

**RABSEL**  
the CERD Educational Journal



र.स.प.स.स.

Volume XVI, Issue - I  
Spring 2015

Centre for Educational Research and Development  
Paro College of Education

CERD RABSEL VOLUME - XVI, ISSUE - I SPRING 2015



**In commemoration of the 60th birth anniversary of  
His Majesty the Fourth Druk Gyelpo**

**RABSEL**  
**the CERD Educational Journal**



རབ་གསལ།

**Volume-XVI, Issue: I**  
**Spring 2015**

**Centre for Educational Research & Development**  
**Paro College of Education**

# **RABSEL**

A Publication of the

Centre for Educational Research and Development  
Paro College of Education, Paro  
Royal University of Bhutan.

Telephone : 975 08 272011/975 08 271620

Facsimile : 975 08 271917

Email Address : cerd.pce@rub.edu.bt

## **Editor in Chief**

Kezang Sherab, PhD, Dean  
Research & Industrial Linkages, CERD, PCE

## **Editor:**

Tsering Yangzome Nidup  
Lecturer, CERD, PCE

## **Layout & Design**

Bishnu Pradhan, CERD, PCE

## **Reviewers**

We could like to extend our sincere gratitude to the following individuals for helping us blind review the manuscripts for this issue.

Ray Cooksey, Emeritus Prof. Australia	Gay Reed, Hawaii
Hohn Naynes, PhD Australia	Karen Bjerg Pertersen, PhD Denmark
Singye Namgyel, PhD Bhutan	Tomothy Bedford, PhD Finland
Tandin Dorji, PhD Bhutan	Linley Cornish, PhD Australia
Judy Miller, PhD Australia	Peggy J. Saunders, PhD USA
Dorji Thinley, PhD Bhutan	Sonam Rinchen, PhD Bhutan

## **Production Editors:**

Mr. Ramesh Thapa, Research Officer, CERD, PCE  
Mrs. Bishnu Pradhan, Adm. Assistant, CERD, PCE

## **Spring 2015**

© Centre for Educational Research and Development

ISSN : 2077 - 4966

The views and opinions expressed in this journal are those of the authors and not necessarily those of the Centre for Educational Research & Development, Paro College of Education, Paro, or the Royal University of Bhutan.

## **Table of Content**

1. Early Childhood Fears: A Stimulus or Impediment to Development  
- Sangay Biddha 1-21
2. Bilingualism in Deaf Education Policies, Practices and Perspectives  
- Andrea Pregel 22-41
3. Factors that promote faculty confidence to carry out research at the RUB colleges  
- Ramesh Thapa 42-55
4. Perceptions and Usage of Free Libre Open Source Software in Bhutan's Higher Education System  
- Cathryn Bennett 56-72
5. A Critical Perspective on Inclusion of Children with Autism Spectrum Disorder in a Mainstream Classroom: Lessons for Bhutan  
- Dawa Dukpa 73-90
6. The practice of mindfulness meditation in education  
- Karma Nidup 91-101
7. RABSEL - the CERD Educational Journal Guidelines for Manuscript 102-106

## **Early Childhood Fears: A Stimulus or Impediment to Development**

*Sangay Biddha<sup>1</sup>*

### **Abstract**

Children's fear and its impact in their learning and development have received very little or no attention in early childhood programmes in Bhutan so far, the Early Childhood Care and Development (ECCD) concept itself being fairly new. Hence, there is not much in published literature either. Neuroscience psychology lays a great deal of emphasis on early positive experiences in building the child's healthy brain structure. Therefore, early childhood experiences such as fear and anxiety and their consequences for growth and development deserve attention. This mixed-method study explored childhood fears of children from ages 5 to 8. Data were collected from a small sample of children ( $n = 30$ ) and parents ( $n = 11$ ) to understand their perceptions about childhood fear and anxiety, and their personal experiences. This study argues that while it is normal for children to experience anxiety and fear, real or imagined, these experiences may impair brain development if parents or caregivers do not support the children. Based on the insights gained from the study, some recommendations for the Bhutanese parents, teachers, caregivers and other stakeholders which will contribute towards the wholesome development of the child are also presented.

**Key words:** Neuroscience, brain development, early childhood, fear, anxiety, positive environment, coping strategies

---

1. Senior Lecturer, Paro College of Education.

## **Background**

As much as we downplay children's fears, there is a magnitude of evidence in Neuroscience Psychology (King, Muris & Ollendick, 2005; Mian, Wainwright, Briggs-Gowan & Carter, 2011; SECD, 2004; SECD, 2007) that children experience them every day in various degrees and various ways. Children are vulnerable and helpless, learning to cope with new things each day. They are anxious about everything they see, hear or have to do. For instance, fears of the dark, animals, heights, blood and strangers are common in childhood (King et al., 2005). Children's fear becomes intense when immediate caregivers are not with them or, worse, when they are around but react negatively. Often adults downplay children's fears by saying, 'That is nothing to be afraid of. You are a boy!' When parents do that, the child tends to hide fear to show bravery, which doubles the stress—to suffer the fear as well as work to conceal it. Another example of parents' careless response is hitting the child or yelling when they fall. What the child needs is a hug and a kiss and reassuring words like, 'It is ok. I am with you'.

However, it is understood that parents' ignorance is the main cause of the failure to support children timely and appropriately. For instance, when my two and a half year old son suffered some significant detachment anxiety, I was not aware of how to handle it. He would get cranky and irritable every morning before I left for work, and this behaviour persisted for about two months. At another stage, he developed a phobia for strangers. Whenever a guest/s arrived in the house he would suddenly feel jittery and nervous. Nothing could calm him or change his mind, so I used to take him into the bedroom and lock him in and return quickly to attend to my guests. This behaviour pattern persisted for months. My nephew was about eight years old when he suffered from prolonged fear of ghosts. Every night he struggled to sleep—would keep crying and calling me to his side. Instead of helping him overcome his phobia by calming him down, he was scolded and made to shut up. These personal experiences illustrate the extent of parents' lack of child care knowledge and skills. The negative adult responses whether deliberate or out of ignorance have negative implication on the child's development as per Neuroscience psychology. According to King et al. (2005), childhood

fears are a normal part of growing up, but some phobias in children, such as night-time fears and animal phobias, cause personal distress to the child hindering the normal development of the child. A normal fear or anxiety can become significant and the severity of the adverse effects of fear or stress on the child is determined more by the duration of the stress, the child's coping skills and the availability of supportive adults than the nature of the stressor (National Scientific Council on the Developing Child [NSCDC], 2005, p.1).

Early Childhood, 0–8 years, has received a lot of attention in Bhutan since 2002. Early Childhood Care and Development (ECCD) centres have multiplied, ECCD parenting handbooks developed, ECCD facilitators trained, and parenting programmes conducted because there is a growing understanding of the importance of a conducive and stimulating environment for overall growth and development during the early childhood years (Wangchuk et al., 2012). However, the issue of childhood fears and their impact has not been explored either by research or by any programmes in Bhutan, for the concept of Early Childhood Care and Development (ECCD) itself being fairly new in the country. In order to provide positive experiences in early childhood, childhood fears and anxiety must be considered as a subject of investigation and intervention.

Therefore, the main objective of this study was to find out the types of fears 0–8 year olds experienced in the Bhutanese context, their impact on the child and some ways of reducing their fears from the parents' and children's perspectives. This paper also argues that while it is a normal part of growing up to experience fear, it may impede the development of a healthy brain if the child does not learn coping skills at the appropriate time with the support of adults.

### **Literature Review**

Even though neuropsychologists, such as Kaplan and Sadock (1998), make a distinction between fear and anxiety, they accept that they are interconnected and almost inseparable states of the mind. Science refers to fear as the "fight and flight" response of the body to a known threat (Kelvins, 1997; *The Science of Early Childhood Development [SECD]*, 2007, p. 9), whereas, anxiety is, according to Kaplan and Sadock (1998, p. 1), "a diffuse, unpleasant, vague sense of apprehension" and it is often



a "response to an unknown or indefinite threat". Fear may cause anxiety and anxiety may cause fear, for example, a child who fears dogs may develop anxiety when walking home alone. And when the child encounters one, the child may experience a "fight or flight" response, which is a prompt to the body to fight or escape. Both fear and anxiety cause stress and stimulate similar responses in the body, such as increased heart rate, short breaths, muscle tension, goose bumps, dilated pupils, and a chilling sensation (Kaplan & Sadock , 1998; Kelvens, 1997).

Experiencing fear and anxiety is a normal part of the child's growth because these emotions act as stimulants to develop the child's coping skills, which is the ability of the body to instantly "ramp up rapidly in the face of stress" and "return to its baseline when the threat is mastered," (SECD, 2007, p.9). However, Ollendick (1979 as cited in Cantor & Sparks, 1984, p. 90), states, "even mild to moderate fears cause psychological discomfort and may evolve into more persistent and excessive fear" and this significant stress can, as NSCDC (2005, p. 3) warns, lead to "impairment in learning, memory, and the ability to regulate certain stress responses" in children. Further, NSCDC states that it has potential to cause "heightened vulnerability to a range of behavioural and physiological disorders over a life time". Some mental disorders include depression and anxiety disorders and some physical disorders include cardiovascular disease, diabetes and stroke (Center for Developing the Child at Harvard University [CDCHU], 2007; Mian et al. 2011; NSCDC, 2005). Penza (2003) confirms that early-life traumatic events like childhood abuse lead to susceptibility to mood and anxiety disorders. As mentioned earlier, a normal fear or anxiety can become significant and the severity of the adverse effects of fear or stress on the child is determined by the child's coping skills and the availability of supportive adults more than by the nature of the stressor (NSCDC, 2005, p.1).

The National Scientific Council on the Developing Child (2005, 2007; CDCHU, 2007) classifies stress into three levels: *Positive stress* is moderate, short-lived and is a stimulant for healthy growth. It momentarily activates the stress hormones which are essential for our body to respond to threats. These threats include normal childhood fears such as fear of strangers, separation, immunisation or loud noise. They remain at this level so long as they are calmed down by supportive adults. *Tol-*

*erable stress* is intense, longer and could disrupt brain architecture but it is relieved by supportive adults such as parents or caregivers. Tolerable stress includes stress due to deaths, serious illnesses, frightening injury, parents' divorce, a natural disaster or an act of terrorism. *Toxic stress* is strong and prolonged fear in the absence of an adult support. Toxic stress includes continual family chaos, recurrent physical or emotional abuse, parental depression and substance abuse or repeated exposure to violence. However, whichever level of stress the child is experiencing, having a sensitive and responsive caregiver can prevent elevations in cortisol and facilitate the restoration of heart rate and stress hormone levels to baseline, thereby giving the brain an opportunity to recover from the potentially damaging effects of an overactive stress management system (NSCDC, 2005). For example:

Infants who learn that being soothed and comforted occurs shortly after they experience distress are more likely to establish more effective physiological mechanisms for calming down when they are aroused and are better able to learn to self-soothe after being put down to sleep. In contrast, when eating and being put to bed occur at different times each day and when comforting occurs unpredictably, the organization and consolidation of sleep-wake patterns and self-soothing responses do not develop well, and biological systems do not “learn” healthy routines and self-regulation. (CDCHU, 2010, p. 8)

In other words, if a buffering adult support is absent, a fear, otherwise tolerable, may become persistent and toxic, which will disrupt the architecture of the brain and may lead to difficulties in learning, memory, and self-regulation (NSCD, 2005; CDCHU, 2007; CDCHU, 2010).

Given the significance of fear and anxiety in healthy child development, parents and caregivers must support the child to cope with the adversity. Firstly, literature shows that some children's fears are age-specific and predictable (Gebeke, 1994), so if the parents or caregivers know the pattern they can anticipate the kinds of fears children will experience and learn to gently guide them through the fears. According to Gebeke, infants experience three basic fears: loud noises, sudden motion and sudden approach. One-year-olds have fear of falling and fear of strangers.

Slowly, as they mature, the "focus of fear shifts" (Nicholson & Pearson, 2003, p. 2) from concrete or imaginary fears, such as fear of doctors, animals or people with unusual faces, to "real fears". By five years old they can distinguish real from imaginary fear, so the child now fears bodily harm, darkness, ghosts, death and also develops social fears, such as fear of rejection (Gullone, 1996; Gebeke, 1994). In addition, nowadays the media may influence what children fear, for example, violence and scary themes on TV can be a fear factor (Nicholson & Pearson, 2003).

Nevertheless, whatever the fear factors are and at what level the stress is experienced, the child who has a secure and supportive environment will overcome the adversity and enjoy a healthy development (CDCHU, 2010). Most importantly, the adult should show respect for the child's fear, allow the child to gradually work through it, and support the child in coping with it (Gebeke, 1994). It is crucial for all the stakeholders such as the early childhood care advocates, parents, caregivers, teachers, Bhutanese researchers, policy makers and others to pay attention to childhood fears and anxiety as a significant area for investigation and intervention for healthy child development.

### **Key Research Questions**

Since the study was aimed at constructing an understanding of childhood fears and anxiety, and in the context of Bhutanese society, the central question asked to explore the issue was: How relevant is the issue of childhood fears and anxiety in the Bhutanese Early Childhood development context? Some specific questions used were:

1. What kinds of fears do 5–8 year-old children experience?
2. What happens to children when they experience fear?
3. How do children overcome their experience of fear?

### **Methodology**

A mixed-method approach was used for the study. While the quantitative approach provided the statistics on children and their fears by gender and age, the qualitative approach provided an in-depth understanding of the 'why' and 'how' of children's fears.

## Participants

Using purposive sampling, a total of 30 children, with ages ranging from 5 to 8 years and with equal gender representation, participated in the survey questionnaire. They were school going children, so they were able to fill in the survey questionnaire. Out of 30 children, 22 children (11 male and 11 female) in the age range 5–8 years participated in small (3–5 children) unstructured focus group interviews. The reason for having a focus group with the children was to avoid any stress related to being interviewed. Since the children came from various ethnic backgrounds, such as *Sharchokps* (Eastern Bhutan), *Ngalops* (Western Bhutan) and *Lhotshamps* (Southern Bhutan) they spoke different dialects at home; however, they were asked to speak only in Dzongkha or English, which are mediums of instruction in schools, so that everybody understood each other.

Of the seven mothers interviewed, three were housewives who were high school drop-outs; one was non-literate (cannot read and write); one was a primary school teacher with *Dzongkha* (Bhutanese national language) major; one was a lecturer in English at a Teacher Education College. Of the three fathers interviewed, one was a lecturer with Dzongkha as major subject, one was non-literate and one was an employee at a financial institution with a class XII qualification. One grandmother (non-literate and around 65 years old) also happened to be sitting with some mothers; she willingly participated in the focus group interview.

## Tools

A self-rating survey questionnaire, adapted from Fear Survey Schedule for Children (FSSC-R) developed by Thomas Ollendick (Muris, et.al. 2002), was employed. The FSSC-R is the most widely used self-report questionnaire that is used to measure the number of fears and the overall level of fearfulness in children. It has 80 fear items on the list, but for this study only 24 items relevant to the Bhutanese context were included. Some items have also been conflated for convenience and relevance. For instance, fear of snakes, bears, lions have been categorized as "fear of animals".

Each focus group interview, consisting of four to five children,

interview for children lasted for about 15 minutes. The questions were open-ended. They were asked to share the kinds of things they feared and what happened when they experienced fear. Each focus group interview for parents was also about 15 minutes. The questions were open-ended. They were asked to share the kinds of things their children feared, and how they dealt with the situation.

### **Procedure for data collection**

The interviews were conducted in groups of three to five children of mixed gender. Participants were allowed to share their views freely and were recorded on a voice recorder. Right after the interview, the survey questionnaire was administered. Since the children were too young, the survey questionnaire had to be closely administered. The fear items had to be read and translated into oral *Dzongkha*, the local language, one by one, and they were provided time to rate each item on the form. The reason for having the interview before the survey was to avoid any influence on their responses by the fears listed on the survey questionnaire. The parents' interviews were conducted whenever it was convenient over a stretch of time. Their interviews were recorded on a voice recorder.

### **Analysis of data**

The unstructured interviews for the children and parents were both transcribed verbatim into English. Since the questions were open-ended and unstructured, colour coding was used to draw the common themes, categories and patterns (Cohen, Manion & Morrison, 2011). Specific colours were assigned for the emerging themes. As themes and patterns were coded with specific colours, similarities and differences in what the different respondents said were scrutinised for relationships. The data were then summarised.

The self-rating survey questionnaire was analysed using the SPSS version 15. The questionnaire was based on intensity-scale questions, so for every label values were allotted. Fear of animals had three values: 3 for 'a lot'; 2 for 'some'; 1 for 'none'. The data were then analysed and presented in a descriptive form using bar charts and pie charts.

### **Findings from Interviews**

This small-scale study was only exploratory in nature, and the findings

have limitations owing to the small sample size; however, they are significant enough to trigger large-scale research to gain deeper and wider insight into early childhood development.

Interviews held with children explored the fear items from their perspectives. The common fears which children named were: fear of ghosts, dogs, darkness, horror movies, animals like tigers, lions and snakes, getting punished by parents and elder siblings, cars and trucks, and Madams (referred to a 'female teacher'). Three children mentioned fear of kidnappers, another mentioned '*Khekpa*', which meant head hunters, and another mentioned '*dhon*', which meant 'spirits', both in the eastern Bhutanese dialect.

The boys mentioned nine items of fear, while the girls mentioned 12. This implies that girls are more fearful than boys. Both boys and girls mentioned horror movies and ghost stories and fear of darkness, which is likely an influence of "the widespread media coverage" (Nicholson & Pearson, 2003). One interesting response from a seven-year-old girl was, "I watch the horror movie through a small opening of my blanket", indicating that she is scared yet tempted to watch. Some children's responses indicate that social environment is not as supportive for early child development as it should be. For example, responses such as, "when my brother beats me"; "I am scared of my father and mother because they beat me"; "I get scared when I am locked up in the toilet"; "I am scared that my sister will beat me" are intriguing. These responses are evidence of the presence of physical punishment instead of positive disciplining in several households.

When the children were asked what they experienced when they had fear, one female child said, "My body turns cold"; another said, "My body shakes" and another said, "I can't breathe". Some said that they cried. All these comments resonate with Kaplan and Sadock's (1998) psychiatric descriptions of fear symptoms. To the last question on how they overcome their fears, eight children said they forgot their fear when they started playing with their friends, five children said they were happy when their parents were near them, four said they were relaxed when their sister or brother was with them and six said they closed their eyes trying to sleep because their fear was mostly at night in the dark. Children's

responses indicate that their anxiety or fear is low when they are with adults or are playing with friends.

The interviews with the parents were conducted to find out their awareness and to compare it with the fear items children mentioned. Fear of darkness, ghosts, horror movies, animals (such as tigers, dogs and lions), beatings, and scary faces were the common fears mentioned by both the children and the parents. Separation anxiety and fear of drunkards were mentioned by one parent. Although most of the fear items listed by the respondents exist on the FSSC survey tool in one form or the other, there were some that seemed very cultural, for example, fear for '*dhon*', which means 'spirits'.

The parents' responses such as "Children fear when we scold; when we shout; when we say that we are going to hit them with a belt" also confirm the not-so-supportive social environment revealed by the children. One interesting finding is that parents seem to know less about what their children fear than what children actually go through. One father said, "My son is not afraid of anything" but when asked if he was scared of barbers, he said, "Oh, yes, yes." Another father said, "I don't remember my son being scared of anything." When probed further, he admitted that his son once was scared of an uncle whom he met for the first time who had a long beard at the time. When asked how they supported children when they were fearful or anxious, some mothers said, "They are ok after sometime, I don't have to do anything", which indicates that they consider these moments normal and may not even notice any risks. Interestingly, when asked how they deal when the child cries, five mothers said that they scare the child by saying that '*dhon*' (spirits) is coming, or "tiger is coming to eat them if they don't stop crying". It may be inferred that the parents instil fear in the children as a strategy to discipline them.

### **Findings from Survey**

The self-rating survey was administered to explore children's fear factors and the degree of fear for each fear item. The results are represented in bar graphs and pie charts for different fears.

Figures 1 and 2 show 30 children's fear of death and fear of animals.

The red bar shows the highest degree of fear: ‘a lot’. When children are younger they are not so fearful but as they grow older they become more fearful: the fear peaks at 6 and 7 years old and decreases by 8 years. The most fearful age, the pattern suggests, is 5, 6 and 7 years. This result confirms Gebeke (1993), Gullone (1996) and Nicholson and Pearson (2003) that fear shifts as children mature, from concrete to bodily or real fear to more social fears. The 8-year-olds are outgrowing this fear: the number of children who fear animals or death ‘a lot’ have gradually dropped.

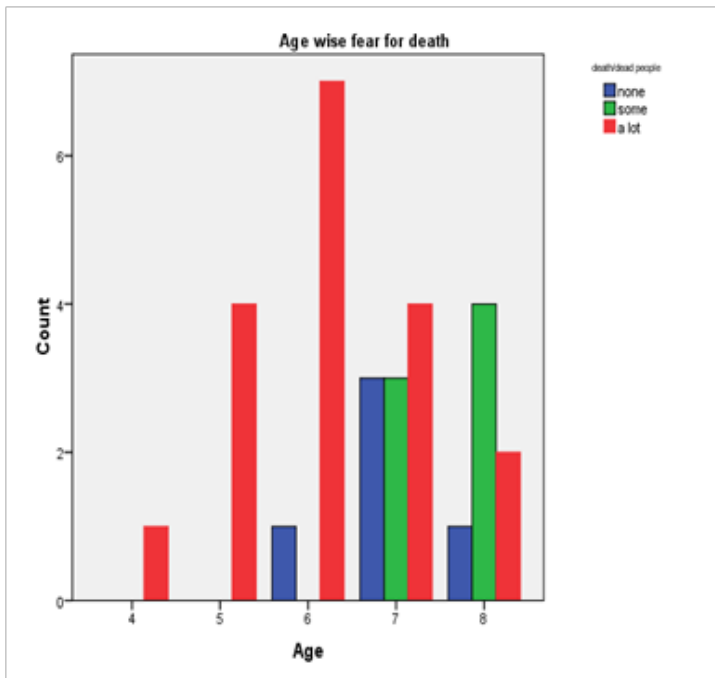


Figure 1 : Fear of death



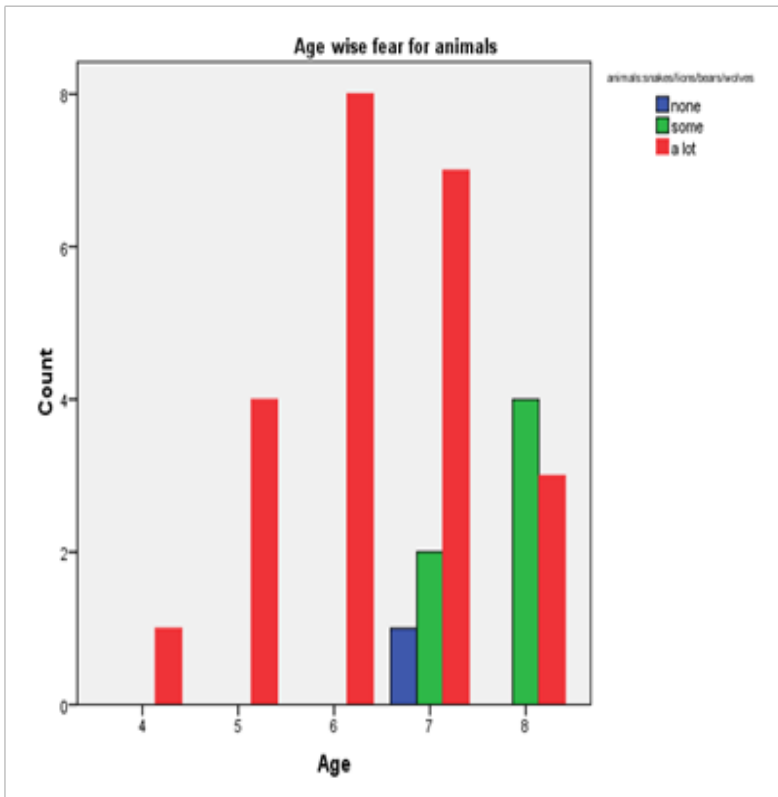


Figure 2: Fear of animals

Figure 3 below shows that 96.7% (76.7% — a lot of fear; 20% — some fear) of the 30 children fear animals such as snakes, lions, bears, and fear death or dead people. Figure 4 shows that 82.4% of the children fear ghosts or monsters.

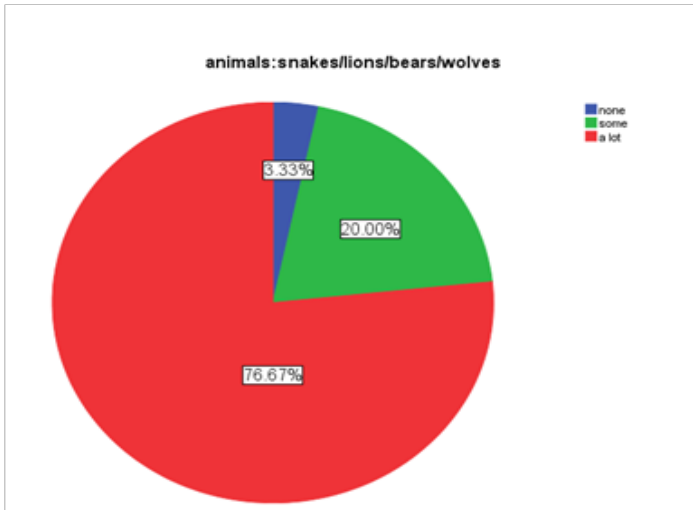


Figure 3: Fear of animals

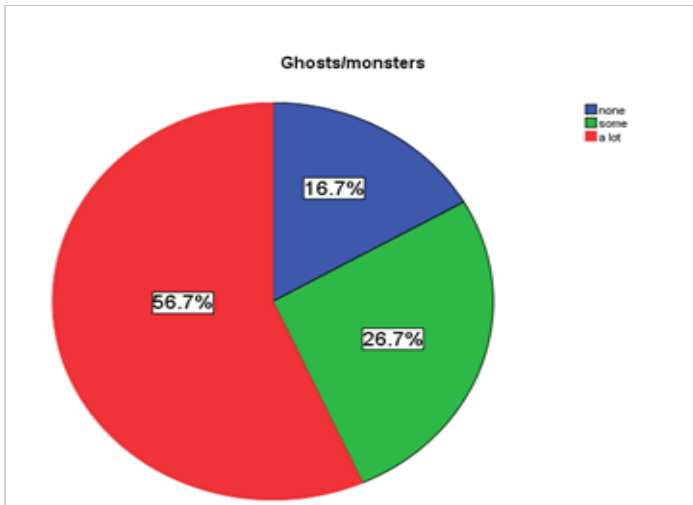


Figure 4: Fear of ghosts/monsters

Figures 5 and 6 show that not many children fear insects or getting a haircut. Blue indicates 'none'. Children of this age range, 5–8 years old, may have outgrown these fears.

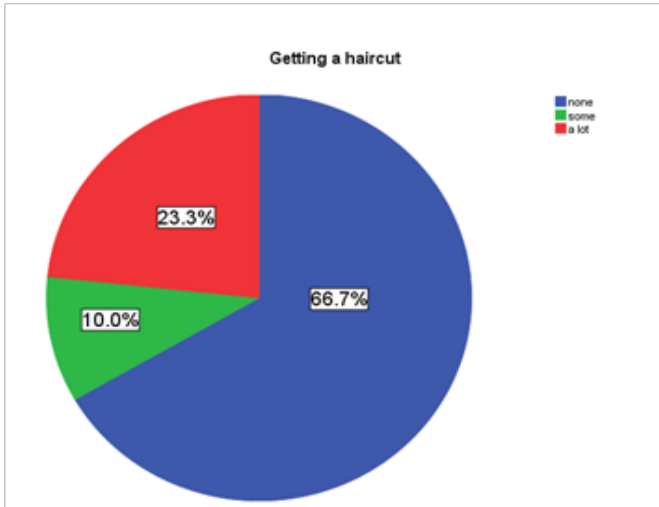


Figure 5: Fear of getting a haircut

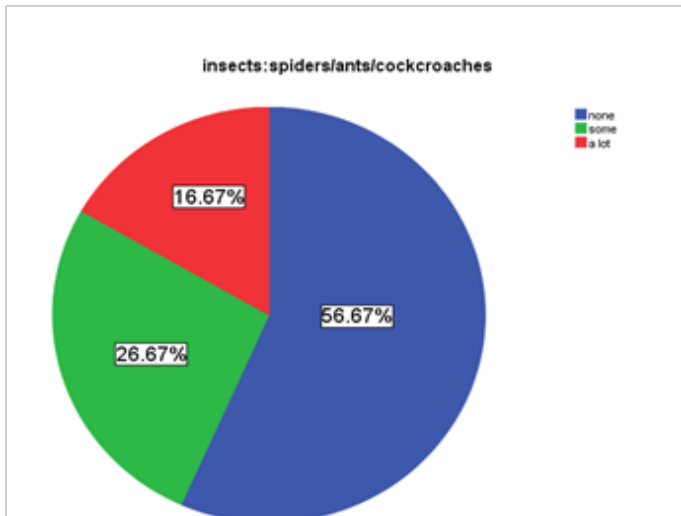


Figure 5: Fear of Insects

Figures 7 and 8 below show that the children fear their mother more than their father. 70% have fear of their mother while only 50% have fear of their father. This result also supports the qualitative data that revealed the prevalence of non-supportive and insecure homes, for example: "I am scared of my father and mother because they will beat me"; "when my mother shouts"; "when my father beats".

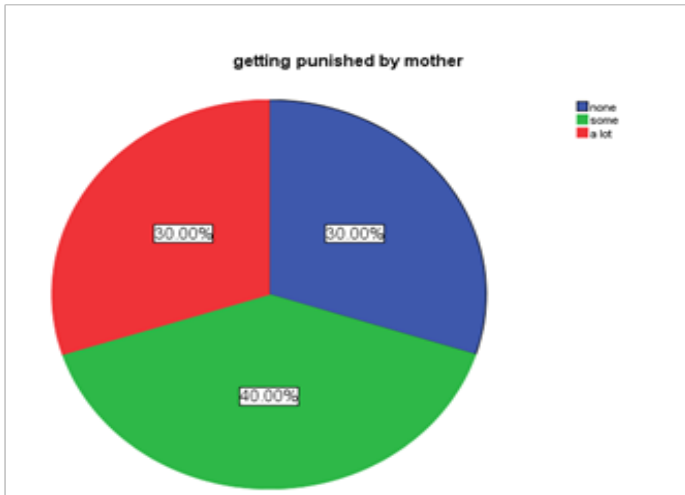


Figure 7: Fear of punishment by mother

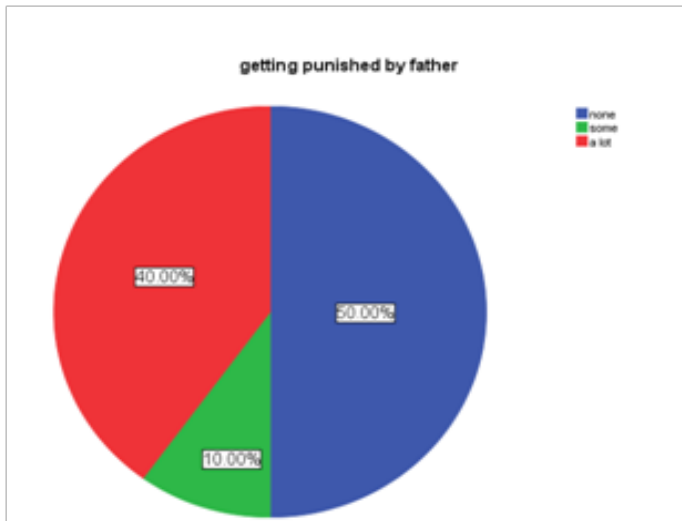


Figure 8: Fear of punishment by father

When compared by gender (Figures 9 and 10), the female children seem to be more fearful than the males. This result supports the qualitative data that female children are perhaps more likely to be fearful. Or perhaps the males are just pretending not to fear. It would be interesting to carry out a large-scale study to gain in-depth insight into the nature of such relationships.

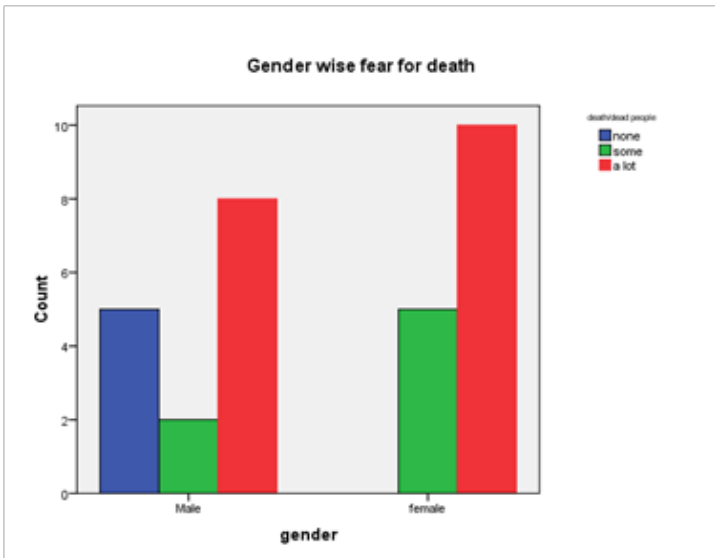


Figure 9: Fear of death by gender

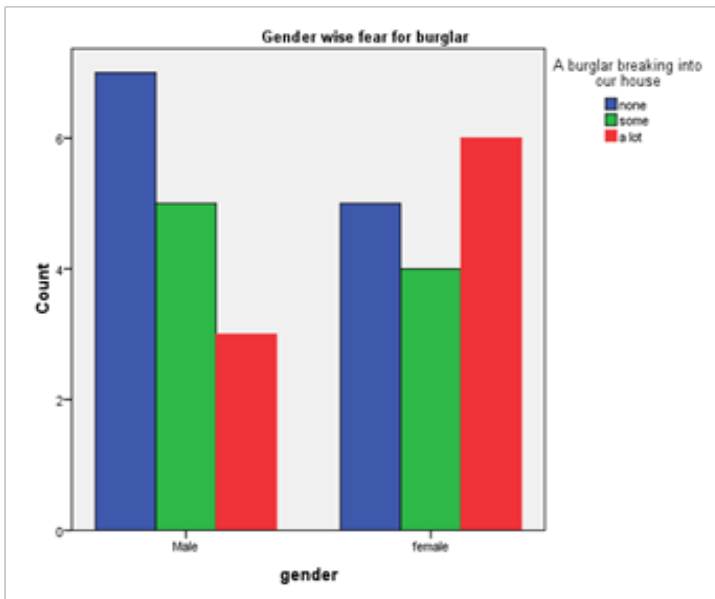


Figure 10: Fear of burglar by gender

## **Discussion**

This study found that the issue of children's fears was relevant and required serious attention. Children experienced various types of fear everyday. In the Bhutanese context, most of children's fears, however, were found to be constructed at home. Fear of ghosts, tigers, lions, snakes, drunkards, khekpa, which more than 80% of children and parents had mentioned, were a consequence of fears induced at home by parents, older siblings or other adults as a measure to manage children's behaviour. Parents said that when children refused to eat, sleep or stop crying, they threatened them of tigers, lions, khekpa or ghosts and it worked. Even fear of teachers may be induced at home for school-going children. Children's fear of parents' physical punishment and of being locked up in toilets was real. Parents, in the interview, said that they used physical punishment on their children, or at least they threatened them of one.

Generally, parents seemed to know less of their children's fears. Data showed that mothers were more aware than fathers of their children's fears, which also means that mothers spent more time with them. Nevertheless, even if mothers knew what their children feared, they used the knowledge only to discipline them. This practice demonstrates that parents are unaware of the negative implication of fear on children's overall growth and development.

While children's experiences of the impact of fear such as trembling, turning cold, and difficult breathing indicate threat to their psychological and physical well being, data also indicate that children do not have many strategies to deal with their fears. The most vulnerable age for fear was found to be around six and seven, and the level of fear drops by eight years but by then the damage would have been done already.

Even though this research study was small, the findings could trigger further research that will influence policy and practices in early childcare and development. Parents and caregivers must be educated through special programmes so that they are able to offer the child a supportive,

secure and an anxiety-free home for optimal healthy growth.

### **Conclusion**

Early childhood, 0–8 years, are the crucial years during which the foundation for a healthy human being is laid. The kind of environment parents, caregivers and others provide determines a child’s future prosperity. If we are to build a vital and productive society, we must start building today the foundations of a healthy child development. Since childhood fear and anxiety is a risk factor for the child’s brain impairment which leads to social, emotional and physical impairment, it is critical for the stakeholders to give it due importance and attention. We must create positive experiences for our children because “experience shapes the development of the brain” (NSCDC, 2004; 2007; 2012). This can happen only if we create an anxiety-free environment that will support our children’s healthy growth and development.

## References

- Cantor, J., & Sparks, G. (1984). *Children's fear responses to mass media: Testing some Piagetian predictions*. Retrieved <http://onlinelibrary.wiley.com/doi/10.1111/j.1460-2466.1984.tb02162.x/abstract>
- Center on the Developing Child at Harvard University (CDCHU) (2007). *A science-based framework for early childhood policy: Using evidence to improve outcomes in learning, behavior, and health for vulnerable children*. Retrieved from <http://www.developingchild.harvard.edu>
- Center on the Developing Child at Harvard University (CDCHU) (2010). *The foundations of lifelong health are built in early childhood*. Retrieved from: <http://www.developingchild.harvard.edu>
- Cohen, L., Manion, L., & Morrison, K. (2011). *Research methods in education* (7th ed.). London: Routledge, Taylor and Francis Group.
- Gebeke, D. (1993). Children and fear.<http://www.ag.ndsu.edu/publications/gsearch?q=Fear%20and%20anxiety>.
- Gullone, E. (1996). Developmental Psychopathology and normal fear. *Behaviour change*. 13 (03). pp. 143 -155. Retrieved from <http://journals.cambridge.org/>
- Kaplan, H.I., & Sadock, B.J. (1998). *Synopsis of psychiatry* (8<sup>th</sup> Ed). Retrieved from <http://panicdisorder.about.com/od/understandingpanic/a/fearandanxiety.htm>
- Kelvins, C. (1997). *Fear and anxiety*. Retrieved from <http://www.csun.edu/~vcpsy00h/students/fear.htm>
- King, N.J., Muris, P., & Ollendick, T.H. (2005). Childhood fears



and phobias: *Assessment and treatment. Child and Adolescent Mental Health* 10 (2), 50–56.

Mian, N.D., Wainwright, L., Briggs-Gowan, M., & Carter, A.L. (2011). An ecological risk model for early childhood anxiety: The importance of early child symptoms and temperament. *Journal of Abnormal Child Psychology*, 39, 501–512.

Muris, P., Merckelbach, H., Ollendick, T.H., King, N.J., Meesters, C. & Kessel, C.V. (2002). What is the revised fear survey schedule for children measuring? *A Behaviour Research and Therapy*, 40, 1317–1326.

National Scientific Council on the Developing Child. (2012). *The science of neglect: The persistent absence of responsive care disrupts the developing brain: Working paper 12*. Retrieved from <http://www.developingchild.harvard.edu>

National Scientific Council on the Developing Child (2007). The timing and quality of early experiences combine to shape brain architecture: Working paper #5. Retrieved from <http://www.developingchild.net>

National Scientific Council on the Developing Child. (2005). *Excessive stress disrupts the architecture of the developing brain*. Working paper No. 3. Retrieved from <http://www.developingchild.harvard.edu>

Nicholson, J. & Pearson, Q. (2003). Helping children cope with fears: Using children's literature in classroom guidance. Retrieved from <http://www.questia.com/read/1G1-110962186/helping-children-cope-with-fears-using-children-s>

Penza, K.M. (2002). Neurobiological effects of childhood abuse: Implications for the pathophysiology of depression and anxiety. *Arch Women's Mental Health*, 6, 15–22.

Robinson, J. I. & Pearson, Q. M. (2003). Helping children cope with fears: Using children's literature in classroom guidance. *American School Counselor Association Audience*, 6 source issue Pg No. 15-16

The science of early childhood development (SECD) (2007). National Scientific Council on the Developing Child: Closing the gap between what we know and what we do. Retrieved from: <http://www.developingchild.net>

Wangchuk, K.C., Choden, R., Choden, K., Zanpo, S., & Yangden. (2012). *The status of early childhood care and development in Bhutan: An internal report for ECCD situational study*. Retrieved from <http://www.rec.org.bt>

## **BILINGUALISM IN DEAF EDUCATION: POLICIES, PRACTICES AND PERSPECTIVES**

*Andrea Pregel*<sup>1</sup>

### **Abstract:**

This paper explores current paradigms, policies and practices related to Deaf Education. Drawing on a selection of relevant literature, a new concept of bicultural DeaF identity is investigated in light of the adoption of a social relational model of Deaf childhood based on a capability approach. Two definitions of *weak* and *systematic* bilingualism are introduced in relation to Deaf Education: the paper argues that a *systematic* bilingual approach could be adopted, incorporating hearing technologies and the use of sign language. The paper further examines the international policy framework on deafness and inclusion, and explores perspectives on Deaf Education and bilingualism in three countries (England, Sweden and Nepal). Sign language is widely used to educate deaf children in Nepal, but it is rarely used within schools in England, while a *systematic* model of bilingual Deaf Education combining sign language and hearing technologies is adopted in Sweden.

**Key words:** bilingualism; capability approach; deafness; England; inclusive education; Nepal; sign language; Sweden

---

1. President, Global Observatory for Inclusion (GLOBI).

## Introduction

The purpose of this paper is to analyse current paradigms, policies and practices related to Deaf Education. Notions of “deaf” and “Deaf” identities (Woodward, 1972) will be initially introduced, alongside different theoretical models of disability and recent findings in Deaf Education. Subsequently, a new concept of bicultural “DeafF” identity (McIlroy & Storbeck, 2011) will be investigated in light of the adoption of a social relational model of Deaf childhood (Snoddon & Underwood, 2013) based on a capability approach (Sen, 1992). The paper will then examine the international policy framework on deafness and inclusion, and explore perspectives on Deaf Education in three selected countries (England, Sweden and Nepal).

### **A quest for identity: deaf versus Deaf**

In order to understand different paradigms related to Deaf Education, it is crucial to investigate processes of identity development (Gallagher et al., 2004, in Snoddon & Underwood, 2013). Woodward (1972) designed a dichotomic definition of deafness, using a lowercase and upper ‘d/D’: “deaf” indicates people with hearing impairments who do not use sign language, whereas “Deaf” refers to people belonging to the Deaf community (Napier, 2002). This representation encapsulates the traditional divide between the medical model and the social model of disability (Oliver, 1996; Finkelstein, 2001; Terzi, 2004; Thomas, 2004). On the one hand, deafness is conceived as an impairment that can possibly be cured; on the other hand, Deafness is perceived as a cultural trait (Mascia & Mascia, 2012). Ladd (2003), however, conceptualises a separate culturo-linguistic model, describing Deaf communities around the world as distinct language minorities.

Many members of the Deaf community see their culture threatened by continuous technological improvements, and particularly by the increasing employment of cochlear implants. The current medical trend is to operate deaf children at the age of one, and a major controversy concerns the implantation of “children who are not able to make a decision on their own” (Mascia & Mascia, 2012, p.275), leading to the ethical dilemma of informed consent. The vast majority of deaf children are born to hearing families (Mitchell & Karchmer, 2004), and in such circumstances, children and parents belong to two different cultures.

Parents are responsible for a delicate choice that will strongly influence the life of their children; hence it is fundamental to guarantee exhaustive information about different opportunities and perspectives on d/Deafness.

### **Research and findings in Deaf Education**

When interviewed about their experiences in mainstream classrooms, d/Deaf children often mention social isolation (Jarvis, 2007). As a matter of fact, not all Deaf children consider mainstreaming the best solution, and sign language users must overcome several obstacles linked to the accessibility of the curriculum, the lack of proper resources, the level of training of teachers, learning strategies within the school, and the decisive role of peers (Jarvis, Iantaffi, & Sinka, 2010). Another fundamental issue concerns the need for interaction with adult role models: d/Deaf people often deal with insurmountable barriers which prevent their access to teaching positions (Powers, 2002).

A study focused on the perspectives of d/Deaf children and their hearing parents appears to substantiate results of previous research, "indicating that cochlear implants do not ensure greater social success for deaf children in the classroom and that deaf students may overestimate their abilities to comprehend text (as well as signed and spoken language)" (Marschark, et al., 2012, p. 493). Moreover, a recent study conducted among university students reveals that deaf students show "lesser metacognitive awareness with regard to language comprehension" (Morrison, et al., 2013, p. 84) compared to their hearing peers.

The concept of mother tongue is closely related to the process of identity development. While oralists consider spoken language as their native tongue, people belonging to Deaf communities regard sign language as their mother tongue and the local spoken language as a foreign L2 acquisition (Leeson, 2006). A significant conclusion, however, comes from Hermans, Knoors, Ormel, and Verhoeven (2008): pupils with higher sign language skills show better reading results, and pupils who read better have stronger sign language abilities.

## **The adoption of a capability approach towards a social relational model of DeaF identity**

Snoddon and Underwood (2013) propose the adoption of a social relational model of Deaf childhood. Drawing on Amartya Sen's capability approach (1992), they underline the necessity to "support Deaf children's freedom to achieve their full potential as contributing members of Deaf and hearing communities" (Snoddon and Underwood, 2013, p.6). Human heterogeneity and *functionings*, conceived as "the beings and doings that individuals have reason to value" (Terzi, 2005, p. 449), are constitutive notions of the capability approach's normative framework, where capabilities are defined as concrete opportunities available to individuals to attain those valued functionings. It seems therefore paramount to endorse different perceptions of *Deafhood*, defined by Ladd (2003) as the sum of all the objective meanings and values of a collective concept of Deaf culture, as well as the personal pursuit of identity of each Deaf person. In this regard, the social relational model of Deaf childhood acknowledges individual diversity along with Deaf cultures' central role and the importance for Deaf individuals to identify their own position within the hearing community.

McIlroy and Storbeck (2011) propose the adoption of a post-modern approach and a definition of "DeaF identity" to overcome the contrast between social and medical models of d/Deafness:

The capital F in DeaF highlights the deaf person's fluid postmodern interactions and engagement and dialogue across the conventional dividing line between Deaf and culturally hearing identities and communities as an authentic bicultural DeaF person. (p. 497)

It is important to underline that the vast majority of Deaf children using sign language with their Deaf parents are bilingual and can read and write the dominant language of their country (Knors & Marschark, 2012), while many oral deaf people with cochlear implants never learn sign language and rarely interact with Deaf communities. However, in the viewpoint of McIlroy and Storbeck (2011), bilingualism is not simply conceived as a passive acquisition of a second language: it rather must be endorsed as a best practice to raise and educate DeaF children as bicultural individuals concurrently belonging to the Deaf and hearing worlds.

Studies in the field of linguistics identify two major categories: *weak forms* of bilingual education, when pupils are only partially allowed to speak their native tongue in school, while the official local language gradually becomes predominant; and *strong forms* of bilingual education, when two languages are used to develop bilingualism and biculturalism (Cummins, 2000). I contend that a double definition of bilingualism related to Deaf Education could be adopted: on the one hand, a *weak* form of *de facto* bilingualism, typical of Deaf individuals born to Deaf parents, who consider sign language their mother tongue, and learn the dominant local oral language as a consequence of their interactions with the hearing world; on the other hand, a *systematic* form of bilingual education, conceptualized within a Deaf theoretical framework, where bilingualism is methodically embraced to empower and raise Deaf children as bicultural human beings, capable of flourishing simultaneously in the Deaf and hearing worlds.

Trovato (2013) suggests the adoption of the capability approach to safeguard the right to sign language, considered as a major prerequisite for Deaf people to preserve their capabilities and opportunities for the achievement of their valued functionings. While defending the right to sign language, it could possibly be argued that the capability approach might be extended to the concept of Deaf identity. In this theoretical context, Deaf individuals' Deafhood (Ladd, 2003) would be unquestioned (the whole concept of Deafhood could perhaps be reframed in terms of *Deafhood*) and their human heterogeneity would be enhanced, along with their fluid postmodern identity as bicultural persons involved in the Deaf and hearing communities. Moreover, it might be useful to analyse the language debate from a capability approach viewpoint in relation to justice, equality, and "the political level of determining a just educational entitlement" (Terzi, 2005, p. 445). A *systematic* bilingual approach would provide Deaf children with the opportunity to learn the local sign language and the local oral language, while taking advantage of technological devices such as hearing aids and cochlear implants. The adoption of a *systematic* bilingual approach might strengthen the capabilities of Deaf children and their opportunities to fully achieve their valued functionings.

## **Inclusive education and deafness: selected international perspectives**

This section of the essay reviews the international policy framework promoted by the United Nations (UN) on deafness and inclusion, and explores perspectives on Deaf Education in three selected countries: England, Sweden and Nepal were chosen on the basis of their heterogeneous cultures, education systems and legislative frameworks in relation to inclusion and deafness.

### ***The international policy framework***

After the Second World War, the General Assembly of the United Nations proclaimed the Universal Declaration of Human Rights (UN, 1948), recognizing the universal right to free compulsory elementary education. The UN Convention on the Rights of the Child (UN, 1989) and the World Declaration on Education for All (UNESCO, 1990) reinforced and expanded this idea, emphasising the importance of literacy, acknowledging the exclusion of large proportions of "vulnerable and marginalised groups of learners" (Miles & Singal, 2010, p.3), and recognizing the special needs of children with disabilities. In this context, the Salamanca Statement is considered a pivotal milestone towards the inclusion of children with special educational needs, calling upon all governments to "adopt as a matter of law or policy the principle of inclusive education" (UNESCO, 1994, p. ix). Moreover, the Salamanca Statement affirms that "the importance of sign language as the medium of communication among the deaf ... should be recognized and provision made to ensure that all deaf persons have access to education in their national sign language" (UNESCO, 1994, p.18). The World Education Forum in Dakar (UNESCO, 2000) and the UN Convention on the Rights of Persons with Disabilities (CRPD) (UN, 2006) complete the framework of international policies promoted by the United Nations in relation to inclusive education. It is meaningful to underline how the CRPD calls on state parties to recognize and promote the use of sign languages (Article 21), "facilitating the learning of sign language and the promotion of the linguistic identity of the Deaf community" (Article 24).



## *England*

Thirty-seven years ago the Warnock Report (DES, 1978) introduced the concept of "special educational needs" (SEN) (Runswick-Cole and Hodge, 2009), marking an important shift from segregation to integration in the English education system. Subsequently, the 1981 Education Act (DES, 1981), the SEN Code of Practice (DfEE, 1994), the Green Paper, *Excellence for all Children* (DfEE, 1997), the Special Educational Needs and Disability Act (DfES, 2001a), the Code of Practice (DfES, 2001b), Every Child Matters (DCSF, 2003), and the recognition of British Sign Language as an official language (Government of the United Kingdom, 2003) laid the foundation of the current policies and practices on inclusive education in England.

According to the Department for Education (DFE, 2013), in 2012/13 there were 1.55 million pupils with SEN in England: only 229,390 had a statement of SEN and 39.6% of them attended special schools. These data should not be seen in contrast with the pressure towards inclusion; they rather reflect the adoption of a multi-directional approach (Nepi, Facondini, Nucci & Peru, 2013), in which families have the possibility to choose between special and mainstream settings (Hodkinson, 2010; Byrne, 2013).

The majority of d/Deaf children are educated in mainstream schools, "with or without special support" (Powers, 2002, p. 236). Statistics show that BSL is currently used by 120,000 deaf people in UK (British Deaf Association, 2013), but Eatough (2000, cited in Powers, 2002) estimates that only 5% of d/Deaf students in England are educated through BSL/sign bilingualism (the number grows to 17% in special schools).

Action on Hearing Loss (2013) reports that in the UK there are more than 10 million people with some form of hearing loss, including 45,000 profoundly deaf children. A crucial percentage is provided by the National Deaf Children's Society (2013): 90% of deaf children are born to hearing parents with no experiences of deafness. As a consequence, many of these deaf children struggle to communicate with their family and develop language proficiency at a slower rate than their hearing peers.

Given the complexity of the English multi-track framework (Meijer, 2003), it is difficult to identify a systematic bilingual approach within

education policies and practices related to d/Deaf pupils. Nonetheless, it is meaningful to acknowledge the existence of The Sign Bilingual Consortium and of several systematic bilingual schools for the d/Deaf in the UK, such as Frank Barnes School in London, Royal School for the Deaf in Derby, or Elmfield School in Bristol (Swanwick & Gregory, 2007).

### *Sweden*

The concept of inclusion is not clearly delineated within the Swedish legislative framework, and municipalities and schools have broad freedom of interpretation of the national policies (Göransson et al., 2011). The Education Act (Ministry of Education and Science, 1985) has been one of the most extensive laws in Sweden for twenty-six years, encompassing all educational levels from pre-school to adult education. The legislation was recently revised and consolidated with a new Education Act (Government Offices of Sweden, 2011), aiming at a better distribution of responsibilities between central and local government. A report of the European Agency for Development in Special Needs Education revealed that only 1.3% of students were educated in segregated settings, and defined the Swedish system of inclusion as a one-track approach (Meijer, 2003). Nevertheless, eight special schools run by The National Agency for Special Needs Education and Schools are available to meet the educational needs of d/Deaf pupils (European Agency for Development in Special Needs Education, 2013).

Swedish Sign Language (SSL) was recognized as an official language and mother tongue of d/Deaf people in 1981, and Sweden was the first country to introduce bilingualism in Deaf Education (Doherty, 2012). Furthermore, 90% of d/Deaf children receive free cochlear implants (Svartholm, 2007, cited in Doherty, 2012). Sweden, therefore, seems to incorporate an exemplar *systematic* model of bilingual education for d/Deaf people, in which SSL holds an indispensable role together with the employment of hearing technologies and the study of Swedish. Hence, arguably, the Swedish system of Deaf Education could be theoretically analysed adopting a capability approach (Sen, 1992) and a social relational model of Deaf childhood (Snoddon & Underwood, 2013), investigating the emergence of a new DeaF paradigm of identity (McIlroy & Storbeck, 2011).

## *Nepal*

Nepal is one of the poorest countries in the world and ranks 145 out of 187 on the Human Development Index (UNDP, 2014). The country has been lacerated by a decade of civil war between monarchic government forces and the Communist Party of Nepal (Maoist): from February 1996 to November 2006 more than 14,000 people were killed and more than 100,000 were internally displaced, among them 40,000 children (Köhler, 2009).

Education policies in Nepal address three main groups of children: pupils with disabilities, other vulnerable children, such as out-of-school pupils, minority ethnic groups and low-caste children, and the wider cluster of non-disabled pupils (UNICEF ROSA, 2003). Nepal suffers from a general lack of awareness on disability and still experiences high levels of inequality, particularly related to caste, ethnicity, gender and religion (Lohani et al., 2010). Devkota (2003, cited in Hoffmann-Dilloway, 2011) argues that barely 1% of d/Deaf children received formal education during the civil war. Foreign donors play a substantial role in framing Nepali education system (Parajuli & Wagley, 2010). Very often the education of children with SEN is conceived in terms of charity rather than of universal rights, and the education system fails to meet the needs of the students (UNICEF ROSA, 2003).

It is estimated that 3% of the population in Nepal could be profoundly deaf (Joshi, 1991). Similar to other countries around the world, the majority of d/Deaf children in Nepal are born to hearing parents, and research shows frequent cases of abuse or rejection by their families and communities, particularly in the rural areas, as a result of a heavy stigma related to religion and the concept of *karma* (Hoffmann-Dilloway, 2011).

Nepali is the mother tongue of approximately half of the population, but more than a hundred minority languages are spoken throughout the country (Giri, 2011). In this context, it could be arguable that Nepali Sign Language (NSL) has a double nature: on the one hand, NSL is certainly a minority language not officially recognized, and many d/Deaf children do not learn it until they start to attend a special school (Hoffmann-Dilloway, 2010); on the other hand, NSL represents the dominant standardized language for d/Deaf people, but in the country there are several other indigenous minority sign

languages, often defined as *village sign languages* (Meir et al., 2010).

Arguably, the peculiar socio-economic context of Nepal might ease a *quasi-systematic* development of a bilingual approach in Deaf Education: since cochlear implants are very expensive and not yet widespread, and because most d/Deaf children who receive formal education attend special schools where NSL is widely used, most of them are bilingual and could probably be defined Deaf, rather than deaf. However, it is crucial to remember that many deaf children in different areas of the country never learn NSL and experience severe discrimination. Moreover, a *systematic* Deaf bilingual model implicates high levels of inclusion, while in Nepal even Deaf children using NSL in school are still far from being completely accepted into society.

### Conclusion

The development of technologically more advanced cochlear implants can be seen as a positive trend for the education of d/Deaf children, but it is crucial to address specific ethical issues and "develop protocols for initial informed consent processes" (Hyde & Power, 2006, p.110). However, the decisive role of sign languages in Deaf Education must be beyond question (Leeson, 2006), as research shows that the use of sign language along with oral language provides d/Deaf children with better and more inclusive learning opportunities (Knoors & Marschark, 2012).

A social relational model of Deaf childhood (Snoddon & Underwood, 2013) based on a capability approach (Sen, 1992) could challenge the current social and medical models of d/Deafness. It is argued in this essay that this perspective could be incorporated within a wider postmodern paradigm, centred on a new notion of Deaf identity (McIlroy & Storbeck, 2011), and the resulting *systematic* bilingual approach could provide Deaf bicultural children with richer education experiences, strengthening their capabilities and their opportunities to achieve valued individual functionings (Terzi, 2005).

International policies related to deafness and inclusion has been developed since 1948, and the cases of England, Sweden and Nepal were presented in this paper to highlight the differences among national policies. While it is difficult to identify a *systematic* bilingual approach

to Deaf Education within the English education system, where very few students study in BSL, most d/Deaf individuals in Nepal are educated in NSL and are *de facto* bilingual. Sweden appears to be an exceptional case, where a *systematic* model of bilingual education for d/Deaf children combines SSL and the employment of hearing technologies. Further research is required to analyse the Swedish system of Deaf Education adopting a capability approach (Sen, 1992) and a social relational model of Deaf childhood (Snoddon & Underwood, 2013), and to explore the emergence of postmodern paradigms of Deaf identity (McIlroy & Storbeck, 2011).

## References

- Action on Hearing Loss. (2013). *Statistics*. Retrieved November 12, 2014, from <http://www.actiononhearingloss.org.uk/your-hearing/about-deafness-and-hearing-loss/statistics.aspx>
- British Deaf Association. (2013). *British Sign Language (BSL)*. Retrieved February 27, 2014, from [http://www.bda.org.uk/What\\_We\\_Do/BSL\\_-\\_British\\_Sign\\_Language](http://www.bda.org.uk/What_We_Do/BSL_-_British_Sign_Language)
- Byrne, A. (2013). What factors influence the decisions of parents of children with special educational needs when choosing a secondary educational provision for their child at change of phase from primary to secondary education? A review of the literature. *Journal of Research in Special Educational Needs*, 13 (2), 129–141. doi: 10.1111/j.1471-3802.2011.01211.x
- Cummins, J. (2000). *Language, power, and pedagogy: Bilingual children in the crossfire*. Buffalo, NY: Multilingual Matters, Ltd.
- DCSF (Department for Children, Schools and Families). (2003). *Every Child Matters*. London: DCSF
- DES (Department of Education and Science). (1978). *Special Educational Needs: a report of the Committee of Enquiry into the Education of Handicapped Children and Young People (Report of the Warnock Committee)*. London: HMSO
- DES (Department of Education and Science). (1981). *The 1981 Education Act*. London: HMSO
- DfE (Department for Education). (1993). *The Education Act 1993*. London: HMSO
- DFE (Department for Education). (2013). *Children with special educational needs: an analysis – 2013*. Retrieved November 1,

2013, from <https://www.gov.uk/government/publications/children-with-special-educational-needs-an-analysis-2013>

DfEE (Department for Education and Employment). (1994). *Code of practice on the identification and assessment of special educational needs*. London: HMSO

DfEE (Department for Education and Employment). (1997). *Excellence for all children: Meeting special educational needs*. London: DfEE

DfES (Department for Education and Skills). (2001). *Special and Educational Needs and Disability Act 2001*. London: HMSO

DfES (Department for Education and Skills). (2001). *Special Educational Needs Code of Practice*. London: DfES

Doherty, M. (2012). Policy and practice in deaf education: views and experiences of teachers, and of young people who are deaf in Northern Ireland and Sweden. *European Journal of Special Needs Education*, 27 (3), 281-299. doi: 10.1080/08856257.2012.678663

European Agency for Development in Special Needs Education. (2012). *Special Needs Education Country Data 2012*. Odense, Denmark: European Agency for Development in Special Needs Education

European Agency for Development in Special Needs Education. (2013). *Complete national overview – Sweden*. Retrieved December 3, 2013, from <https://www.european-agency.org/country-information/sweden/national-overview/complete-national-overview>

Finkelstein, V. (2001). *The social model reposessed*. The Disability Studies Archive UK, Centre for Disability Studies, University of

- Leeds. Retrieved January 16, 2015, from <http://disability-studies.leeds.ac.uk/files/library/finkelstein-soc-mod-reposessed.pdf>
- Giri R. A. (2011). How invisible language politics produces visible results in Nepal. *Language Problems & Language Planning*, 35, 197–221. doi: 10.1075/lplp.35.3.01gir
- Göransson K., Nilholm, C., & Karlsson, K. (2011). Inclusive education in Sweden? A critical analysis. *International Journal of Inclusive Education*, 15 (5), 541-555. doi: 10.1080/13603110903165141
- Government Offices of Sweden. (2011). *The new Education Act - for knowledge, choice and security*. Retrieved December 7, 2013 from <http://www.government.se/sb/d/12996>
- Government of the United Kingdom. (2003). *British Sign Language*. Retrieved February 20, 2015 from <http://www.publications.parliament.uk/pa/cm200203/cmhansrd/vo030318/wmstext/30318m02.htm>
- Hermans, D., Knoors, H., Ormel, E., & Verhoeven, L. (2008). The Relationship Between the Reading and Signing Skills of Deaf Children in Bilingual Education Programs. *Journal Of Deaf Studies & Deaf Education*, 13 (4), 518-530. doi: 10.1093/deafed/enn009
- Hodkinson, A. (2010). Inclusive and special education in the English educational system: historical perspectives, recent developments and future challenges. *British Journal of Special Education*, 37 (2), 61-67. doi: 10.1111/j.1467-8578.2010.00462.x
- Hoffmann-Dilloway, E. (2010). Many Names for Mother: The Ethno-Linguistic Politics of Deafness in Nepal. *South Asia: Journal of South Asian Studies*, 33 (3), 421-441. doi:



10.1080/00856401.2010.520652

Hoffmann-Dilloway, E. (2011). Lending a hand: Competence through cooperation in Nepal's Deaf associations. *Language in Society*, 40 (3), 285-306. doi: 10.1017/S0047404511000194

Hyde, M., & Power, D. (2006) Some Ethical Dimensions of Cochlear Implantation for Deaf Children and Their Families. *Journal Of Deaf Studies & Deaf Education*, 11 (1), 102-111. doi: 10.1093/deafed/enj009  
Jarvis, J. (2007). Exclusion by inclusion? Issues for deaf pupils and their mainstream teachers, *Education*, 3-13: *International Journal of Primary, Elementary and Early Years Education*, 30 (2), 47-51. doi: 10.1080/03004270285200231

Jarvis, J., Iantaffi, A., & Sinka, I. (2010). Inclusion in mainstream classrooms: experiences of deaf pupils, In Rix, J., Nind, M., Sheehy, K., Simmons, K., & Walsh, C. (Eds.), *Equality, Participation and Inclusion: Diverse Perspectives*. Abingdon: Routledge.

Joshi, R. B. (1991). Nepal: A paradise for the deaf?. *Sign Language Studies*, 20, 161–68. doi: 10.1353/sls.1991.0018

Knoors, H., & Marschark, M. (2012). Language Planning for the 21st Century: Revisiting Bilingual Language Policy for Deaf Children. *Journal Of Deaf Studies & Deaf Education*, 17 (3), 291-305. doi: 10.1093/deafed/ens018

Köhler G., Cali, M., & Stirbu, M. (2009). Rethinking Poverty and Social Exclusion Responses in Post-Conflict Nepal: Child-Sensitive Social Protection. *Children, Youth and Environments*, 19 (2), 229-249. Retrieved from <http://www.jstor.org/stable/10.7721/chilyoutenvi.19.2.0229>

Ladd, P. (2003). *Understanding Deaf Culture: In Search of Deafhood*.

Clevedon: Multilingual Matters.

Lane, H. L., Pillard, R., & Hedberg, U. (2011). *The people of the eye: Deaf ethnicity and qncestry*. New York: Oxford University Press.

Leeson, L. (2006). *Signed Languages in Education in Europe – a preliminary exploration. (Preliminary Study. Languages of Education)*. Strasbourg: Council of Europe Language Policy Division. Retrieved from [www.coe.int/t/Dg4/Linguistic/Source/Leeson\\_EN.doc](http://www.coe.int/t/Dg4/Linguistic/Source/Leeson_EN.doc)

Lohani S., Balak Singh, R., & Lohani, J. (2010). Universal primary education in Nepal: Fulfilling the right to education. *Prospects*, 40 (3), 355–374. doi: 10.1007/s11125-010-9162-6

Marschark, M., Bull, R., Sapere, P., Nordmann, E., Skene, W., Lukomski, J., & Lumsden, S. (2012). Do you see what I see? School perspectives of deaf children, hearing children and their parents. *European Journal of Special Needs Education*, 27 (4), 483-497. doi: 10.1080/08856257.2012.719106

Mascia, K., & Mascia, J. (2012). The Bioethics of Providing Cochlear Implants to Children: Informed Choices and Autonomous Decision-Making. *Journal Of The American Deafness & Rehabilitation Association (JADARA)*, 45 (2), 273-286.

McIlroy, G., & Storbeck, C. (2011). Development of Deaf Identity: An Ethnographic Study, *Journal of Deaf Studies and Deaf Education*, 16 (4), 494-511. doi: 10.1093/deafed/enr017

Meijer, C. J.W. (Ed.). (2003). *Special education across Europe in 2003: Trends in provision in 18 European countries*. Middelfart: European Agency for Development in Special Needs Education.

Meir, I., Sandler, W., Padden, C., & Aronoff, M. (2010). *Emergin Sign*

- Languages. In M. Marschark & P. Spencer (Eds.), *Oxford Handbook of Deaf Studies, Language, and Education*, 2. Oxford: Oxford University Press, 267-280.
- Miles, S., & Singal, N. (2010). The Education for All and inclusive education debate: conflict, contradiction or opportunity?. *International Journal of Inclusive Education*, 14 (1), 1-15. doi: 10.1080/13603110802265125
- Ministry of Education and Science. (1985). *Skollagen (Education Act) SFS 1985:1100*. Stockholm: Ministry of Education and Science.
- Mitchell, R. E., & Karchmer, M. A. (2004). Chasing the mythical ten percent: Parental hearing status of deaf and hard of hearing students in the United States. *Sign Language Studies*, 4, 138–163, Retrieved from [http://research.gallaudet.edu/Demographics/SLS\\_Paper.pdf](http://research.gallaudet.edu/Demographics/SLS_Paper.pdf)
- Morrison C., Marschark, M., Sarchet, T., Convertino, C. M., Borgna, G., & Dirmyer, R. (2013). Deaf students' metacognitive awareness during language comprehension. *European Journal of Special Needs Education*, 28 (1), 78-90. doi: 10.1080/08856257.2012.749610
- Napier, J. (2002). The D/deaf-H/hearing Debate. *Sign Language Studies*, 2 (2), 141-149. doi: 10.1353/sls.2002.0006
- National Deaf Children's Society. (2013). *About NDCS*. Retrieved February 23, 2015, from [http://www.ndcs.org.uk/about\\_us/ndcs/index.html](http://www.ndcs.org.uk/about_us/ndcs/index.html)
- Nepi L. D., Facondini, R., Nucci, F., & Peru, A. (2013). Evidence from full-inclusion model: the social position and sense of belonging of students with special educational needs and their peers in Italian primary school. *European Journal of Special Needs Edu-*

- ation, 28 (3), 319-332. doi: 10.1080/08856257.2013.777530
- Oliver, M. (1996). *Understanding Disability: From theory to practice*. Basingstoke: Macmillan
- Parajuli M. N., & Wagley, M. P. (2010). Comparative education and development: reflections from Nepal. *Compare*, 40 (6), 835–840. doi: 10.1080/03057925.2010.523262
- Powers, S. (2002). From Concepts to Practice in Deaf Education: A United Kingdom Perspective on Inclusion. *Journal Of Deaf Studies & Deaf Education*, 7 (3), 230-243. doi: 10.1093/deafed/7.3.230
- Runswick-Cole, K., & Hodge, N. (2009). Needs or rights? A challenge to the discourse of special education. *British Journal of Special Education*, 36 (4), 198-203. doi: 10.1111/j.1467-8578.2009.00438.x
- Sen, A. (1992). *Inequality Reexamined*. Oxford: Clarendon Press.
- Snoddon K., & Underwood, K. (2013). Toward a social relational model of Deaf childhood. *Disability & Society*, 1-13. doi: 10.1080/09687599.2013.864257
- Swanwick R., & Gregory, S. (2007). *Sign Bilingual Education: Policy and Practice*, working document, Retrieved from [http://www.bris.ac.uk/Depts/DeafStudiesTeaching/bil/papers/sign\\_bilingual\\_statement.pdf](http://www.bris.ac.uk/Depts/DeafStudiesTeaching/bil/papers/sign_bilingual_statement.pdf)
- Terzi, L. (2004). The social model of disability: A philosophical critique. *Journal of applied philosophy*, 21 (2), 141-157. doi: 10.1111/j.0264-3758.2004.00269.x
- Terzi, L. (2005). Beyond the dilemma of difference: The capability approach to disability and special educational needs. *Journal of*

*philosophy of education*, 39 (3), 443-459. doi: 10.1111/j.1467-9752.2005.00447.x

Thomas, C. (2004). How is disability understood? An examination of sociological approaches. *Disability & society*, 19 (6), 569-583. doi: 10.1080/0968759042000252506

Trovato, S. (2013). A Stronger Reason for the Right to Sign Languages. *Sign Language Studies*, 13 (3), 401-422. doi: 10.1353/sls.2013.0006

United Nations (UN). (1948). *Universal Declaration of Human Rights*. Paris: United Nations.

United Nations (UN). (1989). *Convention on the Rights of the Child*. New York: United Nations.

United Nations (UN). (2006). *Convention on the Rights of Persons with Disabilities*. New York: United Nations.

United Nations Children's Fund Regional Office – South Asia (UNICEF ROSA). (2003). *Examples of Inclusive Education: Nepal*. Kathmandu: UNICEF ROSA.

United Nations Development Programme (UNDP). (2014). *Human Development Report 2014 – Sustaining Human Progress: Reducing Vulnerabilities and Building Resilience*. New York: UNDP. Retrieved from <http://hdr.undp.org/sites/default/files/hdr14-report-en-1.pdf>

United Nations Educational, Scientific and Cultural Organization (UNESCO). (1990). *World Declaration on Education for All*. Paris: UNESCO.

United Nations Educational, Scientific and Cultural Organization (UNESCO). (1994). *The Salamanca Statement and Framework*

*for Action on Special Needs Education: World Conference on Special Needs Education: Access and Quality.* Salamanca, Spain: UNESCO.

United Nations Educational, Scientific and Cultural Organization (UNESCO). (2000). *Education for All: Meeting our collective commitments. Notes on the Dakar Framework for Action.* Paris: UNESCO.

Woodward, J. C. (1972). Implications for sociolinguistic research among the deaf. *Sign Language Studies*, 1 (1), 1-7. doi: 10.1353/sls.1972.0004

## **Factors that Promote Faculty Confidence to carry out Research at the RUB Colleges**

*Ramesh Thapa*<sup>1</sup>

### **Abstract**

Confidence plays a very important role in allowing people to pursue and achieve their goals. It helps to tackle and overcome challenges. In the Royal University of Bhutan (RUB), the member colleges have been attempting to develop research capacity of its faculty since its inception in 2003 but the progress has been very slow. This study was undertaken mainly to find out some of the key factors that influenced the confidence of the faculty in carrying out research. A survey data of 228 faculty members from all colleges under the university was used for the study. An ordinal logistic regression for one response variable; confidence to carry out research, which measured one of university's research strength was modeled with a set of 18 selected predictor explanatory variables. Results revealed that confidence of the faculty to carry out research was significantly associated with the five explanatory variables; qualification, access to reprographic facilities that support the research study, awareness of the procedures for application of research grants, RUB research grants for researchers, and attended research conferences and seminars. Thus, this study revealed that there is still a need for the RUB to address such issues towards building a strong research and academic capacity at the university level. The RUB should continue to reinforce greater support in encouraging faculty members to upgrade their qualifications besides developing essential infrastructures and implementing good research policies.

**Keywords:** Research culture, ordinal logistic regression, significant variables, complementary log-log link

---

1. Research Officer, Centre for Educational Research & Development, PCE.

## Rationale of the Study

The establishment of the Royal University of Bhutan (RUB) has changed the role of the academics which now encompasses the shift from a culture of teaching to a culture of teaching and research. The Royal Charter and the Statutes of the Royal University of Bhutan (2003, p. 3) strongly emphasizes that one of the core objectives of the university is to “promote and conduct research, to contribute to the creation of knowledge in an international context and to promote the transfer of knowledge of relevance to Bhutan.” Similarly, the university’s Strategic Plan also gives much importance on promoting a research culture amongst the constituent member colleges (Strategic Plan, RUB, 2007).

In the pursuit of above commitments, various research training programmes and professional development workshops have been organized to equip the faculty with research skills and build their capacities. These programmes offered are in preparation for research although the numbers are still very few. The RUB within its limited capacity has also been providing generous support in terms of research funding and supply of research materials to its member colleges. The RUB has launched its own annual publication journal entitled the *Bhutan Journal of Research and Development (BJRD)* to provide a platform for researchers to publish their research work. The RUB has been also able to institute research and publication as one of the key criterion for selection to higher posts and further studies. Such developments clearly indicate the significance of research and publication at the university.

In spite of all these efforts, we do not see many faculty members taking up research, and consequently hampering the research output. The calls for the submission of research proposals for funding have not been successful either. All these are indicators that show there are certain factors which hinder the capability and confidence of the faculty to carry out research. We can conclude that enough confidence in carrying out research has yet to be developed in each of the colleges of RUB.

As implied above, there are a range of reasons as to why this might be the case. Is it because faculty members are not skilled enough to carry out research? Is it because research funds are not readily available? Is it



because faculty members are heavily loaded with teaching? Is it because faculty members do not get sufficient administrative and research support? Is it because research materials are not easily accessible? Is the past practice of only teaching and no research by the RUB academics difficult to change? There could be many reasons and the likely cause is in fact a combination of these. However, not much research has been carried out to find out what factors could have impeded their confidence to carry out research, as indicated by low research productivity. Therefore, the main purpose of this study is to gain a better understanding of the confidence level of the faculty of the colleges of RUB to carry out research.

### **Main Research Question**

What are the factors that inhibit the confidence levels of the faculty members to carry out research at the colleges of the RUB?

### **Research Objectives**

1. Identify significant explanatory variables that influence the confidence levels of the faculty to carry out research at the colleges of RUB.
2. Examine the direction of the relationship between the explanatory variables and the confidence of the faculty to carry out research based on sign (+ and -) of the regression coefficients.

## LITERATURE REVIEW

### Introduction

To investigate what factors have actually inhibited the confidence of the faculty members to carry out research at the RUB, there are two broad areas that have to be understood; the concept of confidence and the research culture. Various scholars have tried to define confidence in numerous ways. For achieving the professional best, Yung (2010) has tried to define confidence as the ‘ability to take appropriate and affective action, however challenging it may feel at the time’ (p.6). Confidence is all about what one needs to do in the short-term to achieve the long-term goals although it might be momentarily uncomfortable in the short term. All humans are bestowed with unique strengths and one is more successful or confident when they use their strengths. At the RUB, research trainings and professional support programmes are regularly conducted to equip the faculty members with enough knowledge and skills to carry out research. For whatever levels of confidence they have, there could be many factors associated that could have hindered them from taking appropriate actions because research is still at the take-off stage in most of the colleges. Bhutan as a country itself does not have a tradition of research in the Western sense of that term. It is therefore attempting to develop research without a history of research to support it, implying that research capacity is being developed from a low base.

If we look at the vision and mission statement of various universities elsewhere, we understand that research and its output are their major strength. These universities invest huge amount of time and resources in research. This demands investments not only in research capacity building of staff but also investment in research infrastructure such as libraries. In Bhutan too the RUB has recognised the importance of research in its mission statement (2007, p. 3), which states that, “the Royal University of Bhutan will continue to enhance education and its quality through advancement of research, ...” (The Royal University of Bhutan: Strategic Plan 2004-2012).

Thus it is time now that the faculty under the RUB as academics shows and proves to the outside world that we are also capable of carrying out

research works which can support the overall development of the country.

## **Factors that Promote Faculty Confidence in Research**

One needs to acquire the skills of researching through university training and adequate experiences. Existing literature (e.g., Robinson, 2005) indicates that there are various factors such as training, administrative support, funding sources, infrastructure and resources, mentoring, the role of colleagues and collaborators, research conferences and faculty meetings, and recognition of research efforts of the faculty that help-promote faculty confidence in research in an institution or a university. Each of these areas are discussed below

### *1. Training and Experience*

One requires adequate training and experience to be able to conduct research. Specialist skills are necessary and these vary depending upon the demands of each discipline or profession.

### *2. Administrative Support*

Adequate training and experiences are not just enough for someone to take up research. According to Robinson (2005) administrators need to understand the importance of the potential of research and support research activities. This can be achieved through administrative guidelines including ethical procedures to follow in undertaking research.

### *3. Funding Sources*

Research usually involves money. In many developed countries, there are various private and non-governmental organisations funding research activities besides the funds provided by the government. Do we have such funding sources in Bhutan? Are funds adequately available for our researchers?

### *4. Infrastructure and Resources*

Infrastructural support for carrying out research is crucial. Do our colleges have facilities and resources such as digital recorders, adequate working space, support staff, and library facilities, to encourage faculty

to take up research?

### *5. Mentors*

Existing literature indicates that mentors play a crucial role in building up the confidence level of these academics. Many academics at the colleges of the RUB have just started taking up research. Confidence levels have been very low due to lack of experience. Do we have mentoring processes established in our colleges to support novice researchers? What systems are in place to support the new researchers? Are international partnerships in research another way forward? While research is a new development in our colleges, we do have some experienced researchers. It is important that these experienced researchers work as mentors for novice researchers.

### *6. Research Conferences and Faculty Meetings*

Research conferences and faculty meetings are often considered to be good ways of promoting research in the established universities. They provide platforms for researchers to share their work with novice researchers. They are the bottom rung for research presentation that can lead to refereed publications (Maxwell, 2006).

### *7. Recognition of Research Efforts of the Faculty*

It is important that research efforts of the faculty are recognized through various mechanisms. For instance, promotions could be based on the number of papers published, reduction of number of teaching hours, provide opportunities to attend international conferences, seminars, trainings and workshops and also provide incentives for taking initiatives.

## **METHODOLOGY**

The methodology applied in this study is quantitative. This study involved the primary survey data collected from faculty members of all the colleges of the RUB. The survey instrument was pre-tested using reliability test involving the samples size of 25 faculty members. The Cronbach's alphas for the 6 research output and 18 perception and research experiences items were .894 and .807 respectively which indicated a high level of internal consistency of the scale in the instrument. The questionnaire consisted of 25 items on demographic information and faculty member's perception

and experiences about the overall research culture at the RUB.

The response (outcome) variables were measured on ordinal categorical - '1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree'. The explanatory (predictor) variables included 18 items that were ordinal measured on a five-point Likert scale related to demographic, responsibilities of the faculty member, training and experiences, research and publication services, research knowledge, facilities and resources, perception of research and research policies. These variables were coded as 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree.

The data was collected from those faculty members who were present at the colleges during the time of the survey administration. A census (enumeration of all the faculty members of each college) method was applied as every faculty member who was present on the day of the survey administration was included in the sample. The sample size was estimated based on the following statistical formulation:

$$n = (NZ^2 * p *(1-p))/(e^2 (N-1)+ Z^2 p*(1-p))$$

$n$  = the required sample size,  $N$  = Population size,  $Z^2=Z^2$  is the abscissa of the normal curve that cuts off an area  $\alpha$  at the tails ( $1 - \alpha$  equals the desired confidence level, e.g., 95%),  $e$  = the acceptable sampling error,  $p$  = population proportion (Kothari, 2004). From the total faculty members of 485 in all the colleges, with 5% margin of errors, 95% confidence interval and 50% response distribution, the recommended sample size was estimated to be 215. However, the data collected from a total of 228 faculty members were used for this study. The Statistical Package for Social Science (SPSS) version 22 was extensively used to analyze the data. In this study, the researcher was interested to see the effect of explanatory variables to response variable. An ordinal logistic regression method was used to model the relationship between the variables to see the extent of the effect. While developing the model, some of the cases with high missing values were removed as it was highly sensitive to chi-

square test and goodness of fit in the model building process.

In order to suitably select factors or variables that are believed to have significant effect on the research experiences and productivity, a careful judgment of each factor on the basis of theoretical cause and effect relationship was first established. A univariate regression analysis was then carried out to select the co-variables (with p-value  $<0.25$ ) to enter into the model. The use of more traditional level ( $p < 0.05$ ) often fails to identify the variables known to be of importance (Bendel & Afifi, 1977, Mickey & Greenland, 1989 as cited in Hosmer & Lemeshow, 2000). After the factors have been identified for the model, the ordinal logistic regression procedure was used using modeling method in SPSS.

### **Description of the Variables Specified in the Model**

In this study, one response variable was selected which measured the confidence of the faculty to carry out research at the university. This variable indicated one of the research efficiencies considered as important development initiatives of the university. The explanatory variables included all those variables that explained the response variables; Research discussed in faculty meeting, Research discussed in department meeting, The library has materials and references to support research, Office space to facilitate research, Access to reprographic facilities, Received fund for research, Aware of procedures for grants, Received support from OVC, Received support for CRC, Received support from Colleagues, There is mentoring programme in place, Aware of research policy, Reward by promotion, Need for research grants, Incentives for beginners, Attend research conferences and Seminar, Attended research trainings, and Qualification.

## RESULTS AND DISCUSSION

The ordinal logistic regression (IBM Corp., 2013) was performed to identify the predictors that are associated with the confidence of the faculty members to carry out research. The ordinal response variable confidence to carry out research was measured on a five-point Likert Scale coded as 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree. A total of 18 explanatory variables were used for this model. The frequency distribution of whether faculty members had enough confidence to carry out research or not are, 22.5% strongly agreed, 37.9% agreed, 25.4% were neutral, 11.2% disagreed and 3.0% strongly disagreed. It showed that majority of the faculty members seemed to agree they had confidence to carry out research. For this model, the complementary log-log link was a better choice because the higher categories were more probable (IBM Corp., 2013).

The regression has the form as follows when cloglog link is used in the model.  $f[\gamma_j(X)] = \log\{-\log[1-\gamma_j(X)]\} = \log\{-\text{Log}[P(Y=\gamma_j | X)/P(Y>\gamma_j | X)]\} = a_j + \beta X$  and  $\gamma_j(X) = 1 - e^{-e^{(a_j + \beta X)}}$ , Where  $j = 1, 2, \dots, k-1$  and  $j$  indexes the cut-off points for all categories of the outcome variable. When multi explanatory variables are used in the model,  $BX$  is substituted with  $\beta_1 X_1 + \beta_2 X_2 + \dots + \beta_p X_p$ . The cloglog link is ratio of the two conditional probabilities;  $P(Y=\gamma_j | X)$  to  $P(Y>\gamma_j | X)$ . The model which uses cloglog link is also known as proportional hazard as the relationship between independent variables and dependent variables is independent of the category.

The initial model fitting statistics ( $\chi^2 = 133.530$  with d.f of 19 and  $p = 0.000 < .0001$ ) with the cloglog link function indicated that the model gave a significant improvement over the baseline intercept-only model giving better predictions ability. The goodness of fit statistics with Pearson ( $\chi^2 = 660.527$  with d.f of 645 and  $p = .327$ ), Deviance ( $\chi^2 = 380.718$  with d.f of 645 and  $p = 1.000$ ), showed that the observed data were consistent with the estimated values in the fitted model. The pseudo R Squares which indicates that the proportion of variations in the outcome variable was accounted for by the explanatory variables were Cox and Snell (.546) Nagelkerke (.581) McFadden (.282).

Table: 1 Explanatory variables associated with the confidence to carry out research based on the complete model with Complementary Log-log Link

Variable Id	Variable description	Regression Coefficient	P Value	Variable Id	Variable description	Regression Coefficient	P Value
[vii10 = 1]	Threshold	-2.292	.012	viii8	Support for CRC	.009	.955
[vii10 = 2]	Threshold	-.484	.562	viii9	Support from Colleagues	.095	.455
[vii10 = 3]	Threshold	.935	.269	viii10	Mentoring	.021	.840
[vii10 = 4]	Threshold	2.457	.005	x1	Aware of research policy	-.032	.755
viii8	Faculty meeting	.002	.990	x2	Reward by promotion	-.003	.975
viii9	Department meeting	.140	.306	x7	RUB Research Grants	.502	.000*
viii1	The library	.090	.427	x8	Incentives for beginners	.163	.124
viii3	Office space	.147	.159	ix3new	Research conferences	.524	.028*
viii4	Reprographic facilities	.323	.011*	ix5new	Research trainings	-.171	.478
viii5	Fund for research	-.062	.619	[qualif=1]	Qualification	-2.994	.000*
viii6	Procedures for grants	.253	.022*	[qualif=2]		-2.174	.000*
viii7	Support from OVC	-.119	.440	[qualif=3]		0 <sup>a</sup>	.

\*Significant at (p<0.05)



In table 1 above, the confidence of the faculty to carry out research was significantly associated with the five explanatory variables; qualification ( $p=0.000<0.05$ ), access to reprographic facilities that support the research study ( $p=0.011<0.05$ ), aware of the procedures for application of research grants ( $p=0.022<0.05$ ), RUB research grants for researchers ( $p=0.000<0.05$ ), attended research conferences and seminars ( $p=0.028<0.05$ ). Qualification exhibited negative regression coefficient. The negative coefficients of a predictor variable can be interpreted as being less likely to be of higher category than of a lower category. This shows that faculty members with low education qualification are less likely to assign higher agreement on their confidence to carry out the research than the faculty members with doctorate degree. The positive coefficients can be interpreted as higher ratings on explanatory variables being observed in a higher category. The rest of the significant explanatory variables exhibited positive regression coefficients indicating that faculty who rated higher levels of agreement on the explanatory variables were more likely to rate a higher agreement for their enough confidence to carry out research.

The test of parallel lines which is the important assumption of the model makes judgment on the adequacy of the model. It assesses whether the assumption that the parameters are the same for all categories is reasonable. The null hypothesis stated that the location parameters (slope coefficients) are the same across response categories. The alternative hypothesis stated that the location parameters (slope coefficients) are different across response categories. The test results ( $\chi^2 = 14.531$  with d.f = 57 and  $p = 1.000$ ) indicated that there was no significant difference for the regression coefficients across the response categories which suggested that the model assumption of parallel lines was not violated (Table 2).

**Table 2: Test of Parallel Lines<sup>a</sup>**

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Null Hypothesis	340.136			
General	325.605 <sup>a</sup>	14.531 <sup>b</sup>	57	1.000

Furthermore, the cross-tabulating method was used to categorize the predicted and the actual response into a 5 by 5 classification table. The model predicted the categories of strongly agree (55.3%), agree (76.6%), neutral (39.5), disagree (15.8%), strongly disagree (60.0%). The model showed the percentage classification of 55.03% for all the categories.

Describing the factors that support research culture, Robinson (2005), has identified those factors such as education, training and experiences, administrative support, funding resources, infrastructure and resources, mentors, research conferences and faculty meetings, recognition of the research efforts, as playing a very important role in building strong research foundation including the skills and confidence of the faculty to take up research.

### **CONCLUSION**

With the use of ordinal logistic regression model, significant contributory factors that determined the confidence of the faculty members to carry out research were identified. The significant factors observed on the model can be looked at as contributing factors for devising types of measures that can be applied to address each issue.

From the analysis of the above approach, it is clear that qualification and research education were highly significant. It showed that the majority of the faculty members who had qualification of bachelors or master's degree did not have much research experiences. While the faculty members who obtained doctorate degrees on the other hand were very minimal. The university should create enough opportunities for faculty members to upgrade their qualifications so that they are fully exposed to the intellectual as well as research environment. For faculty members with doctorate degrees, opportunities must be created to revitalize their knowledge and skills so that there is a continuous generation of research output. It would build their confidence and enthusiasm to get more involved into research activities.

Access to reprographic facilities are fundamental for carrying out research studies, the lack of which should not affect the attempt of faculty members to take up research studies. The test statistics showed that many of the faculty members were not confident to carry out research without

access to much research materials. Since research materials are one of the crucial factors required for carrying out research, the university or colleges should make available enough research materials required for carrying out research for the faculty. Therefore, in order to develop a keen research culture, research facilities need to be continuously established, advanced as well as updated.

The faculty members in the university also lacked opportunities to participate in research conferences and seminars which is an important avenue for enhancing and exchanging research knowhow. Faculty members must be encouraged to participate more often in such forums. The university should also hold more professional conferences and meetings so that the opportunities are created for faculty members to showcase their research works. Attending seminars and conferences would not only be an important platform for faculty members to present their research accomplishments but it would also be an important source to generate publications.

The university also lacked well-established linkages between the individual researcher, the colleges and the university where research in reality showed the tri-functional output of these three. They should extend greater *administrative and communication support* as majority of the faculty seemed unaware of any research policies or guidelines. A clear research strategy must be articulated to support and build the research capacity amongst the individuals, the colleges and the university. They must be provided with *research grants* as well as made fully aware of procedures and guidelines for research. There was a strong positive relationship between the research grants and the confidence of the faculty to carry out research. The research policies and trends must be communicated well with the facilitators of the change. However, these support systems alone are not enough if RUB wishes to excel in research and development, rather the RUB should strive to internalize as well as pressurize its faculty members to take up research.

### **Acknowledgement**

This study would have not been possible without the special contribution and support from Dr. Kezang Sherab, Mr. Changa Dorji, Mr. Sonam-Rinchen, Ms. Phintsho Choden and Mr. Dorji Wangchuk

## References

- Hosmer D.W & Lemeshow S. (2000). *Applied logistic regression* (2<sup>nd</sup>ed), United States of America: John Wiley & Sons, Inc.
- IBM Corp. Released 2013. *IBM SPSS Statistics for Windows*, Version 22.0. Armonk, NY: IBM Corp.
- Kothari, C. R (2004). *Research methodology: Methods and techniques* (2<sup>nd</sup> ed.). New Delhi: New Age International Publishers.
- Maxwell, T.W (2006). Getting published. In *Rabsel, the Centre for Educational Research and Development Journal*, vol. IX, pp.193-204.
- Robinson, L. R (2005). Research culture, environment, and infrastructure. *American Journal of Physical Medicine and Rehabilitation*, 84 (12): 980-7.
- Royal Government of Bhutan (2003). *Royal Charter*. Retrieved from <http://www.rub.edu.bt/index.php/the-royal-charter>
- The Royal University of Bhutan (2007). *Strategic plan, 2004-2012*. Thimphu: RUB.
- Yeung, R.(2010), *Confidence – the key to achieving your professional best*. USA: Pearson Education Inc.

## Perceptions and Usage of Free Libre Open Source Software in Bhutan's Higher Education System

*Cathryn Bennett*<sup>1</sup>

### Abstract

Free libre open source software (FLOSS) is a powerful tool that can ease the burden of inadequate educational ICT, especially in developing countries. FLOSS is not used to its full potential. This research investigates usage and perception of FLOSS and pedagogical preferences with a sample of participants (N=40) at Gaeddu College of Business Studies. Data arise from a quantitative-qualitative approach, (survey and interview) with emphasis on quantitative data. Although the unified technology acceptance and use theory (UTAUT) guides this research and is supported in organizational settings, it is not supported in this context. Results indicate students' perception and use differ from faculty or staff and that attitude and pedagogical orientation are more powerful predictors than UTAUT's supported factors. Analysis of interview data reveals a relationship between pedagogical use and attitude. The research's validity is limited by low survey response rates and interview participation. Electricity interruptions and low bandwidth complicated completion of the research and communication. Results imply that pedagogy, attitude, and especially teachers' roles are relevant constructs for understanding educational technology acceptance and use in Bhutan and other developing countries, especially as pertains to the construct pedagogical orientation when technology acceptance is investigated in educational settings.

**Keywords:** free libre open source software, digital divide, unified theory of acceptance and use of technology, usage, perception, pedagogical orientation

---

1. Lecturer, Gaeddu College of Business Studies.

## **1. Introduction**

This research examines free libre open source software (FLOSS) use and perception, and pedagogical orientation in Bhutan's higher education system. Rough geography and a dearth of infrastructure, resources, and services limit access to educational technology. This research investigates why FLOSS as an educational ICT is underutilized within higher education in Bhutan, including who and what influence students, faculty, and staff software choices.

Educational actors' usage and perceptions (Venkatesh, Morris, Davis, & David, 2003; Venkatesh, Thong, & Xu, 2012) inform FLOSS as educational ICT, while investigating pedagogical preference adds nuance (Bhuasiri, Xaymoungkhoun, Zo, Rho, & Ciganek, 2012; Elwood & MacLean, 2009; Ertmer & Ottenbreit-Leftwich, 2010; Nistor, Gogus, & Lerche, 2013; Sriwindono & Yahya, 2012). The unified theory of acceptance and use of technology (UTAUT) (Venkatesh et al., 2003) and UTAUT 2 (Venkatesh et al., 2012) – primarily investigating use and perception – frame the research; UTAUT's cultural extensions are incorporated.

## **2. Literature Review**

### **2.1 Defining FLOSS**

Each concept in “free libre open source software,” signifies an aspect of the phrase's overall meaning. “Free libre” indicates freedom in access for all; “open source” refers to the editable nature of the source code (Weber & Bussell, 2005). These ideas culminate in an open philosophical approach to software. Weber and Bussell (2005) describe the open source mentality as seeking to “distribute, not ... to exclude; copying is allowed and encouraged; ... and improvements ... must be given back to the community” (p. 68).

### **2.2 Barriers**

Kezang and Whalley (2007) name Bhutan's impediments to educational ICT: “geography, resources, services” and “the digital divide”

(p. 76).

Rural electrification is costly due to geography (Gross National Happiness Commission [GNHC], 2009) while communication and literacy also add complications. Instruction is in English, while Dzongkha and other dialects (Kezang & Whalley, 2007) are students' primary languages. UNESCO (2010) reports Bhutan's 2005 literacy for people over 15 years as 38.7% for females, 65% for males, and 15-24 year olds with 68% for females, 80% for males (UNESCO, 2010). UNESCO's (2010) statistics are gendered; the 2005 Population and Housing Census of Bhutan's statistics compare national, 60%, and adult, 53%, literacy (GNHC, 2009).

Educational ICT longevity is determined by external financing, which the 10<sup>th</sup> 5 year plan acknowledges is untenable (Kezang & Whalley, 2007; GNHC, 2009). ICT access remains financially improbable for individuals (Gyabak & Godina, 2011). Microsoft Office's licensing cost, \$560 USD, compared with the per capita income of an average citizen, \$644 USD, (Ghosh, 2004) underscores the discrepancy. Weber and Bussell (2005) describe proprietary software prices in developing countries as "exploitative" (p. 77).

Services further limit improvements. Too few versatile businesses support ICT; urban areas are less affected by this than rural areas. Utilities are not yet widespread in schools, especially in rural areas (Gyabak & Godina, 2011). Where electricity is absent (Department of Information Technology and Telecom [DIT], 2011), ICT is useless. Bandwidth is insufficient in tertiary education (GNHC, 2009). Dissimilarities between urban and rural areas demonstrate ICT inequality in Bhutan (Kezang & Whalley, 2007).

These challenges result in a digital divide, a disparity between groups with access to technology and others without it (Kezang & Whalley, 2007). Access is necessary, yet skills and knowledge to use ICT are also required (Kezang & Whalley, 2007). Disparities of ICT access and use

(Weber & Bussell, 2005) demonstrate the digital divide, but the 10<sup>th</sup> 5 year plan indicates that the country must *avoid* a digital divide (GNHC, 2009), implying that Bhutan does not experience one. The 11<sup>th</sup> 5 year plan covering 2013-2018 addresses pertinent issues of poverty alleviation and technological advancement, but not the digital divide directly (GNHC, 2013).

## Framework

### 3.1 UTAUT 1 & 2

UTAUT 2 supports UTAUT 1's constructs: performance expectancy, effort expectancy, and social influence on intention and the moderating factors age, gender, and experience, and facilitating conditions moderated by age and experience (Venkatesh et al., 2012). UTAUT 2 confirms the validity of hedonic motivation, habit, and price value as influencing behavioural intention (Venkatesh, et al., 2012). UTAUT constructs: self-efficacy, attitude, hedonic motivation and habit prove to be useful across varied contexts (Venkatesh et al., 2003; Venkatesh, et al., 2012; Sriwindono & Yahya, 2012; Nistor et al., 2013) including the present research.

### 3.2 Extensions

UTAUT conceives a model for technology acceptance with proven applications in organizational and consumer contexts, but it has not been extensively investigated in developing countries. Nistor et al. (2013) and Sriwindono and Yahya (2012) find culture is relevant to educational technology acceptance. Their studies extend UTAUT to include culture's effects on behavioural intention and introduce understandings that broaden UTAUT's applications. A primary finding is that individual identities as products of culture inform technology acceptance (Nistor et al., 2013; Sriwindono & Yahya, 2012).

### 3.3 Pedagogy

Education has a culture, embedded in historical, national, or ethnic ideas. Hofstede (2001) explores culture through binary constructs, e.g. masculine and feminine, that lack explanatory power for the nuance of reality. Pedagogy and personal identity are more apt measures of edu-



ational culture.

**3.3.1 Technology change.** Ertmer and Ottenbreit-Leftwich (2010) propose a framework for teacher technology acceptance aligning use with pedagogy and culture. Teachers use ICT in instruction yet has not aligned ICT understanding with pedagogy (Ertmer & Ottenbreit-Leftwich, 2010). Traditional teaching leads to unsophisticated technology integration while student-centered pedagogues exhibit advanced ICT use (Judson, 2006, in Ertmer & Ottenbreit-Leftwich, 2010; Roehrig, Kruse, & Kern, 2007, in Ertmer & Ottenbreit-Leftwich, 2010). Teachers influence student ICT acceptance by their pedagogical preferences (Ertmer & Ottenbreit-Leftwich, 2010). To positively influence educational technology acceptance, institutional culture and teacher beliefs must be addressed by updating pedagogy.

#### **4. Methodology**

Data were collected from October, 2013 until March, 2014 with surveys constructed to investigate the primary constructs: FLOSS use and perception, and pedagogical orientation. Interviews informed the survey results. Varied language and ICT ability were anticipated. Mixed methods triangulated the variables, and assisted in overcoming the expected barriers.

Gaeddu College students ( $n=9$ ), staff ( $n=3$ ), faculty ( $n=21$ ), and unspecified participants ( $n=7$ ) comprised the sample ( $N=40$ ). Four students and two faculty members were interviewed. No staff chose to be interviewed. Samples were organized into 2 analysis groups: staff and faculty as superiors, students as subordinates, supporting equal variable representation. Survey data were analyzed with PSPP by GNU, interview data with QDA Miner Lite 4.0.

#### **5. Results**

The survey ( $N=40$ ) included men ( $n=27$ ), women ( $n=13$ ), superiors ( $n=23$ ), and subordinates ( $n=10$ ). Respondents reported 10 or more years of computer experience ( $n=19$ ). Descriptive and inferential statistics were conducted.

The sample's distribution was triangulated from one sample Kolmogorov-Smirnov, kurtosis, and skewness, summarized in table

1, and implied non-normality from the small sample. Results of Kolmogorov-Smirnov were not significant for 8 of 9 sub-scales, suggesting the null hypothesis of normal distribution should not be rejected at the 90% confidence interval. Kurtosis contradicted Kolmogorov-Smirnov as no sub-scale had a value close to 3. Skewness also contradicted Kolmogorov-Smirnov for 6 of 9 sub-scales. Non-parametric tests were used for inferential statistics since normality indicators were inconclusive and the sample is small.

Table 1  
Normality by Kolmogorov-Smirnov, Kurtosis, and Skewness

Sub-scale	N			Kurtosis		Skewness	
	Valid	Missing	Z	Statistic	Std. Error	Statistic	Std. Error
<i>Use</i>							
Use	40	-	0.59	-0.71	0.73	0.16#	0.37
Habit	39	1	1.10	-0.19	0.74	-0.54	0.38
<i>Perception</i>							
Self-efficacy	34	6	0.70	-0.92	0.79	0.25#	0.40
Influence	34	6	0.86	0.91	0.79	0.08#	0.40
Attitude	34	6	1.28	0.71	0.79	0.97	0.40
Ease of use	33	7	1.44	-0.57	0.80	0.52	0.41
Facilitating conditions	34	6	0.69	-0.05	0.79	-0.42	0.40
<i>Pedagogical Orientation</i>							
Pedagogical use	33	7	0.85	0.30	0.80	-0.62	0.41
Pedagogical belief	33	7	0.80	0.04	0.80	-0.79	0.41

\*Significant at  $p < 0.05$ .

Kurtosis: Distribution is bell shaped close to 3.

#Skewness: Distribution is symmetrical 0-0.50.

Use and attitude are significantly correlated as indicated in table 2. Chi Square finds no relationship between superiors and subordinates in FLOSS use or perception, but a significant relationship between superiors' pedagogical use and subordinates' attitude, a perception subscale. Significant differences exist in superiors' and subordinates' FLOSS use and perception, and in pedagogy.

Table 2  
Spearman's Correlation Coefficient

Sub-scales	Use	Habit	Self-Efficacy	Influence	Attitude	Ease of use	Facilitating conditions	Pedagogical use	Pedagogical belief
<i>Use</i>									
Use	1.00								
Habit	0.43*	1.00							
<i>Perception</i>									
Self-efficacy	0.41*	0.29*	1.00						
Influence	-0.25	-0.19	-0.19	1.00					
Attitude	0.45*	0.36*	0.71*	-0.03	1.00				
Ease of use	0.41*	0.48*	0.49*	0.26	0.68*	1.00			
Facilitating conditions	0.19	0.39*	0.52*	-0.17	0.36*	0.30*	1.00		
<i>Pedagogical Orientation</i>									
Pedagogical use	-0.33*	-0.29	-0.10	0.06	-0.15	-0.04	-0.19	1.00	
Pedagogical belief	-0.28*	-0.20	-0.11	0.14	-0.18	-0.01	-0.21	0.88*	1.00

\*Correlation is significant at the  $p < 0.05$  level (1-tailed).

Frequencies in the descriptive statistics organized by construct (see table 3), indicate subordinates' FLOSS use and habit are roughly equal. Superiors' responses contradict this trend, with low FLOSS use, but high FLOSS habit. Subordinates' self-efficacy, attitude, ease-of-use, and facilitating conditions have equally low and high frequency, but low agreement in influence. Superiors report low agreement in perception for sub-scales—self-efficacy, influence, attitude, and ease-of-use, but high agreement in facilitating conditions. Results indicate subordinates and superiors have equally high preference for traditional and non-traditional pedagogy.

Table 3  
*Frequency of Weighted Cases: Each Sub-Scale Compared by Demographic Group*

Use	Group	N		Mean	SD	Frequency				
		Valid	Missing			Low	Percent	High	Percent	
Use		33	7							
	subordinates	10	-	0.50	4.04	5	50%	5	50%	
	superiors	23	-	0.22	3.18	18	78%	5	22%	
Habit		33	7							
	subordinates	10	-	0.60	3.33	4	40%	6	60%	
	superiors	23	-	0.57	2.44	10	43%	13	57%	
<i>Perception</i>										
Self-efficacy		33	7							
	subordinates	10	-	0.50	3.26	5	50%	5	50%	
	superiors	23	-	0.43	3.60	13	57%	10	43%	
Influence		33	7							
	subordinates	10	-	0.30	3.02	7	70%	3	30%	
	superiors	23	-	0.35	2.35	15	65%	8	35%	
Attitude		33	7							
	subordinates	10	-	0.50	2.33	5	50%	5	50%	
	superiors	23	-	0.43	3.10	13	57%	10	43%	
Ease of use		33	7							
	subordinates	10	-	0.50	2.36	5	50%	5	50%	
	superiors	23	-	0.35	2.92	15	65%	8	35%	
Facilitating conditions		33	7							
	subordinates	10	-	0.50	5.46	5	50%	5	50%	
	superiors	23	-	0.70	4.99	7	30%	16	70%	
<i>Pedagogical Orientation</i>										
Traditional Pedagogical use		33	7							
	subordinates	10	-	0.90	0.32	1	10%	9	90%	
	superiors	23	-	0.91	0.29	2	9%	21	91%	
Nontraditional Pedagogical use		33	7							
	subordinates	10	-	0.80	0.42	2	20%	8	80%	
	superiors	23	-	1.00	-	-	0%	23	100%	
Traditional Pedagogical belief		33	7							
	subordinates	10	-	0.90	0.32	1	10%	9	90%	
	superiors	23	-	0.96	0.21	1	4%	22	96%	
Nontraditional Pedagogical belief		33	7							
	subordinates	10	-	0.90	0.32	1	10%	9	90%	
	superiors	23	-	0.96	0.21	1	4%	22	96%	

A total of two faculty members and five students were interviewed ( $N=7$ ). Women ( $n=1$ ) were underrepresented; males ( $n=6$ ) were in the majority.

Interviews elaborated on quantitative results. Findings indicated preference for proprietary software over FLOSS, which was perceived as limited. One lecturer described the challenges:

... majority of people at the college are using Microsoft Office Suite. When you open it [Microsoft files] with Libre Office there is a loss of information. Formatting is lost. Some graphs, charts, tables, they don't look the same. This creates difficulties. This is one of the biggest reasons people don't use Libre Office.

Another lecturer added, "... There are lots of compatibility issues. For example, if a student comes to me with a Word document and I open on my Ubuntu-based PC ... there are lots of problems."

Students indicate low FLOSS use due to usability issues (see table 4). A student elaborates, "It is very difficult to use Linux. We cannot see the browser or closing functions. It can minimize in Windows and stay in the tray. In Linux we can't find it, so we never use it [Linux] if we don't have to." Another student states, "In Bhutan, students are kind of left [behind] in software. They are not taught that much." Another student discusses NFE centres intending to provide computer training: "Most of these places do not have Net connection ... The computers are very old and out-dated. They can teach the basics only."

Table #4

Frequency of Codes from Qualitative Data Collection

Parent Code	N	Code	Frequency	Percentage
<i>Challenges</i>	38	lack of skills	18	47.37%
		insufficient resources	8	21.05%
		pirating	6	15.79%
		proprietary lock-in	6	15.79%
<i>Pedagogy</i>	51	traditional	27	52.94%
		student-centered	24	47.06%
<i>Perception</i>	58	facilitating conditions	26	44.83%
		ease of use	18	31.03%
		attitude	5	8.62%
		self-efficacy	5	8.62%
<i>Usability</i>	47	influence	4	6.90%
		development	17	36.17%
		problems of use	7	14.89%
		functionality	6	12.77%
		clickable interface	5	10.64%
		intuitive use	5	10.64%
		loss of data	5	10.64%
graphical interface	2	4.26%		

## 6. Discussion

Results imply that pedagogy, attitude, and especially teachers' function in each, are more relevant to educational technology acceptance and use in Bhutan than all UTAUT constructs. This is in accordance with Bhuasiri et al.'s (2012) finding that teachers were pivotal in motivating student educational ICT use. Interviews indicate that low FLOSS use is due to barriers of inadequate knowledge and insufficient resources. This finding parallels those outlined by Weber and Bussell (2005). One faculty explained, "If you look at the computer training institutes in our country, they do not advocate FLOSS because it is really difficult for them to teach. They do not have the skills and expertise." Under-utilized FLOSS in Bhutan's higher education system can at least partly be explained by difficulties of training, proprietary lock-in, and usability.

The present research did not find any relationship between superiors' use and perception and the use of students. However, there is a significant relationship between superiors' pedagogy and student perceptions of educational ICT.

## 6.1 Leveraging Pedagogy for Improved Perceptions and Use

Zhang et al.'s (2008) finding showed that it is crucial for Tibetan teachers to share truth with students as a result of Buddhist monastic education and Bhuasiri et al.'s (2012) finding that teacher beliefs compel student technology acceptance support the need to address teachers' ICT acceptance and use if students are to benefit. Margaryan, Littlejohn, and Vojt (2011) and Garcia and Escofet (n.d.) conclude that student educational ICT use is contingent on teachers' persuasion. This does not imply that students' ICT habits will transform in a trickle-down effect from teachers. It does imply that influencing teachers toward greater user of student-centred and discovery methods of teaching can transform the learning environment to be more conducive to student exploration and sharing, leading to improved ICT use.

Ertmer and Ottenbreit-Leftwich (2010) suggest aligning ICT with pedagogy for successful outcomes, which corresponds with this research's findings. Ertmer and Ottenbreit-Leftwich (2010) indicate changing teacher educational ICT beliefs starts from adapting educational culture then situating teacher learning during teaching, connected with student outcomes. Savvy and pedagogically aligned ICT use improves students' FLOSS perception.

## 6.2 Pedagogy as Culture

Transitioning away from traditional teaching methods toward greater student empowerment is indicative of educational culture. The empty vessel paradigm continues; teachers rely on knowledge transfer techniques (Gyabak&Godina, 2011). Pedagogical orientation is a necessary extension to UTAUT, especially in developing contexts where tradition informs teaching and learning. Sriwindono and Yahya (2012) and Nistor et al. (2013) examine culture's effects on UTAUT's constructs. Combining the efficacy of peer-to-peer knowledge sharing as a cultural phenomenon can facilitate a shift in FLOSS perception, leading to increased use.

## 6.3 Improved Outcomes via Peer Relationships

Zhang et al. (2008) find teachers are knowledge bearers to students. Following this rationale, only supporting teacher FLOSS use and perception *should* be sufficient for the positive results to carry over to students. This research's findings controvert this ICT judgment. This

study found that superiors do not directly influence students' ICT use or perceptions, but rather that peers are essential in ICT use, learning, and experimentation.

Increasing ICT knowledge, capacity, and training is necessary. Interviews reveal that knowledge-sharing is common within groups, but not *among* groups. Current applications of technology instruction for certain groups such as non-economics stream students in compulsory school are ineffective. Students both in developed and developing places lack ICT confidence (Elwood & MacLean, 2009). Educational actors at all levels need training and support to share information laterally among peers, within groups of friends and colleagues, not from top to bottom as is customarily found. The egalitarian, interpersonal ICT knowledge sharing currently needed closely parallels FLOSS communities where community-based development and flexible barriers between users and developers is common.

Education is crucial to support ICT implementation. Bhutan's 5 year plans show the necessity of ICT knowledge development (GNHC, 2009; GNHC, 2013). Without adequate knowledge to engender widespread use, ICT cannot improve education or other domains (Kezang & Whalley, 2007). Adequate infrastructure, including ICT education, is crucial to overcoming the knowledge deficiency which currently limits potential FLOSS benefits.

Insufficient understanding is the broadest limiting factor of FLOSS development and expansion (Weber & Bussell, 2005). To fully realize benefits, the dearth of ICT knowledge *must* be overcome through education, training and increased capacity. Without proactive initiatives to increase ICT knowledge and use, merely sharing FLOSS innovations cannot aid in overcoming the digital divide (Weber & Bussell, 2005). The relationship between teachers' pedagogy and student FLOSS perception further suggests the necessity of focusing development attention on improving pedagogical alignment of ICT.

#### **6.4 Limitations**

Findings partly explain FLOSS under-utilization and the nuanced relationships among teachers' and students' perceptions and use, but the study is not without faults. Communication limits this research. Findings



are self-reported, so limitations in technical language or expression may hinder the results. Participants who did not want to be interviewed may have difficulty in sharing their thoughts in English. Frequent electricity and Internet interruptions also complicate communication and prevent research work. Effectively communicating the purpose of the research also limits the work. Hierarchical power structures appeared to limit the researcher's ability to convince colleagues and students of the potential benefit or value of participating in the research. Informal discussions with potential participants who decided not to join the sample of the study, who thus cannot ethically be quoted, requested anonymity in sharing that they were not comfortable participating because the research was not required or endorsed by the college's management.

Samples are insufficient for generalization with 72 responses, of which 40 were complete. Furthermore 50 interview participants were sampled; 6 participated. Hierarchy and low levels of interest within the education system seemed to prevent participation. Staff members who did not join the study indicated that they felt their participation with the researcher – who is a foreign faculty at the sampled college – would be inappropriate, as the staff members perceive their position to be lower than that of faculty. Those colleagues who refused to participate verbally indicated both the need for anonymity in sharing their perspectives as well as their discomfort in providing data to the researcher about seemingly sensitive areas of their working methods with ICT. Unfortunately because of the many informal indications of these perspectives on why some chose not to participate, the researcher is ethically unable to quote them as corroboration in descriptions of the qualitative data collection.

## **7. Implications**

FLOSS in Bhutan is in transition. The Dzongkha version of Linux OS is being developed, but organizational infrastructure has not yet fully-met the need of supporting strong understanding of how to use FLOSS. Pedagogy's influence on FLOSS perception and the primacy of peer-to-peer facilitation of ICT both present pathways to supporting educational FLOSS integration.

Any innovation, especially involving ICT, cannot be of benefit to anyone if it is not understood and used well (Weber & Bussell, 2005). Sharing FLOSS is an obvious first step, but sharing alone is not enough

to improve learning outcomes. For FLOSS to be effective capacity must be developed.

The digital divide cannot be overcome without teachers and students having and sharing among them adequate ICT knowledge and skills. Additionally merely introducing ICT cannot close the digital divide. Appropriate knowledge and experience are absolutely necessary (Kezang & Whalley, 2007). For educational innovations involving ICT in Bhutan to be successful, infrastructure including knowledge and skills enhancement as well as professional development for the pedagogical alignment of ICT must be of equal import to introducing new ideas and approaches. This knowledge can be built and expanded through peer supports.

## **8. Conclusion**

This research intends to raise visibility and awareness of FLOSS benefits, the underlying reasons for inadequate use, and the complex relationships between superiors' and subordinates' perception and use. Without adequate knowledge ICT can do nothing to improve educational ICT access, but with it FLOSS provides benefits of freer financial resources for education, equitable access to learning materials such as textbooks, increased access to knowledge and information not constrained to educational contexts, and added support of Bhutan's national philosophies and values. If these potential benefits are to be realized, technological education, pedagogical alignment, and environments conducive to peer sharing are absolutely necessary.

Future research could investigate if the realities drawn out in Bhutan are similar to other South Asian or developing nations. Since the sample of this study was chosen from a homogenous group, comparisons to other similar populations, especially the other colleges in Bhutan for example, are possibilities for future research. Additionally interesting would be an investigation of how to support peer infrastructure networks in educational settings to support educational ICT integration and pedagogical alignment, especially for FLOSS.

## References

- Bhuasiri, W., Xaymoungkhoun, O., Zo, H., Rho, J. J., & Ciganek, A. P. (2012). Critical success factors for e-learning in developing countries: A comparative analysis between ICT experts and faculty. *Computers & Education*, 58, 843-855.
- Department of Information Technology and Telecom, Bhutan [DIT]. (2011). About us. Retrieved March 20, 2013, from <http://www.dit.gov.bt/content/about-us>
- Elwood, J., & MacLean, G. (2009). ICT usage and student perceptions in Cambodia and Japan. *International Journal of Emerging Technologies & Society*, 7 (2), p. 65-82.
- Ertmer, P. A., & Ottenbreit-Left wich, A. T. (2010). Teacher technology change: How knowledge, confidence, beliefs, and culture intersect. *Journal of Research on Technology in Education*, 42 (3), 255-284.
- Garcia, I., & Escofet, A. (n.d.). Students' attitude towards ICT learning uses: A comparison between digital learners in blended and virtual universities. Retrieved from <http://www.openeducationeuropa.eu/>
- Ghosh, R. A. (2004). Why developing countries need to use and create Free Software (and how it promotes Gross National Happiness). Department of Information Technology, MERIT/Infonomics. University of Maastricht. Retrieved March 20, 2013, from <http://flossproject.org/papers/20040409/opensource-bhutan-RishabGHOSH.pdf>
- Gross National Happiness Commission [GNHC]. (2009). Tenth five year plan: 2008-2013. Royal Government of Bhutan, 2.
- Gross National Happiness Commission [GNHC]. (2013). Eleventh five year plan: 2013-2018. Royal Government of Bhutan, 1.
- Gyabak, K., & Godina, H. (2011). Digital storytelling in Bhutan: A qualitative examination of new media tools used to bridge the

- digital divide in a rural community school. *Computers & Education*, 57, 2236-2243.
- Hofstede, G. (2001). *Cultures consequences: Comparing values, behaviors, institutions and organizations across nations*. (2nd ed.) Thousand Oaks: Sage Publications.
- Judson, E. (2006). How teachers integrate technology and their beliefs about learning: Is there a connection? *Journal of Technology and Teacher Education*, 14, 581–597.
- Kezang, & Whalley, J. (2007). Closing the digital divide: The role of services and infrastructure in Bhutan, *Prometheus*, 25 (1), 69-84.
- Margaryan, A., Littlejohn, A., & Vojt, G. (2011). Are digital natives a myth or reality? University students' use of technologies, *Computers & Education*, 56, 429-440.
- Nistor, N., Gogus, A., & Lerche, T. (2013). Educational technology acceptance across national and professional cultures: A European study. *Education tech research dev*, 61, 733-749.
- Roehrig, G. H., Kruse, R. A., & Kern, A. (2007). Teacher and school characteristics and their influence on curriculum implementation. *Journal of Research in Science Teaching*, 44, 883–907.
- Smith, M., & Elder, L. (2010). Open ICT ecosystems transforming the developing world. *Annenberg School for Communication and Journalism*, 6 (1), 65-71.
- Sriwindono, H., & Yahya, S. (2012). Toward modelling the effects of cultural dimension on ICT acceptance in Indonesia. *Procedia – Social and Behavioral Sciences*, 65, 833-838.
- UNESCO Literacy data: Bhutan. (2010). Retrieved March 20, 2013, from [http://stats.uis.unesco.org/unesco/TableViewer/document.aspx?ReportId=124&IF\\_Language=eng&BR\\_Country=640&BR\\_](http://stats.uis.unesco.org/unesco/TableViewer/document.aspx?ReportId=124&IF_Language=eng&BR_Country=640&BR_)

Region=40535

- Venkatesh, V., Morris, M. G., Davis, G. B., & David, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 27 (3).
- Venkatesh, V., Thong, J.Y.L., & Xu, X. (2012). Consumer acceptance and use of information technology: Extending the unified theory of acceptance and use of technology. *MIS Quarterly*, 36 (1), 157-178.
- Weber, S., & Bussell, J. (2005). Will information technology reshape the North-South asymmetry of power in the global political economy?, *Studies in Comparative International Development*, 40 (2), 62-84.
- Zhang, L., Fu, H., & Jiao, B. (2008). Accounting for Tibetan university students' and teachers' intellectual styles. *Educational Review*, 60 (1), 21-37.

## **A Critical Perspective on Inclusion of Children with Autism Spectrum Disorder in a Mainstream Classroom: Lessons for Bhutan**

*Dawa Dukpa*<sup>1</sup>

### **Abstract**

This article critically examines a variety of ways of responding to autism reflected in the literature. It is based on the notion that inclusion is very noble and is the best form of education for children diagnosed with autism spectrum disorder (ASD) provided that there is high quality educational provisions supporting each child. It takes a critical approach and maintains that children with ASD can be successfully educated within an inclusive mainstream classroom with trained teachers, adequate resources, individualized accommodations and adaptations in terms of instruction and assessment supporting the process of inclusion. The article highlights the issue of forced inclusion and cautions hasty decision on moving towards full inclusion of children with ASD. The article is largely based on the studies done in the United Kingdom, the United States of America, Europe and some Asian countries because inclusion of children with disabilities is a relatively new phenomenon in Bhutan and there have been very few research studies done in the context of Bhutan. Nevertheless, in order to contextualize the discussion to the Bhutanese audience, the author has reviewed a few research studies done in the context of Bhutan.

**Key words:** Autism spectrum disorder, inclusion, mainstream school, individual child

---

1. Assistant Lecturer, Paro College of Education.

## Introduction

Autism spectrum disorders (ASD) are a spectrum of related disorders that primarily affect a child's development in the area of social, communication, and language (Kirk, Gallagher, Coleman & Anastasiow, 2012). ASD is very complex and includes a range of disorders with characteristic symptoms ranging from high functioning to severe impairment. As the term spectrum implies, the category of ASD includes Rett syndrome, pervasive developmental disorders-not otherwise specified (PDD-NOS), Asperger's syndrome (also known as high functioning autism), and childhood disintegrative disorders (Kirk et al., 2012). This range of disorders shares a set of diagnostic criteria based on impairments in social interaction, communication, and flexibility in thinking and behavior (World Health Organization, 1995 cited in Frederickson, Jones & Lang, 2010). The intensity and severity of characteristics may vary across the spectrums. However, they possess a common set of characteristics including lack of eye contact, difficulty interacting with others, language delay, and sometimes random motor movements (Lord & Risi, 2000 cited in Kirk et al., 2009). While some people with ASD are able to live relatively independent lives, others require lifelong continuous support (McAllister & Maguire, 2012). In general a child with ASD is typically characterized by a deficit in language and communication, unusual interests and behavior, and difficulties engaging in socially acceptable interactions with peers and adults (Boutot & Myles, 2011). It is worth mentioning that discussing different disorders on the autism spectrum is not the main purpose of this article. This article will refer to ASD in general term and will not delve into each specific spectrum disorder.

Before delving into inclusion of children with ASD it is important to conceptualize inclusion in general terms. Inclusion is a very broad concept that could be looked at from a multi-dimension perspective. The Government's (England) document *Removing Barriers to achievement* describes inclusion as being more than "the type of school that child attend: it is about the quality of their experience; how they are helped to learn, achieve and participate fully in the life of the school" (Department for Education and Skills [DfES], 2004, p. 25). According to Ballard (1995, cited in Farrell & Ainscow, 2002, p. 3) "inclusion is about valuing diversity rather than assimilation". Others view inclusion as a process in

which schools, communities, and government work towards removing and reducing barriers to learning (Farell & Ainscow, 2002). Thomas and Loxley (2007) further state that “inclusive education has to become more than a synonym for special systems in mainstream schools” (p. 142).

The drive towards inclusion of children with special educational needs in the mainstream schools has become a worldwide educational discourse which has been well represented in the international documents such as ‘The Salamanca Statement’. Paragraph two in The Salamanca Statement states that “those with special educational needs must have access to regular schools which should accommodate them within the child centered pedagogy capable of meeting these needs” (The United Nations Educational, Scientific and Cultural Organization [UNESCO], 1994, para. 2).

It is worth mentioning that Bhutan has ratified the Convention on the Rights of the Child in 1990 (UNICEF, 2000, p.13) and is also a signatory of the Salamanca Statement (1994) and the United Nation Convention on the Rights of Persons with Disabilities (United Nations, 2006). This shows the Royal Government of Bhutan’s intent in adopting policies that supports and strengthens the rights of persons with disabilities (PWDs). However, according to Dorji (2008), the concept of ASD as a developmental disorder like many other disabilities still remains unknown to the general Bhutanese society. Lack of human resource expertise and financial constraints remains the main challenge in facilitating policies and programs for the inclusion of PWDs in general and children with autism in particular (Dorji, 2008).

Although there is a convincing consensus on the benefits of including children with special needs in the mainstream classrooms, inclusion of children with disabilities such as autism has been fiercely debated (Jordan, 2008). According to Jordan (2008), a child with autism presents unique challenges such as demotivation, unexpected responses to reinforcement, and obsessive attention to irrelevant detail that require specific and highly structured techniques. A study in Scotland by McGregor and Campbell, (2001) reported that only a minority of mainstream teachers supported the idea of including children with autism in the general mainstream classes. Mesibov and Shea (1996) proposed that smaller, highly struc-



tured learning environments are still more suitable for some students with autism. Jordan (2005b cited in Jordan, 2008) stated that it is not enough for an educator to understand a behavior exhibited by a child with autism without having a good understanding of ASD. For example, a child who interprets language literally may not be acting the clown or seeking attention in the class but may be displaying an inability to figure out the context (Jordan, 2008).

The issue introduced so far revolved around the idea that inclusion in its essence is noble, but inclusion of pupils with autism without high quality services in place is challenging and may lead to exclusion. For instance, including a child with autism in a classroom along with other typically developing children without adequate resources and appropriate services in place may lead to mere physical inclusion. That particular child may not necessarily be experiencing other aspects of inclusion like social inclusion which may result in the child being excluded in terms of learning and belongingness. Drawing on the theories and findings from existing literatures, this article critically analyzes and makes a stance that inclusion of children with ASD in the mainstream classroom without appropriate adaptation, adjustment and expertise could lead to exclusion. While acknowledging that inclusive education can be and perhaps should be the best form of ‘treatment’ (Jordan, 2008, p. 12) for children with autism, this article attempts to critically reflect on the factors that needs to be taken into consideration while moving towards inclusion of children with ASD in the mainstream classroom. The next section of the article briefly highlights the differences between the growth trajectory of the brain of children with ASD and children without ASD and how understanding the difference should inform planning and designing of educational services for children with ASD.

### **Acknowledging the Biological differences**

Studies in neuroscience show that there is a biological difference between the growth trajectory of brain of children with ASD and children without ASD (Peters & Forlin, 2011). This deviant path of the growth trajectory associated with the developing brain of children with ASD leads to a disruption of the established patterns of functional connectivity during development. Genetic links have been established between brain’s ability

to regulate and create connections in response to the child's social and physical surroundings (Peters & Forlin, 2011). The ways in which neurons become interconnected were different in the development of children with ASD compared to children without ASD (Peters & Forlin, 2011).

The differences that were observed in the genetic path and process of brain plasticity in children with ASD highlights the fact that general educational experiences and support that are provided in the mainstream schools sometimes may not be good enough for education of children with ASD. Findings from the neuroscience research should inform educational programs in supporting education of pupils with ASD. However, it is important for professionals and teachers to be pragmatic in developing programs and intervention strategies that is manageable within the general educational settings. The key is to take cautious steps in embracing neuroscience and how it informs practice (Peters & Forlin, 2011). The next section of the article discusses the necessary service, resources and environment that need to be put in place for effective education of children with ASD.

### **Education for children with autism spectrum disorder**

Jordan (2008) postulated that "education can be, and perhaps should be, an effective 'treatment' for autistic spectrum disorders" (p. 11). He based his proposition on the fact that pupils with ASD have to put in so much effort to learn everyday skills which comes intuitively with very little effort to those without ASD (Jordan, 2008). From the human rights and social justice perspective, inclusive education is the best form of educating children with disabilities because it is based on the basic right to education and social participation. However, a study carried out by Peters and Forlin (2011) in three international schools in Hong Kong reported that because of the nature of the difficulty associated with ASD, many teachers struggle with the full inclusion of children with autism. The study revealed that teachers were unsure if fully inclusive education is the best education for children with ASD (Peters & Forlin, 2011). A hasty move towards full inclusion without proper understanding of the disability associated with individual child may lead to a dilemma which Wendell explained in the following quote.

One is seeking the right for pupils with special educational needs to be included in educational environments which are ... predicated on misconceived assumptions about the homogeneity of pupils' learning needs. (Wendell, 1995 cited in Wedell, 2005, p. 3)

A study conducted by Sansosti and Sansosti (2012) involving diverse group of educators in four elementary schools in Ohio found that a significant number of participants felt that inclusion is not necessarily the right choice for all students with high functioning autistic spectrum disorders. Most participants in the study acknowledged the benefits of inclusion. However, they emphasized that the decisions for placement should be based on the characteristics of pupil with ASD, the impact of inclusion on the typically developing peers and the availability of resources. Participants also believed that inclusion for students with ASD is fundamentally different from inclusion for students with other disabilities (Sansosti & Sansosti, 2012).

Many types of interventions that have been developed for children on the autism spectrum ranging from approaches such as TEAACH approach (Treatment and Education of Autistic and Communication related Handicapped Children), to approaches such as the Picture Exchange Communication System (Bondy & Frost, 1994 cited in Guldberg, 2010) or Social Stories (Gray, 1994 cited in Guldberg, 2010) are reflected in many literatures as effective intervention strategies for treating ASD. However, the problem arises when practitioners try to apply these models without first having a good understanding of ASD or without first addressing the needs of individual child (Guldberg, 2010). Moreover, Peters and Forlin (2011) argue that the above mentioned approaches mostly focuses on providing therapy to address behavioral and functional deficit and often fails to take into consideration teaching strategies to improve learning.

The predominant view of inclusion as exclusively placing pupils in mainstream schools could also overlook the interest of those with very challenging behavioral and emotional difficulties such as those with profound ASD. Norwich (2005) argues that there are limits to inclusion which are sometimes not practical. He further proposes the importance of giving pupils choice or preferences regarding their placement. A

pupil with autism placed in mainstream classroom without high quality differentiated services will be more of a disservice to the pupil.

In the context of Bhutan, as stated in the introduction section of this paper, autism remains generally unknown among the general mainstream Bhutanese teachers (Dorji, 2008). Dorji also (2008) states that the Bhutanese education system at the moment is fundamentally not equipped to address the needs of children with autism. At the moment, only one school in Bhutan provides educational service to children with autism. Even in that particular school, children with autism only attend self-contained classes (special classrooms attached to mainstream schools) because either the number of children in general classrooms are too high for children with autism to get appropriate service or the teachers are not equipped with skills and knowledge to cater to children with autism.

### **Teachers' and educators' knowledge on ASD: a critical factor**

Despite the growing trend of including children diagnosed with ASD in a mainstream classroom, teachers and professionals are generally not trained in intervention strategies such as ABT (applied behavior therapy) (Dillenburger, Keenan, Doherty, Byrne & Gallagher, 2010). The content and teaching approaches of the general school curriculum are developed based on the mainstream norm of how children think and learn on the assumption that it is relevant to all children and are not adapted to accommodate children with ASD. The practice of breaking down curriculum content into smaller steps is placed in the hands of conventional teachers teaching in mainstream schools without considering their knowledge and understanding of ASD. Considering that conventional teachers are not trained specifically to teach children with specific educational needs such as ASD, including a child with ASD in a mainstream classroom can turn into an adoption of a rigid regime of in-class inclusion. Pedagogical and content accommodation, which is often effective for individuals with other disabilities, is often not appropriate for children with ASD because the developmental and learning patterns of a child with ASD are different (Jordan, 2008).

The above case reflects a typical scenario of teacher training and education of children with special needs in Bhutan. In Bhutan, the majority

of the mainstream school teachers do not have a formal degree in special education. This is because the two education colleges in Bhutan – Paro College of Education and Samtse College of Education – do not offer any qualification specific to special education at the moment. Most of the teachers working with children with disabilities have no specialized training when they start; they learn on the job and the government offers opportunities to attend short training courses in special education, usually supported by the Ministry of Education and other non-government organizations (Dawa, 2009). However, it is important to mention that there are a few teachers who have studied abroad in Australia, India, and other countries and have formal degree in special and inclusive education. The Ministry of Education does not provide a separate, specialized curriculum or instructional guidelines for students with disabilities, which means that general teachers follow the general curriculum designed for general students (Schuelka, 2013).

Findings from literature (see Wedell, 2005) reveal that often schools regarded as inclusive do not necessarily adopt a rigid regime of in-class inclusion. Placement of pupils on autism spectrum in a mainstream classroom without a skilled teacher who has a strong knowledge and understanding of ASD may just turn out to be mere physical inclusion. One predominant finding from the study by Sansosti and Sansosti (2012) revealed limited understanding of ASD as the single most significant barrier to successful inclusion of children with ASD. Participants also reported that a teacher with limited training and exposure to individuals with ASD are more likely to have stereotypical definitions of ASD.

Considering that the general mainstream teachers (teachers who graduate from education colleges in Bhutan with Bachelor in Education [B. Ed] qualification and are trained to teach in the mainstream primary and secondary schools) in Bhutan graduate from the education colleges with very limited training specific to disability and inclusion, inclusion of children with autism in the mainstream classrooms may just turn out to be a mere physical inclusion. Therefore, given the fact that there is only handful of teachers with specialized knowledge and training in special needs education, the current practice of educating children with autism in the self-contained classes in Bhutan may be the most appropriate practice.

Considering the diversity of the autism spectrum within the population of individuals with autism, it is pertinent to also discuss about the importance of looking at each child as unique individuals. The next section of the article dwells on this topic.

### **Looking at children with autism as unique individuals**

The diversity of the autism spectrum that exists within the population of individuals with autism highlights the reason why one should focus on each child as unique individuals. Effective intervention should be based on a careful assessment of the individual child and focus on individual strengths, interests and preferences (Guldberg, 2010). There are many intervention strategies for educating children diagnosed with ASD (see Guldberg, 2010, Boutot & Myles, 2011). However, the main difficulty and challenge arise in translating those theoretical recommendations into usable interventions at the classroom level (Peters & Forlin, 2011). It is very crucial to acknowledge that some intervention strategies that are theorized by professionals and specialists may prove to be challenging for conventional classroom teachers to implement. A successful inclusion of children with ASD within an inclusive mainstream classroom requires well trained teachers, adequate resources, individualized accommodations and adaptations in terms of instruction and assessment supporting the process of inclusion. A research by Peters and Forlin (2010) in Hong Kong found that a didactic pedagogy coupled with large class sizes and a lack of teacher expertise and teacher motivation as affecting the development of inclusive practices of regular schools. This reflects the challenges faced by the Bhutanese education system in the development of inclusive practices as well. Large class size, lack of teacher expertise, and lack of adequate resources are some of the challenges that Bhutanese schools experience in the inclusion of children with disabilities. This means that even if children with ASD are included in the mainstream classrooms, they may not get individualized service that is necessary for meaningful inclusion. This will result in a mere physical presence of children with autism in the class without the child experiencing real inclusion.

One of the core features of children with ASD is the sensory sensitivity and not being able to integrate fully and communicate with others. The incidental change and the sheer number of stimulus in the mainstream

classroom environment make school a difficult and frightening place for pupils with ASD. One of the many challenges for pupils with ASD can be simply not being able to relax in their own environment (McAllister & Hadjri, 2013). Placing a pupil with ASD in a corner of a classroom or creating their own space is a generally practiced norm for accommodation of children with ASD. However, research in neuroscience suggests that isolation of child further inhibit the individual's sensory responses and may result in an experience of isolation of child similar to placing a child in separate rooms (Peters & Forlin, 2011). Enabling environment for children with autism should go beyond making a strategic placement of the child in the classroom to cover all aspects of how practitioners care for and work with a child and how they adapt language, communication, and social interaction styles (Guldberg, 2010).

While there is emerging evidences that children diagnosed with ASD should be included in the same classroom to ensure optimum opportunity to experience inclusive practices, focus should not deviate from ensuring appropriate teaching strategies and evidence based practices (Peters & Forlin, 2011). It is also important that policy makers and practitioners take into consideration the views of pupils with ASD. Research on the views of pupils reflects that their preferences seems to be more driven by the quality of the service and if the service provided meets their need, pupils do not oppose withdrawal help (Wedell, 2005). Participants in the study by Sansosti and Sansosti (2012) also claimed that pupils with ASD often require supports that are mostly unique (e.g., sensory, diets, behavioral contracts, social skills instruction) from pupils with other disabilities. These required supports are very important for Bhutan because the current practice of identification and placement of children with disabilities is largely driven by the willingness of the school to accept the child with disabilities. Unfortunately there is not much choice at the moment for parents of children with autism in Bhutan as there is only one school that provides service to children with autism.

eResearch (see Guldberg, 2010) suggests that educational interventions for children on the autism spectrum should be designed based on the understanding of their condition coupled with knowledge and understanding of the individual child. Specialist knowledge and understanding of autism should consistently guide and inform all aspects of practice

and individual assessment. Research (see Guldborg, 2010) also emphasizes the importance of minimum requirement in terms of knowledge and experience in the field of autism for teachers and staff working with children diagnosed with ASD. Staff working with children diagnosed with ASD should have a basic knowledge on child development and be able to adapt their knowledge and skills to the individual pupil.

### **A flexible approach**

According to Sansosti and Sansosti (2012) inclusion as a general educational practice should be inherently flexible and variable. The pursuit of inclusion should not be synonymous with joint learning for all pupils in all situations. It should be driven by the aim of meeting individual needs and effective progress of individual pupils. The ethos of valuing pupils as individuals should be embedded in the system of education as inclusion is realized more through the ethos of all that the school offers (Wedell, 2005). Schools should challenge the assumptions that if a pupil with ASD is academically sound they should be able to cope with a mainstream school without significant differentiation and accommodation (McAllister & Hadjri, 2013).

A flexible inclusive educational system cannot be exclusively based or directed by centrally determined curricula and teaching methods. For the teachers and professionals to be able to implement a flexible system competently they should have proper training and adequate knowledge on teaching and learning and about diversity that exists among their pupils (Jordan, 2008). Jordan (2008) also emphasizes the importance of understanding that some individuals with ASD may need specialist support and the flexible system should maintain and support the practice of having a resources base in the school. However, he makes a cautionary note in his statement:

I still think there is a role for specialist schools, but they must have a better reason for their existence than that they pick up those who 'fail' in mainstream schooling' or that they fit the Government's entrepreneurial vision of education. (Jordan, p. 13).

The flexible approach primarily highlights the importance of al-



lowing considerable flexibility in terms of curricula accommodation and adjustments, teaching methods and strategies, and planning for effectively moving towards successful inclusion of pupils with ASD. This is a valuable lesson for Bhutan because at the moment children with autism are exclusively placed in self-contained or special classrooms. It would be a step forward on a journey towards inclusion if Bhutanese schools start including pupil with ASD with other children not diagnosed as having ASD in the general mainstream classes for some session while continuing to provide them extra support and services in self-contained classes whenever necessary. The key here is to adopt a flexible approach towards inclusion of children with ASD by considering factors such as the possibility of curricula accommodation and adjustments, teaching methods and strategies and most importantly the individual needs of the pupil.

## **Discussion**

### **Pulling it all together**

Many findings from research show that too often classrooms are described as inclusive when children with disabilities are placed among other typically developing children. A study by Nilholm and Alm (2009) revealed that in order to label a classroom inclusive, it is necessary to have a firm data regarding how children experience the classroom. Their study has pointed out the importance of experience of children such as feeling of acceptance and belongingness as necessary prerequisites in achieving full inclusion (Nilholm & Alm, 2009). Similarly this article maintained that the basis of inclusion should be focused on the individual child and their learning experience. Overall, the article revolves around the notion that inclusive education for children with ASD is very important but there are many factors that need to be considered and conditions that need to be in place for full inclusion to be effective.

Findings from the study by Sansosti and Sansosti (2012) echoed the factors and conditions that the current article is trying to convey as necessary for successful inclusion of children with ASD. Their study revealed that for successful inclusion of pupils with ASD, it is important that the pupils should have a considerable ability to work independently, solve problem, tolerate new and unfamiliar situations, and meet basic

classroom behavior expectations. Several participants from their study shared that physically aggressive or other significantly maladaptive behavior should not prevent a child with ASD for placement in a mainstream classroom. Participants also shared that even though students with ASD do not need to understand everything to come into inclusion, a minimum level of academic skills is necessary even when instructions and tasks are modified. Educators also stated that inclusion is generally easier to begin in the primary grades when the skill gap between the student with an ASD and his or her typically developing peers is likely to be smaller (Sansosti & Sansosti, 2012).

Placement of children with ASD seems to be generally influenced by level of access to academic curriculum which is perceived as more effective in a mainstream classroom and access to intensive behavioral supports perceived as more efficient in special schools or self-contained classrooms. The most important thing is to figure out through high quality assessment about what is best for the child's development and learning. It is important to understand that even though a typical aggressive behavior of a pupil with ASD might hinder his or her progress in the mainstream setting, there is a need for him or her to receive academic instruction that matches his or her intelligence and skills (Sansosti & Sansosti, 2012).

## **Conclusion**

This article critically reflects and analyzes the practice of including children diagnosed with ASD in the mainstream or general education classroom. The article acknowledges the commitment enshrined in the 'Salamanca Statement' to adopt the principle of inclusion as a matter of law or policy in ensuring that children with special educational needs are educated in mainstream schools with typically developing peers "unless it is incompatible with parental wishes or with the provision of efficient education for other children" (Department for Education and Employment, 2001, p 1). On the other hand, the article critically reflects on the provision stated in the policy (DfEE) on considering parental wishes and the efficiency of educational provision.

The article also emphasizes the importance of acknowledging that

some pupils with ASD might benefit more from segregated programs because segregated programs provides opportunities to develop skills that are difficult within the mainstream classrooms (Sansosti & Sansosti, 2012). However, one should be cautious about the risks because segregated programs are associated with social isolation (Frederickson et. al, 2010).

One important point that the current article highlights is that while considering inclusion of children with ASD in mainstream classroom, one needs to focus on each child as a “unique” individual (Guldberg, 2010, p. 169). Intervention strategies for inclusion needs to be child specific and based on thorough and careful assessment of the individual child, highlighting their strengths, interests and preferences (Jones, 2002 cited Guldberg, 2010). Inclusion of children with ASD needs to be based on the concept of developing knowledge and understanding about how the autism spectrum can impact on the individual (Guldberg, 2010). The knowledge and skills of teachers and practitioners is also of paramount importance while considering inclusion of children with ASD. Participants from the study by Sansosti and Sansosti (2012) reported that prior to employment, increased professional development through training, further education and exposure to students with ASD as essential for all staff to meet the needs of students with ASD.

Overall the article emphasizes the issue that forced inclusion of a child with autism in a mainstream classroom without appropriate adaptation, adjustment, and expertise could lead to exclusion. Jordan (2008) stated that “forced integration without understanding or adaptation of system has been a regression to forms of segregation that owe more to the isolation of the past rather than the cutting edge specialism that many promote” (p. 13). For successful inclusion of children with ASD, strategies that enable them to adapt to the social environment, to communicate and to understand the communications of other people, as well as strategies that can enable them to learn with and through peers should be put in place (Guldberg, 2010).

The article also discussed the practice of educating children with ASD in self-contained classrooms in Bhutan. The article reveals that the practice of educating children with ASD in self-contained classroom does

not align with the inclusive ethos. The article recommends inclusion of children with ASD in general mainstream classroom in some sessions while still maintaining self-contained special classes for extra remedial sessions based on the needs of the individual child.

This article revealed the tension between ideology and reality. It acknowledges the advantages of inclusion of children with ASD in mainstream school but takes a cautionary stance on polarization of inclusive education. However, this article should not be seen as anti-inclusionary or as suggested by Warnock (2005 cited in Shah, 2007) “should not be seen as evidence that policies of inclusion should be stopped” (p. 440).

## References

- Boutot, E. M., & Myles, B. S. (2011). *Autism spectrum disorders: Foundations, characteristics, and effective strategies*. New Jersey: Pearson.
- Dawa, T. (2009). Why revamp special education: A perspective. *RABSEL the CERD Educational Journal*, Centre for Educational Research and Development, Paro College of Education (12), 61- 65.
- Department for Education and Employment (DfEE). (2001). *Special educational needs and disability act*. London: The Stationery Office.
- Department for Education and Skills (DfES). (2004). *Removing barriers to achievement*: London: DfES.
- Dillenburger, K., Keenan, M., Doherty, A., Byrne, T., & Gallagher, S. (2010). Living with children diagnosed with autistic spectrum disorder: Parental and professional views. *British Journal of Special Education*, 37 (1), 13-23.
- Dorji, R., (2008) *A study on how mainstream school teachers teach social skills to children with autism spectrum disorder* (Unpublished masters dissertation). University of Roehampton, London.

- Farrell, P., & Ainscow, M. (2002). Making special education inclusive: Mapping the issues. In P. Farrell, & M. Ainscow (Eds.), *Making special education inclusive* (pp. 13-24). London: David Fulton Publishers.
- Frederickson, N., Jones, A. P., & Lang, J. (2010). Inclusive provision options for pupils on the autistic spectrum. *Journal of Research in Special Educational Needs*, 10 (2), 63 - 73.
- Guldberg, K. (2010). Educating children on the autism spectrum: pre-conditions for inclusion and notions of 'best autism practice' in the early years. *British Journal of Special Education*, 3737 (4), 168-174.
- Jordan, R. (2008). Autistic spectrum disorders: A challenge and a model for inclusion in education. *British Journal of Special Education*, 35 (1), 11- 15.
- Kirk, S., Gallagher, J. J., Coleman, M. R., & Anastasiow, N. (2012). *Educating exceptional children* (13<sup>th</sup> ed). Belmont, Untied States: Wadsworth Cengage learning.
- McAllister, K., & Hadjri, K. (2013). Inclusion and the special educational needs (SEN) resource base in mainstream schools: Physical factors to maximize effectiveness. *British Journal of Learning Support*, 28 (2), 57 - 65.
- McAllister, K., & Maguire, B. (2012). A design model: the autism spectrum disorder classroom kit. *British Journal of Learning Support*, 39 (4), 201-208.
- Mesibov, G.B., & Shea, V. (1996). Full inclusion and students with autism. *Journal of Autism and Developmental Disorders*, 26 (3), 337-346.

- McGregor, E., & Campbell, E. (2001). The attitudes of teachers in Scotland to the integration of children with autism into mainstream schools. *Autism: The International Journal of Research and Practice*, 5 (2), 189-207.
- Nilholm, C., & Alm, B. (2010). An inclusive classroom? A case study of inclusiveness, teacher strategies, and children's experiences. *European Journal of Special Needs Education*, 25 (4), 239 - 252.
- Norwich, B. (2005). Inclusion: Is it a matter of evidence about what works or about values and rights? *International Journal of Primary, Elementary and Early Years Education*, 33 (1), 51- 56.
- Peters, B., & Forlin, C. (2011). Informing educational decisions in the early years: Can evidence for improving pedagogy for children with autistic spectrum disorder be found from neuroscience? *British Journal of Special Education*, 38 (3), 135-142.
- Sansosti, J. M & Sansosti, F. J. (2012). Inclusion for students with high-functioning autism spectrum disorders: definitions and decision making. *Psychology in the Schools*, 49 (10), 917 - 931.
- Schuelka, M. J. (2013). Education for youth with disabilities in Bhutan: Past, present and future, *Bhutan Journal of Research and Development*, 2 (1), 65-73. Shah, S. (2007). Special or mainstream? The views of disabled students. *Research Papers in Education*, 22 (4), 425 - 442.
- Thomas, G., & Loxley, A. (2007). *Deconstructing special education and constructing inclusion* ( 2<sup>nd</sup> ed.), McGraw Hill House: Open University Press (first published: 2001).
- The United Nations Educational, Scientific and Cultural Organization, [UNESCO]. (1994). *Salamanca Statement and Framework for*

*Action*. Paris: UNESCO.

The United Nations Children's Fund, [UNICEF]. (2000). A resource guidebook supporting the rights and needs of children in Bhutan based on the Convention on the Rights of the Child. UNICEF, Bhutan. United Nations. (2006). *Convention on the Rights of Persons with Disabilities*. New York: United Nations.

Wedell, K. (2005). Dilemmas in the quest for inclusion. *British Journal of Special Education*, 32 (1), 3-11.

## **The Practice of Mindfulness Meditation in Education**

*Karma Nidup*<sup>1</sup>

### **Abstract**

In “Educating for Gross National Happiness” one of the channels proposed by the Ministry of Education for imparting the principles and values of Gross National Happiness is mindfulness meditation and contemplative education (MoE, 2009). Mindfulness meditation and contemplative education are the paired concepts in the Bhutanese innovative educational approaches, which are aimed at enabling the youths to gain a holistic understanding of life and the world. It is one aspect of “Educating for Gross National Happiness” and it is a foundation that powerfully and sustainably supports the other aspects of Bhutan’s development philosophy. The purpose of this paper is to foster within the readers a deep sense a deep sense of appreciation and respect for the spiritual path of mindfulness meditation practice in our education system today. Central arguments such as recognizing our Buddha nature, becoming genuine human beings, and embarking upon our personal journey towards the timeless goal of living a good life through the practice of mindfulness meditation will be explored.

**Keywords:** mindfulness, meditation, Educating for Gross National Happiness, compassion, human values

---

1. Senior Lecturer, Paro College of Education.



## The Buddhist Philosophy

The Buddhist approach to life is based on the notion that human beings are fundamentally good. It is referred to as the “Buddha nature” and very closely connected to the idea of “Bodhicitta” in Sanskrit or “བྱང་ཆུབ་ཀྱི་སེམས་” in the Tibetan Tradition. This is the enlightened basic nature of all sentient beings. In the Shambhala tradition in the west, Trungpa (1984) refers to it as the basic goodness, the true nature of mind, intrinsic healthiness, innate wakefulness, sanity we are born with, the primordial purity of all beings, and the essence of dharma. This goodness is unconditioned and it is not caused by any circumstances.

The following lines from a Buddhist prayer illustrate the enlightened basic nature or the primordial quality inherent in all sentient beings:

།བདག་དང་མཐའ་ཡས་སེམས་ཅན་རྣམས།

།ཡི་ནས་སངས་རྒྱས་ཡིན་པ་ལ།

I and boundless sentient beings

Are primordially enlightened

།ཡིན་པར་ཤེས་པའི་བདག་ཉིད་ཏུ།

།བྱང་ཆུབ་མཚོག་ཏུ་སེམས་བསྐྱེད་དོ། །

Within such realization,

I generate the supreme mind of awakening (three times).

This primordial purity or basic goodness exists as a potential within every human being without any exception and we need to nurture this fundamental quality to become a full human being. We need to rely on our inherent human resources accurately by doing things with our body and mind to make our life graceful. The expression of basic goodness is always connected with gentleness to self and others and this wisdom of gentleness should not be seen as a sign of weakness but rather it is a sign of strength. In contemporary society, there is an urgent need to expand the experience of gentleness and nonaggression to all areas of human life.

To realize basic goodness, one needs to appreciate what we have with us at the moment. We need to develop a sense of appreciation for our body, mind, breath, and the space around us. More precisely we need to contemplate on our existence in the world and as Trungpa (1984) highlights “what we are, where we are, who we are, when we are, and how we are as human beings” and take possession of our basic goodness (p. 44).

We all have within us a natural dignity and wisdom and our basic nature is characterized by clarity, openness, and compassion to all sentient beings. Unfortunately, in an age of degeneration, an inherent sense of wisdom and values has almost been lost or temporarily obscured from us as Ugyen Tulku Rinpoche in Jeremy and Hayward (1998, p. 10) highlights:

...the Buddha nature is already present as the nature of our own mind, just like the unchanging brilliance of the sun shining in the sky. But due to our dualistic thinking, this sun of the buddha nature is not evident; we don't see it ... The conceptual thoughts we have day and night obscure our buddha nature, just like the sun in the sky is momentarily covered by clouds and seems to be obscured. Due to the passing clouds of ignorance we do not recognize Buddha nature.

Shambhala Sun (2013, p. 42) provides the three traditional Buddhist symbols for Buddha nature, our unchanging wakefulness in the following lines:

Like the sun, our Buddha nature always shines, even if the clouds temporarily obscure our view of it. Like the lotus, it grows pure and unsullied from the mud of our passion, aggression, and ignorance. And like the gold, we need only purify the dross of our obscurations to experience the beauty and brilliance of our true nature.

So we have our original goodness or purity within us and we need to recognize it and use it as the path to becoming a better person. A Zen Master Roshni (in Shambhala Sun, 2013) once said, “You are perfect the way you are and you could use a little improvement.” Since we have this precious body and mind we can make use of it to gain profound wisdom about others and ourselves in the society. The idea of original

goodness or purity in Buddhism may contradict the concept of original sin or mistake in the Christian theological tradition; however, I would like to reassure the readers that it is the deeper reality of human nature according to the teachings of Buddha and Bodhisattvas.

During the public teachings recently at Thimphu, His eminence Sogyel Rinpoche mentioned that our Buddha nature is imprisoned within the ordinary mind. This ordinary mind is the samsaric mind which is turned outward, lost in thoughts, emotions and projections rather than turning the mind inward to recognize the sky-like nature of mind or the Buddha nature in us (Sogyel Rinpoche, *Compassionate Living, Fearless Dying*, April 9, 2011). So in order to regain our lost wisdom we must embark upon our personal journey towards the timeless goal of living a good life through the practice of meditation and this practice is very significant in a world that is becoming unrecognizable from one generation to the next.

### **Discovering Basic Goodness**

In order to discover our inherent basic goodness, we need to have a discipline. According to Trungpa (1987) the discipline for developing both gentleness towards ourselves and an appreciation of our world is the sitting practice of meditation. It is through the practice of meditation, we can learn to be fully genuine and alive with one's true self. This is the means of rediscovering ourselves and our basic goodness, the means to tune ourselves in to genuine reality, without any expectations or preconceptions.

In the chapter on *The Meeting of Buddhist and Western Psychology*, Trungpa (p.3) highlights:

Traditional Buddhist psychology emphasizes the importance of direct experience in psychological work. If one relies upon theory alone, then something basic is lost. From the Buddhist viewpoint, the study of theory is only a first step, and must be completed by training in the direct experience of mind itself, in oneself and in others. In the Buddhist tradition, this experiential aspect is developed through the practice of meditation, a first-hand observation of mind.

It is through the practice of meditation that we can add luster to our natural dignity and wisdom through openness, clarity and compassion.

As we know meditation practice has been developed in Bhutan's rich cultural and spiritual traditions, it requires no fancy equipment or technology. Sogyel Rinpoche (2011) mentions that this ancient method has come to be seen as a powerful support for modern life – something that can be practiced anywhere, by anyone, of any age or background and it is a pity if we do not practice meditation to cure our mind (Sogyel Rinpoche, *Compassionate Living, Fearless Dying*, April 9, 2011).

Meditation has real world implications in our everyday lives. It helps us work from “the inside out,” to use our awareness to take moral action in the world. To do this one should have a sense of appreciation and respect for the meditation practice and as Dzogchen Ponlop Rinpoche (2000) says, “It is important for every one of us to have appreciation and respect for the meditation practice since the practice has its own enlightening message.”

One of the Tibetan words for meditation is “gom” which means, “to become familiar with.” In the process of meditation we become familiar with our body and the workings of the mind or in the words of Trungpa (1984) meditation is training our state of being so that our body and mind can be synchronized. When this synchronization takes place it enhances our attention and concentration, social-emotional awareness, compassionate action and improves interpersonal skills. Similarly research studies have shown that practicing meditation decreases stress, burnout, and fatigue, and increases empathy and effective communication in our lives.

Meditation has become even more important in an age of globalization where we respond overwhelmingly without a moment of reflection and inner balance to external stimulus such as the television, the internet, text-messages and pop cultures. We need to be aware of our own self in relation to the outer environment and affirm that true happiness does not depend on these stimuli. True happiness and contentment comes from realizing the wisdom within us and that meditation has to be discovered within our own mind. All phenomenal appearances are projections of our own mind and nothing has its own reality in life. According to Brown

and Carpenter (2010), true happiness is found in our own experience of the present moment, without the need for consumption, entertainment, or fashion. The technique of meditation introduces us to the happiness and contentment inherent in our own minds. Through the technique of meditation, we allow the mind to settle, the body to relax, and our natural wakefulness and compassion are allowed to shine through our mind and heart.

It should be noted that one does not have to become too religious while practicing meditation but one can live life with essential human values to serve others in the society. We must remember that the facilitator is not a dharma teacher but one who supports individuals to be on the track of the dharma, i.e. providing a body of teachings to open the mind of the learners to the reality of things as they are.

Meditation and contemplative education is a relatively new educational focus in the western world, and one which is rapidly gaining popularity. Mackler, Aguilar and Serina (2008, p. 263) highlight the trend in contemplative education in the following lines:

Over the last three decades an interest in the contemplative practices of world wisdom traditions, or “inner sciences,” as they are often called, has been steadily expanding in Western culture. There is a growing literature (both academic and popular) on these practices, and an unprecedented number of Western teachers, scholars, and students are exploring how they might be incorporated into the academy.

Bhutan is a nation, that has its foundation in the sacred buddhist values such as the four immeasurables (ཚད་མེད་བཞི་), six precepts or perfections (ཕར་ཕུན་སྲུག་), ten totalities (ཟད་པ་བརྒྱུ), four applications of mindfulness (བློ་པ་ཉི་ལེ་བཞག་པ་བཞི་), the noble eightfold path (འཕགས་པའི་ལམ་ཡན་ལག་བརྒྱུ), ten positive actions (དགེ་བ་བརྒྱུ), four perfect knowledge's (སོ་སོ་ཡང་དག་པར་རྟོག་པ་བཞི་), and the five faculties (དབང་པོ་ལྔ་). And because of these founding values and principles it makes complete sense for each of us to participate in the wisdom tradition such as mindfulness and meditation practices. These values have served our country so well for generations and as citizens of a spiritual land we have a nobler duty to the greater world and to peace, prosperity and happiness that is global.

Our institutions must pay special attention to these principles and values, which are central to our cultural heritage that is influenced by Buddhism. These values must act as our national conscience and guide us towards making wise decision for a better future. It is through the preservation and promotion of these principles and values that Bhutan will maintain its identity and character as a nation in the world.

We need to raise our children in a nation that teaches them to be mindful about these values and strive to be a good human beings by following good practices from our contemplative wisdom tradition and to appreciate their innate basic goodness and see that basic goodness in others as well.

Bhutan has a unique culture and tradition. We must take stock of our ancient wisdom and tradition to help people in times of need. We must rely on secular practices and approaches of helping people to rediscover their basic inherent goodness. To be effective teachers, there is an urgent need for us to study Buddhist contemplative education and its practices and incorporate these values and principles in dealing with our students. It is only through these kinds of measures that we can give a proper and lasting identity to the teaching profession in Bhutan.

### **Implications for Teachers**

Buddhist philosophy is based on the view that working with others is grounded in the process of working with oneself. Therefore, teachers should engage in experiential training of the mind to discover the inherent basic goodness and to radiate that goodness out into the world for the peace and sanity of others. Teachers should dwell in the simplicity of the present moment and cultivate peace in their minds and in their way of life. We must fully acknowledge that contemplative practices bring into our ordinary lives a natural sense of goodness, fearlessness, and humour in dealing with everyday situations.

During the process of working with the students the emphasis should be on the basic goodness or sanity instead of focusing on what is wrong with them and to help them recognize their basic goodness. Helping the students to discover their goodness represents a new approach to life.

Professional teachers should nurture the qualities of openness, clarity and compassion in our body, heart and mind and this will provide a platform for working with others in the society. Other attributes such as gentleness, courage and self-knowledge should be cultivated unconditionally through secular and contemplative practices such as mindfulness and meditation. Our everyday actions must exhibit these basic human values otherwise we will lose our sense of being in the world. We need to demonstrate wisdom such as compassion and skillful means (ཐབས་ཤེས) to provide remedial, preventive and developmental services to the students

As educators we should always combat the three fundamental attributes of ego such as passion (grasping), aggression and ignorance (known as the three poisons) by training ourselves in the Buddhist philosophy of mind, psychology, ethics and contemplative methods in our day-to-day lives. This will ultimately lead us to everlasting peace, prosperity and happiness in our lives.

## Conclusion

Bodhichitta or basic goodness is our birthright as human beings. Buddha nature is not next-door, it is within us. We have healthy faculties, a tender heart, and good intelligence, which we need to open up for the good cause of all sentient beings. On top of that, we have been very fortunate to connect with teachings about bodhichitta, which explains how to overcome the barriers to being fully alive and open. All of us have to be mindful and aware of the preciousness of being born as a human being. We need to contemplate on our precious state of being in the present moment and to serve others in helping them discover and rediscover the sacredness and magic of human life. On a final note, let me conclude the paper with an inspirational bodhichitta prayer, which says:

བྱང་ཆུབ་སེམས་མཚོག་རིན་པོ་ཆེ།

ལམ་སྐྱེ་བ་རྣམས་སྐྱེ་གུང་ཅིག

The precious bodhichitta

(In whom) it has not arisen may it arise,

སྐྱེ་པ་ཉམས་པ་མེད་པ་ཡང་།

གོང་ནས་གོང་དུ་འཕེལ་བར་གྱིན། །

(In whom) it has arisen may it not diminish,

May it develop and flourish.



## References:

- Brown, J. S. & Carpenter, J. (2010). *Introduction to mindfulness meditation – compiled for school principals in the Kingdom of Bhutan*. Bhutan: Paro College of Education.
- Hanson, R. & Mendius, R. (2009). *The practical neuroscience of Buddha's brain – Happiness, Love & Wisdom*. Oakland, CA: New Harbinger Publications, Inc.
- Hayward, J. & Hayward, K. (1998). *Sacred world – The Shambhala way to gentleness, bravery, and power (2<sup>nd</sup> ed.)*. Boston, MA: Shambhala Publications, Inc.
- Mackler, J., Aguilar, A. P., & Serina, K. C. (2008). *What is contemplative education and what are some ways to introduce it into higher education in Mexico?* Retrieved from <http://www.fonael.org-fonael@fonael.org>
- Ministry of Education. (2009). *Educating for GNH – Educating for gross national happiness workshop*. Thimphu: Kuensel Corporation Ltd.
- Mipham, S. (2005). *Ruling your world – Ancient strategies for modern life*. Broadway books, NY: Random House, Inc.
- Ponlop, D. R. (2000). *Knowing oneself – The practice of Samatha*. Nalanda Bodhi Publication.
- Rigpa. (2010). *What meditation really is – Module two transcripts for instructors*. Lerabling: Tertön Sogyel Trust.
- Ryan, T. (2012). *A mindful nation: How a simple practice can help us reduce stress, improve performance and recapture the American spirit*. Carlsbad, CA: Hay House, Inc.
- Tarrant, J. (2013, September). A beautiful wish. Shambhala Sun - Bud-

dhism culture meditation life. 41-45.

The Naropa Institute (1987). Brilliant sanity. *Journal of Contemplative Psychotherapy*. Vol. IV. Boulder, CO: The Naropa Institute.

Thondup, T. (1990). *Enlightened living – Teachings of Tibetan Buddhist Masters*. Daryaganj, New Delhi: Rupa & Company.

Trungpa, C (1984). *Shambhala – The sacred path of the warrior*. Boston, MA: Shambhala Publications, Inc.

Trungpa, C. (2005). *The Sanity we are born with: A Buddhist approach to psychology*. Boston, MA: Shambhala Publications Inc.

Wegela, K.K. (1994). Contemplative psychotherapy: A path of uncovering brilliant sanity. *Journal of Contemplative Psychotherapy IX*: 27–52.

## **RABSEL – the CERD Educational Journal**

### **Guidelines for Manuscript**

#### **RABSEL – the CERD educational journal**

The CERD Educational Journal is published twice a year in spring and autumn by the Centre for Educational Research and Development, Paro College of Education, Royal University of Bhutan. The Journal welcomes contributors who promote the exchange of ideas and rational discourse between practicing educators, researchers, planners, administrators, educational thinkers and practitioners, learners and policy makers from Bhutan and abroad. To this end the Journal publishes articles on empirical and theoretical studies, research reports, commentaries and scholarly reviews that attempt a systematic analysis or synthesis of educational processes and systems from different viewpoints and approaches.

#### **Notes for Contributors**

Manuscripts are considered for publication with the understanding that they are original material and have not been submitted elsewhere for publication. Submission of a paper to a professional journal is considered to be a definite indication of the author's commitment to publish in that journal. A paper submitted to this journal while it is under review by another journal is regarded as unacceptable. Submitting an already published manuscript is considered to be unethical. The author should consult the Editor if he or she has any questions to whether or not the paper is suitable for publication.

#### **Editorial Procedures**

CERD Educational Journal is a research journal. All papers considered appropriate for this journal are reviewed anonymously by at least two outside reviewers. The review process usually takes one to two months. Papers are accepted for publication subject to nonsubstantive, stylistic editing. The Editor reserves the right to make any necessary minor changes in the papers, or request the author

to do so, or reject the paper submitted. A copy of the edited paper along with the first proofs will be sent to the author for proofreading. They should be corrected and returned to the Editor within 10 days. Once the final version of the paper has been accepted, authors are requested not to make further changes to the text.

### **Manuscript Submission Guidelines:**

The CERD Educational Journal is a multidisciplinary publication presenting research and scholarly reviews related to education. Guidelines specified herein were prepared for the convenience of authors, reviewers and publishers.

#### **Types of articles**

Three types of manuscripts are appropriate for submission to CERD journal (a) Reports of empirical research, (b) Scholarly reviews (c) Project reports

#### **Reports of empirical research**

Reports of empirical research are descriptions of research studies. These studies must have clear and important implications for education and/or research. CERD considers research representing diverse methodologies, including group design, single-subject research, case study etc. The major criteria for publication are quality of design, implementation, and writing, as well as importance to the field.

#### **Scholarly Review**

Scholarly papers take the form of essays that represent well-developed arguments on philosophical, theoretical, or practical problems in the field of education. They are not required to adhere to an empirical research design (i.e., methods, data collection, and data analysis). Instead scholarly papers pose analytical or conceptual frameworks.

Scholarly papers should contain as many of the following as are applicable, preferably in this order: (1) objectives or purposes of the inquiry; (2) the philosophical, theoretical, or practical argument; (3) literature, sources, or evidence to support the argument/analysis; (4) conclusions and implications of the argument;

and (5) significance of the argument

### **Project reports**

These articles will be shorter and more preliminary reports about interesting educational projects (innovative courses, learning communities, etc.). Several of these reports could be published in each issue. The focus of a project report is on the progress or outcomes of an academic innovation that addresses issues in education.

### **Preparation of Manuscript**

1. The complete title of the paper, the names of the author(s), institutional affiliations, e-mails, and other identifying material should be typed on a separate sheet/the title page only to assure anonymity in the review process. The first text page of the article should have the complete title of the manuscript, but not the names of the author(s).
2. The length of manuscripts should be not more than 3000 words.
3. All manuscripts should be sent with an abstract of 150–200 words and 4 to 5 keywords. The abstract should be placed preceding the paper.
4. Articles should be double spaced and 12-point, Times New Roman font. Do not use forced section, page breaks, or automatic footnotes.
5. Make sure to provide complete, APA-formatted references and text citations, making sure the two correspond exactly. Pages 207–281 of the APA Manual (fifth ed.) detail these guidelines.
6. Change all instances of passive voice to active voice whenever possible, as these changes will be necessary before publication. Spell out each acronym at its first use.
7. Set all margins to 1 inch.
8. Format for 8½ in. x 11 in. paper. Do not format for A4 paper.

9. Please type all copy upper and lower case - do not use all capitals or small capitals.

10. Place all figures and tables in a separate file. Tables need not be double spaced. Indicate the location of tables and figures in text in boldface, enclosed in angle brackets, on a separate line.

**Example: <Fig. 1 here>**

All figures must be camera-ready, suitable for reproduction. Figures will not normally be redrawn by the publisher.

11. Please use your tab key and centering functions to do head alignment, paragraph indents, etc. DO NOT USE THE SPACE BAR.

12. Use endnotes as sparingly as possible. Number them with Arabic numerals starting with 1 and continuing through the article; for example: “(see Note 1).” Do not use footnotes.

### **Artwork**

Figures must be provided as production-ready. Do not use rules or tick marks smaller than 1 point in size. Acceptable electronic formats for figures or other art are: TIFF, EPS, Word, or Excel. If you have trouble loading Excel files, copy and paste them into a Word document. Scans must be of high resolution. Scans done at lower resolutions will have a very poor print quality even if they look crisp and clear on a laser printout.

### **Permission**

Obtaining written permission for material such as figures, tables, art, and extensive quotes taken directly—or adapted in minor ways—from another source is the author’s responsibility. Authors should never assume that material taken from software or downloaded from the Internet may be used without obtaining permission. Make sure to use proper referencing and citation format. Remember plagiarism is a serious academic crime.

## **Copyright**

After your article has been published, you also have the ownership right for your original academic work.

### **Submit your manuscript to:**

All manuscripts submitted will be considered for publication. Manuscripts can be submitted either in soft or hard copy to:

Dean

Research and Industrial Linkages

Centre for Educational Research and Development

Paro College of Education, Paro

Royal University of Bhutan

or Email: [cerd.pce@rub.edu.bt](mailto:cerd.pce@rub.edu.bt)

Tele Fax. 08-271917

Phone: 08-272011