry-based learning. Without the professional development, it would be difficult for the participants to conduct inquiry lessons in their class given the constraints mentioned earlier.

Resources and Time.

Abell and McDonald (2006) concluded that “one of the biggest constraints to inquiry faced by elementary teachers of science is materials and this applies even in the higher secondary schools” (p. 258). One of these ‘resources’ is time since it is the most influential non-renewable resource we have. Abell and McDonald go on to comment, “Time to plan and time to enact inquiry, elementary teachers also have serious concerns about how they will assess student learning and . . . how their students, who had covered less ground in the district science curriculum, would perform on standardized assessments of student achievement in comparison to other fourth and fifth grades” (p. 258). The Bhutanese teachers who participated in this research echoed this need for more resources including more time. During our conversation about the challenges of using inquiry-based learning, Lhaden commented:

The challenges I would say is the resources, the school should have a good resource, then the time, there should be time. So we need time and resources, even the class size matters because in inquiry we want every student to achieve something. We can’t just say one student has done that and all students will follow this, whatever that student has researched. So the class size should be less. (Lhaden, August 1, 2012)

Yeshey further added:

Challenges would be providing, being resourceful, providing resources for the children. For when they are learning using inquiry based [learning] they must have resources, sufficient resources should be available, it could be library, classroom, internet - whatever. (Yeshey, July 28, 2012)

Lhaden and Yeshey concur with Abell and McDonald (2006) on the need for resources and time to conduct inquiry-based learning for their students.

Conclusion

The participants believed in using inquiry-based learning in their classrooms, as they wanted their students to learn through student-centered activities. However, their perceptions about the use of IBL were not clear, as they were not sure if they were using this approach in their teaching. Dawa and Lhaden admitted using IBL in past years but not at all in the current year. Yeshey felt that he was using it along with other teaching strategies and Karma mentioned that she had not tried it at all. These perceptions of the participants show that they have the theoretical background of IBL which they learned from their teacher training days, but lack practical experiences of modeling of IBL within their classes thereby hampering its

inclusion within their daily classroom teaching strategies and routines. It appears that they are not able to connect the theoretical knowledge of inquiry-based learning with how to appropriately orchestrate and IBL lesson within their actual classroom practices.

The participants expressed the need for professional development in IBL. They believed that the use of IBL provides a positive learning experience for their students. They also believed in the use of the local environment as a resource for teaching biology and they felt that environmental education could be imparted through biology education. Part of the professional development for these teachers could include modelling for the teachers on how to implement and use IBL in their classrooms.

If IBL is to be incorporated in the biology curriculum several issues, according to these participants, must be addressed. These include the present vast biology curriculum should be revised, as mentioned by the participants, and made more manageable and localized. Localizing the curriculum would also encourage the use of the local environment as a resource for teaching biology. The school structure needs to be re-examined to allow for more one-on-one time with students, allowing for more student-teacher interactions, most likely accomplished with smaller class sizes. In addition to this, more class time to cover the biology content would be welcomed by the teachers, yet a balance must be maintained between teaching time and preparation and planning time which all teachers need. With the acknowledgement of these issues, and the belief these teachers hold that IBL could and should be used within the biology classroom as it connects to MOE and GNH principles, perhaps movement towards this goal can begin.

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Title: Social Capital and Household Income in Bhutan: Is There Any Relationship?

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Social capital is observed to be an important determinant in explaining household income. However, the benefits of social capital on higher and lower income groups are unexplored. Using the Bhutan Living Standard Survey data of 2012, regression on higher and lower income groups indicates that social capital does matter to the lower income groups more than the higher income groups. This implies that government needs to promote social capital rigorously among the lower income groups to help generate more income.

Keywords: *Social Capital; Household Income; Bhutan; Higher Income; Lower Income.*

JEL Classification: *C21, C26, D31*

1. Introduction

The concept of social capital started since 1916 in the United States, where contributions of neighbours were discussed to oversee schools (Keeley, 2007). Since then, social capital has gained considerable importance in social studies. However, there is no common consensus in defining social capital among the authors. Various definition of social capital is well presented in Bjørnsvov and Sønderov (2013, p.1228) but in general, the foundation of defining social capital is grounded on Putnam's (1995) explanation. He defines social capital as "features of social organization such as networks, norms, and social trust that facilitate coordination and cooperation for mutual benefit" (Putnam 1995, p. 67).

The potential of social capital for economic gains can be linked through social bonds. As explained in Keeley (2007), a government survey in the United Kingdom discovered that personal contacts were more important in securing jobs compared to advertisements. However, very limited attempt has been made to study the relationship between social capital and income. In literatures where the relationship has been studied, it is observed that social capital significantly increased household income. In a study by Narayan and Pritchett (1999) and Grootaert (1998), they found significant impact of group membership, which is the proxy for social capital on household income in Tanzania and Indonesia respectively. Maluccio, Haddad and May (1999) also obtained similar results. They found that social capital had significant impact on household income in South Africa. In a cross-country study, Hermann and Kopasz (2011) also observed that social capital significantly helped increase wage income in most of the 26 European countries.

The study on the impact of social capital on household income in Bhutan is extremely important because Bhutan is an agrarian society with almost 60 percent (National Statistics Bureau [NSB], 2013) of its population dependent on agricultural farming for its livelihood. Due to rugged terrains and snow-capped mountains, most villages are separated far apart. For the same reason, accessibility to markets is also a major challenge for the farmers in Bhutan. Therefore, social capital can be very crucial in bringing the farmers together besides the ability to provide access to markets. To this end, this study seeks to provide empirical evidence on the relationship between social capital and household incomes in Bhutan.

Bhutan is a developing economy and poverty is still a major concern for the government. Around

twelve percent of the population in 2012 was found living under poverty (NSB, 2013). On the other hand, top 20 percent of the population is found to consume 6.7 times more than the bottom 20 percent (NSB, 2013). The *rational choice theory* (Hausman, 2013) in combination with the *principle of expected utility maximization* (Levin, 2006) suggests that rational investor will choose the best possible investment, which maximizes his expected utility. However, the risk aversion property advocates that marginal utility of wealth decreases as wealth increases (Norstad, 2011). In such a scenario, social capital for higher income group may not matter as much as it matters to the lower income group of the population. For those who are rich, they would have already accumulated enough wealth or income that they may not need social capital for income generation purposes. If the assumption comes true, it has huge policy implications. The government will have to emphasize more into promoting social capital for lower income groups. Therefore, as an innovative approach in this study, the analysis is conducted separately for top 20 percent (subsequently used as higher income group) of the population and bottom 80 percent (used as lower income group) of the population.

The rest of the paper is structured as follows. In the next section, methodology is outlined followed by data and descriptive analysis in section 3. In section 4, results and interpretation is presented while section 5 concludes and provides some policy recommendations.

2. Methodology

To estimate the impact of social capital on household income in Bhutan, a linear regression analysis is performed. Further, to see whether social capital is important to the lower income group or to the higher income group, two separate linear regressions are carried out. The basic model is outlined as follows:

$$H_i = \alpha_0 + \alpha_1 SC_i + \alpha_2 X_i + \varepsilon_i \quad (1)$$

where $\ln H_i$ is the natural logarithm of per capita income of household. The coefficients α_0 is a constant term and α_1 and α_2 is a vector of parameters to be estimated. The expression SC_i is the social capital for the household. The vector X_i is the explanatory variables such as proportion of dependents, proportion of household members in working age category, proportion of uneducated members, members with junior high school qualification, proportion of members with high school qualification, proportion of members with degree qualification, proportion of employed members, distance to market and nearest road to capture market integration and area of residence. The term ε_i is a random error term assumed to be normally distributed. Variable definitions are provided in Table 4 in the appendix.

There is a possibility that social capital variable may be correlated with the error terms in the regression which could lead to a potentially endogenous biased estimates. A very common method used to address such problem is the use of instrument variables. So, variables such as how people in the neighbourhood help each other (help) and the possibility of criticism if the households do not participate in some community activities (criticize) are constructed as possible instruments. Two stage least square (2sls) regression is performed (results provided in Table 5 in the appendix). Unfortunately, Stock and Yogo's (2005) test to check the explanatory power of the instruments detected that the instruments are weak because the F statistics of 3.2233 obtained from the first stage regression is found much lower than the critical value of 19.93 and 11.59 at 10 percent and 15 percent respectively. Therefore, results from the 2sls is deemed unfit for the final interpretation.

Further, the use generated regressor approach of Gomanee, Girma and Morrissey (2002) is also attempted. In the first stage, the transmission of whether income has any impact on household social capital is investigated. A reduced form equation is constructed on social capital including income as one of the independent variables. Other variable included in the reduced form equation are nationality of the household head, education of the household head, whether household head is married or not, and the possible instrument variables discussed above. A subsidiary regression is performed and the results are provided in Table 6 in the appendix. It is observed that, while other variables significantly affect social capital, income is found insignificant in explaining social capital. Very similar result is obtained from the probit model as well. In the absence of significant transmission mechanism between income and social capital, the generated regressor technique is not a viable option either. This in a way suggests that income is an exogenous variable in measuring household social capital.

Another concern in the analysis is the problem of multicollinearity. When the independent variables have perfect linear relationship, the linear regression is unable to compute coefficient estimates exclusively. When the degree of multicollinearity increases, the coefficient estimates become unstable and the standard errors exaggerated. A test is conducted to detect the presence of multicollinearity among the independent variables. As a rule of thumb, a variable whose variance inflation factor (VIF) is above 10 or the tolerance level ($1/VIF$) is less than 0.10, multicollinearity is a possibility (Wooldrige, 2005). Since, none of the VIF is above 10 and tolerance level below 0.10 as provided in Table 7, multicollinearity is not a threat in the regression model.

3. Data and Descriptive Statistics

3.1. Data

The Bhutan Living Standard Survey (BLSS) is conducted by the National Statistics Bureau (NSB) once every 4 to 5 years to capture the socioeconomic changes in the country. The survey is based on the World Bank's Living Standard Measurement Study (LSMS) methodology. The current study uses the information provided by the BLSS, 2012. Out of a total sample of 10,000 households, the survey covered a sample of 8968 households with 39,825 individuals (NSB, 2012). For the current study, the sample is further reduced to 7520 households after accounting for missing observations in variables such as distance to nearest market and nearest roads.

The BLSS, 2012 provides information on household characteristics and in particular, the last section of the BLSS is focused on social capital. The most pertinent information that is diligently used in the present study is the first question where, household head or the representative of a household is asked about their membership to any associations or groups. Summary statistics on various groups and associations is provided in the Table 1. Definitions on these groups are provided in Table 4 in the appendix.

Table 1. Summary statistics of various groups

Variable	Mean	Std. Dev.
Farmer group	0.037	0.189
Production group	0.006	0.075
Spiritual group	0.020	0.139
Trade groupT	0.000	0.016
Credit group	0.001	0.028
Education group	0.003	0.050
Sport group	0.001	0.035
Occupation group	0.001	0.038
Village group	0.005	0.068
Charity group	0.004	0.063
Other group	0.006	0.076
Sample	7520	

Farmer group has the maximum membership followed by spiritual group. Around four percent of the households are member to farmers group followed by two percent of the household being member of spiritual group. The least membership is in trade group with negligible membership status.

Social capital in the present study is a dummy variable where, it takes a value of 1 if a household is a member to any of the groups or associations mentioned in Table 1; otherwise it takes a value of 0.

Household income is proxied by monthly household per capita expenditure. Experience show that income data from surveys are unreliable and in almost all the literatures provided, expenditure data has been used to proxy for permanent income. To further investigate the importance of social capital on higher income and lower income group, monthly per capital expenditure is broken down into five income quintiles. Quintile 1 to 4 has been combined to form the lower income group and quintile 5 represents the higher income group of the population. Other explanatory variables used in the study are mostly driven by the extent literature provided.

3.2. Descriptive Statistics

Table 2 presents the descriptive statistics on various variables used in the study. It is observed that monthly household per capita expenditure is Nu. 6196. In the lower income group, the average monthly household per capita expenditure is Nu.4025 as compared to Nu.15246 of the higher income group. Rich households have almost four times more income than the lower income groups. The averages of social capital across samples are almost equal at seven percent indicating only around seven percent of the households are members to any groups or associations.

The average dependents in the household stands at 28 percent, with comparatively higher number at 30 percent in the lower income group as opposed to 17 percent in the higher income group. This shows that households in lower income categories are characterized by more number of dependents. In the full sample, around 45 percent of the household members are in the working age category. The average is 12 percent

less in lower income group compared to 55 percent of the higher income group. Even the working age population is observed more in the richer households.

Around thirty seven percent of the household members are uneducated and it is much higher in lower income group at 40 percent compared to 23 percent in the higher income group. The ratios in the junior high school education qualification follow the same pattern as that of none-education category. In the higher secondary qualification category, the average is around 17 percent in the full sample. However, the average of 15 percent is almost 50 percent lower in lower income category as compared to higher income category. The highest difference is observed in the educational qualification at degree level. In the full sample, only around seven percent of the household members have qualification above or equivalent of degree. In the lower income group, only four percent of the household members have degree whereas, around 20 percent of household members have degree in the higher income category. Descriptive on educational qualification indicates that richer households have higher qualification as compared to poorer households.

The mean employed members in the household stands at 44 percent. The average is observed less in the lower income group at 42 percent compared to 56 percent in the higher income group. This indicates that richer households are more employed compared to the poor households. Around seventy four percent of the households take less than 30 minutes to reach the nearest market in the full sample. In the sub-samples, it is observed that around 90 percent of households in the higher income group take less than 30 minutes as compared 70 percent of the households in the lower income group. The difference is little less in the variable distance to nearest road. Though ninety seven percent of the households take less than 30 minutes to reach the nearest road in higher income category, the households in the lower income category is not far behind. Around eighty eight percent of the households are able to access road networks in less than 30 minutes even in lower income category. The average stands at 90 percent from the full sample. However, it is clear that poor households are disadvantaged even in case of access to basic amenities like markets and roads.

Around forty eight percent of the households are situated in urban areas from the full sample. Only around 42 percent in the lower income groups are in the urban areas as compared to 70 percent in the higher income group. This shows that households in urban areas are better off than the rural households. The average of 4.61 in providing help indicates that it is somewhat likely for the people in the community to come together to help in case of some misfortune. The average is very similar in case of higher and lower income category. The average in getting criticized or sanctioned is also very similar across the groups at 4.47. This indicates that where the household is in lower or higher income group, it is somewhat likely to get criticized if they did not participate in community activities. Feeling of closeness is little distant in higher income groups as compared to lower income groups. With an overall average of 3.45, the feeling of closeness is 3.48 in lower income group as compared to 3.33 in higher income group.

Overall, it is observed that households in the lower income category are far disadvantaged in almost all the variables as compared to the higher income households. Not only the household average income is less, there is more number of dependents in the lower income group. Even household members in working age category are much lesser, compounded by more number of uneducated household members in

the lower income category. Those employed in the lower income category is also much smaller compared to richer households. Though, access to market and roads are quite high, on average lower income households are still disadvantaged compared to the rich. Most probably, such is the situation because rich households are mostly situated in the urban areas.

4. Results and Interpretation

Results of the linear regression on household income are presented in Table 3. The first column reports the results from the full sample analysis. Second and third columns provide the results from sub-sample, lower income group and higher income group respectively. The results presented are all estimated with robust standard errors to correct for potential heteroscedasticity in the models.

The priori sign in association between outcome variable household income and explanatory variables are as expected. This can be seen from the full sample that as social capital increases, household income also rises. Other variables that have positive impact on household income are working age, higher secondary education qualification, degree qualification, employed household members, along with distance to market and roads. Those households residing in urban areas are also found to have positive relationship with the household income. On the other hand, dependents; uneducated household members, household members in junior high school qualification are found to reduce household income. All the associations are found significant at 1 percent level of significance except for association between junior school qualification and household income, which is significant only at 10 percent level of significance.

One of the objectives of this study is to see the difference in association between households in two income categories and income. The association and significance of the results in the full sample and lower income group is identical. What is more notable is, social capital is statistically significant in determining household income for the lower income group as compared to insignificant association in the higher income category. In the lower income category, a unit increase in social capital is found to increase household income by 7.4 percent as opposed to 2.96 percent in the higher income category. This shows that social capital is very important for those households in the lower income categories in generating income but it is not necessarily important for those households who are rich.

Table 3. Linear regression results

Explanatory Variables	Full Sample	Lower Income Group	Higher Income Group
Social Capital	0.0857*** (0.026)	0.0738*** (0.023)	0.0296 (0.039)
dependents_r	-0.488*** (0.051)	-0.331*** (0.042)	-0.106 (0.085)
workingage_r	0.304*** (0.036)	0.223*** (0.031)	0.0952** (0.041)
nonedu_r	-0.395***	-0.257***	-0.235**

	(0.063)	(0.052)	(0.106)
junioedu_r	-0.102*	-0.0716	-0.151
	(0.053)	(0.044)	(0.095)
highsecedu_r	0.291***	0.115**	-0.0818
	(0.066)	(0.055)	(0.108)
degreedu_r	0.684***	0.373***	0.0344
	(0.068)	(0.059)	(0.107)
employed_r	0.349***	0.118***	0.185***
	(0.035)	(0.030)	(0.045)
t_marshop	0.196***	0.146***	0.0502
	(0.019)	(0.016)	(0.037)
t_road	0.173***	0.155***	-0.121
	(0.026)	(0.021)	(0.079)
area_1	0.244***	0.214***	0.0379
	(0.017)	(0.014)	(0.027)
_cons	7.940***	7.900***	9.518***
	(0.070)	(0.058)	(0.137)
N	7520	6065	1455

*Note: Robust standard error in the parenthesis. *, **, *** denotes significance level at 10 percent, 5 percent and 1 percent respectively.*

More number of dependents is found to reduce income by 3.31 percent in the lower income group. Though the relationship is negative, the impact is found insignificant in case of higher income category. Similarly, educational qualification of higher secondary and degree is not an important determinant in the higher income category. In the lower income category, increase in number of members with higher secondary and degree qualification is found to increase income by 11.5 and 37.3 percent respectively. Easy accessibility to market, roads and residing in urban areas are also found to have insignificant impact on household income in higher income category. Whereas the same variables are found to increase income by 14.6, 15.5 and 21.4 percent respectively in lower income category. This shows that number of dependents, high qualification, easy accessibility and area of residence does not matter for richer households unlike it is to those households in the lower income group.

Increase in the number of members in working age category is found to increase income in both the income categories. However, the percentage is much higher in lower income group. With a unit increase in working age category, income is found to increase by 22.3 percent in the lower income category as compared to 9.5 percent in the higher income category. A similar finding is obtained from number of employed members and income. Higher the number of employed members in the household, income is found to increase by 11.8 and 18.5 percent in lower and higher income group respectively. More number of uneducated household members is found to have detrimental effect on household income, be it rich or poor households. Increase in uneducated household member is expected to reduce household income

by 25.7 and 23.5 percent in lower and higher income category respectively. These relationships are found statistically significant either at 5 or 1 percent significance level. Though, the association between educational qualification of junior school and household income is found to be negative, the impact is found statistically insignificant.

The findings show that determinants vary across different income categories. For those who are rich, some determinants like social capital, number of dependents, higher educational qualification, distance to market and roads and residing in urban areas does not matter. However, these variables are found very important in explaining household income for the poor households. This has policy implications, which is discussed in the next section under recommendation.

5. Conclusion and Recommendation

The importance of social capital for income generation purposes is justified in the extent literature provided. However, to the best knowledge of the author, there has not been a single study in determining household income by segregating households into higher income group and lower income group. As Bhutan is a developing economy with infrastructures like road networks are still under construction, the study on the potential of social capital to help improve incomes of the households is very essential. Further, income inequality in Bhutan is also high. So, for those higher income categories, social capital may not be necessary to help improve their income. Under such a scenario, the benefit of social capital to lower income group and higher income group is merited. Therefore, employing the BLSS data for 2012, this article studied the various determinants of household income for higher income group and lower income group.

The econometric analysis suggests that social capital is a significant determinant in increasing household income. More so, social capital is very important for the lower income group as compared to higher income category. This implies that government needs to promote social capital more rigorously in the lower income category. There are indications that the concept of farmers informal associations and groups to help the members existed long before in Bhutan (Dosch, 2011). However, the establishment of formal farmers group and cooperatives are recent happenings in Bhutan (Department of Agriculture Marketing and Cooperative, 2010), which has gained significant importance among the farmers. As can be seen from Table 1, farmers group is the most prominent group. However, it is also visible that membership to the group is not very impressive with just about 3.0 percent. Therefore, government should take up the lead role in educating the benefit of such groups. Further, government should provide assistance in setting up such entities especially in the far-flung villages, where most of the lower income households are located.

It is also very important for the government to educate the lower income households on family planning. Around 81 percent of the women in reproductive age know about modern contraceptives in the urban areas as compared to 69 percent in the rural areas (United Nations Population Fund [UNFPA]-International Council on Management of Population Programmes [ICOMP], 2010). Since, poverty is a rural phenomenon in Bhutan (NSB, 2012), the government should meticulously campaign family planning in rural areas. The lesser number of dependents in lower income households can reduce overall household expenditure thereby gaining the benefit to provide for higher education for those who are already in school. Education in Bhutan is free until grade 12 but students need good grades to qualify for grade 11. Otherwise,

they need to provide for themselves to complete higher secondary school. With more dependents to support, such situation ceases the education career especially for those coming from poor family background. Therefore, less number of dependents is highly desirable not just to reduce household expenditure but also to provide avenues for higher qualification, which further increases the potential to earn more.

Accessibility and urbanization is also very important factor in improving household income. However, the development activities in providing easy access to market, providing road networks and other basic amenities in rural areas are taking place at a rapid rate in Bhutan. Such developments will go a long way in improving living standards of the rural households.

Finally, the probability of bias estimate cannot be ruled out due to the presence of endogenous variables. Further, comparability of two income groups with huge differences in the sample size is an issue. Therefore, the results provided in this study should be understood with potential endogeneity biases and substantial differences in the sample size between lower income group and higher income group.

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Appendix

Table 4. Variable definition

Variable	Definition
Lnpcce	Average monthly household per capita expenditure in log.
Pce	Average monthly household per capita expenditure.
Social Capital	Binary dummy variable taking the value of 1 if the household is a member to any group or association*.
dependents_r	Proportion of children below the age of 15 in a household.
workingage_r	Proportion of people between 25-60 years old in a household.
nonedu_r	Proportion of household member who does not have any kind of education.
junioedu_r	Proportion of household member who has a qualification of junior high school (grade 1-8)
highsecedu_r	Proportion of household member who has a qualification of higher secondary school (grade 9-12)
degreedu_r	Proportion of household member who has a qualification of bachelor's degree and above, diplomas and vocational certificates.
employed_r	Proportion of household members who are employed.
t_marshop	Binary dummy variable taking the value of 1 if the total time taken to reach the nearest market place or shops is less than 30 minutes.
t_road	Binary dummy variable taking the value of 1 if the total time taken to reach the nearest either feeder road, tarred road or the farm road is less than 30 minutes.
area_1	Binary dummy variable taking the value of 1 if the household is in urban area.

Help	Ordinal variable measured on a scale of 1-5 (with 5 being very likely and 1 being very unlikely) based on the question, “if something unfortunate happened to someone in the neighbourhood, how likely is it that people in the community would get together to help them?”
Criticize	Ordinal variable measured on a scale of 1-5 (with 5 being very likely and 1 being very unlikely) based on the question, “How likely is it that people who do not participate in community activities will be criticized or sanctioned?”
Closeness	Ordinal variable measured on a scale of 1-5 (with 5 being very close and 1 being very distant) based on the question, “how strong is the feeling of togetherness or closeness in your neighbourhood?”
Farmer group	Binary dummy variable taking the value of 1 if the household is a member to farmer group, otherwise 0.
Production group	Binary dummy variable taking the value of 1 if the household is a member to production group, otherwise 0.
Spiritual group	Binary dummy variable taking the value of 1 if the household is a member to spiritual group, otherwise 0.
Trade group	Binary dummy variable taking the value of 1 if the household is a member to trade group, otherwise 0.
Credit group	Binary dummy variable taking the value of 1 if the household is a member to credit group, otherwise 0.
Education group	Binary dummy variable taking the value of 1 if the household is a member to education group, otherwise 0.
Sport group	Binary dummy variable taking the value of 1 if the household is a member to sport group, otherwise 0.
Occupational group	Binary dummy variable taking the value of 1 if the household is a member to occupational group, otherwise 0.
Village group	Binary dummy variable taking the value of 1 if the household is a member to village group, otherwise 0.
Charity group	Binary dummy variable taking the value of 1 if the household is a member to charity group, otherwise 0.
Other group	Binary dummy variable taking the value of 1 if the household is a member to other group, otherwise 0.

*Note: Proportion is $\frac{X}{N}$, where X is the explanatory variables of household and N is the household size of household. * Group or association are farmers group, production group, spiritual group, trade group, credit group, education group, sport group, occupational group, village group, charity group and other group.*

Table 5. Two Stage Least Square Regression

Explanatory Variable	Full Sample
Social Capital	-1.976*
	(1.194)
dependents_r	-0.496***
	(0.066)
workingage_r	0.309***
	(0.043)
nonedu_r	-0.375***
	(0.086)
junioedu_r	-0.0174
	(0.088)
highsecedu_r	0.337***
	(0.093)
degreedu_r	0.874***
	(0.144)
employed_r	0.339***
	(0.042)
t_marshop	0.235***
	(0.034)
t_road	0.0878
	(0.060)
area_1	0.0631
	(0.107)
_cons	8.177***
	(0.166)
First Stage	
F(2,7507)	3.2233
N	7520

Note: Instrument: Social Capital. Instrumented: dependents_r, workingage_r, nonedu_r, junioedu_r, highsecedu_r, degreedu_r, employed_r, t_marshop, t_road, area_1, help, criticize.

Robust standard error in the parenthesis. *, **, *** denotes significance level at 10 percent, 5 percent and 1 percent respectively.

2sls nominal 5% Wald critical values are 19.93, 11.59, 8.75 and 7.25 for 10, 15, 20 and 25 percent respectively.

Table 6. Subsidiary regression

Explanatory Variables	OLS	Probit
Lnpcce	0.00377 (0.005)	0.0273 (0.034)
hhnationality	0.0487*** (0.012)	0.645** (0.283)
hhedu_none	0.0196*** (0.007)	0.143*** (0.048)
hhmarried	0.0127* (0.008)	0.0988* (0.059)
criticize	-0.0102** (0.005)	-0.0747** (0.033)
help	0.0131*** (0.005)	0.0991** (0.040)
closeness	0.0112*** (0.003)	0.0848*** (0.020)
_cons	-0.0800 (0.049)	-2.904*** (0.459)
N	7520	7520

Note: Robust standard error in the parenthesis. *, **, *** denotes significance level at 10 percent, 5 percent and 1 percent respectively.

Table 7. Multicollinearity Test.

VARIABLES	FULL SAMPLE		LOWER INCOME GROUP		HIGHER INCOME GROUP	
	VIF	1/VIF	VIF	1/VIF	VIF	1/VIF
nonedu_r	7.930	0.126	7.200	0.139	9.570	0.105
highsecedu_r	5.620	0.178	4.460	0.224	9.940	0.101
junioedu_r	4.260	0.235	3.840	0.260	5.850	0.171
degreedu_r	3.760	0.266	2.160	0.462	9.560	0.105
dependents_r	2.540	0.394	2.540	0.394	2.250	0.444
area_1	1.650	0.607	1.620	0.617	1.430	0.698
t_marshop	1.500	0.666	1.480	0.675	1.350	0.739
employed_r	1.460	0.685	1.490	0.673	1.390	0.719
t_road	1.230	0.816	1.220	0.818	1.140	0.877
workingage_r	1.220	0.818	1.170	0.852	1.210	0.824
Social Capital	1.030	0.973	1.030	0.967	1.020	0.983
Mean VIF	2.930		2.570		4.060	

Note: VIF is the variance inflation factor and 1/VIF is the tolerance level.

Congruency and comparisons of the vision and mission statements across four case study schools

Kezang Sherab, T.W (Tom) Maxwell, Ray Cooksey

The fundamental role of vision and mission in organisational effectiveness has been well documented. They have been reported to reflect a sense of common purpose and can be a source of inspiration. It has become the norm for schools in Bhutan to develop vision and mission statements to guide them in their daily activities. In 2010, the Royal Government of Bhutan introduced Gross National Happiness (GNH) Education as a new paradigm for education. However, there has been no empirical study to show whether the school vision and mission are congruent with current educational developments and GNH Education in particular. The vision and mission statements of four case study schools were examined to determine if their content was indicative of GNH Education. Two schools were chosen as 'efficacious' and two 'inefficacious', in terms of implementing GNH Education, based on the collective efficacy score of each relative to 155 others that participated in a national survey. The statement analyses generally indicate lack of evidence for up-to-date school vision and mission statements. This paper presents implications in terms of vision and mission statements. The need for a large-scale study related to school vision and mission is also discussed.

Key words: *School Vision; Mission; Gross National Happiness; Education; Efficacy; Educational Development; Congruency*

Introduction

This paper on school vision and mission statements is a part of the sequential mixed method study conducted to examine the efficacy of school principals and teachers for the Gross National Happiness (GNH) Education programme that was implemented nation-wide beginning in 2010 academic session (Sherab, 2013). GNH is a developmental philosophy articulated by His Majesty the Fourth King of Bhutan sometime in the early 1970s (see Sherab 2013). After almost four decades of its articulation, the Government of Bhutan introduced GNH Education mainly to infuse GNH principles, practices and values into Bhutanese schools. The Ministry argued that it was essential for every Bhutanese to practice GNH values and principles consciously to achieve GNH. His Majesty the King and the Government considered GNH to be the bridge between material development and the "fundamental values of kindness, equality and humanity" (Wangchuk 2009, p. 6).

The concern for developing student values has been an on-going issue for the Ministry of Education (MoE). The concept of 'wholesome education' was introduced in the Bhutanese education system in the mid 1980s to provide holistic education through both curricular programmes (CPs) and extra-curricular programmes (ECPs) (Ngedup 2006). As a result, schools provided much emphasis in promoting values through ECPs such as sporting, scouting and cultural programmes. However, such ECPs as practised in Bhutan up to now (2013) were not able to involve most students, thereby ignoring the vast majority of students in any given school. Reaching each student is the emphasis of GNH Education. While there is a lack of empirical studies into this phenomenon, there is anecdotal evidence that the introduction of the 'wholesome education' in the Bhutanese education system has not been able to counter negative and other influences. This is apparent from the recent increase in the youth-related problems such as street violence,

sexual aberrations, teenage pregnancy, drug abuse and degrading human values in the Bhutanese society (Sherab, 2013). Such social dysfunction in a small society such as Bhutan is a concern and to counteract this, at least in part, GNH Education was introduced.

The focus of GNH Education is to create what are called ‘GNH schools’ and ultimately produce a GNH School Graduate (MoE, 2010a). The MoE (2010a pp. 37-44) aimed to transform all schools into GNH schools through a rigorous focus on innovating and improving: i) school leadership and management practices; ii) green schools for green Bhutan (physical and psycho-social ambience); iii) curriculum: strengthening teaching and classroom management practices; iv) continuous and holistic students’ assessments (summative and formative); v) co-curricular activities for wholesome development; vi) school-community relationships; and vii) qualities of a GNH school graduate. Each of these areas has several indicators that schools need to address to enable them to transform their schools into a ‘GNH school’. Recently, the concept of ‘green school’, one of the focus areas of GNH Education, has been further elaborated into eight critical greenery dimensions – environment, intellectual, academic, social, cultural, spiritual, aesthetic and moral (Powdyel 2011). This notion is also evident in the description of the qualities of a GNH school graduate, which encompasses attributes related to self, family, workplace, community and citizen (see Figure 1).

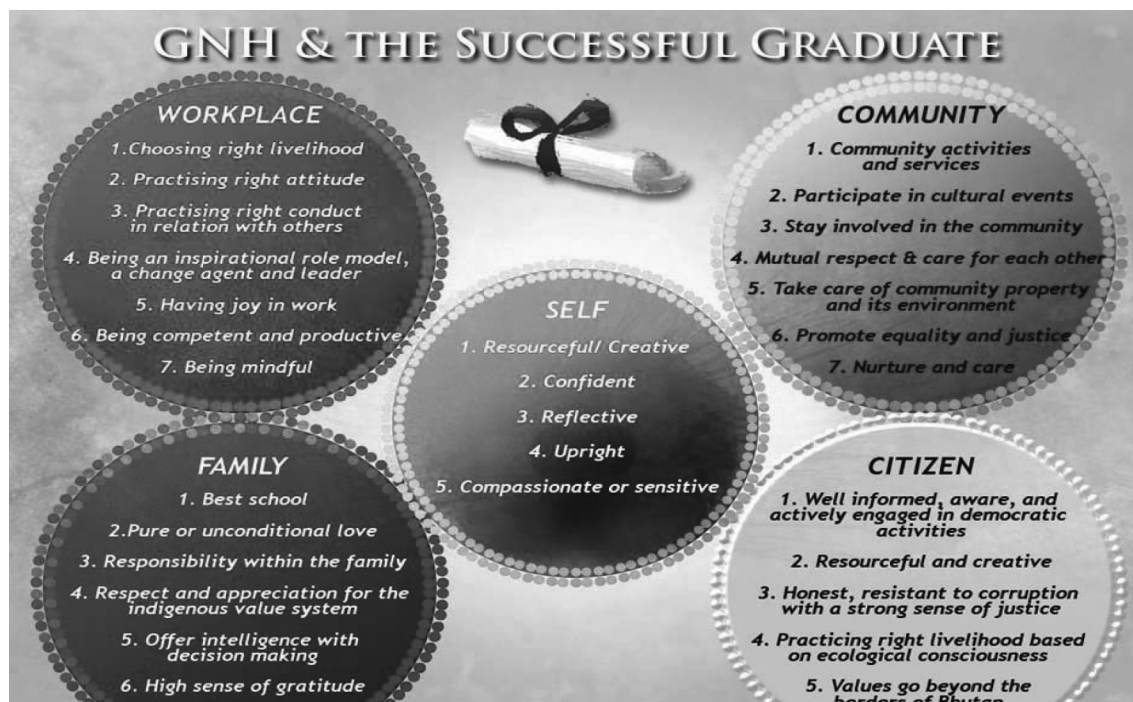


Figure 1 A portrait of a successful GNH school graduate (MoE, 2010a).

Study Context

Bhutan is a small landlocked Himalayan country in South Asia with a population of about 0.7million wedged between the two giant economies, India in the south-west and China in the north. It has an area of 38,394 sq/Km with 72 percent forest cover (Wangdi and Dorji 2010). Buddhism is the state religion and 70 percent of the population are Buddhists (Maxwell 2008). After 100 years of absolute hereditary monarchy, Bhutan is regarded as having had a successful transition to a democratic form of government in 2008.

A secular education system based on western models began in 1960s. This major change coincided strategically with the launch of the country's first five-year economic development plan based on foreign aid. Prior to this, education was predominantly monastic in structure and content and the influence of the Buddhist clergy was dominant. The scenario, however, changed in the 1960s when Bhutan's Third King decided Bhutan should come out of its centuries-old, self-imposed isolation (Maxwell 2008). To meet the human resource needs of a planned economy, schools were opened throughout the country and the education system was expanded rapidly borrowing heavily from the British system via post-colonial India. Subsequently the United Nations International Children's Educational Fund's (UNICEF) policy, Education for All, provided a strong impetus for growth to the system (Sherab and Dorji 2013). From just a handful of schools and students in the early 1960s, Bhutan now has 2034 schools, institutes, non-formal centres, day care centres and 215,016 students (MoE 2013) and its own local curriculum and teachers (although five percent of teachers are still expatriates). While the majority of these institutes are public, currently there are 126 private institutions (MoE 2013) and this is a new trend. Although mainstream schools cater to different ability students, there are separate schools for physically handicapped children such as the institute for blind. Bhutan has already achieved its millennium development goal of universal primary education that was actually targeted for 2015 (MoE 2010b; Planning Commission 2007).

Unlike many non-English speaking nations, Bhutan chose English to be the medium of instruction in the schools. All subjects are taught in English except for Dzongkha (the national language) and environmental studies conducted during the first four years of primary schooling. Similarly Dzongkha is only one of the subjects taught in secondary and university education. The current education system in Bhutan is structured with seven years of primary schooling, six years of secondary education and three/four years of university education. Since English has become a universal language, the policy of English as the main language of instruction has proved to be of some benefit to all the Bhutanese who have undergone the process of secular education (although there are negative impacts when it comes to the preservation of unique culture and tradition), especially when it comes to the pursuit of higher education abroad or for effective communication with rest of the world (Thinley 2010). Almost 95% of the schools are government schools that provide free education up to class 10. Due to limited number of higher secondary and tertiary institutes in the country, students who do not qualify for government funding study in private schools and colleges in Bhutan or abroad.

Problem Statement

It had become a norm for all schools in Bhutan to develop vision and mission statements since the late 1990s (MoE 2005). The fundamental role of vision and mission statements in the effectiveness of ed-

educational institutions in particular (e.g., Calder 2006; Hallinger and Heck 2002) and organisational effectiveness in general (e.g., Bart and Baetz 1998; Heinle 2001; Orwig and Finney 2007) has been well documented. Well-developed vision and mission statements reflect a sense of common purpose and they can be a source of inspiration (Hallinger and Heck 2002). Discussing the importance of developing an effective vision, Kantabutra and Avery (2010 p. 37) argue, “Vision is the starting point for any organizational transformation process, and should underpin ... strategy.” Morphew and Hartley (2006 p. 457) agree: “a clear mission helps organizational members distinguish between activities that conform to institutional imperatives and those that do not.”

Bhutanese government schools are required to have vision and mission statements and the GNH Education guide for the schools does mention designing school policy congruent with GNH Education philosophy (MoE 2010a). This is consistent with the common Western view that vision and mission statements are intended to guide practice, so if national policy is not turned into school policy then national policies would not be implemented. However, consistent with such a major innovation as GNH Education, it might be anticipated that vision and mission statements would be updated immediately but there is no study conducted in Bhutan to show whether the school vision and mission statements are congruent with recent educational developments. Therefore, this paper attempts to address the following over-arching question: Are the vision and mission statements of four case study schools congruent with the national vision of Gross National Happiness? This question does not attend to the important issue of GNH implementation in schools beyond vision and mission statement development.

Materials and Methods

This study took place during the second year of the GNH Education implementation. Four case study schools (two ‘efficacious’ and two ‘inefficacious’) were selected based on the school level collective efficacy score ($n = 155$) for the GNH Education programme to further understand the implementation process of GNH Education (see Sherab, Cooksey and Maxwell 2013). One of the tasks of understanding case study schools was to examine if each case study school’s vision and mission statements were congruent to the GNH Education policy. This paper also presents a comparative analysis of the vision and mission statements of the two ‘efficacious’ schools, named Sangay Lower Secondary School (SLSS) and Zhabdrung Primary School (ZPS), and two ‘inefficacious’ schools, Wangchuk Higher Secondary School (WHSS) and Guru Lower Secondary School (GLSS). All names are pseudonyms.

In light of the introduction of GNH Education in the Bhutanese education system, vision and mission statements of the four case study schools were collected during the visit to each school. These were later examined to determine (1) if there was any content indicative of GNH Education by content analysis (Cohen, Manion and Morrison 2011) and (2) to determine if there were any similarities and differences amongst the schools. As advised by Cohen et al. (2011, p. 564) the vision statements of the four cases were coded, categorized and compared to “draw theoretical conclusions from the text.” Further, the vision and mission statements were also compared and contrasted based on the characteristics identified by Kantabutra and Avery (2010, p. 39): “conciseness, clarity, future orientation, stability, challenge, abstractness and desirability or ability to inspire.”

School Profiles

WHSS was identified as an 'inefficacious' school in terms of beliefs about implementing GNH Education. The school was ranked 102 out of 155 and was one of the 66 schools with a 'moderately lower' school collective efficacy belief for GNH Education (Sherab 2013). *WHSS* is a semi-urban, co-educational, government high school in western Bhutan located about twelve kilometers from the district headquarters. A female principal with Masters in Education from North America headed the school and she had eleven years of principalship experience but it was the principal's first year at *WHSS*. One of the teachers from this school was appointed as the school's GNH Education Coordinator as he had attended the week-long national level GNH Education workshop. Following this workshop, at the beginning of the 2010 academic session, this teacher had, on returning to his school, provided a one-day school-based in-service programme (SBIP) for all *WHSS* teachers in preparation for implementing GNH Education in this school. This school has one of the largest campuses (43 acres) compared to other schools in Bhutan (Centre for Educational Research and Development (CERD) 2008). It had around 800 students from grades 9 to 12 with more than 500 students residing on campus and about 40 teachers in the 2010 academic year. Approximately 25 percent ($N = 10$) of the teachers at *WHSS* were expatriate Indians, comparatively more in this school than the other three case study schools. All had teaching experience in Bhutanese schools ranging from two to fifteen years. Most of these students came from the six feeder schools in the district after completing their lower secondary schools (Grade 8). All six feeder schools were located in the semi-urban and rural communities indicating that most of these students came from essentially a rural background.

GLSS was also a representative of an 'inefficacious' school in terms of beliefs about implementing GNH Education. This school was ranked 145 out of 155 and was one of the 28 schools with 'much lower' school collective efficacy beliefs. *GLSS* is an urban lower secondary school in Southern Bhutan, located near its district headquarters. Comparatively, it is a small town where not many infrastructure development activities have taken place for almost two decades. *GLSS* is a government day school with over 60 teachers (4 expatriates) and more than 1400 students studying from pre-primary to grade eight in the 2010 academic year. This school was recently upgraded to a lower secondary school with some additional infrastructure to take in graduates from neighbouring primary schools. Due to the large number of students and limited space, this school was managed as two shifts with a separate team of teachers for the morning (7 am to 12.15 pm) and afternoon shifts (12.15pm to 6.15 pm). While half of the students came from the town with the majority of their parents working (either in public or private sectors) and some in small scale businesses, the other half were mainly the children with farming backgrounds from the adjacent villages. A male principal with a Dzongkha Teaching Certificate headed *GLSS*. He had 16 years of principalship and teaching experience. He, jointly with the principals of two neighbouring schools, who attended the GNH Education workshop, provided a two-day in-service programme at the beginning of the 2010 academic session to prepare all the teachers of these three schools to implement GNH Education.

SLSS was a representative of an 'efficacious' school in terms of beliefs about implementing GNH Education. This school ranked number three out of 155 schools and was one of the 21 schools with 'much higher' school collective efficacy beliefs for GNH Education. *SLSS* is a semi-urban government day school

in a quiet small town in Southern Bhutan. It is located on a small hillock of 2.83 acres of land donated by a local resident in the early 1960s and it is about 11 km away from the district headquarters (CERD 2008). The school had 642 students (345 boys and 297 girls) from pre-primary to grade 8, and 19 teachers (all Bhutanese nationals) in the 2010 academic year. The students were predominantly from a rural community who came from the neighbouring villages. The students were required to walk to school and back home every day, with some having a short walk but there were many students who needed to walk for more than an hour each way. A male principal, who recently upgraded his qualification to Bachelor of Education through distance education, headed SLSS. The principal had 11 years of principalship experience and had worked for six years in this school. He attended the national level GNH Education workshop in 2010. This principal, in collaboration with the principal of a neighbouring school, conducted a one-day SBIP for all the teachers of these two schools to familiarise them with the GNH Education implementation process in their respective schools.

ZPS was a representative of an 'efficacious' school in terms of beliefs about implementing GNH Education. This school ranked 42 out of 155 schools and was one of the 40 schools with 'moderately higher' school collective efficacy beliefs. ZPS is a private primary school in Western Bhutan. The school had 360 students from pre-primary to grade 6 and 25 teachers (three expatriates) in the 2010 academic year. Privatisation of schools is relatively new policy in Bhutan, introduced to encourage private sector development as well as to ease the burden on government schools. The students of ZPS were mainly children of civil servants, private entrepreneurs and others from middle to high income families who could afford to pay school fees compared to the government schools where education was provided free. A female principal, who was also the proprietor of the school, headed ZPS. She had a Master's degree in Teaching of English as a Foreign Language, and taught English and Music. She has worked as the principal of ZPS since the school opened in 1999. Most of the teachers at ZPS were not formally certificated, however, teachers were provided with regular in-house training to prepare them to cope with the challenges of teaching-learning processes. The principal who attended the GNH Education workshop provided an in-service programme to all the teachers at ZPS to prepare them to implement GNH Education in the school.

Results

Findings from the analysis of vision and mission statements of the four cases suggest that WHSS, an 'inefficacious' school, provided much emphasis on academic performance (see Table 1). This is apparent from the use of academic oriented phrases in the vision statements such as "academic excellence," and "ever victorious" (WHSS). Apparently GNH Education appeared to be secondary for WHSS. However, this school has incorporated some of the GNH values and principles in its vision statement making it one of the lengthiest vision statements of more than sixty words. While one could argue that the WHSS vision is future-oriented and has the potential to inspire, it apparently lacks a number of Kantabutra and Avery's (2010) key characteristics such as conciseness, abstractness, challenge and stability. The vision is too focused on specifics such as patriotism, discipline and duty and provides much emphasis on academic performance.

Table 1 Four case study schools' vision and mission

Case	Vision	Mission
WHSS (Inefficacious)	[WHSS] is envisioned to be the centre of academic excellence . The school believes that the education process must be rooted in [the] country's tradition and culture. To that extent the school aspires to instil in the learners the motto ' ever victorious ' by moulding them into citizens with sound characters, balanced personalities, inner discipline and strength, dedicated to duty and work and possessing patriotic outlook	WHSS is committed to produce well in-formed, skilled, responsible, loyal, dedicated and productive citizens by providing an effective teaching learning atmosphere, incorporating wholesome education. Ingrained in our motto of 'ever victorious' is the spirit of excellence and competition that the school will strive to instil in the minds of learners
GLSS (Inefficacious)	Aspires to produce and provide to the nation responsible and productive citizens	To provide quality wholesome education to every student. After the completion of primary schooling, we expect our students: i) To have basic knowledge on reading, writing and speaking in Dzongkha and English. ii) To have learnt important Bhutanese values as well as some universal values
SLSS (Efficacious)	Excellence towards quality education	To provide quality wholesome education
ZPS (Efficacious)	Educating for Universal Happiness	Embracing Education as a pathway to achieving universal happiness

On the other hand, the vision statements of GLSS, SLSS and ZPS are brief (less than twelve words). Each could be easily remembered, was future oriented, had the potential to inspire and/or challenge all the members of the school (Table 1). All the three vision statements are broad in their scope and not restrictive when compared with WHSS's vision (Calder 2006, p. 82). The use of phrases such as "responsible and productive citizens" (GLSS), "quality education" (SLSS) and "universal happiness" (ZPS) suggest that there is some aspect of GNH Education present in these three vision statements.

The differences in both the vision and mission statements between WHSS and GLSS, SLSS and ZPS could be attributed to, among other things, the robust culture of academic success especially within higher secondary schools in Bhutan. This academic culture is mainly evident in the competition for career opportunities including university entrance in Bhutan. There are only two universities, which provide lim-

ited places for free education. Also the government's third country scholarship scheme for high performing high school graduates is competitive. The quality of high schools in Bhutan is often judged by how many third country and in-country scholarships a particular high school 'wins' in a given year. Further differences in the vision and mission statements also indicate that schools are not provided with appropriate guidelines for focussing their work.

Discussion

The differences in both the vision and mission statements between WHSS and GLSS, SLSS and ZPS could be attributed to, among other things, the robust culture of academic success especially within higher secondary schools in Bhutan. This academic culture is mainly evident in the competition for career opportunities including university entrance in Bhutan. As discussed above, the limited number of seats for free education at the two universities and government's third country scholarship scheme for high performing high school graduates is competitive. The quality of high schools in Bhutan is often judged by how many third country and in-country scholarships a particular high school 'wins' in a given year. Further differences in the vision and mission statements also indicate that schools are not provided with appropriate guidelines for focussing their work.

Discussing the importance of educational vision and mission, Calder (2006, p. 81) argued that, "an educational institution and its leaders must know what path they are on – their mission – and where this path is taking them – their vision." An institutional mission statement must therefore, be able to show various paths to lead to its future and distant dream – the vision. While the mission statements of WHSS and GLSS, the two 'inefficacious' schools, show some sense of direction to fulfil their vision, the mission statements of SLSS and ZPS appeared to be rather too broad; without any sense of direction for the school staff and students to find guidance in their daily functioning. ZPS has a motherhood statement that is akin to a vision statement as its mission. The argument is that without a clear sense of direction provided through the mission statement effort is soon dissipated. Morphey and Hartley (2006) contend that in such situations policy offers little real direction.

Although there is no mention of GNH Education specifically in the vision and mission statements of WHSS, GLSS and SLSS, various phrases such as 'wholesome education' with emphasis on infusing values, character building, and promotion of tradition and culture show that the vision and mission statements of these case study schools may well have existed prior to the introduction of GNH Education. School policy should be congruent with GNH Education philosophy (MoE 2010a). Although such concepts as "wholesome education" appeared in the statements, this language indicates they most likely pre-date the introduction of GNH Education. In fact, there is little evidence of any re-phrasing of the statements at all. From these analyses we can conclude that GNH Education ideas are not a part of 'institutional imperatives' for all the four cases since GNH ideas and practices do not vividly appear in the mission statements.

ZPS was the only case which has the happiness aspect of GNH Education as their immediate vision – "Educating for Universal Happiness" and they claim to embrace "Education as a pathway to achieving universal happiness." This approach suggests that there is a significant difference in visioning and, presum-

ably, leadership between the three government case study schools and the private case study school. These findings corroborated those of an earlier study in the United States by Morphew and Hartley (2006) that examined the mission statements of close to 300 public and private colleges and universities. They found significant differences in the vision and mission statements between the public and private colleges. In the Bhutanese context this difference could be perhaps attributed to a range of factors such as the degree of autonomy private schools enjoy in their daily functioning as indicated by the principal of ZPS (Interview 26/05/11) or the leadership of individuals. Nonetheless, further research is necessary to examine these aspects of schooling in the Bhutanese context.

There may be other explanations for the lack of GNH Education's influence on vision and mission statements in these four schools. Perhaps the idea of policy development is a Western concept that is not well understood together with the imperative of it cascading down into "lower" levels. Policy borrowing (Phillips 2000) and knowledge transfer (Jacobson, Butterill and Goering 2005) require particular care especially across cultures. Perhaps "the centre" did not put sufficient pressure on "the periphery" to re-create these statements. Perhaps not enough time has gone by for the Education, Monitoring Support Service Department officers to follow up and ensure such policies were guiding practice. These are possibilities that need to be followed up.

Conclusion

It is apparent that the introduction of GNH Education *could* give new shape and meaning to the education system in Bhutan. Although there are some aspects of GNH Education mentioned in the vision and mission statements, the four case study schools do not appear to have updated their *vision and mission* for congruency with the vision of GNH Education to transform these schools into GNH schools and produce GNH graduates (see Sherab 2013 for more elaboration of the vision of GNH Education). Moreover, it is likely that many other schools in the nation have not done so. As discussed earlier, vision and mission statements reflect a sense of common purpose, serve as a guide and it is a source of inspiration for its members (Hallinger and Heck 2002; Morphew and Hartley 2006). GNH vision is undeniably something more than academic competence, which was so prominent in one of the school's statements and likely is at the forefront of the practice of many others. The GNH Education programme not only aims to produce academically competent graduates but also aims to promote the concept of GNH School Graduate (see Figure 1 above), which is more holistic in addressing all aspects of individual life.

Such findings have practical implications. If GNH Education is to have an impact more needs to be done than the national one-shot in-service professional development course that was undertaken prior to implementing GNH Education. One such important avenue is for all schools to review their vision and mission statements for congruency with GNH Education values and principles. In these statements, schools can be urged to promote each of the critical dimensions of a successful GNH School Graduate (Figure 1). Further, given the importance of vision and mission for any organisation, the MoE needs to provide guidelines to develop effective vision and mission statements and also urge all schools to be guided by their vision and mission statements in their daily activities. The latter would be more likely if the teachers in the school

collaborated in the production of these school statements.

Broadly, there is an urgent need for a large-scale research on the impact of the GNH Education initiative including the congruency of school vision and mission statements. This study found that there may be some indication of positive relationship between a school's vision and mission statements and their efficacy illustrated by ZPS. This needs to be authenticated with more large-scale studies in the future. Future research could also explore relationships of schools with up-to-date vision and mission statements and their implementation on-the-ground. Conversely, research is needed into why policy has not been developed at the school level after such an important initiative.

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