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Implementation of Gross National Happiness Education in Bhutan: The case of an efficacious 'Zhabdrung' Primary School

KEZANG SHERAB, T. W. MAXWELL AND RAY W. COOKSEY

Abstract

The task of creating a conducive learning environment and successful implementation of educational innovations depend heavily on the talents, efficacy beliefs and values of teachers and principals. In order to assist with more deeply exploring the efficacy of schools in implementing GNH Education, lighthouse schools were identified in the first stage of a sequential mixed methods investigation (Sherab, 2013). In this first stage, 'Zhabdrung' Primary School was selected as an 'efficacious' case study school in implementing GNH Education, based on expert advice and later validated by its collective efficacy score relative to 155 other schools that participated in a national survey. This case study, undertaken during the second stage, examined the lived experiences of the school as they implemented GNH Education. Data were mainly gathered through semi-structured interviews and observations.

Findings indicate that the efficaciousness of this school was mainly attributable to promotion of GNH values and principles through various innovative extra-curricular programmes. However, little had been initiated in terms of infusion through regular curricular programmes. This study also unveiled that the hidden curriculum has the potential to impact students either negatively or positively. The paper presents implications and suggestions for better implementation of the vision of GNH Education.

Key words: *self-efficacy; gross national happiness education; extra-curricular and curricular programmes; change agents*

Introduction

Gross National Happiness (GNH) Education has been a recent reform implemented in all schools in Bhutan commencing in the 2010 academic session (see Sherab, 2013). According to the Ministry of Education (2010), all schools were required to infuse GNH values and principles through both curricular programmes (CPs) and extra-curricular programmes (ECPs). This was an Education policy outcome that emerged from the concern shared by both Bhutanese leaders and educators over the apparent rapid deterioration of human values among youth in Bhutan (Thinley, 2010 ; Ura, 2009). In taking up such responsibilities, it was envisaged that principals and teachers would become assertive, motivated and believe in their own capabilities to successfully implement GNH Education. The idea that creating a conducive learning environment and implementation of educational innovations depends heavily on the talents, self-efficacy and values of teachers and principals has been evident for several decades (Bandura, 1977; Fullan, 1992; Yero, 2010). Keeping this in view and other concerns about fidelity of implementation, principals from all levels of schools were provided with a week-long national level workshop on GNH Education at Paro. In turn, these principals trained teachers at their own schools. However, research in the Bhutanese context has shown that implementation of educational innovations like these have often led to inconclusive outcomes due to inadequate attention to on-the-ground realities (Royal Education Council, 2009; Sherab et al., 2008). For instance, Sherab and colleagues' research has found that educational change agents such as teachers were not adequately prepared in terms of knowledge, skills, and attitude to implement the proposed programme (Sherab et al., 2008; Sherab

& Halloway, 2006). This is consistent with much literature on top-down educational change in the developed and 'developing' world.

The purpose of this case study was to examine the lived experiences of a school through self-efficacy beliefs (Bandura, 1997) of the school principal and three teachers as they implemented GNH Education. In order to assist with more deeply exploring the efficacy of schools in implementing GNH Education, lighthouse schools were identified in the first stage of a sequential mixed methods investigation. 'Zhabdrung' Primary School (ZPS) was selected as one of the more efficacious schools in terms of implementing GNH Education. Selection was based on expert advice and later validated by its collective efficacy belief score with a mean rank of 42 out of 155 schools that participated in the first phase national survey. This was one of four case studies carried out as a follow up of the national survey in order to further understand the social and contextual aspects of implementing GNH Education

Principal and Teacher Self-Efficacy Beliefs

This research is grounded in self-efficacy theory (Bandura, 1997). A perceived sense of self-efficacy refers to future beliefs of one's capabilities to organise and execute a specific task in a specific situation (Bandura, 1977; Stajkovic & Luthans, 1998). According to Bandura (1997) individuals with a high sense of efficacy visualise successful outcomes and the ones with low sense of efficacy visualise failure. Therefore, self-efficacy beliefs have strong predictive potential (Stajkovic & Luthans, 1998). As a result, efficacy theory has been used in a wide variety of situations to predict effort, persistence, actions, and coping from infancy to old age (Bandura, 2000; Caprara, Barbaranelli, Steca, & Malone, 2006; Haney, Czerniak, & Lumpe, 2002 ; Kavanagh, 1992).

Recently self-efficacy has received increasing attention in educational research (e.g., Dembo & Gibson, 1985; Fives, 2003; Henson, 2001; Hoy & Woolfolk, 1993; Looney, 2003; Milson & Mehlig, 2002; Pajares, 2007; Tschannen-Moran & Gareis, 2004). Derived from Bandura's self-efficacy theory, teacher self-efficacy belief (TSEB) refers to a future-oriented belief in their capabilities to accomplish a given task normally in the classroom. Likewise a principal's sense of self-efficacy beliefs (PSEB) refers to a future-oriented belief in their capabilities to manage the school successfully to produce desired outcomes (Tschannen-Moran & Gareis, 2004). Both TSEB and PSEB are task/domain and situation/context specific. For instance, an English teacher might have a high self-efficacy belief for teaching spelling whereas his or her self-efficacy for teaching pronunciation could be very low. Likewise, a principal might be highly efficacious in maintaining group dynamism in the school but have a very low efficacy in fostering values in students. There has been some research that has shown the assessment of teachers' and principals' sense of efficacy benefits educational reform endeavours (Tschannen-Moran & Gareis, 2004; Wheatley, 2002). Self-efficacy has also been associated with a wide variety of student outcomes including achievement, motivation, students' academic goal setting and their own sense of efficacy and classroom functions including management, variety of instructional strategies, and student-centred approaches (e.g., Bandura, 1993; Goddard, 2001; Milson, 2003; Tschannen-Moran & Hoy, 2001; Woolfolk & Hoy, 1990; Zimmerman, Bandura, & Martinez-Pons, 1992). In her book, *Teaching in mind: How teacher thinking shapes education*, Yero (2010) discusses how teachers' beliefs and values shape the atmosphere of the classroom and the school in general. She further argues that "teachers have always

had the power to determine the tone and direction of a school, to create exemplary worlds within the classroom, and to scuttle reform movements that failed to fit their mental models" (2010, p. xiv). What do all these mean for ZPS? Does case study data support the efficaciousness of ZPS in terms of, for example, role modelling GNH values? Despite a voluminous body of research on the effects of self-efficacy in various educational domains, there is limited in-depth contextual knowledge derived from an interpretivist perspective that supports the expansion of self-efficacy theory. No self-efficacy research in schools has taken place in Bhutan. The overarching research question that guided this case study was: *what are the lived experiences of the principal and **three** teachers at ZPS in implementing GNH Education?*

Methods

Educational research on self-efficacy beliefs are largely dominated by the positivist paradigm and very little has been done following the interpretivist paradigm (Labone, 2004; Pajares, 1992; Tschannen-Moran, Hoy, & Hoy, 1998). This knowledge gap provided an additional impetus to employ a case study approach (Stake, 1995) to gain in-depth insights into the lived experiences of the apparently efficacious ZPS. Data were mainly gathered through semi-structured interviews as well as via classroom and school environment observations over a one-week period. Interviews were recorded using a digital recorder and teaching observations were carried out using a form specifically designed for this study. To further enrich the interview and observation data, substantive evidence were also recorded through photographs of GNH Education-related activities and physical artefacts in the school. Several follow up emails were also helpful for additional data and clarification. This study was undertaken following University of New England's ethics protocol.

The School

ZPS is a medium size private primary school in Western Bhutan, established in 1999. The school had 360 students (mainly children of civil servants, private entrepreneurs and others from middle to high income families who could afford to pay school fees compared to free education in government schools) from pre-primary to grade 6 and 25 teachers (including three expatriates) in the 2010 academic year. Interestingly, most of the teachers at ZPS were not formally certificated, however the teachers were provided with regular in-house training to prepare them to handle the challenges of teaching-learning processes confidently. It is interesting to note that the concept of 'Universal Education' promoted by ZPS as their vision was rather similar to that of GNH Education in terms of actual practices.

Participants

A female principal headed ZPS ever since the school was opened in 1999. She had a Master degree in Teaching of English as a Foreign Language and taught English and Music at ZPS. As well as the principal, three teachers (one male and two females) participated in this study who were mainly selected based on their willingness and availability. The male teacher who was interviewed and also participated in one teaching observation is referred to as Teacher 1 and the female teacher who was only interviewed

is referred to as Teacher 2 while the other female teacher who was only observed teaching is referred to as Teacher 3.Teacher 1 taught Dzongkha in grade 3, Teacher 2 taught Social Studies in grade 6 and Teacher 3 taught English language in grade 3. It was the second year for all the three teachers teaching in this school. Both Teacher 1 and Teacher 2 were high school graduates without formal teacher training and Teacher 3 (expatriate) had a Master degree in Education. ZPS was one of the four case studies that were carried out to further enrich the findings from the phase one of the doctoral dissertation. Therefore, to limit the total number of case study participants to a manageable size (four principals and nine teachers altogether), the other teachers in the school were not included.

Findings and Interpretations

The lived experiences of implementing GNH Education in ZPS is presented through the following emerging themes identified using MAXQDA 10: i) the role of autonomy; ii) pre- and post-GNH Education programmes; iii) perceptions and actual practices in GNH Education; iv) role of the hidden curriculum; v) teachers' initial anxiety, tension and scepticism; vi) academic focus; and vii) impact of GNH Education.

The role of autonomy

According to the Principal, autonomy of the school was the key to their success in implementing GNH Education-related programmes. The introduction of GNH Education into the Bhutanese education system from the 2010 academic session was considered to be a blessing for ZPS (Principal, 26/05/11). Prior to the implementation of GNH Education, ZPS had initiated various educational programmes to help realise its vision of 'educating for universal happiness.' The school's vision is more 'inclusive' not just focused on their own students (Principal, follow-up E-mail interview, 28/10/12). The Principal seemed to be relieved that all their programmes were congruent with the GNH philosophy. With much excitement the Principal (26/05/11) commented that, "Educating for GNH has given us more leverage, it was a kind of feedback telling us to go ahead with our activities".

ZPS had been able to exercise some flexibility in initiating and implementing innovative school programmes and activities. The Principal (26/05/11) explained this advantage in the following way:

> Being a private school in Bhutan at this point in time, we do have our struggles but also tremendous opportunities I should say. We enjoy a certain degree of autonomy in the way we operate although we are aligned to the Ministry of Education's mandate on what learning outcomes and curriculum prescriptions are.

The Principal (26/05/11) further said that being a private school provided more opportunities to be flexible and go beyond the prescribed standards of the Ministry of Education to make a difference in the lives of students. A sense of autonomy was also evident when both Teachers 1 and 2 shared that the school had a weekly professional development sessions for all the teachers. Most schools in Bhutan would not have motivation, resources and time for such initiatives to be implemented. Taking advantage of the autonomy, ZPS had established linkages with institutions both within the country as well as from other countries such as India and Australia. As a result of collaborations with other institutions, ZPS had

initiated and implemented innovative and unique programmes long before the implementation of GNH Education (see section 6.2).

Findings from this case study indicated that autonomy of the school has an important role to play in boosting the self-efficacy beliefs of change agents. This finding corroborates the earlier findings of Jones (2012) that the autonomy of the intern teachers provided opportunities for them to take risks and question their own habits of mind. Such opportunities often lead to transformation of beliefs, assumptions, values, actions and practices that were also evident at ZPS especially in the leadership role played by the Principal.

Pre- and post-GNH Education programmes

Exercising the autonomy of the school ZPS had, long before implementation of GNH Education, initiated and implemented numerous innovative programmes such as 'Democracy in action at ZPS,' 'Quality Class Time' (QCT), 'Quality School Time' (QST), 'ProH4' (Project Helping Hands for Health and Happiness), the 'Design for Change' (DFC) initiative and the 'Cushion Project'. Meditation was the only new programme this school had implemented as a part of GNH Education (Principal, 26/05/11). It appears that practices adopted prior to GNH Education under the auspices of 'Universal Education' at ZPS were never-the-less consistent with it. Hence each of these practices will be described.

Firstly 'Democracy in action' was a programme that ZPS had initiated in 2008 along with the first democratic election in Bhutan. This programme provided opportunities for ZPS students to learn democracy through action by undergoing the process of democratic elections of their school captains (Principal, 26/05/11). The whole process involved announcement of various positions to the senior students (grade 6), preparation of application expressing their interest, making trial campaign speeches, receiving feedback, making campaign speeches and learning about not making false promises (Principal, 26/05/11). Discussing the benefit of the DFC programme, the Principal claimed that students were "learning about democracy, how to be [an] informed citizen, [how to] vote responsibly, all [with the aim of producing] matured and responsible leaders of tomorrow".

Secondly, "Quality Class Time" was a non-negotiable 30-minute time provided to all students at the beginning of the first period for four days a week (Principal, 26/05/11). During QCT sessions students and the class teacher talked freely about problems or issues that bothered them such as "garbage", "name-calling" and "bullying" in the school and discussed how to address the problem meaningfully (Teacher 2, 25/05/11). Such opportunities encouraged children to actively voice issues that directly affected their lives and created a positive learning environment (Principal, 26/05/11). I had an opportunity to observe one of the QCT sessions in grade 6 which was actually a continuation of the QCT session from the day before. The teacher who was an expatriate began the session by inviting students to share the question of whether it was necessary to appoint an assistant captain for their soccer team. Advantages and disadvantages of appointing an assistant captain were deliberated. Students were observed to be very vocal in sharing their opinion and some more vocal ones even proposed self-nomination for the position of assistant captain (Observation, 26/05/11).

Thirdly, Quality School Time (QST) was an extension of QCT sessions. The former took place once a week during the morning assembly. It was designed to provide time for the entire school community

to share the outcomes from the QCT sessions, to encourage deliberation and reflection on issues of concern with wider participation and provide meaningful feedback (Principal, 26/05/11). Both Teachers 1 and 2 (25/05/11) agreed that ZPS had been able to solve some problems such as the garbage, bullying and help some disadvantaged people as a result of their QCT and QST sessions. Providing such experiences were important to address the vision of 'Universal Education' at ZPS and so GNH Education.

Fourthly, another programme that ZPS had implemented was their citizenship programme called ProH4 (Project Helping Hands for Health and Happiness). ProH4 was designed to help the less fortunate people in the community. The Principal claimed that it was based on the value of sharing and the joy that comes from giving– a fundamental Buddhist principle. Discussing the core aim of ProH4 and how various club activities supported this, the Principal commented that:

> It's NOT charity but a social responsibility for privileged children to help those in need. It's a vibrant co-curricular project that includes various skill-based club activities that are fun and creative and which generate funds for the project. None of these are one-off projects but enduring, sustainable programmes that evolve over time. The idea is to make them sustainable and embedded in real-world contexts. (Follow-up E-mail interview, 18/07/12)

It would appear that such learning opportunities for the students at ZPS would go a long way in fulfilling the vision of GNH Education. With the help of funds raised through this project, the school was able to support several patients in the hospital who did not get their family support (Teacher 2, 25/05/11).

Fifthly, Design for Change (DFC) was one of the major programmes that ZPS had implemented as a result of collaboration with a school in India. ZPS became the country partner for:

> Design for Change (DFC) Global School Contest which is the world's largest design movement OF children, FOR children and BY children. It sends out the all-powerful message to children as young as 8 or 9 years old that (a) they matter (b) they CAN make a difference and (c) they can be the change they want to see in their world. (Principal, 26/05/11)

The DFC programme had challenged the school to look at new R's such as 'Relationship,' 'Relevance,' 'Rigour,' 'Resilience,' 'Role model,' 'Respect' and 'Reflection' which are very important for both the students and teachers besides the old R's of reading, writing and arithmetic (Principal, 26/05/11). According to Teacher 2, DFC was based on the principle that even school children can bring change to a problem in the society by providing a "forum for kids where they can sit, brainstorm and come up with different kinds of solutions" to a given problem (Interview, 25/05/11). Both the Principal and Teacher 2 clarified that DFC was a four-step strategy where children were given opportunity to "Feel, Imagine, Do and Share."

Sixthly, the ZPS's Cushion Project was recently launched where "plastic trash is turned into stuffing for cushions fashioned so beautifully that they could easily be used to adorn the living rooms" (Principal, follow-up E-mail interview, 18/07/12). According to the Principal, such projects were initiated to "address the issue of environmental pollution/conservation in creative and sustainable ways" (Follow-up E-mail interview, 18/07/12).

Finally, meditation had become a regular practice for ZPS since GNH Education was implemented. All teachers and students gathered at their assembly ground immediately after the last session of the day and meditated for a couple of minutes.

Motivated by the success of the school's DFC programme, ZPS had introduced another programme, which is referred to as the 'Young Ambassadors of Change' (YAC) to establish links with rural schools (Principal, E-mail follow-up interview, 18/07/12). The Principal indicated that:

> We now have three partner schools from the remote areas of Trashiyangtse [in east Bhutan] (two community schools) and Chukha Districts [in the south] (one community school). We try to support them and have exchange programmes that bring our urban and the rural youth together in a spirit of collaboration and kinship. (Follow-up E-mail interview, 18/07/12)

Although YAC had been recently initiated, one could see a huge potential in this programme, especially because Bhutan is witnessing an ever-widening gap between the urban and rural communities. Such an interactive programme could help young people to understand and perhaps live by values associated with both the urban as well as rural life. Discussing the potential of programmes such as DFC and YAC in making a contribution towards realisation of the vision of GNH Education, the Principal said:

> I really s ee these initiatives as great avenues to operationalise the philosophy and vision of Educating for GNH. Above all, it has allowed us to see a shift not only in the paradigm of our education practices and purpose but also in our mind-set. (Follow-up E-mail interview, 18/07/12)

Initiation and implementation of pre-GNH Education programmes that were consistent with the philosophy of GNH Education indicated that ZPS was considerably ahead of many other schools in the country in terms of promoting GNH values. Findings from this case study revealed that both the Principal and Teacher participants were, or became, passionate and enthusiastic about promoting universal happiness by making extra-curricular educational practices relevant to their students. As a result of their DFC programme, the school had undergone a major transformation in both the physical as well as the psychosocial ambience (see section 7). Furthermore, ZPS had been able to reach out to other schools and communities through its various programmes making an impact in the society. Following the DFC four step process called 'Feel, Imagine, Do and Share' students were able to come up with solutions to problems such as the garbage issue and how garbage can be eliminated through mindful consumption practices and saying 'no to packaged food,' observing 'no plastic days' and 'food focused days' (Principal, 26/05/11). ZPS had installed waste bins at a strategic place with the message "clean Bhutan, let's do it" and the school was litter free. Littering was one of the issues that were discussed during the Paro GNH Education workshop for the school principals. Such experiences were able to connect students to their real life contexts and concerns making long-term impact in students (Lovat, 2005).

All these programmes were closely linked to the philosophy of GNH Education (see Table 1) and intended to inculcate satisfaction and long-term happiness in their students from helping and sharing with others in the community. For instance, the first activity, 'Democracy in action at ZPS' is linked to good governance and sustainable and equitable socio-economic development pillars of GNH. These two GNH pillars have the potential to address good governance and education domains promoting numerous values such as integrity, authenticity, wisdom, professionalism, justice, competence, empowerment, non-discrimination, commitment, creativity, openness, diligence, perseverance, patience and creative thinking. In a similar way, all other ECPs have the potential to promote various GNH values and principles.

Perceptions and actual practices in GNH Education

Although ZPS had initiated and implemented various innovative ECPs to promote values to their children and claimed to have achieved much, not much had been initiated to explicitly infuse GNH values and principles in the teaching lessons observed. For instance, Teacher 1 who taught a two-hour Dzongkha lesson (block period) for grade 3 on a story called '*Jamtshoi boep dang chui zing boep'* meaning 'Ocean frog and the pond frog.' The lesson began with a prayer followed by a usual brief revision from the previous lesson by asking questions to the students. A few volunteer students were asked to read a paragraph each from the Dzongkha text and the rest of the class had to follow the reader in chorus. Then the teacher asked the students if they understood the story followed by a brief explanation of the story. Each student was asked to write what they understood about the story in their notebook and later some volunteers had to share their writing to the class. The lesson did not overtly teach any values except for one when students made a commitment at the end of the lesson that they should not tell lies (Observation, 25/05/11).

Although Teacher 2 was not available for a teaching observation, she indicated from the interview data that she was also not able to do much in terms of infusing GNH values and principles in her teaching in contrast to her ability to promote values through other ECPs that have been discussed above (Teacher 2, 25/05/11). To further see if there was an infusion of GNH values into the curriculum in this school, an expatriate teacher was observed teaching an English language lesson for grade 3 on the topic 'Possessive case' (Observation, 26/05/11). The expatriate also did not overtly teach any values in her lesson. However, some good practices that could serve as a model were observed (see section 6.4).

All three participants from ZPS perceived themselves to be doing a lot in terms of implementing GNH Education but in reality nothing much was observed in relation to the practice of GNH Education in the actual classrooms. This is clearly an indication that an important aspect of GNH Education has been missing even at the 'efficacious' ZPS.

Table 1 ZPS activities showing major linkages to GNH pillars, domains and values

ZPS Activity	GNH Pillar	GNH Domain	Values
Democracy in action at ZPS	Good Governance	Good Governance	Integrity, trust, authenticity, wisdom, professionalism, justice, competence, far sightedness, empowerment, non-discrimination, commitment
	Sustainable and equitable socio-economic development	Education	Creativity, openness, diligence, insightfulness, perseverance, patience, creative thinking
Quality Class Time (QCT) and Quality School Time (QST)	Good Governance	Good Governance	Integrity, trust, wisdom, professionalism, justice, competence, far sightedness, empowerment, non-discrimination
	Sustainable and equitable socio-economic dev.	Education	Creativity, openness, diligence, insightfulness, perseverance, patience, creative thinking
Project Helping Hands for Health and Happiness (ProH4)	Promotion and preservation of culture	Community vitality	Solidarity, reciprocity, trust, closeness, family, equality, unity, hospitality, cooperation, honour, cohesion, fairness, fidelity
Design for Change (DFC)	Environmental preservation,	Ecological literacy	Eco-consciousness, sustainability, aesthetic, naturalistic, reverence,
	Sustainable and equitable socio-economic dev.	Education	Creativity, openness, diligence, insightfulness, perseverance, patience, creative thinking
		Health	Vitality, fitness, soundness, prevention, precaution
	Promotion and preservation of culture and tradition	Community vitality	Solidarity, reciprocity, trust, closeness, family, equality, unity, hospitality, cooperation, honour, cohesion, fairness, fidelity
	Good Governance	Good Governance	Integrity, trust, wisdom, professionalism, justice, competence, far sightedness, empowerment, non-discrimination
Cushion project	Environmental preservation,	Ecological literacy	Eco-consciousness, sustainability, aesthetic, naturalistic, reverence, non-domineering, non-utilitarian
	Sustainable and equitable socio-economic dev.	Education	Creativity, openness, diligence, insightfulness, perseverance, patience, creative thinking
Mind training sessions	Promotion and preservation of culture and tradition	Psychological well being	Compassion, generosity, forgiveness, calmness, gratitude, empathy, truthfulness
	Sustainable and equitable socio-economic dev.	Health	Fitness, vitality, self-worth, prevention, precaution, non-malignance
Young Ambassadors of Change (YAC)	Promotion and preservation of culture and tradition	Community vitality	Solidarity, reciprocity, trust, closeness, equality, unity, hospitality, cooperation, cohesion, respect

Role of the hidden curriculum

It was observed that students were quite frank in Teacher 1's class. Although no values were explicitly discussed, without any hesitation they sought support from the teacher in terms of spelling as well as the content of their writing (Observation, 26/05/11). Demonstration of such harmonious relationships in the classroom teaching-learning processes is an indication that 'community vitality' and 'education'– the two vital domains of GNH were practiced in Teacher 1's classroom. These learning outcomes were part of the hidden curriculum in this classroom that has potential to make lifelong impact on students.

On the other hand, a teacher was also observed providing feedback that was not helpful such as "you don't know how to read" when some students were not able to read the text properly (Observation, 25/05/11). Such teacher behaviour can have a negative impact on students and it is contrary to the philosophy of GNH Education. Another controversial practice observed in this teacher's class was at the beginning of the lesson students were asked to say a Buddhist prayer, indicating an apparent lack of awareness and consideration for students who may not be Buddhist. Especially for non-Buddhists, making students say such prayers every day may well become intolerable. There were some non-Buddhist students as indicated by the use of their names in the class (Observation, 25/05/11). Such practices could create dissonance thereby defeating the whole purpose of GNH Education.

In terms of infusing GNH values into daily teaching lessons Teacher 1 (25/05/11) exhibited very low self-efficacy when he mentioned that:

> During my school time I did not experience GNH Education and now that I am into teaching without any formal training except for some attachment programme for a couple of months, there are problems. There is a problem of relating the lesson topic to the GNH values.

In the case of Teacher 3, who was an expatriate, the class was observed to be interactive, with much opportunity for children to raise their opinions. Further, children were also allowed to go to the toilet during the class and were allowed to drink their water when the session was in progress (Observation, 26/05/11). These practices are worth noting, as they are congruent with the philosophy of GNH Education although not often practised in Bhutan.

Teachers' initial anxiety, tension and scepticism

While the Principal felt renewed and reinforced by the introduction of GNH Education, two of the interviewed teacher participants revealed some sense of anxiety, tension and initial scepticism. For instance, Teacher 2 (25/05/11) shared the view that:

> In the beginning when the government did announce that GNH would be a part of [school] curriculum, we were kind of taken aback, and then uncomfortable I guess because we have heard of GNH for many years. Everybody knows that GNH stands for Gross National Happiness and all that but the thing is – how can we implement [it] in our curriculum?

This teacher also initially thought that GNH should be taught as a separate topic, perhaps in Science or Social Studies. Similarly, Teacher 1 (25/05/11) expressed the opinion that:

> In our country when we say GNH, I have some doubt as of how we will be able to achieve GNH because big people will remain big. For instance, in Thimphu [The capital city] the ones who are rich have plenty and the ones who do not have [wealth], hardly get a proper meal and no proper place to stay. So in such a condition, I am wondering how we will be able to achieve GNH. I have a doubt.

However, after having attended the GNH Education workshop conducted within the school by the Principal and having received the benefit of her feedback, the initial scepticism of the two teacher participants seemed to have declined as they had gained confidence in, and understanding of, the vision inherent in GNH Education. For instance, both Teacher 1 and Teacher 2 agreed that although they did not undergo formal teacher training, the institution of a month-long school level Teacher Professional Development Programme every year had been beneficial. Teacher 1 further commented that "our Principal has been very resourceful" and "any things that we do not know are discussed" during the professional development programmes (Teacher 1, 25/05/11). For Teacher 2, it was a great relief to know that GNH Education was similar in nature to the programmes that the school had already implemented to provide wider educational experiences for the children (Teacher 2, 25/05/11).

Findings indicated that the Principal had played a significant role in convincing the two teacher participants about the vision and potential of GNH Education. Such leadership would go a long way in facilitating the vision of GNH Education.

Academic focus

From the two teaching observations and also as perceived by Teacher 2, ZPS did not do much to infuse GNH values into their teaching lessons. The existence of pressure for syllabus coverage became evident when the Principal (26/05/11) commented that, "I tell my teachers, no matter what we do outside, in the classroom you are responsible for meeting the learning outcomes". Obviously not much explicit infusion of GNH values could happen in ZPS classrooms when GNH Education is not part of the outcomes or assessment regime. When syllabus coverage and performance in the examinations drive the teaching learning process, teachers are not likely to provide attention to the infusion of GNH values and principles in their daily teaching. However, at ZPS, GNH Education was very evident in ECPs.

Impact of GNH Education

The ECPs at ZPS had obviously brought in enormous amount of impact on both their students and teachers. For instance, discussing the impact of the DFC programme, Teacher 1 (25/05/11) agreed that there had been "a vast improvement in the students' attitudes and behaviour" and Teacher 2 (25/05/11) commented that "we have no plastic waste in the school and kids have realised that it is good to eat healthy food". According to Teachers 1 and 2, the students in the DFC focus group had been able to raise awareness amongst other students both within their school and in other schools and their parents on the implications of eating packaged food. At the primary school age, understanding the implications of plastic waste, learning the value of eating healthy food, the value of cleanliness and creating awareness in their parents go a long way in fulfilling the vision of GNH Education.

Besides promoting these values to their own teachers and students, ZPS had been successful in spreading the concept and philosophy of the DFC programme to seven other schools and communities in the city (Teacher 2, 25/05/11). According to the Principal and Teacher 2, these seven schools have initiated their own programmes such as providing safe drinking water and even to the extent of combating corruption in the country by saying 'no' to the government pool vehicles in school parking areas. In the Bhutan context, the officers often use government pool vehicles for private purposes such as delivering their child/children to school. Emphasising the importance of promoting values when children are in the school, the Principal stated that, "if we inculcate GNH values from the beginning then I think there will be some changes in the future" (Survey questionnaire, Principal # 192).

There is adequate evidence to demonstrate that ZPS had successfully promoted the values of compassion, empathy, sharing, kindness and others in their students through the 'ProH4' citizenship programme (Principal, 26/07/11). Initially the funds for ProH4 were raised through student contributions and later to make it more sustainable through various clubs such as nature, cultural, knitting, cooking, documentation and various sports clubs were introduced. Besides gaining knowledge and skills, some of these club activities were geared towards raising funds for the ProH4.

The Principal, who was energetic and passionate about GNH Education, had also sought to understand the impact of meditation. She believed that every human being had the potential to show love and compassion but not many were able to practically achieve these values (Principal, 26/05/11). She argued that such values as goodness and compassion could be accomplished through the practice of meditation, which Siegel (2009, p. 146) refers to as "brushing your brain." The Principal (26/05/11) said that the metaphor goes so well with children. It is like brushing their teeth, which is good for their teeth hygiene. Similarly, for the brain hygiene they need to brush their brain through meditation.

Conclusions and Implications

Overall findings from this case study indicated that GNH Education has begun to make some impacts on students, teachers, and on the school in general. In the ZPS case, it is clear that the prior history of the school, perhaps encapsulated by "universal education", was an important pre-cursor for GNH Education. Evidence from this case study showed that ZPS had achieved much in terms of promoting GNH values through ECPs. The current study supports the theory of a positive relationship between efficacy beliefs and effort put in by the change agents and its related outcomes (e.g., Bandura, 2000; Haney et al., 2002). The key change agent here was clearly the Principal. Findings showed that students have gained knowledge and skills that could make a lifetime impact on them and to the others whom they have been able to reach outside the school through their various programmes. It has been a learning journey not only for the students but also for the teachers and the Principal. Clearly ZPS is a leader in GNH Education through ECPs.

On the other hand, ZPS had not been able to overtly infuse values in the daily classroom teaching as envisioned by GNH Education. Although only two lessons were observed, these data and those from the interviews showed that teachers had low self-efficacy to infuse GNH values into their classroom teaching. This helps to further explain the theory that self-efficacy beliefs is context and task specific and that low self-efficacy can lead to lack of effort, no perseverance and lack of motivation (Bandura, 1997;

Goddard, 2002). Such a finding in Bhutan has practical implications for the teacher education colleges and the Ministry of Education in terms of both pre- and in-service teacher preparation. They need to invest time and resources in preparing teachers with skills and knowledge to infuse GNH values and principles into their teaching subjects.

Further, there was also evidence to show that syllabus coverage and examination pressure played a role at ZPS, which inhibited devotion of teaching time to overtly discuss GNH values and principles. Perhaps, the Ministry of Education needs to reconsider the issue of syllabus overload and emphasis on the examination system, especially for young children at the primary school level. More focus needs to be provided on the process of teaching and learning rather than on the final examination system as in many other countries at this level. Alternatively, incorporating GNH content in the assessment system would help both teachers and students provide adequate attention to infusing GNH values.

One significant finding from this study was the important role played by the hidden curriculum (Seddon, 1983), for instance, the good modelling observed at ZPS was the teacher care for their students. The classroom atmosphere was relaxed so that children were provided opportunities to speak and contribute in classroom discussions and at least one teacher also respected children's personal needs. Teachers modelling such practices in the classrooms in the form of hidden curriculum would go a long way in fulfilling the vision of GNH Education.

On the other hand, there were negative impacts of the hidden curriculum. For instance, Teacher 1 needs to reconsider his habit of providing pejorative feedback on his students' efforts. Commencing lessons by making all children say Buddhist prayers may marginalise and mark the absence of respect for others who do not follow Buddhism. Like other nations, Bhutan is a multi-cultural society. Teaching of values in such multi-cultural society has always been a contested subject and the question that, 'whose values are to be taught?' is often raised by critics (e.g., Arthur, 2005). Such practices have the potential to create dissonance thereby defeating the whole purpose of GNH Education. Therefore, it is important for teachers and schools to ensure that everyone in the class is Buddhist for such a practice to be implemented. If there are non-Buddhists, perhaps they could be allowed to say prayers in their own way and not follow the group. However, this is a policy issue that appropriate authorities must address. Perhaps if there were a significant number of students in the class with two or three religious backgrounds, it would be a good idea to at least listen or watch how other groups say their prayers and learn from each other. Opportunities for such mutual learning experiences would help to understand similarities of different religions instead of focussing on their differences– the true essence of GNH philosophy.

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Indicators for Knowing the Trajectory of the Bhutanese Education System

GEMBO TSHERING

Abstract
The Bhutanese education system has been growing rapidly since the 1960s. Along with the growth, it has been experiencing challenges which need interventions. However, interventions need relevance and currency for them to be as effective as expected. This requires the interventions to be reinforced with a sustained, systemic understanding of the challenges. This paper presents a framework of indicators to help the Bhutanese in understanding the challenges along the growth trajectory of their education system and in generating data-driven policy decisions, interventions, and reforms to overcome the challenges.

Introduction

Since the arrival of the modern education in the early 1960s, the modern education principles and practices have rapidly emerged as underpinnings for the education system in Bhutan. By the year 2010, Bhutan had 547 schools with 170,405 students (Policy and Planning Division, 2010) in contrast to 11 schools and about 400 students in the early 1960s (Department of Education, 1999). This indicates that the schools and the students have been increasing at the rates of approximately 11 schools per year and 3,400 students per annum, since the 1960s. Over the years, the modern education system in Bhutan has evolved into seven distinct departments: Early Childhood Care and Development Education; Primary Education; Secondary Education; Tertiary Education; Adult Literacy and Continuing Education; Technical and Vocational Education; and Special Education (Department of Education, 1999).

Along with the rapid growth, perspectives about the quality of education have been running high in Bhutan with a range of equally changing indicators. However, what appear to emerge from the momentum are the school autonomy; the international benchmarks; the standards-based school curriculum; the research-based evidence; and the assessment database. These dimensions are often looked upon as powerful quality assurances that contribute to teachers teaching more effectively, students learning with greater understanding, parents making more informed choices of schools, schools functioning more effectively, and the Royal Government of Bhutan making better informed policy decisions on school education. However, changes occur when reforms are initiated. This paper will present a framework of indicators that is capable of enhancing the relevance of reforms to the Bhutanese education system and facilitating the recognition of the resulting changes in the system. Also, the framework of indicators will provide the Bhutanese with greater insight into the growth trajectory of their education system.

A Framework for Goals and Challenges of the Bhutanese Education System

With expedience in its growth, the Bhutanese education system is beginning to face greater challenges as the Bhutanese begin to prospect their fortunes beyond Bhutan. Post-school further education enrolment pressure, misalignment between education outcomes and employment qualifications and

needs, a pronounced rural-to-urban population drift, and achievement of equitable access to learning opportunities are some of the challenges (Department of Education, 1999). The Bhutanese education system needs reform and increased relevance if it is to meet the specific human resource and development requirements of the country in a globalized economy.

The problems and challenges faced by the Bhutanese education system resemble the longstanding "ten critical future issues" identified by Coombs (1982):

- Keeping pace with rapidly *expanding learning needs* that cut across all segments of the population and society;
- Coping with a growing financial squeeze, caused by rising educational costs pressing against tighter budget ceilings;
- Rectifying serious maladjustments between education and employment;
- Overcoming unacceptable socio-economic, sex and geographic educational disparities and inequalities;
- Improving educational quality and the fitness of education to changing environmental conditions and the realistic needs and interests of learners;
- Harmonizing education and culture in each society;
- Achieving more efficient and effective use of limited educational resources;
- Developing broader, more flexible and community-based approaches to educational planning and management;
- Building a progressively broader and more diversified 'learning network'- combining formal, non-formal and informal modes of education to serve the evolving life-long learning needs of all members of the population;
- Revitalizing and reorienting international educational co-operation to meet changing needs and world conditions. (pp. 145-146)

To address these challenges, Coombs (1982) emphasized the need to develop an education system that embraces the life-long learning needs of the whole society and all modes and types of learning. Knapper and Cropley (2000) and the OECD (2004) note that life-long education has emerged out of the need to keep abreast with unpredictable demand for, and supply of, knowledge and skills and learning opportunities because of an emerging ICT-connected world and its implications on the dynamics of the world of work.

A vision document of the Royal Government of Bhutan, where the perspective extends to the year 2020, also envisions a life-long education system in Bhutan. It states that Bhutan must have a dynamic education model that provides for "multiple entry and exit points to a variety of courses and learning opportunities that go beyond the traditional boundaries set by existing institutions" (Planning Commission, 1999, pp. 20-21). In line with the vision document, the Ministry of Education (Department of Education, 1999) has set life-long learning as one of its goals:

> The rapid globalisation of the world economy and increasing access to information has offered a new dimension for learning. One component of this new dimension is the concept of life-long learning. To that end, secondary schools must equip young people with the interest and tools needed to continue to learn and stay abreast of technological developments throughout their lives. (p. 21)

Further, a recent planning document, *Draft Tenth Five Year Plan (2008-2013) Vol. 1: Main Document* states that "the Royal Government will place a strong emphasis on promoting life-long learning through all formal and non-formal education processes as well as through effective human resource development in the public and private sectors" (GNH Commission, 2008, p. 49). All this indicates that Bhutan has been having policies to embark a life-long education system since 1999. In addition, the planning document commits the education system to creating awareness of the benefits of a life-long education by fostering a learning culture among all sections of Bhutanese society. This is all the more relevant to Bhutan, given the 54% adult literacy rate (Royal Government of Bhutan, 2005, p. 47), 1.4% of the total labour force with a college-level education (GNH Commission, 2008, p. 48), and a 6 to 7% annual economic growth forecast (Royal Government of Bhutan, 2005, p. 23). The emphases in the policy documents indicate that Bhutan recognises the need to provide its people with learning opportunities through life-long education as a means to raising its literacy rate and the education level of its current workforce. The proposed framework of indicators in this paper will contribute to measuring the preparedness of Bhutanese students' for life-long education.

Drawing on the works of Tuijnman, Kirsch, and Wagner (1997), Resnick (1987), and the Secretary of Labour's Commission on Achieving Necessary Skills (1991), Knapper and Cropley (2000) identified key attributes of the concept of knowledge in the context of life-long learning. These attributes are: collecting, analysing and organizing information; communicating ideas and information; planning and organizing resources; understanding and designing systems; solving problems; using technology; using mathematical ideas and techniques; adaptation skills; analytical skills; working with others; higher-order-thinking skills, and meta-cognition. Indeed, these attributes constitute the core skills in any school curriculum, implying that high-performing students have developed these skills. Further, Cropley (1981) and Knapper and Cropley (2000) emphasized that life-long learning also depends on non-cognitive factors such as motivation, attitudes, values, and the self-image of students because these factors define the students' readiness for life-long learning. With reference to these attributes of life-long learning, Cropley (1981) characterized a life-long learner as someone who understands the relationship between learning and real life, recognises the need for life-long learning, and possesses a positive self-concept and skills for life-long learning. Cropley (1981) also presented a set of skills necessary for life-long learning. These skills included goal setting, research skills, self-monitoring of learning, and effective use of learning devices and resources.

Knowledge about the trajectory of the Bhutanese education system may include the aforementioned aspects of knowledge and skills associated with life-long learning as some indicators of Bhutanese students' preparedness for successful participation in the world of work after completing their school education.

School Effectiveness Research

One of the longstanding fields of study that provides indicators for changes in education system is school effectiveness research. Scheerens (1992) defines the school effectiveness research tradition as the studies that seek to explain the differences in student outcomes in terms of specific school characteristics. Scheerens (1992) presented a model that encompasses his view of school effectiveness research as shown in Figure 1.

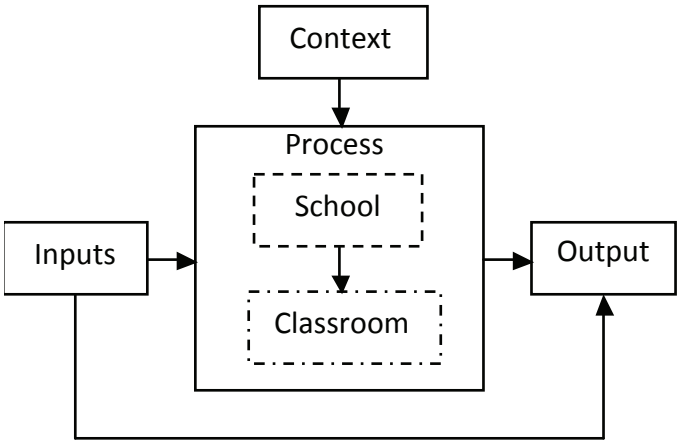

Figure 1. The Integrated Model of School Effectiveness

As shown in Figure 1, the Integrated Model of School Effectiveness has multi-levels, such as classroom-, school-, and context-levels. The downward arrowheads in the model indicate that the higher levels facilitate conditions for the lower levels—an assumption that enables the study of cross-level interactions. The model also shows that output is determined by both input and process, while process is determined by input. Although what may be included in each cell of the model has been presented elsewhere in this paper, the central theme of the model is that the process should respond to the input and that the output can be only as good as the process.

The Integrated Model of School Effectiveness accords with the necessary features of a school effectiveness model set out by Reynolds et al. (1994), except its capability to explain individual student gains, though it could be argued that outputs represent student achievement after adjusting student background variables. Reynolds et al. (1994) assert that a school effectiveness model must: explain individual student gains; aggregate upward; specify the relationships among variables contributing to those gains; be capable of being measured with reasonable accuracy over at least three points in time; and be capable of being analysed at appropriate levels. Exclusion of a specific level for students in the Integrated Model of School Effectiveness may subsume student characteristics at the classroom-level, implying that the model permits data analysis only at the classroom level, not at the student level of aggregation. The literature on educational effectiveness, however, abounds with claims that student characteristics (e.g., socio-economic status, motivation, and self-regulatory learning skills) not only affect student achievement, but also interact with the effectiveness factors operating at the classroom or school-level, implying that the Integrated Model of School Effectiveness needs reformulation.

Creemers (1994) developed a comprehensive model of educational effectiveness that includes student-level. Like Scheerens's model, Creemers's (1994) model has a multi-level structure, with context, school, classroom, but Creemers adds student as a fourth level. Creemers's (1994) comprehensive educational effectiveness model has four assumptions (Because the technical words in the assumptions had been convincingly explained by Creemers, similar explanations are not offered in this paper.). First, time on task and opportunity used at the student-level are directly related to student achievement. Second, the quality of teaching, the curriculum, and the grouping procedures influence time on task and opportunity to learn. Third, the quality of teaching, the time on task, and the opportunity to learn at the classroom-level are also influenced by factors at the school-level that may or may not promote these classroom factors. Fourth, student achievement is also determined by student factors such as aptitude, social background, and motivation.

Researchers have reported empirical evidence supporting the validity of Creemers's (1994) Comprehensive Educational Effectiveness Model, especially its multi-level nature and direct and indirect relationships between the levels and student outcomes (Creemers & Kyriakides, 2006, 2008; Kyriakides, 2008). However, Kyriakides (2008) pointed out that Creemers's (1994) Comprehensive Educational Effectiveness Model allows researchers to use different approaches to measure effectiveness factors that lead to inconsistent results with other models. Kyriakides (2008) noted that the main cause of inconsistency is that researchers describe effectiveness factors as uni-dimensional, instead of describing them as multi-dimensional. It was also observed that the studies conducted to test the validity of Creemers's (1994) Comprehensive Educational Effectiveness Model did not identify cross-level interactions between the factors at different levels (Kyriakides, 2008). Kyriakides (2008) strongly attributed the absence of cross-level interactions in the studies that tested Creemers's (1994) model to its oversight of the dynamic nature of effectiveness.

Using the multi-level nature of educational effectiveness and the existence of relationships between levels and outcomes as confirmed by the studies that tested Creemers's (1994) model as starting points, Creemers and Kyriakides (2008) developed a Dynamic Model of School Effectiveness. The model is shown in Figure 2.

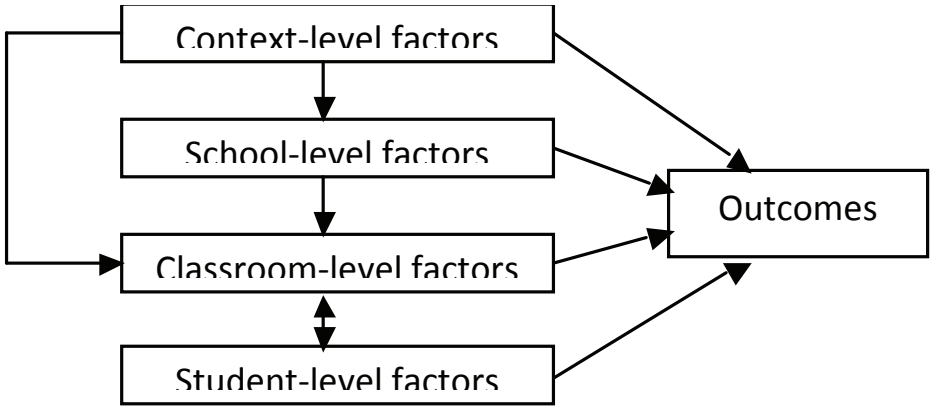

Figure 2 The Dynamic Model of School Effectiveness

Creemers and Kyriakides (2008) claim that, along with the identification of the educational effectiveness factors, an educational effectiveness model should explain various dimensions upon which the functioning of the factors can be measured, with the dimensions being frequency, focus, stage, quality, and differentiation aspects of effectiveness factors.

Creemers and Kyriakides's (2008) Dynamic Model of School Effectiveness has all the three necessary characteristics of a school effectiveness model that are identified by Reynolds et al. (1994). However, the Dynamic Model of School Effectiveness does not have an input unit in it. It is clear from the literature on educational effectiveness that educational input resources, including teacher background characteristics, contribute to variance in student achievement even after adjusting for student background and prior learning (Greenwald, Hedges, & Laine, 1996; Hanushek, 1997; Hedges, Laine, & Greenwald, 1994; Marzano, 2001; Scheerens, 2000; Wayne & Youngs, 2003; Wenglinsky, 2002). In addition, Ingvarson and Rowe (2007) presented a compelling case for conceptualising teacher quality in terms of teachers' subject-matter knowledge and pedagogical skills, in contradiction to Creemers and Kyriakides's (2008) conceptualisation of teaching quality only in terms of teachers' pedagogical skills.

Framework of Indicators to Study Changes in the Bhutanese Education System

The strengths and weaknesses of the Integrated School Effectiveness Model and the Dynamic Model of School Effectiveness offer important guidelines for developing a framework of indicators to measure changes in the Bhutanese education system. First, the input-process-output paradigm of the Integrated Model of School Effectiveness is a case in point. Drawing on the literature of educational effectiveness research, Scheerens (1990, p. 62) sums up that a "context-input-process-output model is the best analytic scheme to systematize thinking on [educational] indicator systems". Therefore, a framework of indicators should accommodate the discrete nature of educational productivity, with each production unit (input, process, and output) relating to various correlates of educational effectiveness. Second, a multi-level structure of a framework of indicators fits well with the conventional school organizational structures, and aligns well with the multi-level characteristic of the factors that affect student outcomes (Creemers & Kyriakides, 2008). Therefore, a framework of indicators needs context-level, school-level, class-level, and student-level components, as in Creemers and Kyriakides's (2008) Dynamic Model of School Effectiveness.

While school-, class-, and student-levels are easily noticeable in a conventional school organizational structure, context-level influences are not always obvious. However, it is the context-specific educational goals, objectives, values, and their priority levels that define educational effectiveness. Reynolds (2006) notes that countries construe educational effectiveness factors differently.

A unique context-level will enable the model to generate information about country-specific socio-cultural values, overall educational environment, and national education policy. As assumed by the Integrated Model of School Effectiveness and the Dynamic Model of School effectiveness (Creemers & Kyriakides, 2008), the multi-level nature of educational effectiveness is based on the knowledge that the conditions at higher levels facilitate the conditions at lower levels. These analyses suggest the following characteristics of a framework of indicators: the framework should be multi-

level in nature; the framework should be based on input-process-output paradigm; and the relationship between different levels of the framework might be linear, curvilinear, or reciprocal depending on the dynamics among the levels. A skeletal framework of indicators is thus presented in Figure 3.

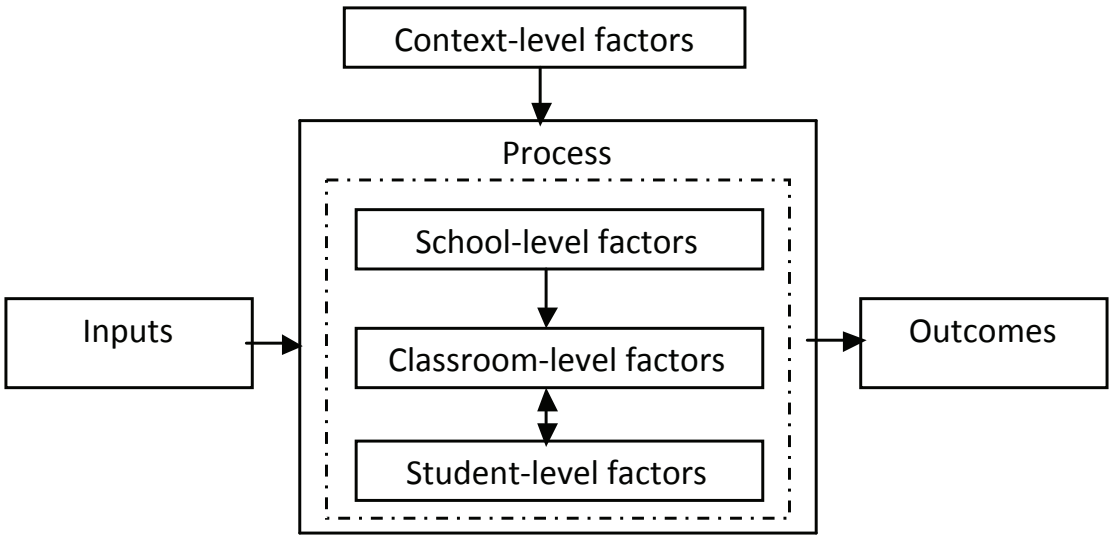

Figure 3 A Skeletal Framework of Indicators

The proposed framework of indicators in Figure 3 amalgamates Scheerens's (1992) Integrated Model of School Effectiveness and Creemers and Kyriakides's (2008) Dynamic Model of School Effectiveness. The proposed model is, therefore, based on the same assumptions formulated by Scheerens (1992) and Creemers and Kyriakides (2008) for their models. A comparison of the proposed framework of indicators with the other two models is presented in Table 1.

Table 1 Comparison of Models in Terms of Their Structures

Characteristics	Integrated School Effectiveness Model	Dynamic Model of School Effectiveness	Framework of Indicators
Context-level	√	√	√
School-level	√	√	√
Classroom-level	√	√	√
Student-level	×	√	√
Input unit	√	×	√
Process unit	√	√	√
Output unit	√	√	√

As shown in Table 1, the Integrated School Effectiveness Model lacks the student-level, whereas the Dynamic Model of School Effectiveness lacks the input unit. By integrating the two models, the proposed framework of indicators bridges the gaps between these two models.

Fleshing Out the Framework with Indicators

The proposed framework of indicators can now be fleshed out with educational effectiveness factors, which are also the indicators, relevant to its levels. First, the framework is a multi-level structure, with the structure consisting of context-, school-, classroom-, and student-levels. Second, the framework uses the input-process-output paradigm. Third, as discussed, the framework is underpinned by the assumptions of the Integrated School Effectiveness Model and the Dynamic School Effectiveness Model. Fourth, context-, school-, classroom-, and student-levels of the framework are characterized in terms of the educational effectiveness factors described in the literature of educational effectiveness research and large-scale educational assessments. Figure 4 shows the framework with the indicators.

As a way of comparison, Table 2 provides educational effectiveness factors of the Integrated School Effectiveness Model, the Dynamic School Effectiveness Model, and the framework of indicators.

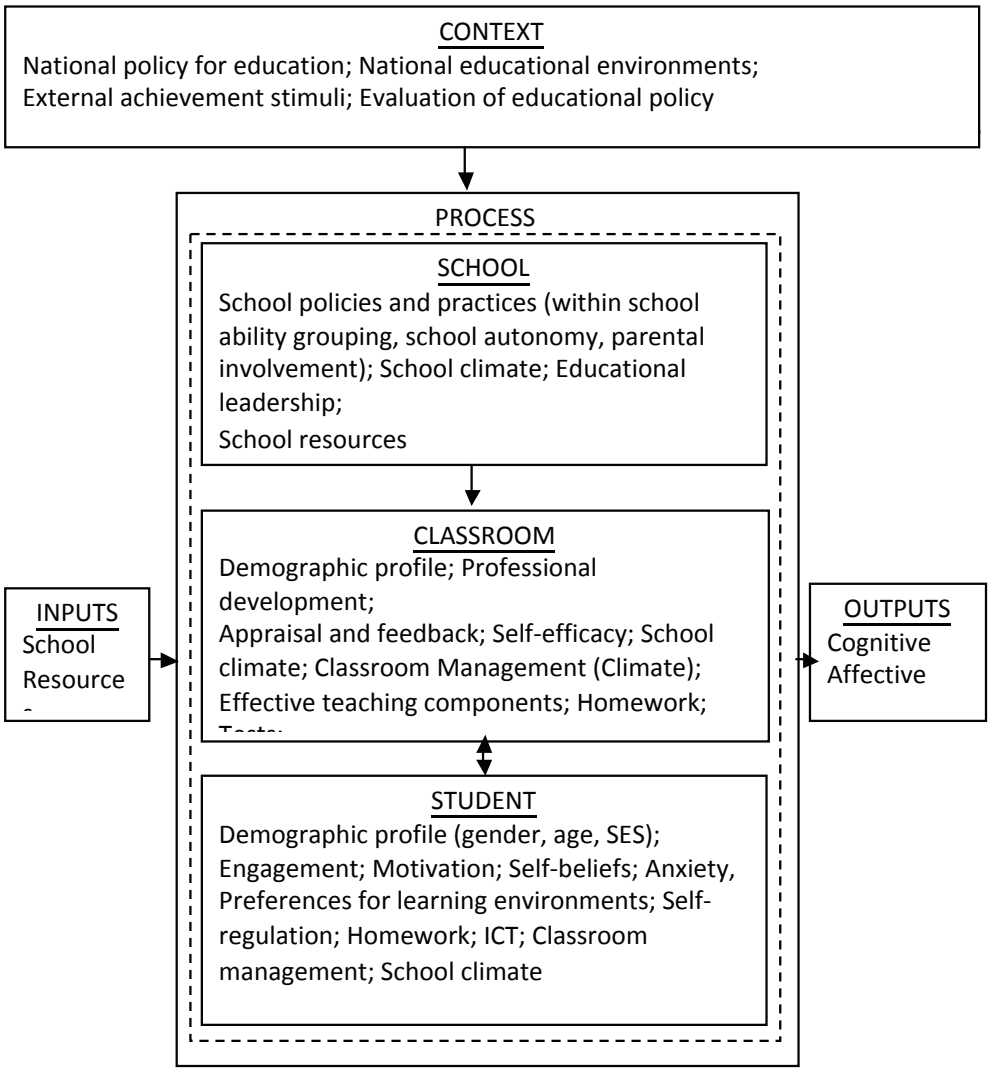

Figure 4 Framework of Indicators

Table 2 Comparative List of Educational Effectiveness Factors Identified by the Two Models and the Framework of Indicators

Integrated School Effectiveness Model	Dynamic School Effectiveness Model	Framework of Indicators
Context-Level Factors • Achievement stimuli from higher administrative levels • Development of educational consumerism; • Co-variables like school size, student-body composition, school • category, and urban/rural distinctions School-Level Factors • Achievement-oriented policy • Educational leadership • Consensus, co-operative planning of teachers • Quality of school curricula in terms of content covered, and formal structure • Pressure for achievement; • Recruitment of qualified staff • Financial and material Characteristics of the school • Orderly atmosphere • Evaluative potential Classroom-Level Factors • Time on task • Structured teaching • Opportunity to learn • High expectations of pupils' progress • Evaluation and monitoring of pupils' progress • Reinforcement	Context-Level Factors • National/regional policy for education • Evaluation of policy • Educational environment School-Level Factors • School policy and evaluation of school policy Classroom-Level Factors • Quality of teaching (orientation, structuring, modelling, application, questioning, assessment, management of time, classroom as a learning environment) Student-Level Factors • Aptitude • Perseverance • Time on task • Opportunity to learn • Socio-Economic Status • Gender • Ethnicity • Personality traits • Expectations • Thinking style • Subject motivation	Context-Level Factors • National policy for education • Evaluation mechanism for educational policy • National educational environment (e.g., educational consumerism, school category) • External achievement stimuli School-Level Factors • School policies and practices • School climate • Educational leadership • School resources Classroom-Level Factors • Demographic profile • Professional development • Appraisal and feedback • Self-efficacy • School climate • Classroom Management (Climate) • Effective teaching components • Homework • Tests • ICT Student-Level Factors • Gender • Age • Socio-Economic Status • Motivation • Self-efficacy • Self-regulation • Learning preferences • Homework • ICT • Classroom management • School climate • Engagement

As shown in Table 2, the models and the framework of indicators have similar educational effectiveness factors. All three use teaching components as educational effectiveness factors at the classroom level. The proposed framework of indicators differs from the two models by its inclusion of ICT as an educational effectiveness factor. However, it must be noted that the proposed model is not parsimonious; some factors are less important than the others. Notwithstanding its lack of parsimony, the model offers educational researchers with a pool of educational effectiveness factors for developing educational indicators in response to reforms and changes taking place in education systems of their interests.

Therefore, the proposed framework of indicators has the potential to function as a state-of-the-art framework of indicators for researchers interested in knowing the change trajectory of the Bhutanese education system, with the aim of facilitating the generation of data-based policy decisions and reforms in the system.

Conclusion

This paper presented a framework of indicators to assist the Bhutanese in knowing the growth trajectory their education system. As it is evident from the framework of indicators, data-based decisions can be made at various levels and in various contexts. Also, reforms can be initiated in the system and ensuing changes in the system can be recognised.

Some future directions may ease the use of the proposed model. It is likely that some of the factors of the proposed model may not be significant if it were to be trialled. However, the parsimony of the model can be improved by validating the model with stakeholders and experts both before and after the trial. Further, the scales for indicators should satisfy psychometric properties of measurement. If existing scales were to be used for some indicators, then such scales should be examined for their cross-cultural validities as well. As it is too ambitious for any model in educational effectiveness studies to claim infallibility, too much attention to factors of the proposed model may compromise other vital factors, and this is often the case in an education system where accountability is tied to performance indicators. Therefore, the implementation, monitoring, and accountability aspects of reforms and changes that the proposed model may foster in the Bhutanese education system should be supplemented with relevant, scientific strategies.

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Samtse: A Cultural Melting Pot

TASHI GYELTSHEN AND DORJI S

Abandon bad cultures even if it is your father's,
Adopt good cultures even if it is your enemy's.

- Sachen Kuenga Nyingpo

Abstract
This article explores how the people of Samtse, a district in Bhutan, despite different cultural orientations, live in harmony. The people of Samtse consist of the original inhabitants of Bhutan; the people who migrated into Bhutan in the past, the most recent settlers from other parts of the country, and the people working in educational institutions, manufacturing and mining industries. This has resulted in Samtse becoming a culturally diverse district in Bhutan.

The data for the study were collected through interviews and direct observations. Interviews were conducted with elderly people who have rich past memories of Samtse, elder members of ethnic groups, local leaders and the district leaders to gain insight into aspects of intangible culture such as beliefs, traditional customs, language and folklore of different cultural groups, while observation was used in the collection of evidence on the celebration of important events, occasions, and art and craft.

This article demonstrates that people with different cultural backgrounds can peacefully co-exist through their acceptance and readiness to participate in each other's culture whilst preserving individual ethnic group's culture. People of Samtse accommodate, respect and participate in each other's cultures. The article reveals that people of different cultural orientations, over time, learn to accept cultural differences and mix freely without external interventions to promote cultural cohesion.

Introduction

Samtse, with a large number of ethnic groups practising their unique cultures, may well be considered culturally a most diverse and vibrant districts in Bhutan. Samtse is home to some of the earliest inhabitants of the country, such as the Doya, popularly known as Lhop, as well as the people of the Haa district who used Samtse as a winter residence and as pasture for their cattle over many centuries (Interviewee 5). It is also home to a wide variety of more recent settlers such as the Lepchas, who migrated from Sikkim, India, and the Lhotshampas, who migrated from Nepal and the Indian hill district of Darjeeling until the first half of the twentieth century. Samtse has also accommodated more recent settlers, mostly from eastern and central districts of Bhutan.

In addition to the above ethnic groups, there is a sizable number of Adivasi – tribal people widespread in India, Nepal and Bangladesh, and the unique Assamtsa in Bara geog. In addition to the ethnic diversity are the security personnel and their families, the people working in various educational

institutions such as Samtse College of Education, and in industrial establishments such as Bhutan Fruit Factory, Cardboard Factory, Army Welfare Project, Penden Cement Authority, Lhaki Cement Factory and Jigme Polythene Factory. There are also many mining sites in Samtse to which people from different cultural orientations come and work together. The porous border with India also enables constant interaction and free exchange of cultures between the peoples of the two nations adding to the cultural diversity of Samtse.

The people of Samtse, irrespective of their caste, creed, colour and religion, live in harmony. Unlike in the bordering district of Jalpaiguri, which sometimes faces conflicts between the major cultural groups, and the district of Darjeeling, which is often interrupted by conflicts and confrontations as a result of cultural differences, Samtse enjoys peaceful co-existence. The essence of such harmonious living is well captured in the vision of Samtse Dzongkhag – "A prosperous community living in harmony with diverse culture and safe environment". An elderly interviewee in this study shared that Samtse has always been a culturally vibrant district. He also shared his observation that the past two decades have seen greater cultural diversity the cause of which is discussed later in the article.

A Glimpse of Samtse

Samtse is one of the twenty districts in Bhutan and is located in the extreme south-western part of the country bordered by the districts of Haa to the north, Chukha to the east, and the Indian states of West Bengal to the south and Sikkim to the west. This strategic location has enabled Samtse to have myriad cultures. Samtse district has a total area of 1309 square kilometres ranging from 300 to 3800 metres above sea level (National Statistics Bureau, 2010).This variation in altitude has facilitated Samtse to be one of the biggest producers of food crops, such as rice and cash crops, such as cardamom, ginger, orange and betel nut. Samtse is also rich in mineral deposits, such as talc, dolomite and quartzite. These minerals are used locally for the production of cement as well as exported to India and Bangladesh. These agriculture and mining activities draw people from different districts of Bhutan and neighbouring Indian states work together. The population of Samtse stands at 65,387 (National Statistics Bureau, 2010).

Samtse is home to people practising many religions. It is generally seen as a southern district mostly inhabited by the Lhotshampa who are mainly Hindus. All ethnic groups of Lhotshampa, such as Bahun, Chhetri, Rai, Pradhan, Biswa and Galley are Hindus. At the same time, there are other groups such as Gurung, Tamang, Sherpa and Lapcha who practise either Buddhism or Hinduism. In addition, there is also a sizable Muslim community living in the geogs (sub-districts) that share a border with India.

One of the major cultural groups is people who practise Buddhism. Samtse has always felt a very strong influence from the people of Haa who are Buddhists. Moreover, in the recent past, the number of Buddhists has grown rapidly with the increase in public offices and institutions, security personnel, settlers from other districts, and industrial establishments, leading to the increased number of institutions, such as Dratshang and Goenpas. A discussion on each of the major ethnic groups is provided separately after the section on culture below.

Culture

Generally speaking, culture has come to be an all-encompassing word. Some understand culture as literature, architecture, marriage, dance, music and art, while others associate it with religion, beliefs and dress. Anthropologists define culture as learnt human behaviour and patterns. House, Hanges, Javidan, Dorfman and Gupta (2004) define culture as "shared motives, values, beliefs, identities, and interpretations or meaning of significant events that result from common experiences of members of collectives and are transmitted across age generation" (p. 57). However, culture can be understood more specifically as those elements created by a society in the past and which presently provide the society with a sense of its own identity and worth (Logan, 2007). As such, culture in Bhutan manifest in forms of language, thirteen traditional arts and crafts, festivals, ceremonies, dance and music, dress and etiquette and the spiritual values that people share (Ura, Alkire, Zangmo & Wangdi, 2012).

The government and the people of Bhutan accord a high priority to culture that comes in both tangible and intangible forms. Culture is one of the four pillars (preservation and promotion of culture) and one of the nine domains (cultural diversity and resilience) of the Gross National Happiness [GNH] – a developmental paradigm that is unique to Bhutan. The strength of culture in GNH is assessed through four indicators, such as language, artisan skills, cultural participation and *Driglam Namzha* (Code of Etiquette of Bhutan). Culture has become a main life-force in the religious, political and socio-economic life of the Bhutanese people.

Bhutan's unique culture and identity attract people from around the world. Tourists come to Bhutan to experience the unique culture in its varied forms. This has boosted the country's revenue and its fame as an idyllic country. At the same time, culture has fulfilled other important roles for Bhutan by strengthening the unity of the people. Aspects of culture, such as religion, beliefs, language and dress give a unique identity that has consolidated the unity among the culturally diverse people of Samtse in particular and Bhutan in general. To Bhutan, culture in its sublime form, is one of the mechanisms that has prevented the onslaught of foreign powers.

One can experience distinct cultures in every lowland and highland of Samtse. However, owing to its location, Samtse has not been able to showcase to the world its kaleidoscope of culture which the people of Samtse rigorously preserve despite the challenges they face with the changing time and especially the advent of modern facilities and lifestyles.

A Brief Discussion on the Ethnic Groups

It is worth presenting a brief overview of some of the unique aspects of the culture of different groups of people living in Samtse. Each group has its distinct culture in the form of languages, dances, beliefs, scripts, rites, and even in terms of the geographical location the groups occupy.

Samtse is home to the Doya, also known as *Lhop*, who are considered the original inhabitants of Bhutan. Presently, they occupy a few villages under Dophuchen and Tading geogs. Doyas have their own dialect, dress, dance, songs, ritual and rites. They are smaller in their physical stature and lead a fairly simple life in terms of dress, food, livelihood and housing. Doya dress is plain white cloth. Women wear it in the manner of a Kira – national dress for Bhutanese women, and men tie a white robe at the waist in the fashion of a Gho – national dress for Bhutanese men. Doya men knot the upper ends of the robe at the

shoulders. However, youths prefer wearing other styles of clothing (Tshering, Namgyel & Rinzin, 2013). One of the unique features of Doya culture among many is their burial rite. They believe that they have to go to their ancestral home to die. The dead are buried near their ancestral house. Family members and relatives pile stones on the grave to make a *Romba*, a structure that resembles a stupa.

Every clan of Doya claims to have their own history of origin. *Numba*, one of the Doya clans, believe that their ancestors descended from heaven. As their ancestor descended, they landed on their knees on a huge rock that can still be seen at a place called Sanglung. This landing has resulted in their large knees (Interviewee 2). Similarly, other clans have different histories of their origin. Doyas also have a rich folklore and folk songs that contain history and various aspects of their culture.

At one time the Doyas are believed to have occupied a much larger area including part of central Bhutan. Some propose that the Monpa of Jangbi village in Trongsa are remnants of the Doya people as they share a similar culture. Olep of Rukha village in Wandi Phodrang are related to Doyas with the belief that Oleps are the sub-group of Monpa of Trongsa (Namgyel, 2014; Tshering, Namgyel & Rinzin, 2013). Over the time, the Doya population has dwindled.

Assamtsa are another unique group of people occupying the four villages of Changju, Chingu, Kongkha and Assamtsa in the western-most geog of Bara, Samtse. They claim to have inhabited the area for a very long time. However, a 73 year-old interviewee shared that they could be of Tibetan origin. He believes that they did not go back after Tibet was taken over by China. They are fair and very tall by Bhutanese standards. This has led to a general belief that they could be descendants of Aryans (Interviewee 1 & 3). They have their own dialect which has some resemblance to Dzongkha, the national language, and Denjong language of Sikkim, India. It is widely spoken within the community. In the past, owing to the location, that is, close proximity to Sikkim, they enjoyed close contact with the Sikkimese. Interviewees observed that the Assamtsa people, in the past, relied on Buddhist monks from Gangtok, Sikkim, to perform religious ceremonies and rites for the dead.

Assamtsa people at one time lived a semi-nomadic lifestyle (Interviewee 6). However, with the start of developmental activities, they settled down. Their main livelihood is cash crop farming – especially cardamom, cattle rearing, small-scale farming and kitchen gardening. Regarding their costume, men are often seen in a gho. Women also wear a type of dress that resembles kira with tego, which has more of a resemblance to an overcoat (interviewee 6). However, another interviewee claims that Assamtsa women are occasionally seen in Tibetan attire.

The third ethnic group is Adivasi. Adivasi is the umbrella term for an assortment of indigenous Africoid and Australoid descendants who precede Dravidians in south India (Tudu, 2008). Adivasi in Sanskrit means original dwellers. They have held the integrity of African/Austric language, culture and genetic composition despite widespread attempts at cultural enslavement by the Indo-European mainstream society. Under the Hindu Brahmins Adivasi became a part of Dalit or untouchable blacks.

Currently, they are considered a tribal people of India. Adivasi in Samtse are members of groups of people brought during colonial times to work on the tea estates of Assam and Bengal. They live in the geogs that share a border with India. Adivasis have their own language and customs, and maintain close ties with the Adivasi who live and work in the tea plantations across the border. At the same time, they mingle freely with the other ethnic groups in Samtse. Adivasi are known for their simplicity and straight-forwardness.

Lepcha, or Rongpa, as they call themselves, are one of the distinct ethnic groups in Samtse. They occupy Bukey under Samtse geog as well as in some places under Norbugang and Denchukha geogs. The Lepchas are believed to be original inhabitants of Sikkim, India. The Lepcha people in Bhutan belong to "Promu", one of the four distinct communities of Lepcha. The Lepchas have their distinct language, scripts, dance, song and rites along with a very rich folklore. A few of the Lepchas in Samtse follow Shamanism, while most are Buddhist.

The presence of the Haap community in Samtse is very prominent. Initially, the Haap used Samtse as seasonal pastureland and as winter residence. However, over time, they settled down permanently in Samtse bringing their culture with them. Haap in Samtse, celebrate festivals such as *Lomba* and *Nyinlo* which are the most popular festivals of the people of Haa and Paro.

One of the largest cultural groups is the conglomerate of Lhotshampa such as Gurung, Ghalley, Rai, Bahun, Chhetri, Pradhan and Bishwa. Generally, they are spread over the whole of Samtse and they freely assimilate with other ethnic groups. However, each group has specific locations of concentration. Gurung are mostly in the western as well as in small pockets of other parts of Samtse, while Ghalley mostly occupy the hills overlooking the Indian plains. Bahun, Chhetri and Biswa are concentrated in Dophuchen, Rai in Denchukha geog and Pradhan in Chargary geog. These pockets of concentration, in a way, have helped them to practise, preserve and promote their individual ethnic cultures.

While the discussion dwells on Lhotshampa, readers may be reminded of the tension that arose from 1989 to 1991 between the government and the southern people of Nepali origin who had lived as illegal immigrants in some of the fertile agricultural lands of southern Bhutan. Many of them reacted to the government's efforts to curb illegal migration into the country. Tens of thousands of them left the country to settle in refugee camps in eastern Nepal from where they launched activities that affected the sustained peace and harmony of a culturally and ecologically delicate country. However, the situation improved after some years. People of the six districts in southern Bhutan, including Samtse, were affected by those activities. In recent years, this issue has been eased with a number of countries offering to resettle the refugees. Interviewee 4 reflects on the turbulent years, and concludes, "Life was hard, but I am happy that I made the right decision for my family".

Settlers from other dzongkhags (districts) added to the diversity of cultures in Samtse. They brought with them their unique languages, beliefs, crafts, art and architecture. For example, people from Lhuntse, Tashigang and Tashi Yangtse brought with them the art of weaving, carpentry and other woodworking trades from Mongar, cane and bamboo work from Zhemgang, and metal works from Pema Gatshel (interviewee 5). In the religious domain, settlers from Samdrup Jongkhar and other eastern dzongkhags have brought an increased number of Gomchens – lay monks to Samtse.

In Samtse, one can experience a variety of architectural designs and languages. One can see houses that are in traditional Lhotshampa design, thatch-houses of some tribal groups, and those built in the fashion in vogue in eastern Bhutan. However, over the years, houses have started to exhibit more uniform national architectural designs.

The diversity of people has contributed to an increase in the number of languages and dialects. Many use their dialects to communicate within the communities. However, they use Dzongkha, Lhotshamkha and Tshangla to communicate with the wider communities. All these have contributed to the vibrancy of cultures in Samtse.

Celebration of National Day: A Cultural Spectrum

Bhutan's national day, celebrated on December 17, brings together people from different walks of life and showcases rich cultural performances. In addition to the usual cultural items such as masked dances, spectators can enjoy Doya dances, Adivasi dances and some rare Lhotsham dances in their purest form. The Doya men and women, in white apparel, resemble the rare and precious black-necked cranes in their most graceful and elegant dance. Equally dazzling are the Adivasi dancers. Men and women in their simple everyday garb perform lively and gleeful dances. They sing and dance in a circular motion to the tune of the big drums that hang around the necks of the male dancers. Spectators, if fortunate, can witness the bone-breaking fight of the rams as their heads collide like a clap of lightning. The rams, induced with anger and bellicosity, would not spare anything that comes between them. The national day celebration is also an opportunity to witness rare dances of Lepcha, Tamang or Sherpa. Similar displays of the cultural mosaic are seen during the celebration of His Majesty the King's birthday and other national and local festivals.

Factors Enabling Peaceful Co-existence

First, pride in national identity is the overall binding factor for the people of Samtse. Their stronger sense of "us" rather than "us and them" has enabled the creation of Samtse as a psychological haven with trust and national identity among the different cultural groups (Gilchrist, Bowles & Wetherell, 2010). On the one hand, the feeling of oneness and a sense of belonging to "One nation, One people" propounded by His Majesty the Fourth King Jigme Singye Wangchuck, has brought them closer to each other. The closer they come, the stronger the bond of understanding becomes. On the other hand, Samtse dzongkhag administration's effort to realise the vision of *"A prosperous community living in harmony with diverse cultures and safe environment"* has given a sense of direction and initiative. In this light, both dzongkhag and geog administrations ensure equitable opportunities to all the people in the form of free education and health facility, support for the enhancement of agricultural activities through financial support (e.g. loans), materials (seeds, fertilisers and agricultural tools), and training in addition to the encouragement and creation of opportunities to market their produce. Fair treatment of the people has enabled the development of a sense of care, trust and love in the local government and among the people.

Second, interdependence among the diverse people of Samtse and with the Indians has contributed to a stronger nexus of social relationships. As Samtse is one among the less developed districts in the country, people here depend on each other for money, material and labour. A typical paddy transplantation day pulls in people from different cultures together. Lhotsampa, new settlers, and even the Indians from across the borders come together, thus facilitating understanding and exchange of ideas and culture. Industries and the construction sector in Samtse also rely on Indian labourers. Indian labourers come in the morning, work during the day, and go back in the evening in perfect synchronicity with the other daily migrants such as cows and cranes that come in the morning, feed during the day and go back in the evening.

Third, the democratic process in the Dzongkhag has also facilitated a closer bond among the people. The system of electing Gups (head of geogs), who were earlier either appointed or nominated by the public, and *Karbaries* (now Tshogpas), who were appointed on a rotation basis, played a fusing

role between the people as they went from house to house carrying circulars, announcements and calling the people for meetings. In the process, they interact with the people of different cultural groups. These meetings and interactions bring people of different cultural orientations together where they engage in discussion and collaborative decision-making concerning policies and activities that benefit them. These meetings also enable them to settle differences, if any. The system was further strengthened in 1980s with the policy of decentralisation, and by the recent strengthening of the office of the Gup to include Geog administrative officers, *Mangmi, Gedrung* and *Tshogpa*.

The next level of decision-making happens at Dzongkhag Yargay Tshogdu [DYT] which consists of members such as Dzongda (District commissioner), dzongkhag sector heads, and all the Gups and Mangmis in the dzongkhag. DYT, which believes that people know best about themselves, enables Gups and Mangmis from different cultural backgrounds to interact with each other and discuss government policies and priorities for the dzongkhag and for their geogs. At the same time, it provides a forum for the Dzongda and the dzongkhag sector heads to understand the basic needs and priorities of the people in different geogs. The whole process of meetings at village, geog and dzongkhag levels facilitates active participation and decision-making without the bias and discrimination of religion, caste and culture.

During these meeting, especially with the farmers, the leaders get an opportunity to experience their culture. One of the leaders (interviewee 5) observed that it is mandatory to conduct meetings in Dzongkha. However, he said the use of local languages, such as Lhotsamkha and Tshangla is unavoidable when there are farmers who are not well versed in Dzongkha. They understand government policies and plans better with occasional explanations in their local dialects.

Fourth, free trade in the past has facilitated people of different cultural groups to come together. One such example is the prevalence of the lime business in Samtse. Interviewee 7 contended that limestone extracted from Samtse was processed at Chuna Bhati (lit. a place where *chuna* or lime is processed), now in India. Chuna Bhati was under the control of the Bhutanese until the finalisation of the present boundary. After processing, lime was exported to India as well as used for domestic consumption. One of the interview participants shared what he heard from his grandfather. He shared that Samtse used to send lime, along with *paan* leaves and betel nut, as a gift to Paro Penlop (interviewee 7) who was entrusted with the responsibility of looking after western Bhutan including Samtse. Trade within Bhutan and with India has sown the seed of peaceful co-existence among the different cultural groups in Samtse.

Even today, trade plays an important role in the understanding and exchange of cultures. People of Samtse interact on regular basis in the process of selling their produce such as oranges, cardamom, ginger, betel nut and vegetable. This produce is traded within Samtse as well with the Indian merchants and consumers (Kuensel, December, 2002). Trade relations and inter-cultural interactions are kept alive with Sunday market day in Samtse and Peljorling towns, Friday market day in New Chamurchi, Wednesday market day in Old Chamurchi, India, and export of minerals to India and Bangladesh, and import of consumable items from India on a regular basis.

The influence of trade on cultural diversification in Samtse is comparable to the Indian business people of Samdrup Jongkhar town in eastern Bhutan and the adjacent Indian town of Darranga also commonly known as *Gudama*. Indian shopkeepers in these two towns speak fluent Tsangla language.

They maintain that language and cultural orientations are the means for smooth transaction and prosperity of their business (Bhutan Broadcasting Service, 2013). In a similar fashion, the multilingualism of the people of Samtse has facilitated smooth business and free interaction not just amongst Bhutanese of diverse cultures but with Indian business communities.

Fifth, multilingualism of the people of Samtse has contributed to peaceful co-existence. People speak languages such as Lhotshamkha, Dzongkha, Tshangla, Khengkha, and other dialects. Many speak Hindi, and even Bengali when interacting with Indian counterparts. Many Lhotsham people of Samtse speak fluent Dzongkha. Evidence of this is the electoral debate among the candidates of four political parties of Dophuchen-Tading and Tashi Choeling constituencies during the second parliamentary election campaign, 2013. Their fluency and confidence in the use of Dzongkha is associated with factors such as attaching importance to Dzongkha for national identity, their willingness to learn Dzongkha, and influence of traders from Haa in the course of their long interaction and association (interviewee 5). The ability to speak many languages has fostered the free flow of ideas and a feeling of closeness, oneness and unity among the people of Samtse.

Sixth, religious beliefs and practices are important factors that enable a harmonious way of life. Buddhism and Hinduism, the two widely practised religions in Samtse, preach the importance of love, compassion and tolerance. When the religious principles, beliefs and practises are similar, people do not see reasons to distance themselves from each other. Rather, they preach and enable people to develop love, compassion, respect and tolerance which ultimately lead to unity, harmony and peace among the cultural groups (interviewee 5). It is a common sight to see a Hindu temple and a Buddhist choeten next to each other. Hindus who visit the temple circumambulate choeten (holy stupa), and Buddhists who circumambulate (holy stupa) the choeten also visit the Hindu temple.

Observations show that people of one faith participate in the religious ceremonies and discourses of other faiths. Buddhists and Hindus in Samtse mix like water and milk. They understand that the two religions share similar beliefs and dogmas (Bhutan Broadcasting Service, 2013). For example, some Lhotshampa monks pursue Buddhist studies in the Dratshang. In addition, there are Lhotshampa Lam Neten and Lhotshampa Tulkus (reincarnates) who are well-versed in Buddhism as well as in Hinduism. They play an instrumental role in further cementing the already peacefully co-existing Buddhists and Hindus. It is also a common sight that the Lhotshampas, young and old, participate actively in important religious programmes such as the *Moelam Chenmo* prayer ceremony. They chant mantras, perform prostrations and make offerings. In addition to the lay practitioners, pundits in saffron garb are seen occupying the front row in the ceremonies and discourses presided by the Je-Khenpo, the chief abbot of Bhutan.

On the other hand, Buddhists in Samtse participate in the celebration of Hindu festivals such as Depawali. Children and elders alike sing *Dausuri/Bailoni* and feast on *Selroti*. Participation in the marriage ceremony of the Lhotshampa, and seeking advice of Lhotsham oracles or shaman by the Buddhists are common features in attempts to recuperate from illnesses or to ward off evil spirits. Additionally, open and free interaction among various castes within the Lhotshampa communities has resulted in the minimisation of restrictions posed by strict classical culture and beliefs. Restrictions among different castes have very much eased over time (interviewee 4)

Last, Samtse has been a political nexus for many decades. Two places in particular: Samtse proper and Peljorling have been the main routes for political, economic and social traverse. Many state dignitaries from Bhutan going to Kalimpong, Darjeeling and Kolkata travelled through and took respite in these two places. At the same time, dignitaries of varying ranks from India followed the same routes (interviewee 7). Moreover, Bhutanese students studying in north Bengal and traders alike used these routes in the past. Thus, the movement of the people for political, commercial and educational causes exposed Samtse to different cultures.

Future Challenges

The diversity and vibrancy of culture is not without challenges. Some developmental activities that have come with good intentions and purposes can impact on the vibrancy of cultures in Samtse. The advent of facilities, such as road, electricity, television and internet has made life easier, brighter and happier. The coming of roads has benefited the people in terms of easy transportation of goods and mobility of the people. The lateral road that is under construction between Samtse and Phuntsholing passes through some of the villages where culture is intact. Interviewees 3 and 7 were of the view that the culture of these people will be affected once the road is open to traffic.

Similarly, connecting villages with electricity has greatly contributed to the well-being of the people. It has given them access to television and internet, opening their door to the world and enabling them to see and interact with the rest of the people. However, easy mobility and access to information have negative implications on their cultures. These facilities can bring in foreign cultures – both good and bad – that gradually engulf local cultures (interviewee 2). Gullible youths, who are the key transmitters of their ancestral culture to the next generation, are the first ones to be affected, thus putting an end to their culture as well as to the smooth transmission of different cultures

Nationally, there are many instances of cultural aspects such as language, dress, rituals and beliefs declining as a result of exposure to more dominant or glamorous cultures. For instance, there is already a great concern for the threat to culture, such as languages of Gongduep in the east, Monpa in the central, Olep in the western and Doya in southern Bhutan. Gongduep language is being overpowered by Tshangla language, Monkha by Mangdepkha, Olepkha by Dzongkha and Lhotam of Doya by Lhotshamkha. The chance for more dominant cultures to overpower cultural minority groups is very high.

In Samtse, Doya language and cultures are being dominated by Lhotshampa cultures. Doya elders view that the younger generation are uninterested to learn and promote their ancestral cultures (Tshering, Namgyel & Rinzin, 2013). However, they encourage youths to communicate in *Lhotam*, their dialect, in their community. Similarly, languages of ethnic groups such as Rai, Ghalley, Tamang, Gurung, Pradhan, Lepcha, and so on are being engulfed by mainstream Lhotshamkha.

The situation is not different in other parts of Bhutan. The cultures of many smaller communities in many parts of Bhutan are facing similar challenges especially in the gradual extinction of intangible cultural aspects, such as dialects. One such example is the near extinction of the Khengkha language in a village under Dagana district. The youths of Bjurugang lack interest in their parents' language, which has become a concern (Phurba, 2013). There are only a few elders who speak Khengkha in Bjurugang

which, at one time, was Khengkha dominant region. Phurba points out that it saddens older people to see their children show no interest in learning their parents' language.

The coming of modern education is also likely to affect local cultures. The opening of formal schools and non-formal education centres has exposed the local youths to the outside world and cultures (Tshering, Namgyel & Rinzin, 2013). For instance, through their learning of Dzongkha and English at school and exposure to other cultures, village youths are reluctant to uphold their ancestral cultures. Local cultures lose charm and utility for them leading to gradual degeneration.

Conclusion

Bhutanese people are generally regarded as open and sociable people. The case is proven true by the people of Samtse, who, despite the diversity of culture, live in harmony and peace. Regardless of whether someone is from one of the ethnic groups of Lhotshampa, Doya, Adivasi or Haap, everyone finds comfort, contentment, peace and happiness in co-existing with people from different cultural backgrounds. The ability to overcome cultural differences and live together peacefully has contributed to the realisation of Bhutan's philosophy of Gross National Happiness.

Samtse is an example of a place where culture no longer exists in isolation but adapts to change. People adapt their lives to the changes happening around, and at the same time, remain mindful of their own cultures and the responsibility they have in preserving and promoting the exemplary ways of harmonious co-existence in myriad cultures. For them, modernisation does not necessarily mean that one has to leave behind one's language, dress, customs and traditions.

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Multi-grade Pedagogy and Student Learning

LINLEY CORNISH

Abstract
Multi-grade education is an important part of Bhutan's solution to achieving Education For All and Gross National Happiness. The literature tells us that parents usually prefer their child to be in a single-grade class, that teachers usually prefer to teach a single-grade class, and that Principals usually prefer single-grade classes in their school. Observational studies confirm that learning in a multi-grade class is likely to be more difficult than learning in a single-grade class. In spite of such negative predispositions towards multi-grade classes, I argue that there are reasons why multi-grade classes can be effective, indeed, potentially even more effective than single-grade classes. In this paper I discuss learning, 'learning how to learn', factors that promote student learning, and why/how successful multi-grade teaching strategies can promote student learning.

Introduction

Education is one of the domains of Gross National Happiness in Bhutan (Ura & Penjore, 2008). Like many other countries, Bhutan has worked towards achieving the Millennium Development Goal of Education For All by investing in primary-school education in rural areas, in order to improve access for all children to "free and compulsory primary education of good quality" (World Education Forum, 2000, Goal 2). These rural primary schools are usually small and have multi-grade classes, i.e., classes with two or more grades in the same classroom with the same teacher. Multi-grade education is thus an important part of Bhutan's solution to achieving Education For All and Gross National Happiness. Bhutan is unusual in including multi-grade teacher education in its pre-service teacher education programs. This paper promotes the notion that investment worldwide in multi-grade teacher education could not only lead to "education of good quality" in multi-grade schools but could improve learning for all students in all types of classroom.

Definition of multi-grade classes

There are at least four different types of mixed-grade primary-school classroom. They vary depending upon whether they are formed by choice or necessity, are temporary or permanent, and are small or regular-sized (which in turn is often related to whether they are rural or urban). In this paper, I refer to one particular type of mixed-grade class: a multi-grade class.

'Multi-grade' classes are formed by necessity, usually in rural areas because of small and scattered populations. They are usually permanent because the population does not increase enough to form single-grade classes. The classes typically range from two to seven grades.

'Composite' (in America called 'combination') classes are also formed by necessity, usually in urban areas because of uneven grade enrolments. They are usually temporary and students usually return to a single-grade class the following year. In schools that are growing or shrinking, all the classes might be composite but as soon as the numbers are high enough, single-grade classes are usually formed. Composite classes commonly consist of two consecutive grades.

Much of the literature on mixed-grade teaching conflates composite and multi-grade classes because (1) they are both formed by necessity, and (2) students are usually taught grade-specific curriculum. The differences between them warrant separate analysis but such a distinction is rare in reported studies. The 'multi-grade' studies reported, therefore, often include composite classes.

Negative views of multi-grade classes

An investigation of *teachers'* views of combination classes by Mason and Burns (1995) confirmed that "most teachers … responded negatively and preferred not to teach them" (p. 36). Other authors report a similar result for multi-grade classes in general (e.g., Berry & Little, 2007; Viadero, 1996; Vincent, 1999). Mason and Stimson (1996, p. 443) report previous research that "a large majority of practitioners view these classes negatively".

In a 1990 review of the literature on multi-grade classes, the Carleton Board of Education in Ontario, Canada reported that negative attitudes towards multi-grade classes were common (cited in Campbell, 1993, p. 353). It is therefore not surprising that *principals* also prefer single-grade classes in their schools (Mason & Burns, 1999; Mason & Doepner, 1998).

Parents have long been reported to hold negative views of multi-grade and composite classes. The differences between (urban) composite and (rural) multi-grade classes, which are commonly combined and reported as 'multi-grade' classes, are important when it comes to parents' attitudes. Forlin and Birch (1995) found that parents support rural multi-grade schools while another study in Western Australia (Pratt & Treacy, 1986) found that rural communities accept multi-grade classes but metropolitan communities either oppose them or only accept them in a very passive manner. This finding is supported by a study of mixed-grade classes in New South Wales (NSW DET, 1997), by Welsh researchers Hopkins & Ellis (1991), and by Russell, Rowe and Hill (1998). Similarly, Wilson (2003, p. 272) summarised other researchers' views that "there is a difference between the attitudes of parents in urban and rural areas". Bennett et al. (1983, p. 51) found that junior schools in England had most difficulty getting parents to accept "mixed-age" classes and that difficulties in gaining parental acceptance were highest in suburban schools (with composite classes) and lowest in rural schools (with multi-grade classes). Gomolchuk and Piland (1995) and more recently Naylor (2000) similarly report from Canada that "concerns surface most commonly from parents of children in split-grade classes in urban schools, who often argue that their child's optimal educational placement is compromised by economic factors" (Naylor, 2000, p. 2), and that there is a difference between the attitudes of teachers and parents to rural (multi-grade) and urban (composite) classes, with "far more positive views" held in rural contexts (p. 6; see also Kalaoja & Pietarinen, 2009). What is missing from reporting of these more positive attitudes in rural areas is an analysis of why rural parents hold these more positive views. These positive feelings could relate to the sense of community in the local school and the convenience of having a local school rather than no school or the necessity to travel long distances to a larger school.

In my own research (Cornish, 2011), parents held negative conceptions of composite classes in a regional school but their views were influenced by the perception that there was a choice. Other children in the same school were part of a single-grade class. Parents sometimes had positive views about the potential advantages of a mixed-grade class but these views were compromised by the existence of

single-grade classes and the resulting perception that the mixed-grade classes were 'second best'. This finding seems also to be relevant to teachers; for example, Maheux (cited in Hohl, 1991, p. 22), reporting on a study of small schools in Quebec, emphasised that "the regular classroom remains the point of reference for organizing the multi-program class" and that this mindset leads to feelings of disadvantage among multi-program teachers.

Learning in a multi-grade context

Observational studies comparing what goes on inside multi-grade (including composite) classrooms and single-grade classrooms have revealed several differences, as summarised below:

- slightly lower time on task, more time spent in routine interactions and waiting for the teacher (Galton, Simon, & Croll, 1980)
- decrease in whole-class interaction, partially balanced by an increase in individual and grade interaction (Galton et al., 1980; Pratt & Treacy, 1986; Veenman, Lem, & Winkel-molen, 1985)
- more interactions with students in other groups, including other-grade groups (Pratt & Treacy, 1986)
- more grouping but students still usually work individually rather than in a genuine 'cooperative learning' way (Mason & Good, 1996; Pratt & Treacy, 1986).

Summarising the findings from observational studies, Mason and Burns (1997a) list the effects of following separate grade curricula in a composite class as: "less direct instruction, less curriculum adaptation, more independent work, more waiting for teachers, a slight diminishment of time on-task, and an overall more complex setting in which teachers must work harder to maintain a sound teaching and learning environment" (p. 12).

This list of effects implies that learning in a multi-grade class is likely to be more difficult than learning in a single-grade class, and so perhaps it is not surprising that there are widespread negative views about these classes. There can, however, be real advantages for learning in such a class.

Learning (and Learning how to learn)

The word "knowledge" is polysemous, that is, it has many possible meanings. In a realist interpretation of the world, "knowledge" has an objective reality separate from the knower (Jonassen, 1992). In a constructivist view, by contrast, "knowledge" only develops through a knower's personal activity in a learning situation. While Dewey is not usually classified as a constructivist, his work "anticipates … much of what is important and interesting about constructivist epistemology and constructivist pedagogy" (Vanderstraeten, 2002, p. 233). Dewey (1916, p. 335) wrote that "learning means something which the individual does when he studies. It is an active, personally conducted affair. The dualism here is between knowledge as something external … and knowing as something purely internal".

These ideas are embedded in a constructivist theory of learning as espoused, for example, by Piaget and Vygotsky who both explained that learning occurs as an interaction between the learner and the environment. While Piaget emphasised the role of biological maturation in this interaction, Vygotsky believed that intellectual development is not based solely on either expanding knowledge or biological maturation but rather develops from socio-cultural interactions:

Vygotsky argued that intellectual development cannot adequately be understood in epistemological terms that focus on the kinds and quantities of knowledge accumulated or in psychological terms that focus on some supposed inner and spontaneous developmental process. Rather, he understood intellectual development in terms of the intellectual tools, like language, that we accumulate as we grow up in a society and mediate the type of understanding we can form or construct. (Egan, 1997, p. 5)

A constructivist epistemology does not specify constructivist pedagogy but, in general, constructivist approaches to learning and teaching are student-centred approaches where the emphasis shifts from the teacher to the learner, where learning involves an active interaction between the learner and the environment, including the socio-cultural environment. Instead of blindly accepting the teacher's (or the textbook's) knowledge and rote learning it for later regurgitation, a constructivist learner engages in activities that help build on prior knowledge to develop personal meaning and understanding. The end result (the product) might well be the same for two learners but the process of internalising the knowledge will be different because their biographies (and socio-cultural environments) differ.

Approaches that emphasise rote learning concentrate on knowledge rather than knowing (or on someone else's knowing rather than our own). Constructivist approaches concentrate on student engagement in a process of constructing personal understandings (our own knowing). A focus on constructivist activities includes a focus on the students' monitoring their own learning, i.e., on metacognition.

Learning is more effective if learners know how and why they learn (the process) in addition to what they learn (the product). Attention to the 'how and why' of learning involves metacognition — thinking about how to solve a problem, being able to explain why a procedure would be effective or how a solution was reached, focusing on the process rather than the product, monitoring and regulating the learning. In other words, "Cognitive strategies are invoked to make cognitive progress, metacognitive strategies to monitor it" (Flavell, 1979, p. 909). Metacognitive strategies are part and parcel of a constructivist approach where students are encouraged to think about, articulate and regulate their learning. This type of metacognitive learning process is often referred to as 'learning how to learn'.

Part of being metacognitive is recognising that learning is for a purpose. The purpose can be related to specific learning goals or it can be more general in the sense that students think about why they need to learn something. Again, the focus is on students and their learning rather than teachers and their teaching. In turn, when students are more aware of the relevance of their learning, they are more likely to be motivated and engaged. When students are actively involved in their own learning and when they also monitor their learning by being metacognitive, they develop a responsibility for their own learning. Being responsible for their own learning leads students to become partially independent of the teacher. When students become more independent learners, they do not necessarily learn on their own. Learning with others means there is support and encouragement from other students and, somewhat paradoxically, students' independence can therefore be fostered in group-learning situations.

The importance of collaboration is supported by Hattie (2009) and by Marzano, Pickering and Pollock (2001), who list nine strategies that have been found to increase student achievement. One of these strategies is cooperative learning. Learning with others in a collaborative setting is successful because of the emphasis on students' being responsible for their own learning and also for that of others in their group. Apart from the fact that most students like learning with their classmates, cooperative learning is successful because of the opportunities for students to help and teach each other through peer tutoring. Peer tutoring is effective for both the tutor and the tutee (e.g., Topping, Peter, Stephen, & Whale, 2004) because teaching someone else involves having a good understanding yourself. Being able to teach someone else also has positive effects on a student's self-esteem. Group-learning situations foster both informal and formal peer tutoring, even when students are working individually and not towards a group product as with genuine collaborative or cooperative learning.

The single factor most likely to influence learning outcomes is what the learner already knows (Anderson, 1989; Ausubel, 1968). "What we already know" is described as our schema (or scheme) for any concept or field of knowledge. Schemas are made up of past experiences (biography) as well as already-held knowledge and theories. The implication for teachers is that they must find out what students already know before teaching new material. Vygotsky's concept of the Zone of Proximal Development (ZPD) is an explicit recognition of the importance of being aware of what students already know. Vygotsky defined the ZPD as "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (Cole, John-Steiner, Scribner, & Souberman, 1978, p. 86).

Constructivist learning theory is not universally accepted but it seems unarguable that learning is more likely to be meaningful if a learner is actively involved in a learning context where 'knowledge' develops from some sort of interaction (including interaction with other learners), where the learning builds on prior understandings, and where the learner monitors and regulates the learning. In the following brief section and drawn from the discussion above, I propose some factors that seem to be important in learning before I turn to an examination of how these factors are embedded in successful multi-grade teaching strategies.

Factors that promote learning

The discussion above highlights eight inter-related factors that promote student learning:

1. a constructivist, student-centred approach
2. a focus on learning rather than teaching
3. learning within the ZPD
4. building on what students already know (schema expansion)
5. responsibility for independent learning
6. a focus on metacognition (monitoring and regulating learning)
7. learning with others
8. peer tutoring

While this is not an exhaustive list, implementing strategies that address these factors should improve learning in all classrooms. In the next section, I 'map' some of the specific strategies a multi-grade teacher can use onto these factors.

Strategies to incorporate the eight learning factors in a multi-grade context

A belief that students only learn from direct teacher instruction means, in a multi-grade class where a teacher might be busy with only one of the grades, lost learning time for the other grades while they wait for the teacher. By contrast, a belief that students can learn by themselves, with each other and from each other by engaging in suitable learning activities means all students can be engaged in learning rather than only those with whom the teacher is interacting.

Implementation of the first factor above, that is, a constructivist, student-centred approach to learning, automatically incorporates all the other factors by:

- a focus on learning rather than (direct) teaching (factor 2)
- suitable activities for students that are achievable and build on their prior knowledge (factors 3 and 4)
- students' working independently and taking responsibility for their own learning (factor 5) which in turn requires
- students' thinking about and monitoring their own learning, that is, being metacognitive (factor 6)
- working with other students and/or using other students as a resource or 'replacement teacher' (factors 7 and 8).

A constructivist teaching approach is therefore of primary importance in a multi-grade classroom where the teacher cannot always be interacting with all the grades at the same time. It is easy to recommend this approach but much more difficult to implement it in practice. An obvious requirement for multi-grade teachers is provision of suitable materials, specifically, of differentiated student-centred activities for different grades. Such activities need to consist of both individual and small-group activities. Many studies have identified the lack of instructional materials to support activity-based student learning as a real barrier to successful multi-grade teaching (see Pridmore, 2006). On the other side of the coin, there are several successful examples of the use of structured learning materials in multi-grade settings, such as the Rishi Valley Institute for Educational Resources (RIVER) in Andhra Pradesh, India (Menon & Rao, 2006) and the Escuela Nueva program in Colombia and other parts of South America (Colbert, Chiappe, & Arboleda, 1993).

Given the double (at least) planning role for multi-grade teachers, the amount of time they have for designing student-centred activities and preparing resources is minimal. There are, however, ways to minimise this 'double preparation' time. A useful pre-teaching process that is familiar in Bhutan is to map the curriculum of the two grades and place similar topics alongside each other so they can be taught at the same time. With a spiral curriculum, it is often possible to do this sort of mapping. The

teacher can then have a whole-class introduction and conclusion to a lesson, with students spending the time in-between working on differentiated, usually grade-specific, activities. The grades 'peel off' (Carleton, 2006) at different times for independent work. While the teacher teaches the younger grade new material, for example, the older students 'peel off' to do revision activities, and while the younger-grade students then 'peel off' to work on their activities the teacher can extend the older students' learning. Alternatively, all students can work on the same activities (e.g., writing) but the teacher has different expectations of the different grades.

With such a strategy, the amount of time students are waiting for the teacher is minimised or even reduced to zero. Perhaps even more importantly, students are encouraged to be responsible and independent by working without the teacher's assistance (factor 5). When each grade sits or works in groups, other students are available to solve minor problems and provide assistance (factors 7 and 8). If at least some of the activities are open-ended, then there is scope for students to be more actively engaged in exploratory constructivist learning (factor 1). The process takes a lot of planning but it is an effective way of coping with two or more grades at once and at the same time incorporating most of the factors identified above as important for effective learning.

The remaining factor, metacognition (factor 6), can be incorporated by teaching students 'metacognitive strategies' and by including reflective tasks in each grade's activities. 'Metacognitive strategies' are the prompts that students can use when they are unable to proceed with their learning. A teacher can introduce the students to strategies for answering the question 'If I am stuck, what can I do?'. Some simple behavioural responses would be to ask a classmate, revise previous learning, or consult a book from the resource corner, but strategies directly related to metacognitive behaviours can also be taught. For example, students can be taught metacomprehension strategies for deciphering an unknown word (e.g., What does the picture suggest the word might be? What does the word start with? What words starting with this sound would make sense? Read to the end of the sentence and see what word would make sense), or strategies for problem-solving (e.g., work backwards, use trial and error). Instead of just waiting for the teacher's assistance, students who are monitoring their learning recognise what is problematic and can implement these strategies in order to try to overcome the problem.

Reflective activities are commonly used to encourage students to think about their learning, that is, to be metacognitive. Teachers can ask students to describe how they solved a problem, why they chose that method, what they found difficult, or any other question directly related to the learning process. These questions can be part of the lesson or form an activity at the conclusion of the lesson. For example, in a learning diary students can write their responses to: What I did, Why I did it, One thing I learned, One thing that puzzled me (Cornish & Garner, 2009, p. 75). Alternatively, they can complete a quick activity such as 3:2:1 (e.g., 3 things I discovered, 2 things I found interesting, 1 question I still have); a '1-minute paper' (writing a quick summary of what was learnt today); the L column in a KWL chart (what I Know, what I Want to know, what I Learnt); or discussing with a partner or in a small group what they learnt in the lesson, what they thought was the most important part of the lesson, and how the lesson relates to the previous lesson. These reflective activities are useful in any class but are particularly useful in a class where one grade might have finished their work while the teacher is still working with the other grade.

A spiral curriculum implemented by teaching with a common introduction, activity-based learning and a common conclusion can also be justified in terms of the factors thought to affect a student's learning. What is already known (factor 4) is a powerful influence on learning. Learning within the ZPD (factor 3) is essential for learning. Consolidation and review are necessary for long-term learning. A common introduction to a topic draws on what the older students already know (factor 4) and incorporates consolidation and review for them. It also activates all the students' schemas (what they already know) so the new learning will build on these schemas within their ZPDs. While the students are working on their activities, they are being independent and responsible learners (factor 5) and possibly are engaged in informal peer tutoring (factors 7 and 8). They are certainly engaged in building up their own understandings (factors 1 and 2).

Curriculum mapping will not always identify similar topics that can be taught at the same time but sometimes seemingly different topics can be integrated or a common theme can be found. In the 'student activities' phase, sometimes a series of tiered activities can be designed so that all students work through the activities at the same time but some students go further than others. Sometimes cross-grade groups would be helpful so the older students can work with the younger while the teacher works with a small group in need of remediation or extension (factor 2). In all these arrangements, there is a focus on individual needs (factors 3 and 4), an encouragement of independence and responsibility (factor 5), active student involvement in their own learning (factor 1), increased motivation by working with different groups of students, and peer tutoring (factors 7 and 8).

In sum, a multi-grade teacher of two grades has to follow two different curricula and cater for the learning needs of two different grades. It is much more difficult for a multi-grade teacher to 'teach to the middle' (except perhaps when following a multi-year curriculum cycle and teaching some subjects to the whole class). For much of the time, a multi-grade teacher has to work out ways of reducing the workload involved in teaching two grades simultaneously. By incorporating differentiated student-centred learning activities and giving students more responsibility for their own learning, multi-grade teachers not only make teaching more efficient and manageable, they incorporate the factors and strategies that are believed to encourage learning.

Conclusion

Multi-grade teaching is often regarded as a 'second-best' option by teachers because of the extra workload involved in catering for two (or more) grades within the same class. This extra workload has, however, been a catalyst for the development of effective teaching strategies to assist multi-grade teachers. The analysis in this paper shows that these strategies can also be recommended for promoting effective student learning. Fears that students are disadvantaged by the reduction in teaching time for each grade can be allayed by understanding that what has traditionally been seen as a problem — lack of direct teaching/instruction time — might in fact be a catalyst for improved student learning.

Contextual issues will always affect the ability to implement the strategies discussed. In particular, a lack of ready access to graded activities/resources will curtail a teacher's ability to encourage independent student learning. However to the extent that a multi-grade teacher can use the strategies which incorporate the eight learning factors identified, then that teacher can positively encourage student learning.

Perhaps training to teach a multi-grade class should be included in all pre-service teacher education courses, not just those designed for potential multi-grade teachers. Unlike in Bhutan, in most countries the lack of pre-service or in-service education for multi-grade teaching is a significant issue (Ninnes, Pridmore, Maxwell, & Meyers, 2006). Some of the successful multi-grade strategies are in fact applicable to all teachers in all types of class. A multi-grade teacher will use differentiated activities for students in different grades but any teacher needs to prepare differentiated activities to cater for the different learning needs of students in the class. Thus all teachers would benefit from understanding how many of the successful multi-grade strategies can be implemented in all (not just multi-grade) classrooms for the benefit for student learning. Even strategies that only seem necessary for a multi-grade class can be relevant in other types of class. For example, while single-grade teachers might not need to engage in curriculum mapping, understanding the process involved would suggest ways in which consolidation and revision can be incorporated alongside differentiated learning activities. The idea of curriculum mapping could also be adapted in any class to allow for integrated/thematic curriculum or 'connected teaching' across different subject areas and high-school timetables. Incorporating preparation for multi-grade teaching in all teacher education programs has advantages and benefits for all teachers and in turn for student learning.

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Zero to Three - the Critical Years for Government Investment in Bhutan

AMINA GURUNG

Abstract
Research from neuroscience and brain development, studies on economic returns of government investment and research on program evaluation on participation in early childhood programs have given compelling evidences of investing in early years from zero to three. In Bhutan, the Royal Government's endorsement of Education for All- Dakar framework for Action 2020, the ratification of the Convention of the Rights of the Child (1990), the formulation of the National Policy on Early Childhood Care and Development (2011) are some strategic steps taken at the policy level. However, at the practical level there still remains a huge space for intervention and improvement. Drawing from relevant literature, personal insights and personal stories, this opinion paper explores the gap that exists between policy and implementation of early childhood care and education in Bhutan with special focus on early years (Zero-Three). The second half of the paper emphasizes the importance of investing in early years with support from relevant literature and research findings.

Key Words: *Early childhood, policy, Implementation and practice.*

The untold unhappy urban vignettes: Some personal sharing.

> Children are more than the object of their parents' attention and love; they are also a biological and social necessity. The human species perpetuates itself through children; cultural, religious and national groups transmit their values and traditions through children; families maintain their lineage through children; and individuals pass on their genetic and social heritage through children. The ultimate value of children is the continuity of humanity (Arnold et al. 1975, cited in Evans and Myers (1994, p.1).

Personal Story - Fall, 2010

Paro-Phuntsholing Highway

It is a cold January afternoon. The winter sun is weak and the cold breeze can cut your skin if you leave the window panes open. I am travelling towards Phuntsholing to collect my elder daughter who has gone to her granny's home in the village to spend her winter break. I don't drive long distance so I am travelling in Dhug transport. The 28 seater coaster is a comfortable bus and I am enjoying the ride. We cross Chuzom. As we are about to reach Chapcha, we come across a group of Indian and Nepalese laborers who are in the process of maintaining the highway. Dusts engulf the road and the workers are covered with dust from head to toe. Somewhere at the back of my mind I get an eerie feeling. They look like some unfinished surreal work of a cruel artist...

On one side of the road there is a huge fire and the tar is being boiled in a huge drum. Men and women equally toil in constructing the dusty, unfinished road. What is disturbing is the fact that children as young as less than a year are kept nearby the working area with no proper shelter, care or protection. One little baby has a torn umbrella over it. Another one has an old shawl made into a temporary tent. These little ones are also covered with dust, sleeping on the dusty corner nearby the parents who have no time to even look at them except for occasional feeding. While the parents are working, their two-

three years older siblings try to take care of them. These children present to the travelers neither a happy present nor a concrete future, made to spend the most blissful, beautiful and innocent phase of life pushed to dirt, danger and maybe destruction.

Well, it is a common sight along the road. The people in the bus look at them as just another group of disadvantaged people doing their daily work. The driver's favorite song plays in the bus's music player…the speed increases, and oblivious of the cruel sight, we zoom past them raising more dust as we drive the winding curb.

Hongkong Market, Thimphu, 2011

On the crowded busy lane of Hongkong market in Thimphu stands a private firm owned by some ambitious businessman. The firm starts 8.30 in the morning and goes till five in the evening in winter and till six in summer. It employs around eight to ten workers most of whom are women... Middle school pass-outs who are better than men because they are less troublesome and assertive, and who will do more favour than they are paid. Business is important and so everyone needs to work sincerely and continuously.

A young lady works busily on her old computer in the dusty corner of the office space that is filled with files and papers- works that have piled up during her one and half month maternity leave. It is her first day in the office after the leave, and today, for the first time, she has left her one and half month old boy at home. She tries hard to concentrate on her work but her breasts are swelling. She can feel the sharp odd pain as her breasts start developing hard globules. Then, in seconds, milk start oozing out wetting her tego. She looks at her small wrist watch and knows it is feeding time. Her intuition tells her that the baby is hungry and wants milk but the office is far from home and the workers get only one hour lunch break. There is no break in between and everyone has to adhere to strict timing. So she can't go home to feed. That morning before leaving for office, to pacify the worried and nervous daughter, her mother had given her some advice -that it is not necessary for the baby to drink mother's milk after one and half months, and that she will make up for the milk with some substitutes like Cerelac or Horlicks. Hoping that the advice worked and that her boy has taken the substitute and is sleeping peacefully, she calls her mother during the lunch break who says the baby is fine. But she can hear him cry in the background… her heart jumps a beat…agitation, frustration, helplessness fill her. Well, what can she do? So she sits down staring blankly at her tiffin of boiled rice and kewa tshoem.

Lunch time is over and its working time … The work pressure and nervousness make her shiver, but she has to finish the day's work by six…Catching a taxi, she rushes home by seven in the evening, only to find the little one suffering from diarrhea and fever. Quickly placing the baby on her lap, she tries to pacify him by giving him milk which the baby tries to drink amid cries of indigestion pain the baby now suffers... she sits in a daze. With tears in her eyes and amidst the noise that surrounds her and the cries of her sick baby, she starts framing a plan as to how she can request for leave from her boss tomorrow to take the baby to the hospital…

1. Early Experiences - stories that existing data tell us

The National Policy on Early Childhood Care and Development (2011) defines Early Childhood Care and Development (ECCD) as "programmes and services that are concerned with the physical, cognitive, social, and emotional development of children from conception to eight years, as well as supports that parents need to provide to nurturing care." (p.5). There are two aspects to this important definition. First, programmes that encourage and enhance the holistic development of the child and second, "supports that parents need to provide nurturing care".

The last two decades saw tremendous momentum in formation of policies concerning child's rights and aspects of Early Childhood Care and Development in Bhutan. On 1st August 1990, Bhutan ratified the Convention on the Rights of the Child (CRC). In 1991 the Royal Government of Bhutan endorsed the "Education for All Dakar framework for action 2020" calling for "expanding and improving comprehensive early childhood care and education, especially, for the most vulnerable and disadvantaged children". (National policy on Early Childhood Care and Development, 2011, p.4). During the 9th 5Yr. Plan (2001-2007), ECCD was stated as one of the national goals laying essential frameworks for instituting ECCD services in Bhutan. The goal was to "provide support mechanisms for early childhood care and development for children between 0-6 years on a pilot basis". (p.68). In November, 2006 a ten member Education Sector Review Commission (ESRC) was formed to examine Bhutan's Education Sector. Their study found that ECCD was the "missing link" in our education system and hence one of their strongest recommendations was "providing high quality, universal Early Childhood Education". (p.9). In 2008 the Draft National ECCD policy was framed, and in 2010 the Early Learning and Development Standards was developed. In the Tenth Five Year Plan (2008-2013) the Government committed that "all children aged 0-5 would be supported to enhance their intellectual, emotional and physical development through a programme that enables them to grow in their familiar and natural environment." (p. 91).

If one looks at the policy development over the years it is pretty convincing and satisfying that Bhutan has come a long way in stating and framing effective policies. However, it is appropriate to consider how well the policies have been implemented. The present status of children below five gives a very bleak picture. Findings from Bhutan Multiple Indicator Survey (BMIS, 2010) state that there is a declining but still high infant mortality rate, which is 47/1000. According to the Asia Pacific Regional Network for Early Childhood (ARNEC, 2011, p.1), the highest infant mortality rate is in Sub-Saharan region with 158/1000. In Bhutan, 69 of every thousand children born die before they are five. According to the Population Perspective Plan (2010) there is still a high incidence of mother and child malnutrition. 37% of our children are stunted, 11% underweight, wasting at 4.6 % and anemia at 54.8%. In another study done by the National Statistic Bureau (2011) it was found that exclusive breastfeeding was only 48.7% and only 65.7 continued to breastfeed up to 24 months. The same study also found that only 66.7% of our children received complementary feeding at 6-8 months. Though there is no information on induced abortion, data on spontaneous abortion show a rise from 466 cases in 2003 to 913 in 2007. In the same study conducted by BMIS (2010) it was found that there were a good number of children who were left under inadequate care (under five children left alone and left in the care of another child under the age of 10). The table below presents the finding from the study.

TABLE 1 INADEQUATE CARE Percentage of children under age 5 left alone or left in the care of other children under the age of 10 years for more than one hour at least once during the past week, Bhutan, 2010

Sex	Left alone in the past week	Left in the care of another child younger than 10 yrs of age in the past week	Left with inadequate care in the past week	Number of children under age 5
Male	6.4	8.9	13.2	3216
Female	6.2	11.4	15.2	3081
Total	**12.6**	**20.3**	**28.4**	**6297**

Source: Bhutan Multiple Indicator Survey, 2010, p.137

In another study conducted by the Education Sector Review Committee (ESRC, 2010) it was found that "for every 100 pre primary children only around 85 continue to lower secondary level (Classes VII and VIII), and an even smaller number study further". (p.5). It concluded that given this scenario, "Bhutan has neither a large enough workforce nor one that is well-endowed educationally or with regard to skills. If the current educational trends continue, by the end of the Tenth Five Year Plan in 2013, 51 percent of Bhutan's labor force, at best, will have acquired only primary education" (p.6).

A recent report titled "The Status of Early Childhood Care and Development in Bhutan" (2011) projected the number of existing ECCD centers in the country. Findings from the report are presented in tabular form below. According to this report, except for a small number, there is presently no existing center/s that is organized to cater to children below three.

Table 2: ECCD centers, number of children and age range

Organization	Number of centers	Number of children	Age range
Corporate bodies	5	212	3-5
NFE	714	12,901	Not Specified
Community ECCD Centres	20	405	Not Specified (teaches parents of children 0-2 on childcare practices once a month)
Private daycare Centers	25 (2010)	659	3-5
Save the Children	3 Community ECCD & 1 work place ECCD	72	3-5?
Lhoden Foundation	2? (Bumthang & Chengmari)	72	3-5
Tarayana Foundation	Supports 6 Community ECCD centres	70	3-5

Table 2 The Status of ECCD in Bhutan (Draft) 2012.

Hence, the National Education Framework (2012) developed by the Royal Education Council sums up the status of children below three in the following findings. "There are no organized programmes of stimulation currently available for children aged 0-3 and their parents. This is especially unfortunate, given that children from households with no literate parents are in the greatest need of pre-school education. The Early childhood parenting education, incorporated in the NFE curriculum, reaches only a small portion of the population" (p. 39).

2. Analysis and Reflection

A careful analysis of the above findings gives us two important themes.

Theme 1: Zero-Three: The Silent Years

The amount of established literature and decades of science from many disciplines all point to the same conclusions. Early experiences play powerfully in shaping the developing brain, and healthy development of the child has immediate and lifelong impact on cognitive, language, physical and social-emotional achievements. Almost all scholarly childcare and education studies repeatedly assert that all areas of development are closely intertwined and associated with children's early years, experiences and circumstances (Fenichel, 2011). Recent advances in brain research emphasize the importance of the earliest experiences in life. Studies have proved that the brain grows rapidly in the first three to five years and what happens at this time shapes cognitive and socio emotional development (see Shore, 1997). These first critical years are the sensitive periods when trajectories are first established. This is the period when a firestorm of creativity sparkles in the brain of the infant.

Yet a critical look at the report of the present status of ECCD in Bhutan gives a very uneasy picture of early experiences especially between 0-3. Though the definition of ECCD in all the policy documents start from conception to five or six years, and a lot of steps have been taken in understanding and bridging the gap for children under six, the important years of zero-three are neither spelled out clearly, nor given enough emphasis where mentioned in the various reports. There are currently four documents which mention early years as from 0-5 and 0-6 (*9th 5Yr.Plan, 10th 5Yr.Plan*, *Education Sector Strategy- vision 2020*, *Education without Compromise)*. However, implementation, attention and even discussion in literature about the strategic follow-up in promoting and developing experiences for zero-three children are missing and silent. In Bhutan, these otherwise vibrant years of zero-three, quite ironically, have become the voiceless and faceless numbers of the health and census data.

The present trend also indicates a serious complication. The term ECCD encompasses the period from 0-5 or 6 in the policy discussions, while at the implementation level the focus years of almost all the ECCD centers are actually from 3-5. Therefore, children below the age of three are completely neglected. Secondly though the picture is improving, the focus years of 3-5 are often confused by the implementers as the primary education years. According to the Asia Pacific Regional Network for Early Childhood (ARNEC) policy brief, "a corollary to this is that less attention has been directed at services for children below three years." (p.1).The concerted effort of all stakeholders therefore, should be to relocate their focus of early years as from zero-three, both at the policy and implementation levels.

Theme 2: Birth–three Years: The Private affairs of Parents

The prevailing data also indicate that as soon as the baby is born and till it reaches three, it undergoes a series of vaccination processes which, to a great extent, takes care of the physical growth of the child. This is a tremendous success in Bhutan and the Department of Public Health under the Ministry of Health deserves deep appreciation in this area. However, the huge gap is in addressing the social, emotional, cognitive, psychological, care and educational dimensions, otherwise known as the "holistic development" of the child. This presents a misunderstanding of "child survival versus child development"

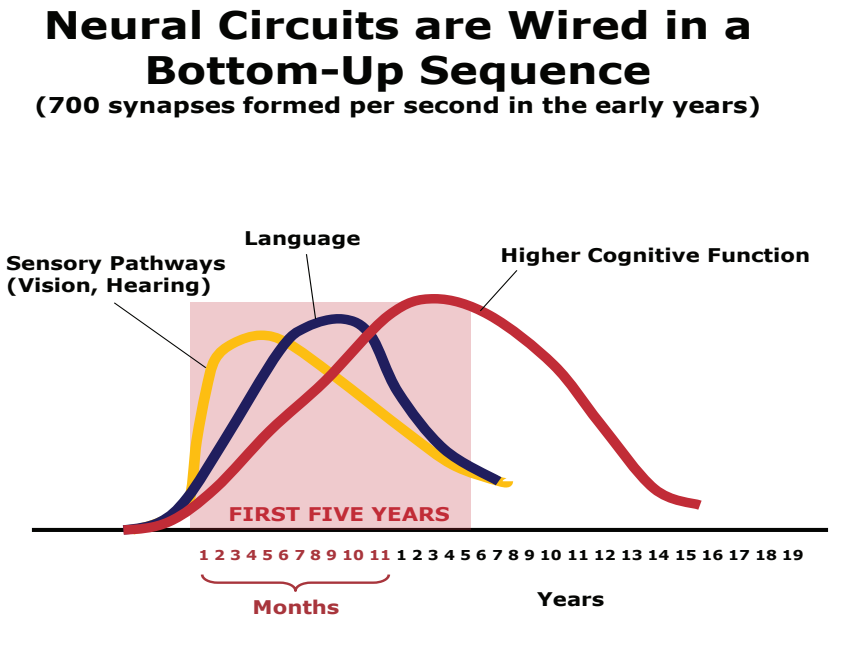
(Myers, 1992, p.20) issues. The policies outline the importance of all aspects of child development, however, it is not clear what strategic positions the government or related agencies have taken in order to implement these policy dialogues. With a high volume of internal migration and tearing apart of traditional family patterns, the issue of how one balances work and family is quite often a private affair, and talk about how one is taking care of one's baby is often considered as 'trivial' girlish chitchat in formal settings. Do our private CEO's ever ask the employee "How is your one and half month old?" Do our Principals try and adjust the teaching time of our teachers so that they can have some time off with their baby? Do our policy makers and framers discuss the issue of helping working mothers while continuously advertising on *Lasola Aum Lyonchen* or wonder why women are not found in leading positions?

3. The Importance of Early Year

Most brain development happens before a child reaches three years old. Long before many adults even realize what is happening, the brain cells of a new infant proliferate, synapses crackle and the patterns of a lifetime are established. In a short 36 months, children develop their abilities to think and speak, learn and reason and lay the foundation for their values and social behaviour as adults. (The State of World's Children- 2001, p.9.)

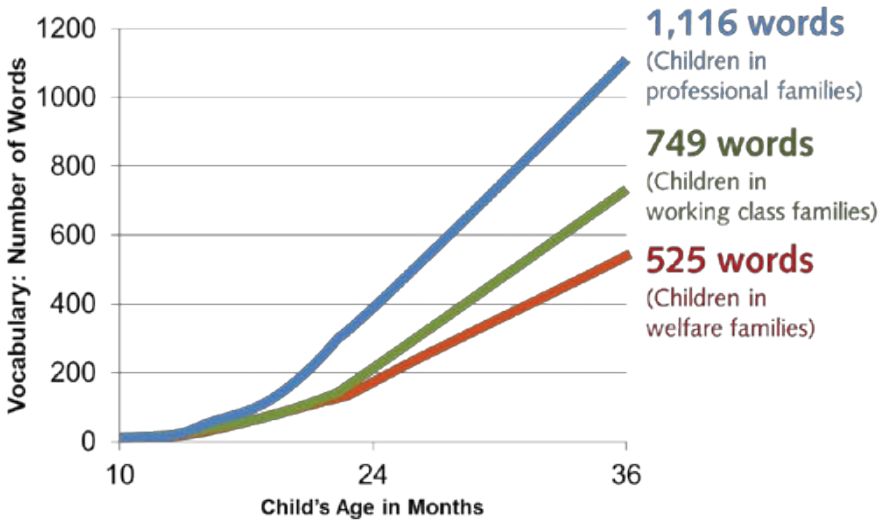
Brain Science and neurological evidences have strengthened the position that children in the early years, birth to age 5, undergo tremendous intellectual, emotional, and physical development resulting in long-term effects for both the individual and society (Erikson, 1963; Shore, 1997; Bowlby, 1969). Researches carried out overtime on children below three years have repeatedly established the fact that the first three years of a child's life is not just a dull period of food, sleep and stagnancy, but rather an intense period of fiery creativity, activity and development. What happens to children during the prenatal period and through early childhood shapes the child's brain development, ability to learn and to problem solve, physical development, emotional development, and the child's ability to successfully participate in their community (Brazelton & Greenspan, 2001; Shonkoff & Phillips, 2000; Shore, 1997). Biologically speaking, young children, particularly infants and toddlers, are primed for learning (Chugani, 1997). Studies have shown that in some cases depending on the age of the child when the enrichment is offered, this enrichment can support the resiliency of the brain and make up for past deprivation (Beckett et al., 2006; Black, 1998; Pungello et al., 2006). Erikson (1963) showed that emotionally healthy babies come to understand that they have a need for nurturing from primary caregivers and a need for a responsive caregiver who will respond and meet their basic needs. If the world is seen as safe and predictable, babies and toddler can enter into trusting relationships with primary caregivers and other adults. Babies who receive neglect or abuse, and who do not have a primary caregiver that responds to their basic needs may doubt the trustworthiness of the world and may be impaired from healthy relationship formation in the future (Erikson). Cross cultural Studies conducted by Ainsworth, 1977; and Ekman, 1994 suggested that basic human emotions are universal. Healthy emotional development is significantly impacted by the ability of infants and toddlers to form early relationships and secure attachments with significant adults (Bowlby, 1969; Hyson, 2003; Lyons-Ruth, Easterbrooks, & Cibelli, 1997).This is why the environment of relationships in which a child develops in the early years is so important. The graph below shows

clearly that language, sensory pathways (vision and hearing) and cognitive function are the highest during the first five years.



Nelson (2000) cited in Shonkoff (2009).

In another study by Hart & Risley (1995) below, differences in vocabulary growth between children in low socio-economic households and high socio-economic households begin to appear very early in life. And as the children grow toward school age, and enter school, the differences only get larger in the absence of intervention.



Source: Hart & Risley (1995). "Meaningful differences in the everyday experience of young American children."

In the economic front, Nobel Laureate James Heckman (2007) argues that the rate of returns is much higher when investments are done on programs targeted in children of early years than in the later years. He asserts that, "recent studies of early childhood investments have shown remarkable success and indicate that the early years are important for early learning and can be enriched through external channels. Early childhood investments of high quality have lasting effects…" (p.1).The graph below presents Heckman's findings on human capital investment and rates of return. The graph clearly indicates that programs targeted towards the earliest years (0-3) yields the highest rate of return to investment in human capital.

There are other equally important reasons for investing in early years apart from its fiscal and economic benefits. Studies have proved that intervening in the very earliest years helps reduce the social and economic disparities and gender inequalities that divide a society and contributes to including those traditionally excluded. Finally, a country's position in the global economy depends on the competencies of its people and those competencies are set early in life – before the child is three years old. Hence it is important to note that all the key ingredients of intelligence – confidence, curiosity, intentionality, self-control, relatedness, capacity to communicate and cooperativeness – that determine how a child learns and relates in school and in life in general, depend on the kind of early care he or she receives from parents, pre-school teachers and caregivers.

4. Conclusion- Politics vs. Moral Responsibility

"There can be no keener revelation of a society's soul than the way in which it treats its children" (Nelson Mandela).

The UNICEF reports "7.6 million children under the age of 5 worldwide die each year. More than 25 times that number – over 200 million children – survive, but do not reach their full potential. As a result, their countries have an estimated 20 per cent loss in adult productivity. What happens during the early years is of crucial importance for every child's development. It is a period of great opportunity, but also of vulnerability to negative influences". In addition, the UNDP's Human Development Report (2009) stated that Bhutan's internal migration rate is the highest in South Asia, and if the picture did not change, the study speculated that "50 percent of the country's population would have left the village home for an apartment in town or a slum dwelling long before 2020".

In such a scenario, what is the political and moral responsibility of our stakeholders towards our children who are the most vulnerable group in our community? Our political leaders can frame beautiful and eloquent policies, politicize political will, and use politically correct rhetoric for political gain. But what remains at the end is the question "Have we done enough to help the helpless?" Have we assured that every child, without exception, is registered at birth and starts life safe from violence, with adequate nutrition, clean water, proper sanitation, primary health care and cognitive and psychosocial stimulation? Have we provided the monies necessary to ensure every child the best possible start in life during the early childhood years? Bhutan signed the Ratification of the Convention on the Rights of the Child in 1990 and today is 2014, so have we truly covered our milestones?

In Bhutan, if we want to, it is not difficult to find a role model of someone who has been a blessing to Bhutanese children. Over the years our Kings have proved to us through their examples, the importance of loving poor children; the strength of empowering poor communities; or the grace of giving an education platform where the prince and the pauper went together to be educated through the same teachers in the same schools. One only needs to look back at our education history and listen to personal stories of people who had no hope to see the light. Yet today they serve as important pillars of our system. Alava (1986) states "A Child is born without barriers. Its needs are integrated and it is we who choose to compartmentalize them into health, nutrition or education. Yet the child itself cannot isolate its hunger for food from its hunger for affection or its hunger for knowledge" *(*cited in Myers, 1992b). Hence, it calls for all stakeholders to work cooperatively and collaboratively, with wisdom and compassion towards true nation building- for in the end, it is not a mother's or a father's story. It is not even a child's story. It is the story of glorification or annihilation of a nation.

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Knowledge and Attitude about HIV/AIDS: A Case Study of Higher Secondary School Students in Trashigang District, Bhutan

JAMYANG CHODA

Abstract

Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS) are among the most complex health problems of the 21st Century. According to UNAIDS (2014) globally there are 35 million people living with HIV/AIDS, with Sub Saharan Africa accounting for highest (24.7 million) followed by Asia and Pacific (4.8 million). HIV/AIDS is a serious public health issue for most of the countries in the world, without exception Bhutan is also facing similar challenges in combating the epidemics of HIV/AIDS. PHCB, 2005 records, median age of Bhutan as 23, indicating that a large portion of the Bhutanese population are young. Generally young and adolescents population are most vulnerable to such diseases. Therefore, this study aims to examine the knowledge level and perceptions of HIV/AIDS among higher secondary school students in Tashigang district. Information on HIV-Related disease, its transmission myths and its facts were collected from students through structured questionnaire. The study was a descriptive, cross sectional study. It was found out that in general students of higher secondary schools in Trashigang have very good knowledge on HIV/AIDS, were 85.5% of the students could answer more than 8 questions correctly on HIV/AIDS out of 11 questions. About 12% of the students interviewed could answer 6-7 questions correctly and only around 2% could answer less than 5 questions correctly. In general knowledge on transmission is also good, but interestingly almost 40% of the students still have a myth that mosquito can transmit HIV/AIDS. In most cases, attitude towards people living with HIV/AIDS, especially family member, was found to be good.

Key words: *HIV/AIDS, Knowledge, Attitude, Students, Schools, Trashigang*

Introduction

Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS) are among the most complex health problems of the 21st Century. As of 2013, globally there were 35 million people living with HIV/AIDS. Sub Saharan Africa have highest people living HIV/AIDS (24.7 million) followed by Asia and Pacific with 4.8 million people living with HIV/AIDS (UNAIDS, 2014). There are around 3 million people living with HIV/AIDS in South Asia. Bhutan, though isolated geographically is not impervious to HIV. Increasing cross-border migration and international migration, combined with behavior risk factors, mean Bhutan could face increase in HIV infection (World Bank, 2014). As of June, 2014, 321 people are detected with HIV/AIDS in Bhutan. Majority of the people detected with HIV/AIDS are young and in economically active age group (Kuensel, 2014). The number of HIV/AIDS cases is rising annually and UNAIDS estimates that about less than 1000 people could be living with HIV in Bhutan.

One of the most important pre-requisites for reducing the rate of HIV infection is accurate knowledge of how HIV is transmitted and strategies for preventing transmission. Correct information is the first step towards raising awareness and giving young people the tools to protect themselves from infection (UNAIDS 2009). The spread of HIV/AIDS in any community is in part determined by the knowledge of and attitude towards the sexuality of its members, and by their actual sexual practices. Before formulating public health policies for the prevention of HIV/AIDS, it is critical to obtain information on Knowledge, Attitude and Practice (KAP) regarding HIV/AIDS (Lal,*et al*, 2000).

In Bhutan, there are a few surveys like Bhutan Multiple Indicator Survey 2010 conducted by the National Statistics Bureau, which covers knowledge, attitude and practice of HIV/AIDS among women between 15-49 years. However, this survey covers only women within a reproductive age group. There is no KAP studies done on HIV/AIDS in Bhutan with special reference to students so far. The matter of the fact is half of the Bhutanese population is below 23 years and a majority of this population in schools across the country. According to the UN, adolescents constitute the majority population especially in the developing world, where most humanitarian emergencies occur and their sexual and reproductive needs are largely unmet. Statistics reveals that half of new HIV infections occur in 15-24 years. Since Bhutan has high proportion of young population, it is important to examine the knowledge and attitude of HIV/AIDS among school going youths in Bhutan. Moreover, Trashigang being one of the largest districts in the country has a large number of youths studying in the schools. There are four higher secondary schools in Trashigang with more than 3000 students. Most of the students come from rural places where little is known about such diseases.

Objectives

This study basically aimed to:

1. Examine the knowledge level of HIV/AIDS among high school students in Trashigang;
2. Examine the misconception and myths of HIV/AIDS among high school students in Trashigang; and
3. Examine prevailing attitude towards people living with HIV/AIDS

Literature Review

The United Nations Report, 2002, showed that a vast majority of the world's young people have no idea how HIV/AIDS is transmitted or how to protect themselves from the disease. Yet the study shows that adolescence is the time when the majority of people become sexually active. Moreover, many researches suggest that young people worldwide are particularly pandemic to HIV/AIDS (Key, Xun & Ying, 2005; Uys, Ichharan, Martin & Alexander, 2001). Lack of knowledge about AIDS prevention makes young people more vulnerable to HIV infection. Fostering healthy behavior among adolescents is essential for prevention of HIV/AIDS, because adolescence stage is very critical in the life. Young people's opinions, attitudes and behavior play a critical role in constructing a compassionate society that is free from discrimination for people living with HIV/AIDS (*Gao, et al,* 2012). The important factor fueling rapid spread of HIV/AIDS in developing countries is believed to be poor knowledge about how disease is spread and how it can be prevented (Mazloomy.S, 2008).

A recent study among high school students in Tanzania revealed that majority of the students possessed sound knowledge on HIV/AIDS and many of these students expressed positive attitudes towards people living with HIV/AIDS. However, it was found that sexual behavior among high school students was risky (Mkumbo.k, 2013). A similar study conducted among Municipal Corporation Schools in Pune, India, have found that more than 60 percent of the students were aware HIV/AIDS and TV was claimed to be the main source of information (Kumar, 2012). A study among young adults in Croatia

found that overall, the proportion of respondents providing correct answers to individual HIV knowledge questions varied from 64 to 86 percent. One third of the sample answered all seven questions correctly; 25 percent respondent provided six correct answers, and 17 percent provided five questions correctly (Stulhofer, 2007).

The findings from the HIV-Related Knowledge and Stigma in United States, 2000 shows that most U.S adults do not hold stigmazing views about persons with HIV infection or AIDS, however, a substantial minority gave a response that suggest they may have stigmazing attitudes about persons with HIV. Significantly, more of the respondents who were misinformed about HIV transmission gave a stigmatizing response, suggesting that increasing understanding about behaviors related to HIV transmission may result in lower levels of stigmatizing beliefs about infected persons. However, many other factors are probably related to stigma.

According to the Bhutan Multiple Indicator Survey, 2010 (BMIS), 83.7 percent of the interviewed women age 15-49 have heard of AIDS. However, 17.5 percent of women aged 15-49 years were found to have comprehensive knowledge of HIV. It clearly indicates that, although a majority of Bhutanese have heard of HIV, only a few have comprehensive knowledge about HIV. Most of the KAP studies conducted among students in other countries suggest that knowledge about HIV/AIDS prevention and transmission are good and, most of the students have positive attitude towards people living with such a disease. However, there are limited literatures on knowledge, attitude and practice on HIV/AIDS among Bhutanese students.

Data and Methodology

The study was a descriptive, cross sectional study on the knowledge and attitude among higher secondary students in Trashigang district. The population consisted of students in all the higher secondary schools in Trashigang, namely Jigmesherubling Higher Secondary School, Tashitse Higher Secondary School, Rangjung Higher Secondary School and Jampeling Higher Secondary School. This study used a proportionate sampling method to determine the number of respondents from each school and it was made sure that more than 50% of the total students in the particular school were interviewed. Respondents were selected using a convenient sampling method. Out of 1943 students from four higher secondary schools, 991 students were interviewed.

Primary data were collected from four higher secondary schools in Trashigang district in the month of March and April 2012. Data were collected using a set of structured questionnaires and the questionnaire was based on the MICS4 model. This questionnaire developed by UNICEF is used worldwide to draw a range of indicators in the areas of health, education and HIV/AIDS. The knowledge question gave three options, "Yes", "No", "Don't know/not sure/depends". Accordingly, these three types of answers were re-coded into two categories with correct answers and incorrect answers. Each correct answers were re-coded as 1 and incorrect answerers and DK/not sure/depends category were re-coded as 0. There were 11 questions used to determine the HIV/AIDS knowledge level and the total score ranges from 0-11 (questions in table 1.4 & 1.5). The scores were arbitrarily classified at 3 levels of knowledge: **High** (score of 8 and above), **Average** (score of 6-7) and **Poor** (score of 5 and less). (Refer Table 1.3).

Results and Discussion

Socio-demographic Characteristics

The total number of students interviewed was 991. The mean age of respondents was 17 years and there were almost equal number of male and female students who participated in this survey (male 50.6% and female 49.4%, Table 1.2). There are more student respondents from class IX and X with 27.1% and 25% respectively. On the other hand, class XI and XII students consist of 24% and 23.8% respectively. The number of student respondents differ from school to school, with Tashitse higher secondary school in Wamrong with highest number of student respondents (35.7%) followed by Rangjung higher secondary school (25.3%) and Kanglung higher secondary school has least number of respondents (18.1%).

Table 1.2: Socio-demographic characteristics of students interviewed (N=991)

Characteristics	Total
Age (Mean)	17.24
Sex	
Male	501 (50.6%)
Female	490 (49.4%)
Grade/Class	
Class IX	269 (27.1%)
Class X	248 (25.0%)
Class XI	238 (24.0%)
Class XII	236 (23.8%)
Schools	
Jigmesherubling Higher Secondary School	207 (20.9%)
Tashitse Higher Secondary School	354 (35.7%)
Rangjung Higher Secondary School	251(25.3%)
Kanglung Higher Secondary School	179 (18.1%)

Knowledge on HIV/AIDS

As depicted in the Table 1.3 HIV/AIDS knowledge among higher secondary school students was very good. Majority of the students interviewed possessed good knowledge on HIV/AIDS, in other words 85.5% of the students answered 8-11 answers correctly. Around 12% of the students answered 6-7 answers correctly and only around 2% of the students answered less than 5 answers correctly. Comparing to global context, were only few proportions of young people were found to have knowledge on HIV/AIDS (UN, 2002), it is good to know that Bhutanese students have good comprehensive knowledge

on HIV/AIDS. This will have impact on reducing HIV/AIDS infection rate in the country in long run. This is mainly because, one of the most important pre-requisites for reducing the rate of HIV infection is accurate knowledge of how HIV is transmitted and strategies for preventing transmission (UNAIDS, 2009).

Table 1.3: Level of HIV/AIDS Knowledge among higher secondary school students under Trashigang district (N=991)

Level of Knowledge	Number	Percentage
Poor (Able to answer 0-5 correct questions)	21	2.1
Average (Able to answer 6-7 correct questions)	120	12.1
Good (Able to answer 8-11 correct questions)	850	85.8
Total	**991**	**100**

There are many myths regarding HIV/AIDS and the myths are especially in line with its mode of transmission. In order to gauge the knowledge level of HIV/AIDS it is important to understand people's knowledge on the mode of transmission. Table 1.4 shows the higher secondary students knowledge on HIV/AIDS mode of transmission. Of the respondents, 8.3% believed that HIV/AIDS could be contracted through Witchcraft or other supernatural means. Nearly half of the students (39.5%) believed that HIV/AIDS could be contracted through mosquito bites. About 10% of the students believed that HIV/AIDS could be transmitted through sharing food with a person who is already having HIV/AIDS. Despite constant effort from the Ministry of Health to create awareness on modes of transmission of HIV/AIDS, the myth about HIV/AIDS being transmitted through mosquito bite still remains strong among students.

Table 1.4: Students myths on HIV/AIDS transmission (N=991)

Transmission Myths	Number (percentage) responding "YES"
Can people get AIDS because of witchcraft or other supernatural means?	82 (8.3%)
Can people get the AIDS from mosquito bites?	391 (39.5%)
Can people get AIDS by sharing food with a person who has AIDS?	100 (10.1%)

Table 1.5 shows the students' knowledge about some of the facts about HIV/AIDS. All the students interviewed reported that they have at least heard about the disease called HIV/AIDS. The majority of students (96.6%) believed that HIV/AIDS can be transmitted from mother to her baby. Many students also believed that HIV/AIDS can be transmitted from mother to her baby during pregnancy (89.7%) followed by breastfeeding (79.6%) and during delivery (63.4%).

Table 1.5: Students knowledge on some facts about HIV/AIDS

Facts	Number (percentage) responding "YES"
Have you ever heard of AIDS?	991 (100%)
Can people reduce their chance of getting AIDS by having one uninfected sex partner?	804 (81.1%)
Can people reduce their chance of getting AIDS by using condom every time they have sex?	868 (87.6%)
Is it possible for healthy looking person to have AIDS?	694 (70.0%)
Can AIDS be transmitted from mother to her baby?	960 (96.9%)
During Pregnancy	884 (89.7%)
During Delivery	624 (63.4%)
By Breastfeeding	785 (79.6%)

Prejudices and stigma against people living with HIV/AIDS (PLWHA) is a serious issue. The greatest challenge or fear for people living with HIV/AIDS is being stigmatized and neglected in the society. Therefore, this study also examines the attitude and beliefs of students. Four questions were administered to understand the attitudes of students against PLWHA. Almost every student expressed that if one of their family member is infected with HIV/AIDS, they will be willing to take care of them (97%). Majority of the students also agreed that there is no problem in being taught by HIV/AIDS infected teacher (83.6%) and 82.9% of the students said that they will be willing to buy fresh vegetable from a shopkeeper who has HIV/AIDS. Only 36.6% of the students said that they would keep it secret if one of their family members is inflicted with HIV/AIDS (Table 1.6). Generally, majority of the students possessed positive attitude towards people living with HIV/AIDS.

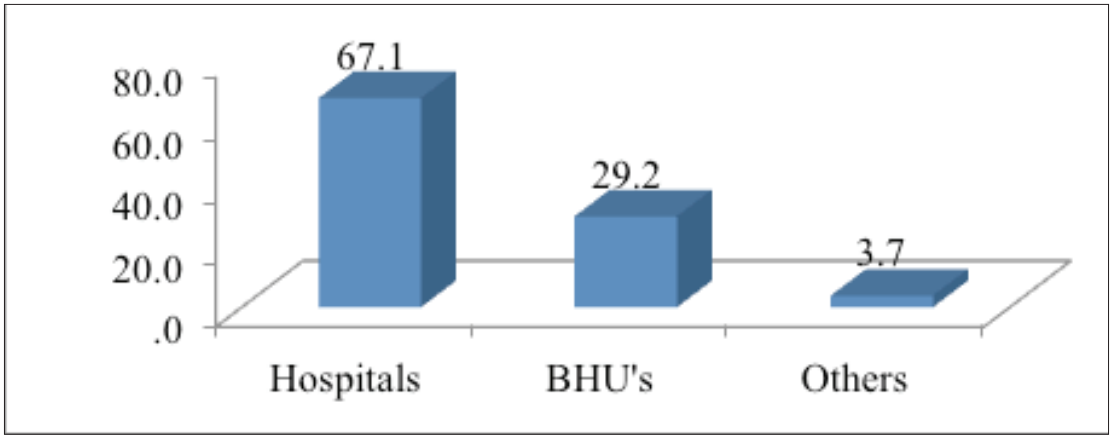
Table 1.6: Attitudes and Beliefs about HIV/AIDS

Attitudes	Numbers (Percentage) responding "YES"
In your opinion if your teacher has the AIDS but not sick, should he/she should be allowed to teach in the class?	828 (83.6%)
Would you buy fresh vegetable from a shopkeeper infected with AIDS?	822 (82.9%)
If a member of your family member got infected with AIDS would you remain secret?	360 (36.3%)
If a member of your family member got infected with AIDS would you take care?	961 (97.0%)

Knowledge on place of testing HIV/AIDS

Many students (62%) at least knew where HIV/AIDS can be tested and 38% didn't know where HIV/AIDS can be tested. Most of the students knew that hospital is a main place to check for HIV/AIDS followed by basic health units (BHU's). This indicates that Health Information and Service Centre (HISC) established in major towns in Bhutan serving as consulting agents for STDS, especially HIV/AIDS, is not popular among school youths in Trashigang.

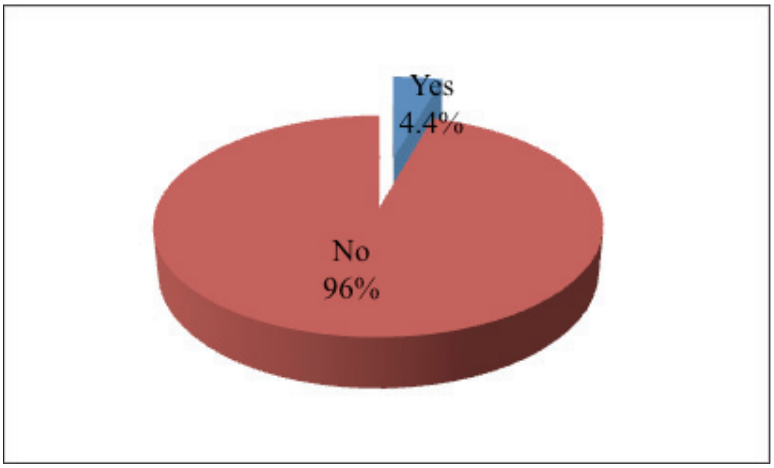
Fig. 1.1 Students awareness on HIV/AIDS testing places



HIV/AIDS Test

It is important to be tested for HIV/AIDS if an individual has to be very certain of their HIV/AIDS status. This study also captured how many students got tested for HIV/AIDS. Of the total interviewed, 96% of the students were not tested for HIV/AIDS and only 4.4% of the students interviewed went under HIV/AIDS test.

Fig. 1.2: Students HIV/AIDS testing status



Conclusion

Knowledge level on HIV/AIDS was found to be excellent among higher secondary students in Trashigang. Moreover, students' knowledge on HIV transmission was also good except on mosquito bites where about 40 percent of the students stated that HIV/AIDS can be transmitted by mosquito bites. This indicates that the myth concerning HIV/AIDS being transmitted through mosquito bite still remains strong among students. The biggest challenge or fear for people living with HIV/AIDS is being stigmatized and neglected by society. However, it seems that many students in Trashigang district possessed positive attitudes towards people living with HIV/AIDS.

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Bringing up a child with Autism Spectrum Disorder (ASD): Lived Experiences of a Parent

KARMA JIGYEL

Abstract

Autism Spectrum Disorder (ASD) is typically diagnosed in early childhood and has a wide range of symptoms, some being more severe than others. The symptoms include impairments in skills of communication, socialization, and behavior at varying degrees. Every parent initially feels devastated when they learn that their child has autism. The dreams and aspirations of nurturing the child for successful future seems to be impossible - believing only that the child would be in his own 'world' for all times to come and who would take care of him once you are no longer able to care for the child, even as an adult. In Bhutan the concept of ASD has just come into the limelight recently with more and more prevalence of children affected by ASD every year. Parent's acceptance of the child as is and learning about his autism plays a primary role in living a more fulfilling life. Showering unconditional love and being respectful of him/her as an individual hopefully gaining his/her trust bring wonders in the family. Many research studies have claimed that early diagnosis and intervention before the age of 3 – are very crucial because many features of autism respond better when addressed early. Therefore the purpose of this paper is to create awareness for the need of acceptance and early intervention. In the first part, the author presents a narration from experiences of raising a son affected by ASD. He has depicted through a timeline in examining the manifestation of ASD starting from birth of the child to the present. In the second part of the paper, based on literature review, the author discusses the prevalence and common features of ASD.

Key Words: *Autism Spectrum Disorder (ASD), acceptance, unconditional love, early intervention, therapies.*

Introduction

Autism Spectrum Disorder (ASD) is a complex neurological disorder typically diagnosed in early childhood (1 to 3 years of age) and has a wide range of symptoms, some being more severe than others. These symptoms consist of communication, socialization, behavioral and interest impairments, as well as minimal social skills (Weiss & Lunsky, 2011). Due to these symptoms, children with ASD have issues with communication and social interaction skills. Children with ASD may communicate verbally, nonverbally or a combination of both. Such children stand unique amongst other children and are often looked at as being socially awkward.

An autism diagnosis can be perceived as a loss for the family:

> The grieving process associated with the birth of a child with disabilities is complicated by the parents' grieving the death of the 'expected' baby while at the same time trying to accept the 'imperfect' baby. Even though they have the joy of being able to hold and love their baby, their life is suddenly and drastically changed (Hooyman & Kramer, 2006, p. 200).

This in turn produces feelings of grief, stress and confusion. Immediately, with no warning or preparation, the family has to transform and adapt to a new lifestyle. Daily routines become much more complicated, family vacations become much harder to plan, and families find themselves no longer able to do some

of the things they were once able to do. Mothers and fathers reported more stress when having a child diagnosed with autism as opposed to parents who have children with Down syndrome and parents of typically developing children (Meadan, Halle, & Ebata, 2010). With the causes of autism still unknown, parents experience blame for their child's autism. Some fathers may blame the autism on their wives (Barnes, Hall, Roberts, & Graff, 2011). In addition to parents being affected by this diagnosis, the sibling(s) of a child diagnosed with autism are also impacted. Siblings are impacted in similar ways as their parents. Siblings may experience worry, anger, and embarrassment and have an inability to understand the autism diagnosis. The sibling's dream of having a normal playmate or companion is no longer congruent with their past expectations (Naseef, 1989).

In the following sections a narration of experiences as a parent in raising a child with ASD has been discussed. Further facts, causes, symptoms, prevalence, interventions etc. to name a few have been discussed through various literature sources.

Narration of Some Lived Experiences

The birth of our first child, a son, brought tremendous joy for every one of us. I still remember telling myself that I would have to experiment a lot in bringing up Tobden to be a fine young man. Tobden grew up like every normal child, meeting all of his developmental milestones for the first two years. He was full of smiles and giggles as we gazed and talked with him. We still remember hearing single syllable words like 'Apa' (local term for father), 'Mama', 'Apple', 'Agay' (local term for grandfather) and 'Aku' (local term for uncle) crystal clear from Tobden's mouth before attaining the age of two. Then we noticed sudden change in his behaviors. He started throwing unusual tantrums, hitting his head on the floor, having poor eye contacts, and there was deterioration of verbal and social skills. He did not respond to his name whenever called, started developing behaviors which were repetitive, most of the time he would gaze up in one corner for few seconds and time and again cooing and blurting sounds. Getting to bed early was also a problem for Tobden. A study (Schall, 2000) of two families reported that their children were developing "normally" until about 18 months when they noticed that they lost skills. Similarly other studies (Hartmann, 2012; Ritvo, 2006) reported that development skills of a child with ASD could progress normally in the first two years of life but then deteriorate or progress no further.

By the age of 4 years Tobden still had the same symptoms and we were bothered so much. Then finally we decided to refer him to a pediatrician in Jigme Dorji Wangchuk National Referral Hospital (JDWNRH), Thimphu. Upon referring Tobden the pediatrician concluded that Tobden had Attention Deficit Hyperactivity Disorder (ADHD) and also advised us to confirm his hearing. Then we were referred to an ENT specialist who further referred us to a hospital in Kolkata because JDWNRH did not have the resources for further evaluating a hearing test for confirmation.

A series of tests were performed on Tobden for his hearing and was confirmed as normal. He was also referred to a child specialist who after a series of screening tests confirmed that Tobden had Autism. This was the first time I heard the word "Autism". As the specialist started explaining about the disorder I was dumbstruck and confused. At one point I felt angry, desperate, scared, and uncertain about his future. Studies (Hartmann, 2012; Stone, 2004) reported that parents experienced negative feelings upon learning their child's ASD diagnosis. All the parents reported feelings of shock, grief and sadness.

Life had been hard for us and at times the situations were difficult to handle. Frustration, remorse, anger and other negativity feelings (human weakness) resulted in showing temper, throwing unpleasant remarks and manhandling Tobden when he crossed his limits.

Studies (Barnes, Hall, Roberts, & Graff, in Hartmann, 2012; Stone, 2004; about.com) reported such situations as 'refrigerator mother' used to describe a parent who was seen as cold and uncaring and as a result, traumatized their child causing them to retreat into autism . Such attitude towards ASD children further aggravates the disorder.

Despite these challenges we had one thought in our mind. This is not the end of it and there should be a way out to help Tobden. Thanks to internet access where we read a great deal of information and literatures on children with ASD. We also combed bookstores. Exploring for autism centers in India through the internet was a blessing in disguise as we were able to find one center willing to take our son for intervention. Bhutan does not have such facilities and this kind of disorder was not known in Bhutan then. Then we decided to take him to an Autism Center in Chennai, India after a series of email correspondence with the founder and director of V – excel Educational Trust, a nonprofit social organization committed to holistic development of individual with special needs which was then functioning for a decade. And we knew that we had to prepare for the worst taking Tobden all the way to Chennai.

It was only after we took Tobden to that center I was able to change my attitude after I met the professionals and learned more about ASD. First and foremost thing that I learnt was acceptance of Tobden the way he was. Granell (n.d., as cited in Stone, 2004) asserts:

> It wasn't about trying to change Pierce or force him to conform to our ways of doing things. It was more about changing our way of doing things, about changing our attitude towards him, being respectful of him as an individual and hopefully gaining his trust.

A group of professionals consisting of special educators, occupational therapist, child psychologists and nutritionists in the center evaluated Tobden and developed a structured program from 9:00 AM to 3:00 PM, five week days for two months. The program was intensive and it included occupational therapy, applied behavior analysis (ABA), and diet restrictions (gluten and casein free diet) etc. to name a few.

Studies (Hartmann, 2012; Szapacs, 2006; Myles et.al. 2007) have indicated that early diagnosis and early intervention by professionals can provide the best opportunities for achieving their potential and living a more functional and capable life.

Some of the goals through these intensive programs were to develop sitting tolerance and readiness for structured intervention programs, to improve his attention span, to improve hand eye coordination, to reduce sensory problems. Activities like greeting song, action song, wet on wet painting, sticking pieces of paper with glues, threading beads, sorting and matching shapes and colors, picture talk, etc. were introduced in Tobden's program. Initially Tobden was resistant to any activity. He refused to enter the classroom and turned aggressive. Over 5 sessions he started responding to actions songs and joined in moving in – circle and clapping. His grasp of paint brush and strokes were violent initially but after few more sessions he managed doing it very well.

Further sitting on a chair through a session of 40 minutes was challenging for Tobden in doing an activity. He could be engaged for 5 to 10 minutes at a stretch. Now he can sit on a chair for 40 minutes at a stretch provided he has some activities. He however needs close supervision while doing these activities. But Tobden needs a structured school and home programme on a regular basis.

The center provided us an opportunity to attend a weeklong parent training program and home based - interventions. Upon returning to Bhutan this program helped us immensely in training Tobden to use his strengths to overcome areas of special needs, while facilitating his inner growth in the process. We could see drastic improvements in Tobden's behavior and learning. He was introduced to handling applications designed for autistic children on Ipad and within a short period of time he was able to handle it independently.

Therefore it is evident that this structured program does work though it takes lot of time and expense and this gave us more hope and confidence in moving forward and we know that Tobden has the capacity of learning. Many studies (Ozonoff & Cathcart, 1998; Grindle, Kovshoff, Hastings, & Remington, 2008; Dillenburger, Keenan, Gallagher, & McElhinney, 2004) indicated that home based – intervention was effective in enhancing development in young children with ASD and these parents were able to cope with stress and support each other.

Besides these therapy sessions he was also put on strict diet where milk products, wheat products, foods containing preservatives and artificial colors and meat products were excluded. This resulted in Tobden becoming calmer and getting a good night's sleep. Jackson (2004), proclaimed that:

> ……. it is a theory that is tried and proven to be beneficial to autistic children throughout the world and Luke wrote his first book – *A User Guide to the GF/CF Diet for Autism, Asperger Syndrome and AD/HD* – because he felt so strongly about the benefits of this diet and for us it has been miraculous. Before removing gluten and casein, Ben was totally distant – away in his own little planet autism. He is now fully aware of his surroundings, talks more and more each day and in many ways autism would not be spotted in him other than by a trained eye. Only a parent or someone that lives with an autistic child can understand exactly what changes become apparent when a child is reacting to a food or chemical.

But some studies (Autism Society of America, n.d.; GFCF Diet, 2006; Sturmey, 2005) argues that while some of these restrictions may show improvement in a child's behavior, empirically based study does not exist in sufficient amounts to warrant widespread use.

During our stay in Chennai, attending the center daily with Tobden taught me that different support groups such as parents, professionals, social workers etc. played a very important role in coping with stress. Networking with other families affected by the disorder provided parents with comfort in finding others experiencing similar situations as well as receive useful advice in parenting process (Autism Society, 2011).

Another study also indicated social support from friends, family and spouses reduced depression and increased the well-being in parents of children with autism. Spousal support was indicated as the most beneficial source of support as they provide respite, divide household responsibilities and share the disciplinary role for one another (Meadan, Halle, & Ebata, 2010).

What is Autism Spectrum Disorder (ASD)?

In 1943, Leo Kanner officially acknowledged the Autism Spectrum Disorder as a clinical disorder. At this time, autism was extremely rare with approximately 2-4 out of every 10,000 children being diagnosed. Prior to this acknowledgment, children were often classified as emotionally disturbed or mentally retarded (MacFarlane &Kanaya, 2009).

Autism is a complex developmental disability that typically appears during the first three years of life. It is a neurological disorder characterized, in varying degrees, by difficulties in social interaction, verbal and nonverbal communication and repetitive stereotype behaviors (NIMH, n.d.).Previously, they were recognized as distinct subtypes, including autistic disorder, childhood disintegrative disorder, pervasive developmental disorder-not otherwise specified (PDD-NOS) and Asperger syndrome. But now with the May 2013 publication of the DSM-5 diagnostic manual by American Psychiatric Association, all autism disorders were merged into one umbrella diagnosis of ASD.ASDs include Autistic disorder, Asperger's disorder, Pervasive developmental disorder – not otherwise specified (PDD-NOS), and Childhood disintegrative disorder.

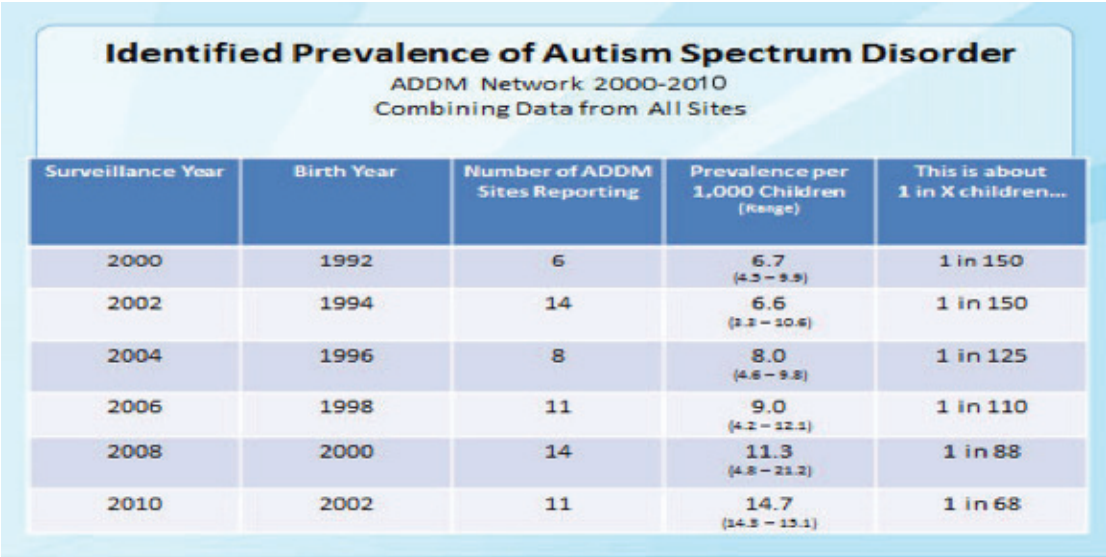
Autism is known as a 'spectrum disorder,' because the severity of symptoms ranges from a mild learning and social disability to a severe impairment, with multiple problems and highly unusual behavior. The disorder may occur alone, or with accompanying problems such as mental retardation or seizures. Autism is not a rare disorder, being the third most common developmental disorder, more common than Down's syndrome(Meadan et al., 2010).ASD is one of the top three most expensive diagnoses in special education.

How common is Autism?

There has been an increase in the diagnosis of ASD over a short period of time. Approximately eleven years ago, the cases of autism ranged from five per 10,000 or 1 in 2000(American Psychiatric Association, 2000) to 60 per 10,000 or 1 in 167(Altiere& Kluge, 2009). Another study (Meadan, Halle, & Ebata, 2010) concluded that autism is affecting approximately 1 in every110 children and is growing at a rate of 10% to 17% per year. Similarly a recent study (March 2014) in India by Centers for Disease Control and Prevention (CDC) reported 1 in every 68 children today is born with autism spectrum disorder (ASD) against a ratio of one in 110 few years back. It is believed that boys are nearly five times more likely than girls to have autism.

ASD is becoming more and more prevalent in today's society with males being affected 4.5 times higher by this diagnosis than females (Rice & Centers for Disease Control and Prevention, 2009). Studies (Centers for Disease Control and Prevention, 2013) in Asia, Europe, and North America have identified individuals with an ASD with an average prevalence of about 1 % of general population. A study (Kim, Leventhal, Koh, Fombonne, Laska, Lim, Cheon, Kim, Kim, Lee, Song & Grinker, 2013) in South Korea reported a prevalence of 2.6%. Study from CDC's Autism and Developmental Disabilities Monitoring Network indicate that more children in the US are being identified with autism spectrum disorders than ever before because of better access to services and greater awareness of autism (see the chart below).

Figure 1 Identified Prevalence of Autism Spectrum Disorder



Identified Prevalence of Autism Spectrum Disorder

ADDM Network 2000-2010
Combining Data from All Sites

Surveillance Year	Birth Year	Number of ADDM Sites Reporting	Prevalence per 1,000 Children (Range)	This is about 1 in X children...
2000	1992	6	6.7 (4.5 – 9.9)	1 in 150
2002	1994	14	6.6 (3.3 – 10.6)	1 in 150
2004	1996	8	8.0 (4.6 – 9.8)	1 in 125
2006	1998	11	9.0 (4.2 – 12.1)	1 in 110
2008	2000	14	11.3 (4.8 – 21.2)	1 in 88
2010	2002	11	14.7 (14.3 – 15.1)	1 in 68

(Source: Centers for Disease Control and Prevention, 2013)

Causes

The exact cause of autism is not known though recent research (CDC, 2013) indicates that it could be a combination of genetic and environmental factors. Studies (Bonora,Lamb,Barnby, Bailey & Monaco, n.d.; Mercer, Creighton, Holden, &Lewis, 2006) have widely accepted that most cases arise because of a complex genetic predisposition.

Symptoms

Symptoms of autism spectrum disorder (ASD) vary from one child to the next, but in general, ASD are characterized into three areas - social impairment, communication difficulties and repetitive and stereotyped behaviors (Altiere & Kluge, 2009; Meadan et al, 2010; American Psychiatric Association, [APA] 2000; Schaaf, Toth-Cohen, Johnson, Outten & Benevides, 2011).

Children with ASD do not follow typical patterns when developing social and communication skills. Parents are usually the first to notice unusual behaviors in their child. Often, certain behaviors become more noticeable when comparing children of the same age. In some cases, babies with ASD may seem different very early in their development. Even before their first birthday, some babies become overly focused on certain objects, rarely make eye contact, and fail to engage in typical back-and-forth play and babbling with their parents. ASD is typically diagnosed in children by the age of three where difficulties are recognized in the area(s) of social interaction, language for communication, and/or restricted, repetitive, and stereotyped patterns of behavior (MacFarlane & Kanaya, 2009).

Social impairment

Most children with ASD have trouble engaging in everyday social interactions. Some may

- Make little eye contact
- Tend to look and listen less to people in their environment or fail to respond to other people
- Do not readily seek to share their enjoyment of toys or activities by pointing or showing things to others
- Respond unusually when others show anger, distress, or affection.

Recent research suggests that children with ASD do not respond to emotional cues in human social interactions in the same way as neurotypical (dyslexia, developmental coordinator disorder, bipolar disorder, ADD/ADHD or other similar conditions) children because they may not pay attention to the social cues that others typically notice. Without the ability to accurately interpret another person's tone of voice as well as gestures, facial expressions, and other nonverbal communications, children with ASD may not properly respond and may have trouble understanding another person's point of view.

Likewise, it can be hard for others to understand the body language of children with ASD. Their facial expressions, movements, and gestures are often vague or do not match what they are saying. Their tone of voice may not reflect their actual feelings either.

Communication issues

Children with ASD may:

- Fail or be slow to respond to their name or other verbal attempts to gain their attention
- Fail or be slow to develop gestures, such as pointing and showing things to others
- Coo and babble in the first year of life, but then stop doing so
- Develop language at a delayed pace
- Learn to communicate using pictures or their own sign language
- Speak only in single words or repeat certain phrases over and over, seeming unable to combine words into meaningful sentences
- Repeat words or phrases that they hear, a condition called echolalia
- Use words that seem odd, out of place, or have a special meaning known only to those familiar with the child's way of communicating.

Repetitive and stereotyped behaviors

Unusual repetitive behaviors and/or a tendency to engage in a restricted range of activities are another core symptom of autism. Common repetitive behaviors may include:

- Unusually intense or focused interests
- Stereotyped and repetitive body movements such as hand flapping, jumping, and spinning
- Repetitive use of objects such as repeatedly flicking a doll's eyes or lining up toys
- Adherence to non-functional routines such as insisting on travelling the same route home each day

In addition to these main areas of difficulties, individuals with an ASD may also have:

- Unusual sensory interests such as sniffing objects or staring intently at moving objects
- Sensory sensitivities including avoidance of everyday sounds and textures such as hair dryers, vacuum cleaners and sand
- Intellectual impairment or learning difficulties

Some other conditions that children with ASD may include sensory problems, sleep problems, intellectual disability, seizures, gastrointestinal problems, and co-occurring disorders.

Is there cure for Autism and how is it treated?

Currently there is no known cure for ASD. Each child or adult with autism is unique and, so, each autism intervention plan should be tailored to address specific needs.

However, early intervention, specialized education and structured support can help develop an individual's skills. Every individual with ASD will make progress, although each individual's progress will be different. Progress depends on a number of factors including the unique makeup of the individual and the type and intensity of intervention. With the support of family, friends and service providers, most individuals with ASD can achieve his or her own potential of living a functional and capable life.

Different form of therapy sessions under the supervision of therapist has far reaching effects. In some early intervention programs, therapists come into the home to deliver services. This can include parent training with the parent leading therapy sessions under the supervision of the therapist. Other programs deliver therapy in a specialized center, classroom or preschool. Some form of therapy includes Early Start Denver Model (ESDM), Applied Behavior Analysis (ABA), Speech Therapy, Occupational Therapy, and dietary intervention. Scientific studies have confirmed the benefits of these methods of comprehensive behavioral early intervention, particularly ABA which is widely recognized as a safe and effective treatment for autism (Szapacs, 2006). It has been endorsed by a number of state and federal agencies, including the U.S. Surgeon General and the New York State Department of Health.

A number of completed studies (Szapacs, 2006; Gordon, McElduff, Wade, Charman, Pasco&Howlin, 2011; Banach, Iudice, Conway, & Couse, 2010) have demonstrated that ABA techniques can produce improvements in communication, social relationships, play, self-care, school and employment. These studies involved age groups ranging from preschoolers to adults. Results for all age groups showed that ABA increased participation in family and community activities. ABA is a technique in bringing a positive behavioral change through a system of rewards and consequences. For example if a child is asked to perform a particular task and the child complies, the child is given a

"reinforce" or reward in the form of a tiny food treat, a clap, high five, or any other reinforcement. If the child does not comply, there is no reward given and the process is repeated till the task is accomplished.

The intervention also includes Picture Exchange Communication System, or PECS, which allows children with autism who have little or no communication abilities, a means of communicating non-verbally. Children using PECS are taught to approach another person and give them a picture of a desired item in exchange for that item. By doing so, the child is able to initiate communication. The child with autism can use PECS to communicate a request, a thought, or anything that can reasonably be displayed or symbolized on a picture card. A study indicated a positive effect with this communicative function through PECS (Gordon et al., 2011; Banach et al, 2010).PECS works well in the home or in the classroom.

The Early Start Denver Model (ESDM) is a comprehensive behavior – oriented early intervention program for children of 1 year to 5 years. This model is play based intervention which incorporates intensive ABA therapy and developmental curriculum in natural setting such as home or school by therapists or parents within paly and daily routines. Many studies (Vivanti, Dissanayake, Zierhut & Rogers, 2013; Vismara &Rogers, 2008; Pediatrics, 2010; Rogers & Dawson, 2010) supported the ESDM programme bringing significant improvements in cognitive ability and adaptive behavioral skills.

Conclusion

In conclusion, Autism is a complex disorder that is diagnosed in childhood and has a wide range of symptoms. Understanding ASD in Bhutanese community is still a new concept. Diagnosing ASD is very important at an early stage and early intensive intervention can always help to a great extent in preparing the child for living a more functional and capable life. ASD has become more prevalent with males at higher risk than females. ASD impacts parents and siblings as it changes the dynamics of the family. But acceptance is very important for everybody. Establishment of institutions for children with ASD is very much required with the ever increasing trend of ASD in the population. Due to lack of communication skills of children with ASD, school curriculum and special education services may need to be modified in accordance to their communication styles. With such facilities and support, lots of family and children affected by this complex disorder could be helped, thus ensuring greater happiness in society.

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Linguistic landscape of Bhutan: An overview of number of languages, language policy, language education, and language use in Bhutan

KINLEY DORJEE

Abstract

This paper presents the linguistic landscape of Bhutan. The first part of the paper sketches the language landscape of Bhutan, enumerating all the languages surveyed in Bhutan so far with their estimated number of speakers and their geographical locations. The second part reviews language policy and education in the light of linguistic diversity and language attitude in the kingdom. Finally, the multilingual situation is presented in the light of language attitude and language education policy. Three critical issues pertaining to linguistic situation in Bhutan are also raised in this paper. Firstly, the issue of scientific credibility in the enumeration of the nineteen languages based on not-so-rigorous scientific methods, which has further implication on the determination of the exact number of languages and their status. The second issue dwells on the choice of dominant languages as media for the media in Bhutan. And finally, the paper reviews the policy of developing and promoting only one language, *Dzongkha*, out of over twenty languages in Bhutan in the light of language endangerment and preservation. Three important recommendations emerged from this paper: an urgent need for a more scientific effort in the documentation of the languages in Bhutan; review of language policies regarding language education and documentation; and a wider and inclusive responsibility of the Dzongkha Development Commission in the documentation and promotion of other native languages in Bhutan.

Key words: *Linguistic landscape, language policy, language education, language endangerment.*

Introduction

Bhutan's linguistic situation may be described as both straightforward and a complex one. The simplicity aspect is attributable to the national and educational policies, in that, out of over 20 native languages, only one language, *Dzongkha*, is promoted as the national language, with a foreign language, English as the language of education and diplomacy. The complexity aspect is attributable to the linguistic diversity and language use, including multilingualism, in that, despite learning only *Dzongkha* as a second language, the only language taught in formal education, Bhutan appears to be a special situation of multilingualism. However, a comprehensive review of language landscape of Bhutan, integrating language policy, attitude and sociolinguistic use of language(s) is missing in the literature on Bhutan.

In this article, I sketch the linguistic landscape of Bhutan, enumerating all the languages so far surveyed. Then the issues pertaining to the scientific rigour in the determination of the exact number of languages and their linguistic status is questioned. Next, the national and historical perspectives on the adoption of *Dzongkha* as the national language and English as the language of education is reviewed, including the choice of the language of the media, which has tremendous prospective in language education. Finally, due to the restrained policies of the government, as well as the speakers' socioeconomic choice, Bhutan is presented as one of the countries with a dire case of language endangerment in the Himalayan region.

Languages of Bhutan

The literature presents a straightforward picture of the language landscape of Bhutan. The number of spoken languages is considered to be nineteen (Van Driem, 1992). Among these, all but one (*Lhotshamkha* or Nepali) are Tibeto-Burman languages. This means that all these languages are cognate languages, meaning, they share certain linguistic features at different levels: words, sounds, sentence structure, and meaning. In other words, these languages are derived, once upon a time, from a common ancestor called the 'Proto' language. The only non-Tibeto-Burman language, *Lhotshamkha*, is an Indo-Aryan language, of which the cognates are Hindi, Bengali, Urdu and other related languages spoken in India. An overview of all the languages spoken in Bhutan is presented below, with their estimated number of speakers, following Van Driem (1992).

Language name	Estimated number of speakers
Dzongkha	160000
Lhotsamkha (Nepali)	156000
Tsangla	138000
Khengkha	40000
Bumthangkha	30000
Cho-can-nga-cha	20000
Dzalakha	15000
Kurtoepkha	10000
Nyenkha	10000
Lakha	8000
Brokpake	5000
Lhobikha	2500
Gongdubikha	2000
Lepcha	2000
Boekha (Tibetan)	1000
Chalikha	1000
Monpa (Olekha)	1000
Dakpakha	1000
Brokkat	300

Dzongkha

Dzongkha is the national language, as well as the lingua franca of Bhutan and the native language of western Bhutan, comprising eight (*Thimphu, Paro, Ha, Gasa, Chukha, Punakha, Wangduphodrang,* and *Dagana*) of the twenty districts in Bhutan. It has the maximum number of speakers (estimated 160000). *Dzongkha* is also the only Tibeto-Burman language which has a written script, besides *Lhotshamkha*. Literally, Dzongkha means 'the language of the fortresses'. Unlike other languages in Bhutan, the loconym, '*Dzongkha*' has very little regional or geopolitical connotation to the place of the speakers. The fortresses in *Thimphu* and *Punakha* have traditionally been both centres of military and political power, as well as centres of learning. Dzongkha is thus the cultivated form of the native language of

western Bhutan, the inhabitants of which have traditionally been known as *Ngalong*, meaning, 'the first to rise' to the teachings of Buddhism in the kingdom. An essential trait which *Dzongkha* shares with national languages of other modern countries is a rich literary tradition of great antiquity. *Dzongkha* is derived from *Choekey* (Classical Tibetan) trough many centuries of independent linguistic evolution on Bhutanese soil (Van Driem, 1992).

Linguistically, *Dzongkha* can be qualified as the natural modern descendant of Classical Tibetan, the language in which sacred Buddhist texts, medical and scientific treatises and, indeed, all learned works have been written (Van Driem, 1992). Because of its historical role, *Dzongkha* has been for centuries the most important language in Bhutan. The status of *Dzongkha* as the national language of the royal court, the military elite, educated nobility, government and administration is firmly rooted in Bhutanese history at least as far back as the twelfth century. *Dzongkha* is the most scientifically studied language of all the languages both by native and foreign linguists.

Map showing districts of Bhutan

Source: http://www.vidiani.com/?p=3192

Lhotshamkha

Lhotshamkha (loconym or ameliorative term for Nepali), the only Indo-Aryan language in Bhutan, is the language of the *Lhotsampas* (loconym or ameliorative term for Nepali speaking Bhutanese in southern Bhutan). In terms of the number of speakers, *Lhotshamkha* is next to *Dzongkha*, with 156000 speakers. *Lhotshamkha* is historically a newly arrived language in southern Bhutan. The greater part of *Lhotshamkha* populace are originally from Nepal. Many of the *Lhotshamkha* speakers were *Limbu, Rai, Tamang, Gurung* or *Magar* by origin, but in the process of abandoning their ancestral homelands became linguistically and culturally assimilated to the dominant Indo-Aryan language and culture.

Lhotshamkha is primarily spoken in *Samtse, Gelephu, Tsirang, Chukha, Dagana*, and *Samdrup Jongkhar* districts in the southern districts. According to Van Driem (1992), the language is quite distinctive from its ancestral counterpart, Nepali, spoken in Nepal in terms of vocabulary and structure.

Tshangla

Tsangla is spoken predominantly in eastern Bhutan, where it is also known as *Sharchop-kha*, the language of the *Sharchop*, i.e. 'people living in the east.' The number of speaker is estimated as 138000 (Van Driem, 1992). As the largest of the non-official languages of Bhutan, it serves as a lingua franca for several smaller language groups in the eastern half of the kingdom. *Tsangla,* literally meaning, 'talk' (Kezang Tshering, personal communication) is spoken in *Trashigang, Pemagatshel, Samdrupjongkhar,* and *Mongar* districts. *Tshangla* is also spoken just across the border from eastern Bhutan in Arunachal Pradesh and *Dirang* in the *Kameng* region in India (Andvik , 1993) .

According to Andvik (1993), *Tsangla* shares common grammatical features with *Chungluo,* a Tibeto-Burman language spoken in south-eastern Tibet. Sun et al. (as cited in Andvik, 1993) claimed very few differences between *Chuanglo* and *Tsangla* in terms of vocabulary, and the two languages are found to be mutually intelligible.

Khengkha

Khengkha is the language of *Khengpa* (people from *Shemgang*), in *Shemgang* district. *Khengkha* is one of the least scientifically studied languages of Bhutan. However, Van Driem (1992), based on his preliminary observation, claims that the dialects of *Khengkha* have considerable diversity, both lexically and in the way tenses are formed.

Bumthangkha

Bumthangkha is the language of *Bumtap* (people from *Bumthang* district). Van Driem identified four major dialects of *Bumthangkh*a; the dialect of *Ura*, the dialect of *Tang*, the dialect of *Chogor*, and the dialect of *Chunmat*. On the one hand, the language is not only similar to Tibetan language but is also heavily influenced by Tibetan language (Michailovsky & Mazaudon, 1994), on the other, *Bumthangkha* is so similar to *Khengkha* and *Kurtoekha* that these two languages could be considered as dialects of *Bumthangkha* (Van Driem, 1992).

Cho-can-nga-cha-kha

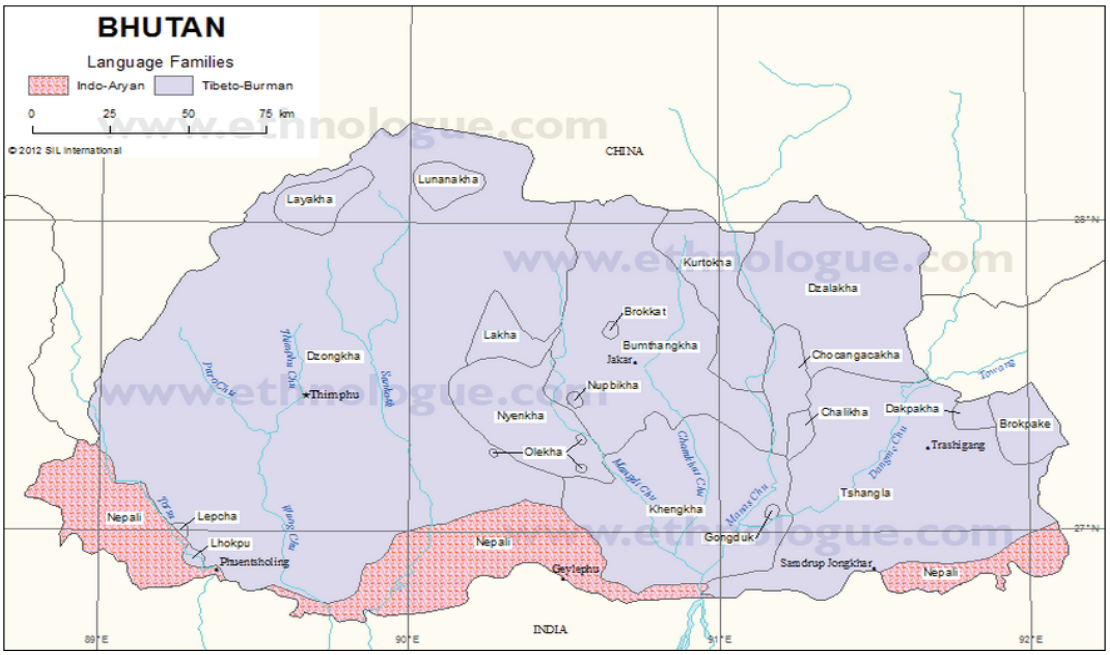
Cho-can-nga-cha-kha, spoken in *Mongar* and *Lhuntse* districts, is the most closely related language to *Dzongkha*. Though the language is generally called *Cho-can-nga-cha-kha* by outsiders, the speakers prefer to call it by their various loconyms, *Tsamangli-kha* (the language of *Tsamang* and *Tsakaling*, both are villages in Mongar district), and *Kurmetpi-kha* (the language of *Kurmet*, which is the *Cho-can-nga-cha-kha* speaking area of *Lhuntse* district) (Van Dreiem, 1992). The speakers of *Cho-can-nga-cha-kha* are called *Matpa*, meaning 'inhabitants of lower area'.

Dzalakha

Dzalakha, also called the *Yangtsibi-kha* (the language of *Yangtse*) is spoken in *Trashiyangtse* district. The speakers of the language call their language as *Dzala mat*, whereby mat means 'language'. The *Dzalas* refer to *Tsangla* as *Tsengmi* and to their languages as *Tsengmi mat*. *Dzalakha* is also called as *Khoma-kha* by the speakers from *Kurtoe* region in *Trashiyangtse* district.

Kurtoepkha

Kurtoepkha (or *Kurtobi Zhake*) is spoken in *Lhuntse* district. In the south, the *Kurtoeb* speaking area begins at the village of *Tangmachu*, south of which *Cho-can-nga-cha-kha* is spoken. The dialect of *Tangmachu* differs somewhat from the rest of the language as it is spoken elsewhere in the district (Van Driem, 1992).



Map showing additional languages of Bhutan which are not reported in Van Driem (1992). The languages are Layakha, Lunanakha, and Nupbikha

Source: https://www.ethnologue.com/country/BT/maps

Nyenkha

Nyenkha, alternatively called *Henkha*, literally meaning, 'language of before' is spoken in *Trongsa* and *Wangdiphodrang* districts. The language is primarily spoken on the eastern slopes of the Black Mountains overlooking the *Mangdechu* (*Mande* river), thus the language is also called *Mangdekha*. *Nyenkha* is closely related to *Bumthang* group of languages (Van Driem, 1992).

Lakha

Lakha, literally meaning, 'language of the mountains' is spoken by *Brokpas* (nomads) in *Wangdophodrang* district. In *Dzongkha* the language is called *Tshangkha*, and the people are called *Lakhapa* 'speakers of *Lakha*' (Van Dreiem, 1992) or simply as *Lap* 'inhabitants of the mountain pass. *Lakha* is one of the least scientifically studied languages of Bhutan.

Brokpake

Brokpake is the language of the *Brokpas* 'nomads or yark herders' of *Mera* and *Sakten* valleys in *Trashigang* district. For this reason, the language is also called *Mera-Sakten-Kha* 'the language of *Mera* and *Sakten*'. In *Dzongkha* the language is called *Bjokha* 'language of the *Bjops* (nomads)'. Roerich (as cited in Van Drien, 1992) reported that *Brokpake* is closely related to *Choekey* (Old Tibetan).

Lhokbikha

Lhobikha is spoken in *Chukha* and *Samtse* districts in the south. In *Chukha* it is spoken in the west of *Phunthsoling*, and in *Samtse* it is spoken in the north and northeast. The speakers of *Lhobikha* are referred to as *Lhop* 'the southerners' in *Dzongkha* and as *Doya* by *Lhotshamkha* speakers. According to Van Driem (1992), *Lhobikha* is closely related to Eastern Kiranti languages of Nepal such as *Lohorung, Limbu* and *Lepcha*. The population of the speakers of the language is estimated as 2500 (Van Driem, 1992).

Gongdubikha

Gongdubikha is spoken in *Mongar* district. The speakers call their language *Gongdukpa Ang* or *Gongdukse Ang* 'the *Gongduk* language'. There are over one thousand speakers (Van Driem, 1992).

Lepcha

Lepcha is the only Tibeto-Burman language of the *Lhotshampas* reported in Van Dreiem, (1992). It is spoken in *Samtse* district. Unlike other *Lhotshampa* settlers in the south, *Lepcha* speakers (estimated 2000) are said to be migrated from Sikkim, India (Van Driem, 1992).

Boekha

Boekha or *Tibetan* is spoken in different parts of the country. The *Boekha* speakers settled in Bhutan in the late 1950s when Tibet was occupied by China. Although the older generation speaks the language the younger generation is growing up as assimilated *Dzongkha* speaking Bhutanese citizens. The number of speakers of *Boekha* is estimated as 1000 (Van Driem, 1992).

Chalikha

Chalikha is spoken in *Mongar* district. The speakers call their language as *Chalipakha* 'the language of

the *Chalips*. The number of speakers is estimated as 1000 (Van Driem, 1992).

Monpa

Monpa, also called *Olekha*, is spoken in *Wangdiphodrang* district in central Bhutan. The speakers of the language are also called *Monpa*. The *Monpa* community is spread around different places in the Himalayas: Arunachal and Sikkim in India, *Metok* County in Tibet, and Sichuan in China, but the communities in other places speak different languages (Van Driem, 2004).

Dakpakha

Dakpakha is spoken in the eastern district of *Trashigang*. *Dakpakha* is said to be a dialect of *Borkpake* (Van Driem, 1992). The *Dakpas* like the *Brokpas* are basically yak herders. The number of speakers is estimated as 1000 (Van Driem, 1992).

Brokkat

Brokkat is spoken by nomadic yak herders in northern *Bumthang* district. Most speakers of *Brokkat* have assimilated to the *Bumthangkha* speaking majority (Van Driem, 1992). The number of speakers is estimated as 300.

On the exact number of languages in Bhutan

Several issues arise regarding the exact number of languages, the language names, and the status of the languages. Van Driem (1992) enumerated nineteen languages in Bhutan; however, it is not very clear if those languages are truly distinct languages or dialects. Firstly, Van Driem seems to have categorized his nineteen languages based on a small-scale survey conducted in collaboration with the Dzongkha Development Commission (DDC), which seems to lack much scientific effort in determining their status as languages, and not dialects. This is evident from the fact that there is no mention of any explicit scientific methods mentioned about the survey. Further, other sources show different numbers regarding the number of languages in Bhutan (for example, see Turin, 2005). Secondly, it is quite tempting to believe that the survey considered the 'political criterion' as the chief criteria in the categorization of his nineteen languages, rather than 'linguistic' and/or 'mutual intelligibility' criterion; though what criteria should be considered for the distinction of language from dialect is still debated by dialectologists and linguists alike. Thirdly, even though Van Driem's (1992) survey may be considered a more reliable source in terms of the number of languages in Bhutan, other sources show different numbers, for example, Turin (2005) posits the number of languages in Bhutan as 24, and according to the language ethnologue website the number is 27[1]. In addition to Van Driem's list, the other living languages in Bhutan, according to the language ethnologue website, are *Gurung, Tseku, Kurux, Nupbikha, Lunanakha, Layakha, Adap,* and English. Fourthly, for both local and foreign readers, it is quite confusing when it comes to calling a language by its name, because many languages seem to have different names. And finally, there are a good number of other living Tibeto-Burman languages in Bhutan which are not reported anywhere

1 https://www.ethnologue.com

in the literature. While most of the *Lhotshampas* (southerners) adopted *Lhotshamkha* (Nepali) as their lingua franca for inter-tribal communication, they use their mother tongues, which are Tibeto-Burman languages, for intra-tribal communication. The other Tibeto-Burman languages spoken by *Lhotshampas* are *Limbu* (in *Samtse*), *Rai* also called *Bantawa*, (in *Chukha, Samtse* and *Sarpang*), *Mangar* (in *Chukha* and *Tsirang*), *Tamang* (in Tsirang), *Subba* (in *Samtse*) which merit equal linguistic status as other over nineteen languages of Bhutan because of the fact that these are still living languages of Bhutan.

Hence, a more rigorous effort is warranted in the scientific study of the languages in Bhutan so that at least there is a clearer understanding of the linguistic landscape of Bhutan.

Language policy and education in Bhutan

Until the sixties, there was no official language policy, and no spoken language was a national language. This was also because none among the spoken Tibeto-Burman languages had developed into a written language. Before modernization, illiteracy was rampant and contacts between the different linguistic areas were limited by the difficult communications. The written language used in drafting official documents was *Choekey* (Classical Tibetan), which was also the language of the traditional education of the monastic body in the Buddhist monasteries. The approach to language use was rather pragmatic, as is shown by the fact that when the first few secular schools were opened in Bhutan at the beginning of the 20th century, the medium of instruction chosen was Hindi, because of easy access to textbooks in this language.

In 1961 a royal decree by King *Jigme Dorji Wangchuck* established *Dzongkha* as the national language of Bhutan, with the aim of uniting the country under one linguistic identity. This did not mean that the language of Western Bhutan was promoted as such to national language. Instead, the term '*Dzongkha*' was still primarily used to denote not the spoken language of Western Bhutan, but the literary exponent thereof, *Chokey*. Because *Chokey* was considered the literary form of *Dzongkha*, the liturgical language and the spoken tongue were not popularly perceived as being two distinct languages. The adoption of textbooks in *Dzongkha* instead of Hindi and the teaching of *Dzongkha* as a written language in schools implied thus the usage as a medium of written communication of a language.

The linguistic and historical arguments for the choice of *Dzongkha* as the national language are stronger than for any other language spoken in Bhutan. Because *Dzongkh*a is the direct natural descendant of *Choekey* on Bhutanese soil, moreover, the language is felt to be the common property of all the indigenous Bhutanese, who share and pride themselves on the same literary and liturgical heritage.

Since the seventies, the language policy has aimed at the vernacularization of the written language, to bring it closer to the living language. In this perspective, a Dzongkha Division, then under the Department of Education was created in 1971, followed by a Dzongkha Advisory Committee in 1986. The two merged in1989 with the establishment of the still existing Dzongkha Development Commission, which develops textbooks, works on the compilation of dictionaries and, has the power to introduce neologisms and new spellings.

With standardization, *Dzongkha* has acquired an increasingly central role in the defence of the cultural identity of Bhutan, and the government constantly promotes its use. In spite of this, the advancement of *Dzongkha* suffered from the competition with English since the beginning of modern education. It must indeed be remembered that in schools, because of the unavailability of *Dzongkha* textbooks in many fields and the lack of adequate terminology for scientific and technical subjects, most of the education still takes place in English.

With the introduction of English as the medium of instruction for modern education towards the end of 1950s, *Dzongkha* and English became equally important languages, the former as the national language and the latter as the language of education, technology, business and diplomacy. While in the national assembly *Dzongkha* is preferred over English, both the languages are encouraged to be used for official correspondences.

In 2006, with an aim to promote *Dzongkha* as the national language, the Dzongkha Development Commission proposed to the ministry of education to introduce *Dzongkha* as the medium of instruction for history subject in intermediate level. This was immediately followed by public debate on the credibility of the *Dzongkha* language teachers, who do not have formal training to teach history, in delivering the subject in the true essence of the discipline. An impact study of teaching history in *Dzongkha* (Sherab, In Press) found two striking results, firstly, history was taught by non-history teachers, including *Dzongkha* language teachers and office assistants of the school, and secondly, the emphasis of teaching history shifted to teaching *Dzongkha* language, compromising the quality of learning history. The effort of teaching history in *Dzongkha* did not see the light of the day.

Despite the effort asserted by the Dzongkha Development Commission, many schools have inherent school policy to promote English in the school premises; one would find students being penalized for not speaking in English in the school premises. This inherent effort by the schools is in taking cognizance of the fact that except for *Dzongkha* subject, all other subjects are taught and evaluated in English.

The tug-of-war between English and *Dzongkha* as a language of communication and correspondence is publicly felt in Bhutan. While the Dzongkha Development Commission asserts its efforts in promoting *Dzongkha* as the national language, the preference of English over *Dzongkha* as a medium of communication, as well as official correspondences is an ongoing debate in Bhutan. Interestingly, the preference of English as a medium has little to do with learners' attitude towards the language. Studies showed that the learners' attitude toward the language and the culture of the target language play important role in learning a language. In fact, despite learners showing preference of learning English over *Dzongkha*, their attitude and interest in *Dzongkha* is not only positive (DDC, 2011; Namgyel, 2003) but learners also considered *Dzongkha* as the most important subject of all the school subjects, English being next (Tenzin, 2002). While the learners respect *Dzongkha* as the national language, the language of national identity and cultural heritage, they found *Dzongkha* a difficult language to learn due to lack of learning materials and excessive use of *Choekey* in Dzongkha lessons (Tenzin, 2002; DDC, 2011).

Language and media

Bhutan maintained complete sovereignty throughout history by following the policy of isolation. It was only as recent as the 1960s that the country opened its doors to the outside world. In less than four decades since it began the process of modernization, Bhutan has undergone dramatic change in the domain of the mass media. Today there are over a dozen newspaper publications, few radio stations, and two televisions.

The language of the print media

The first ever print media was *Kuensel*, which started as an official gazette in 1965 (Dorji, 1991). In 1986, *Kuensel* was published as a serious tabloid in three languages: *Dzongkha*, English and *Lhotshamkha* until 2006 (Wood, 2007). It is interesting to note that the readers preferred to read *Kuensel* more in English than in *Dzongkha* and *Lhotshamkha* (Rapten, 2001). This fact is also evident from the number of copies *Kuensel* was published in each edition in different languages; for instance, in 2000, 12000 copies were published in English, 3000 copies in *Dzongkha*, and only 200-300 copies in *Lhotshamkha* in each edition (Rapten, 2001). Today its publication is limited to only in English and *Dzongkha*.

In 2006, two more private newspapers were established: *Bhutan Observer* and *Bhutan Times*. The *Bhutan Observer* is published in English, with a *Dzongkha* translation; the translated version in Dzongkha is aimed at promoting the national language. The *Bhutan times* is published in English. Ever since, the number of newspapers has grown to about a dozen. A snapshot of the print media and their language of publication is presented below:

Media name	Language of publication	Frequency of publication
Kuensel	English and Dzongkha	Daily
Bhutan Observer	English and Dzongkha	Bi-weekly
The Bhutan times	English	Weekly
The Bhutanese	English and Dzongkha	Weekly
Bhutan Today	English	Bi-weekly
Bhutan Youth	English	?
Business Bhutan	English and Dzongkha	Weekly
The Journalist	English and Dzongkha	Weekly
Druk Neytshul	Dzongkha	?
Druk Trowa	Dzongkha	?
Druk Yoedzer	Dzongkha	?
Gyalchi Sarchog	Dzongkha	?

It is interesting to note that the predominant language for those newspapers (mentioned above) with bilingual publications is English. The *Dzongkha* editions are translation of the important sections of information of English editions into Dzongkha. And it is the bilingual newspapers that are read widely by the people; the monolingual (*Dzongkha*) newspapers are very selectively read by few people who are not very conversant with English. According to the editor, Bhutan observer (personal communication)

all the monolingual newspapers are either dysfunctional or on the verge of becoming defunct because of sustainability issues. The *Dzongkha* editions of the bilingual newspapers have to undergo an editing process by a *Dzongkha* language committee formed by the Dzongkha Development Commission for the correctness and accuracy of *Dzongkha* spelling, vocabulary and grammar.

It is interesting to note that the phenomenon of language choice for newspaper in Bhutan is quite opposite with the readers' choice in Indian. In Bhutan, people prefer to read newspapers more in the imported language, English than in *Dzongkha*, while in India people prefer Hindi to English as the language of the newspaper (Graddol, 2010). The national readership survey (2006) found that while the newspaper readers in the Indian vernacular languages are growing, English ones remained stagnant.

The language of the radio and television

The Bhutan Broadcasting Service (BBS) radio network started its first broadcast in English in 1973. The radio today broadcasts in four languages, *Dzongkha*, English, *Tshangla* and *Lhotshamkha*. Earlier, during the weekdays, BBS radio broadcasted for nine and half hours: three and half hours in *Dzongkha* and two hours each in English, *Lhotshamkha* and *Tshangla*. Unlike the print media, the BBS radio enjoys more listeners in *Dzongkha* than in English, with the least in *Lhotshamkha* (Rapten, 2001). Since November 2009, the BBS radio airs for 24 hours a day, 14 hours and 45 minutes in *Dzongkha*, 3 hours and 45 minutes in English, 2 hours and 53 minutes in *Tshangla* and an hour and 58 minutes in *Lhotshamkha* (Bhutan Broadcasting Service, 2014)[2]. There are two plausible reasons for allotment of the major chunk of the broadcast duration in *Dzongkha*; the first reason is to cater to the listeners' choice of the language, and the second is among one of the many initiatives taken in Bhutan to promote the national language, *Dzongkha*.

Bhutan Media Foundation (2013)[3] enumerates five more radio stations: Kuzoo FM, Radio Waves, Centennial Radio, and Radio Valley but most of them are dysfunctional except Kuzoo FM which broadcasts both in English and *Dzongkha*, with English as the dominant language.

Bhutan introduced television in 1999, making Bhutan the last country to introduce television. All programs, including the news programs, are predominantly broadcasted in *Dzongkha*; however, news and few special programs are broadcasted in English. Unlike the BBS radio there is no broadcast of television in *Lhotshamkha* and *Tshangla*. It may be mentioned here that deliberations on the promotion of *Dzongkha*, including the accuracy issue and language attitude and usage are often broadcasted on the BBS TV.

2 *http://en.wikipedia.org/wiki/Bhutan_Broadcasting_Service*
3 http://www.bmf.bt/media-in-bhutan/

Multilingualism, language usage and language endangerment

Of the twenty plus languages in Bhutan, the predominant languages are *Dzongkha, Tshangla, Lhotshamkha* and *English* (Namgyel, 2003). Interestingly, according to Namgyel, Hindi is the fifth dominant language in which Bhutanese find comfortable in speaking. These languages became dominant based on four factors: the number of speakers, political history, education, and the mass media. While the influence of all the four languages are felt in the media, the use of *Dzongkha* may be attributed to the country's political history, *Lhotshamkha* and *Tshangla* to the number of speakers and English to modern education. A handful of Bhutanese, who are trained to become tourist guides, also speak other foreign languages such as Japanese, Chinese, Spanish, French, German etc., but the domain of the use of these foreign languages is confined with foreign tourists. The use of other languages in Bhutan is restricted to intra-community communication.

Bhutan is an interesting case of multilingualism. While uneducated people in the village are mostly monolingual, all educated Bhutanese are bilingual or multilingual, mostly multilingual. Besides *Dzongkha* and English, most Bhutanese speak *Lhotshamkha, Tsangla* and other native languages depending on the place they received their education. Interestingly, due to the influence of Indian television and open border and trade link with India, most Bhutanese speak Hindi fluently, and some people dwelling in the Indian border of Assam and West Bengal speak Bengali, Assamese, and other vernacular languages of the Indian border town.

The use of Hindi as one of the dominant foreign language in Bhutan is rather interesting. Even though Hindi was once adopted as the medium of instruction with the commencement of modern education, the impact of formal Hindi education is not attributable to its dominance in Bhutan. This is evident from the fact that the literacy of Hindi in Bhutan is confined to only spoken competency. The use of Hindi emerged since the time Bhutan opened its bilateral trade with India. People acquired Hindi as a language of business communication. Another important factor in the acquisition of Hindi is the influence of Hindi media in Bhutan. With the introduction of the national television in 1999 the only available television channels then were in Indian languages, but people preferred Hindi language channels to other Indian languages because of their already existing acquaintance with the language. Before the introduction of Bhutanese feature films, Hindi feature films were the only source of entertainment in all major movie theatres in Bhutan, which also enhanced the spoken literacy of Hindi. Peoples' love for Hindi television channels, including Hindi movies, is still very high in Bhutan.

Of the 20 plus living languages in Bhutan, only two languages (*Lhotshamkha* and *Tshangla*) are predominant languages besides two other foreign languages (English and Hindi). A pertinent question Bhutan needs to ask regarding its language policy and minority languages is: what is the fate of other over eighteen languages in the kingdom? All the minority languages in Bhutan share certain common characteristics: the absence of script, as a result the absence of literature; the lack of government policy in mother tongue or minority language education; the speakers of these languages gradually shifting their language preference to the more dominant languages, *Dzongkha* and English; and the government's initiative in promoting only *Dzongkha* and English as the language of the nation and education respectively, thus undermining all other minority languages. Most of the languages in Bhutan are listed as endangered languages. Of the minority languages listed as endangered languages in Bhutan, *Lhobikha, Monpa* and

Gongdubikha are considered the most endangered ones (Driem, 2004). Following Van Driem's (1992) survey, seven languages have less than 2000 speakers, with *Brokkat* only 300 speakers, indicating a serious progression towards endangerment. Asia, particularly the Himalayan region, is cited not only as the best example of linguistic diversity but also as having the maximum number of endangered languages (Turin, 2005), and Bhutan is no exception. Driven by national and educational policies, and factors associated with language dominance, a similar fate of language extinction is seen in other countries as well.

In Nepal, for instance, the Tibeto-Burman language speakers are on the verge of losing some 57 Tibeto-Burman languages in favour of adopting the more dominant language, Nepali, as the national language (Giri, 2009). Another case worth citing is the linguistic situation in Andaman Islands, where all of the indigenous negrito peoples' native languages are either extinct or threatened with imminent extinction as a result of British colonial policy (Van Driem, 2007).

Turning back again to Bhutan's situation, most *Lhotshamkha* speakers have now shifted to the more dominant language, *Lhotshamkha* as their language of communication. As a result, the use of over seven Tibeto-Burman languages in southern Bhutan is limited to only uneducated intra-tribal communication. What will happen to these languages in the generation after this? Elsewhere, except *Tshangla* which has the maximum number of speakers after *Dzongkha*, the other minority languages are in progression of shifting to the more dominant language, *Dzongkha*, influenced by the national and educational policies.

Conclusion

Language and education go hand in hand. Education is not only through language (as a medium), but also about language (as a subject), and it is often remarked that all teachers are language teachers. Since language permeates all social life and is the most important tool for communication, educationists and politicians can ignore it only by risking education itself. In multilingual situations, where different languages complement and compete with one another to cater to the communicative needs of each group, and the collective needs of each group, and the collective needs of the speech community as a whole, some languages gain in usage but not necessarily at the cost of the others, especially when vernacular languages are on the verge of extinction. The politicians and educationists who have to plan which languages should be used as medium of subjects up to which level have to ascertain the dictates of collective will in a democratic society.

Language planning, i.e., which language should be included for education and which language as a medium of education is utmost importance to Bhutan. The role of attitudes, which prevents certain choices and includes others while shaping social change, needs to be better understood. The existing policies and their implementation need to be reviewed, especially in the light of language endangerment and language preservation. There are four solid reasons for supporting, preserving, and documenting endangered languages in Bhutan. First, each and every language is a celebration of the rich cultural diversity of Bhutan; second, each language is an expression of a unique ethnic, social, regional or cultural identity and world view; third, language is the storehouse of the history and beliefs of the people; and finally, every language encodes a particular subset of fragile human knowledge about agriculture, botany, and ecology.

Language purists in Bhutan view development and promotion of other native languages as a threat to *Dzongkha*. On the contrary, a systematic study and documentation of all the languages in Bhutan, except *Lhotshamkha* because it is an Indo-Aryan language, should further enhance the development of *Dzongkha*. This is because of the fact that all languages in Bhutan (except *Lhotshamkha*) are cognate languages, which means, they share similar phonological, lexical and grammatical features. This shared feature should further help in the development and standardization of *Dzongkha*, playing a complementary role rather than posing as a threat to *Dzongkha*.

One critical area in which there is definite paucity is research. Bhutan needs to advocate scientific study not only in the area of language education, which includes pedagogy, material development and assessment but also in the area of documentation of the native languages. So far, the responsibility of Dzongkha Development Commission has been confined to the development and promotion of *Dzongkha* only; this responsibility needs to be extended to the systematic study and documentation of other native languages as well. Further, the writing systems of other native languages should be developed and standardized, so that children of each community grow up learning their mother tongue, thereby adding the linguistic perspective of 'Happiness' to the kingdom whose philosophy is Gross National Happiness (GNH).

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