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Expressed versus manifested beliefs of Bhutanese elementary mathematics teachers

Phuntsho Dolma¹, David Nutchey², James J Watters³ & Vinesh Chandra⁴

Abstract

The Bhutanese mathematics curriculum has undergone substantial reform in recent years; however, little consideration has been given to its implementation. Effective implementation assumes that there is alignment between teachers' beliefs about teaching mathematics and the principles articulated in the reformed curriculum. This paper reports on a study which set out to explore Bhutanese elementary teachers' beliefs and their implemented practices after adoption of the new curriculum. A survey was conducted with 80 respondents from 40 randomly selected elementary schools across the country. The survey comprised of questions that elicited demographic information, beliefs about mathematics and mathematics education, and a short planning task that involved the design of a sample learning activity. An analysis of the responses revealed that a majority of the respondents supported belief statements aligning with the social constructivist approach of teaching and learning of mathematics as articulated in the curriculum documents. However, the findings of this study also indicate that with respect to planning, teachers tend to adopt a Platonist view of mathematics and maintain a traditional transmissive approach to teaching and learning which is inconsistent with the intentions framed within the reformed curriculum.

Keywords: Curriculum reform, Elementary mathematics education, Teacher beliefs, Mathematical beliefs

INTRODUCTION

This paper focuses on the first phase of a two-phase study into the teaching of mathematics in Bhutan, the homeland of the first author, which is known to the outside world as the land of Gross National Happiness (GNH). The overarching goal of the study was to investigate the beliefs and practices of Bhutanese elementary school teachers in regard to implementing the philosophical and

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practical intentions advocated in the new curriculum. A situational analysis was undertaken of the general beliefs about mathematics and mathematics education using a national survey of elementary school teachers. This paper reports on how elementary teachers' beliefs impact their approach to planning learning activities in mathematics. According to the findings from past studies (Superfine, 2008), the quality of students' learning can be inferred from the ways in which teachers plan their lessons and their apparent beliefs about mathematics and mathematics education. Thus, we address two research questions:

Question 1: What are the beliefs of Bhutanese mathematics elementary teachers about mathematics education?

Question 2: What are Bhutanese elementary teachers' planning practices in teaching mathematics?

The first Research Question explores the beliefs of teachers about mathematics and mathematics education. The second Research Question investigates the prevailing practices in terms of designing sample learning activities of elementary school mathematics teachers. Literature based on these framing research questions is explored and discussed in the following paragraphs.

LITERATURE REVIEW

Literature regarding teachers' beliefs and their impact on the teaching of mathematics is explored in the following paragraphs. First we discuss the research on the relationship between teacher beliefs and practice. Second we examine the literature framing contemporary approaches to teaching mathematics.

Beliefs

The concept of beliefs is considered to be very complex with some writers, such as Zimmerman (2006, p. 1), claiming that "Belief" cannot be defined". At the same time, beliefs can be defined as the cognitive background of attitudes (Ajzen, 2012; Maio & Haddock, 2010; Polanyi, 1966). A belief can be described as the implicit knowledge that is held by an individual about a phenomenon or concept and described by others as personal principles (Tarmizi, Tarmizi, & Bin Mokhtar, 2010) or internal schema (Goldin, 2002), developed and constructed from the accumulation of experiences which an individual encounters in life and unconsciously aligns with new information to guide action. Lazim, Abu, and Wan (2004, p. 2) concluded that "beliefs play a significant role in directing human's perceptions and behaviour". Therefore, the nurturing of beliefs in a person is important so that they can make appropriate decisions while facing

challenges (Ambrose, Clement, Philipp, & Chauvot, 2004). Such nurturing is applicable to teachers and their conduct.

In education, as argued by Keys (2005), three different sets of beliefs are likely to be possessed by teachers:

- Expressed beliefs: Beliefs and understandings that teachers express in words or text;
- Entrenched beliefs: Internalised knowledge and beliefs built on experience but difficult to express; and
- Manifested/Enacted beliefs: Beliefs and knowledge that are evident in the practices and actions of the knower.

Teachers' conduct in the classroom is a reflection of the third type (manifested), which is more or less influenced by the second type of beliefs (entrenched) and normally not the first type (expressed). Further, several researchers (Chapman, 2002; Ernest, 1997; Liljedahl, Rösken, & Rolka, 2006; Stipek, Givvin, Salmon, & MacGyvers, 2001) have concluded that general beliefs about teaching have a profound effect on decisions related to practice, which is further supported by Irez (2007, p. 17), who argues that "beliefs are the best indicators of teachers' planning, decision-making and subsequent classroom behaviour". It is very unlikely that teachers can permanently modify their teaching practices without first having considered their values and beliefs (Beswick, 2006; Handal & Herrington, 2003; Yu, 2008). This point is strongly supported by Wilkins (2008), who argued that the development of teachers' own understanding of their beliefs is considered an important step for teachers in understanding their own instructional practices and ultimately in shaping those practices.

The influence of teachers' beliefs on mathematics education practices

We acknowledge the difficulty in researching beliefs. However, there is substantial body of ongoing research in this field in relation to mathematics (Leder, Pehkonen & Torner, 2002; Richardson, 1996; Voss, Kleickmann, Kunter & Hachfield, 2013). A mathematics teacher's practice in the classroom is said to be influenced by the type of beliefs they have about mathematics and mathematics education (Ambrose, 2004). Raymond's model (1997), presented in Figure 1, provides a clear picture of how a teacher's beliefs influence their teaching practice in the classroom. It also reveals how a teacher's beliefs are shaped and developed.

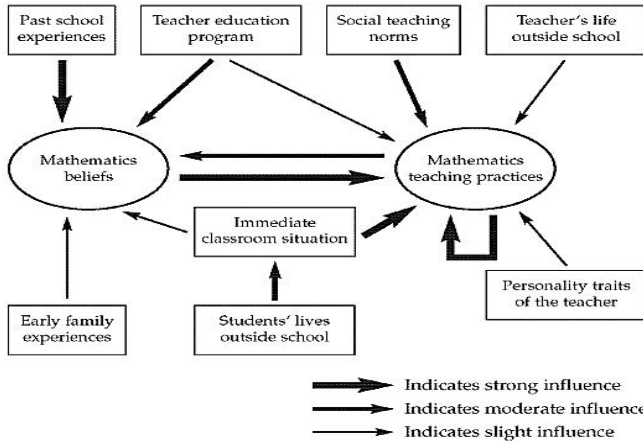


Figure 1. Raymond's (1997) model of beliefs and practices

The Raymond's model suggests that the type of teacher education program, past school experiences and teaching practice also tend to have some influence on teaching practice as well as shaping teacher's beliefs (Raymond, 1997). A teacher's teaching practices are also influenced by the immediate classroom situation, the prevailing social teaching norms and the immediate classroom situation in the school. Moreover, several research studies have revealed that teachers' choices regarding classroom practices, including planning and instruction, are closely linked to their knowledge and beliefs concerning the nature of mathematics and mathematics teaching (Ambrose, 2004; Hill, Schilling, & Ball, 2004). Therefore, the development of sound instructional practices in the mathematics classroom is said to be possible only if more emphasis is placed upon the development of teacher beliefs (Wilkins & Brand, 2004).

Ernest (1989), from a philosophical perspective, proposed that there are three views in relation to mathematical beliefs as a subject or discipline. The instrumentalist views mathematics as a bag of tools and considers that learning mathematics is the accumulation of facts, rules and skills. The Platonist views mathematics as a static but unified body of certain knowledge that is discovered but not created by learners, whereas the experimentalist views mathematics as a dynamic and continually expanding field of human creation and invention. Specifically, instrumentalists are content and skills focused, whilst experimentalists take a more explorative focus. Instrumentalists' and Platonists' beliefs consider mathematics as a subject of rules and formulas to be memorised, whereas experimentalists regard mathematics as an interesting, beautiful, enjoyable and dynamic subject to be explored, invented and re-discovered. These three philosophical views provide a useful framework to consider mathematics

education practices.

Of all three, an experimentalist tends to present diverse and authentic tasks to the students more aligned with the constructivist model of learning (Beswick, 2007; Warren & Nisbet, 2000). For the experimentalist, mathematics is treated not as something one can transmit but as something that needs to be constructed by the students through authentic contexts and by using appropriate models and representations. Like the experimentalists, Platonists emphasise understanding but through the teacher's explanation, rather than reliance upon students' autonomous construction of knowledge. In accordance with contemporary views of learning, mathematics is intended to be learnt through active involvement of students (Hurst, 2011). This view is further discussed in the following section.

Contemporary mathematics teaching

According to the social constructivist view (Vygotsky, 1978), the teacher's role is said to be one of facilitating students' learning through social processes and the provision of authentic materials related to real situations (Bickmore-Brand, 1998). The focus of learning has shifted, as McLean and Hiddleston (2003) argue, from product to process. This argument is based upon the recognition of the influences of prior knowledge and experience upon learning, which is central to social constructivist theory. Thus, the implication for mathematics education is that the content of mathematical activities should be based on children's life experiences so that they can solve mathematical problems both more easily and make mathematics learning more enjoyable. Successful experiences build a sense of self-efficacy (Bandura, 1993) leading to a well-developed interest in mathematics (Hidi & Renninger, 2006).

House (2006) conducted a study on relationships between instructional activities and the mathematics achievement of adolescent students in Japan. This study demonstrated that students tended to have higher mathematical test scores in classes where the teacher frequently included problem solving situations from everyday life. Moreover, Gutstein (2006), argued that students should be provided with situations matching their interests and the content they are required to study. Other researchers (Ball & Bass, 2000; Perry, Geoghegan, Owens, & Howe, 1995; Rogers, 1999) emphasise the importance of engaging learners actively in a learning world that is relevant to them. Therefore, as described by Smith (1999), it is important for teachers to choose learning problems and situations that will actively involve students and stimulate student interest in how mathematics is applied to real-world situations.

The US National Council of Teachers of Mathematics (NCTM) has defined five process standards which represent a systematic attempt at engaging students actively inside the classroom. For instance, providing a realistic learning task (problem solving) where students are encouraged to think and connect with

their previous knowledge and experiences is argued to be an effective process to engage students. Provided with such an opportunity, students should be in a better position to make sense of the task and communicate their understanding with friends and teacher. At the same time, students could justify (reasoning) their thinking and understanding through different modes of representations. Language is central to the social constructivist principles of Vygotsky (1978). Each of the process standards (i.e., connection, communication and representation) can be further sub-divided based on different learning theorists to teaching and learning of mathematics. The NCTM connection standard emphasises the importance of students making connections between concepts and across grade levels. This important standard recognises that students should be able to make connections among different mathematical ideas and how they build on one another. They should also be able to recognise and apply mathematics to contexts outside the classroom. According to Treffers (1987), the concept of connection can be divided into two: connecting vertically (within mathematical ideas) and horizontally (connecting mathematical knowledge across other bodies of knowledge/real world). Students are expected to be able to take a mathematical concept, consider how it was derived, extend it and connect it with other concepts. Technically the standards state that students should be able to:

- recognise and use connections among mathematical ideas;
- understand how mathematical ideas interconnect and build on one another to produce a coherent whole; and
- recognise and apply mathematics in contexts outside of mathematics.

The NCTM (2000) stresses the importance of encouraging students to communicate their thinking through three different ways: verbally or in written words or symbols. Similarly, according to Bruner (1966), learners are expected to be able to represent their mathematical understanding in three different modes: enactive (in action), iconic (in pictures/diagrams) and symbolic (in words/numerals/symbols).

The content of contemporary mathematics teaching matches well with the Bhutanese Education's policy document *Purpose of School Education for Bhutanese Schools PP-8* (Ministry of Education, 2002). This policy clearly positions that students should be provided with learning experiences that include frequent opportunities to explore, discover and describe mathematical patterns and relationships. This idea of extending mathematical experience by involving students in meaningful problem solving connects closely with designing learning activities having a low mathematical floor and a high mathematical ceiling (Gadanidis & Hughes, 2011).

METHOD

The method adopted for the present study was a survey questionnaire, distributed to 120 elementary teachers from 40 randomly selected elementary schools across the country. According to Miles, Huberman, and Saldana (2014), random sampling is considered the gold standard of quantitative research in terms of good coverage of data. Three mathematics teachers from each of the 40 randomly selected schools were expected to complete and return the questionnaires to provide a total of 120 respondents. This total represented a ratio of 1:20 between expected respondents and the total population of elementary school teachers in the country (Ministry of Education, 2013). Surveys were distributed to generalist primary school teachers, as there is no specialist teacher allocated to teach mathematics in Bhutanese primary schools.

The survey combined demographic questions, traditional theory driven belief instruments (based on Likert scales) adapted from Perry, Howard, and Tracey (1999), and an open-ended response involving the design of sample learning activity on the teaching of fractions. In the beliefs section a Likert-type scoring format was used as it is widely recognised as a proxy interval level of measurement in line with common practice in educational research (Hinkin, 1995). A score of 1 was assigned to the Strongly Disagree (SD) response and a score of 5 to the Strongly Agree (SA) response. Participants were asked to indicate the extent to which they agreed (or disagreed) with each statement presented. The open-ended response section was provided at the end of questionnaire for participants to design a sample learning activity from the list of fractions sub-topics provided for different class levels (Classes Pre-Primary to 6). This task was designed to gain insights into how teachers intended to practise mathematics instructions in their classroom. The concept of fraction was selected as the focus for the open-ended response because of the first author's experience in teaching this topic and the author's anecdotal evidence of Bhutanese teachers' difficulties in teaching this topic.

The demographic data were analysed and compared to known data about the Bhutanese teacher population. The beliefs section of the survey was comprised of belief statements, which were analysed using descriptive statistics. The planning task was analysed by comparing the responses against the NCTM's five process standards. Since the nature of the sample learning activities is to help students enhance their understanding of the taught concept, the use of five process standards as a tool to analyse the data was considered to be the most appropriate. Using the five process standards, activities are examined to identify whether students are given opportunities to (1) think through the problem by drawing on their previous knowledge and experiences and (2) communicate and justify their understanding through various forms of representations (i.e., more enactive and iconic than symbolic).

To ascertain any problems relating to the use of terminology in the survey that might be confusing for teachers, the beliefs section of the survey was piloted informally with a set of Bhutanese school teachers (six general subject teachers and one secondary mathematics teacher). Items were well understood, so the test did not yield obvious bias effects (Dorney, 2010; Saris & Gallhofer, 2007). Similarly, to ensure credibility and avoid bias with data, respondents for the survey questionnaires were anonymous. Data collected were thus expected to reflect participants' honest opinions. Human Research Ethics Committee (HREC) authorisation was obtained from the Queensland University of Technology (QUT), prior to the commencement of the study. Data collection was conducted in Bhutan with approval from the local authorities.

RESULTS

Analysis of the survey data was carried out to identify and understand beliefs espoused by teachers and their planning of learning activities in teaching mathematics. Of the 120 questionnaires distributed, 80 were returned, representing a satisfactory response rate of 67% (Nulty, 2008). Analysis of the demographic data for the 80 respondents revealed that most of the teachers (63%) were male which is similar to the proportion in the national population (65%). The distribution of qualifications across the sample was also closely representative of the overall primary teacher population in the country: the majority of respondents with the most years of teaching experience typically held a Primary Teacher Certificate. Of the sample, slightly more than half (55%) were in their first seven years of teaching (assuming these respondents moved straight from their teaching training into the workforce). The following paragraphs explore respondents' beliefs about mathematics and mathematics education.

Respondents' beliefs about mathematics and mathematics education

Responses to the 21 belief items were recorded using a five-point Likert scale. Descriptive statistics were calculated for each question. Although the questions were derived from the survey developed by Perry et al. (1999), due to the small size sample (n=80), attempts to replicate the factor structure were unsuccessful. Hence, responses to each category of belief statements are reported individually in the following sections. Beliefs statements about the nature of mathematics were explored through their responses to six items. The items and descriptive statistics are presented in Table 1.

Table 1. *Distribution of responses for the nature of mathematics*

SL	Item	Median	Mean	SD
1.	Mathematics is computation	4.0	4.1	0.71
2.	Mathematics is problems given to children and should be quickly solvable in a few steps	3.0	3.0	1.14
3.	Mathematics is the dynamic searching for order and pattern in the learner's environment.	4.0	4.15	0.63
4.	Mathematics is a beautiful, creative and useful human endeavour that is both a way of knowing and a way of thinking.	5.0	4.55	0.55
5.	Right answers are much more important in mathematics than the ways in which you get them.	2.0	2.18	0.95
6.	Mathematics is a body of knowledge isolated from the rest of knowledge	2.0	2.29	1.08

The majority of the respondents showed strong agreement with both Mean and Median scores of 4 and above for Items 1, 3 and 4. Other than Item 1, both Items 3 and 4 are assumed to be in support of ideas associated with the constructivist approach. For Item 1, there is a possibility that the respondents (along with those teachers who piloted the survey) did not understand the statement, and instead interpreted it as “mathematics includes computation”. By disagreeing or strongly disagreeing with Items 5 and 6, the majority of respondents further expressed experimental beliefs. The disagreement in Items 5 and 6 suggests that most respondents in this sample do not believe that mathematics is knowledge isolated from other knowledge, and seem to place more importance on process rather than product. This, in turn, was expected to shape their beliefs about mathematics teaching and learning, which are explored in the following paragraphs. The respondents' beliefs about the learning of mathematics are presented in Table 2.

Table 2. *Distribution of responses for mathematics learning*

	Item	Median	Mean	SD
7.	Mathematics knowledge is the result of the learner interpreting and organising the information gained from experiences.	4.0	3.9	0.66
8.	Children are rational decision makers capable of determining for themselves what is right and wrong.	4.0	3.90	0.90
9.	Mathematics learning is being able to get the right answers quickly.	3.0	2.82	0.98
10.	Periods of uncertainty, conflict, confusion, and surprise are a significant part of the mathematics learning process.	4.0	3.81	0.85
11.	Young children are capable of much higher levels of mathematical thought than has been suggested traditionally.	4.0	3.45	0.91
12.	Mathematics learning is enhanced by activities which build upon and respect students' experiences.	4.0	4.17	0.52
13.	Children construct their own mathematical knowledge.	4.0	3.76	0.72

Except for Item 9, the responses to Items 7, 8, 10, 11, 12 and 13 indicated beliefs which align to social constructivist views of learning mathematics. Further, disagreement with Item 9 supports the claim of alignment with a social constructivist approach. Respondents' beliefs about how students should be taught mathematics were explored through their responses to eight items which are presented in Table 3.

Table 3. *Distribution of responses for mathematics teaching*

	Item	Median	Mean	SD
14.	Teachers should provide instructional activities which result in problematic situations for learners.	4.0	3.54	1.11
15.	Teachers or the textbook – not the student – are the authorities for what is right or wrong.	2.0	2.38	1.12
16.	The role of the mathematics teacher is to transmit mathematical knowledge and to verify that learners have received this knowledge.	4.0	3.67	1.11
17.	Teachers should recognise that what seems like errors and confusions from an adult point of view are children’s expressions of their current understanding.	4.0	3.64	0.87
18.	Children’s development of mathematical ideas should provide the basis for sequencing topics for instructions.	4.0	4.00	0.65
19.	It is unnecessary, even damaging, for teachers to tell students if their answers are correct or incorrect.	2.0	2.62	1.07
20.	Mathematics skills should be taught in relation to understanding and problem solving.	4.0	4.46	0.60
21.	Mathematics instruction should be organised to facilitate children’s construction of knowledge.	4.0	4.38	0.65

Other than for Items 15 and 19, the majority of respondents were consistent in agreeing or strongly agreeing with the proposition. These responses reveal that the majority of the respondents supported a constructivist approach to the teaching of mathematics. For instance, respondents supported items 20 and 21 with mean/median scores above 4 and believed that it was important for teachers to design instruction that is well-organised and facilitates students’ construction of knowledge. Hence, it extended to beliefs statements depicting how mathematics can be learnt and taught that matched with their existing or entrenched beliefs. The key findings are shown in Table 4.

Table 4. *Key findings on beliefs about mathematics*

Belief categories	Key findings	Beliefs
Nature of mathematics	The majority of respondents tended to support the statement describing the nature of mathematics aligning with constructivist views;	Experimentalist
Learning of mathematics	The majority of the respondents agreed strongly to the idea of encouraging children in mathematical thinking processes and that they are capable of high levels of thought (Goldsmith and Mark (1999)	Experimentalist
Teaching of mathematics	The majority of the respondents believed it was important for teachers to design instructional approaches that were well-organised and which would facilitate students' construction of knowledge.	Experimentalist

As indicated in Table 4, the majority of the respondents supported experimentalist beliefs. Hence, the overall results tend to suggest that the majority of respondents supported a constructivist approach to the teaching and learning of mathematics and thus expressed beliefs aligned with the experimentalist view.

Sample learning activities

Designing the sample learning activity was intended to provide respondents with an opportunity to share their intended planning practice. The intention was to identify how teachers plan, as teachers' design of the learning activity was expected to expose teachers' beliefs about mathematics and mathematics education. Each of the sample learning activities was mapped against a framework based upon the five NCTM process standards, as presented in Table 5. Using this framework was expected to reveal aspects of the respondents' beliefs about mathematics in terms of students' engagement in learning. The frequency of occurrence (represented as a percentage) was calculated by tallying how many sample activities included some aspect of the standard, divided by the total number of samples (72). However, the quality or complexity of each standard's integration into the sample learning activity was not taken into account.

Table 5. *Process standard learning activity analysis*

Process Standard	Indicators	Frequency of occurrence
Problem solving	Solve problems more meaningfully through the act of applying prior knowledge and methods to a task for which the solution is not apparent;	13%
Communication	Communicate their thinking and expression of mathematical ideas precisely in the form of speaking, writing and reading;	18%
Connections	Connect and enable the recognition of the relationships among mathematical topics as well as applications of mathematics in other contexts;	96%
Representations	Represent their understanding through various forms (i.e., enactively, iconically& symbolically) and describe mathematical relationships;	65%
Reasoning and proof	Justify one's mathematical thinking as well as evaluate the mathematical thinking of others.	17%

The majority of respondents provided opportunities mostly for two of the process standards: connection (96%), followed by representation (65%). The least frequent standard was problem solving, with 13% of the samples being planned to include challenging, non-routine tasks providing opportunities for multiple solution methods. The analysis was further refined by recoding the samples using more specific forms of the connections, representations and communication standards to generate findings with deeper meanings. This was done to obtain in depth information regarding those standards in terms of planning practice by the respondents. This analysis is presented in Table 5 and is subsequently discussed. For instance, the majority of respondents have integrated the standard of connections while designing their sample learning activity but it was not clear which of the two connections (horizontal or vertical) is referred to (Treffers, 1987). The same idea was applied for communication and representation, as presented in Table 6.

Table 6. *Fine-grained analysis of sample learning activities*

Connection			Representation			Communication	
Vertical	Horizontal	Enactive	Iconic	Symbolic	Verbal	Written (words)	Written (numerals)
96%	35%	17%	57%	57%	14%	6%	50%

As indicated in Table 6 the majority of the respondents incorporated an opportunity for constructing vertical connections (96%) compared to the horizontal (35%). An example sample learning activity which incorporated both horizontal and vertical connections is reproduced as follows:

Sonam, Tashi and Ugyen were given one litre of water (1l) each. Sonam drank $\frac{2}{6}$ of the water; Tashi drank $\frac{4}{8}$ of the water and Ugyen drank $\frac{1}{9}$ of the water. Draw models to answer the question “who drank more water?”.

In this sample activity, vertical connections are incorporated when measuring (e.g., concept of measurement and capacity) the quantity of water in fractions, and horizontal connections are incorporated by the use of children’s liquid-related experiences.

In terms of the representation standards, iconic and symbolic scored equal with 57%. This contrasts to the use of enactive representations, which appeared in 17% of the sample activities. An example of an activity which encouraged students to represent their thinking and understanding through the conduct of action (i.e. enactively) is reproduced in Figure 2.

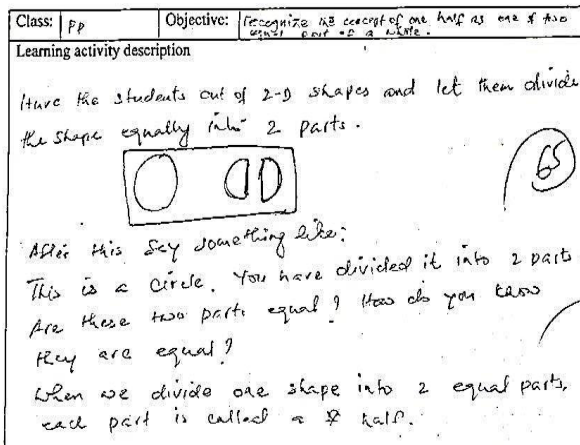



Figure 2. Enactive mode of representation

The first statement in Figure 2 provides an opportunity for students to represent their thinking and understanding of the assigned task in action (enactively) i.e., “Have the student cut out 2 D shapes (e.g., circle) and let them divide the shape equally into two parts...”. In this sample, the enactive mode of representation was clearly encouraged by asking students to act out the process of cutting and dividing the given circle to represent the concept of half. According to Bruner (1966), learners are said to have mastered a concept if they can represent their understanding through such modes of representation. However, learning activities of this kind were infrequent among the samples analysed. The majority of the sample learning activities appeared to be more like lesson plans, as reproduced in Figure 3.

Learning activity description (continued)


ii) Same denominator
 If the fractions have the same denominator, the fraction with the greater numerator is greater.
 Eg:- $\frac{4}{7}$, $\frac{6}{7}$
 $\frac{6}{7} > \frac{4}{7}$ because 6 sevenths > 4 sevenths (6 of something is more than 4 of the same thing).

ii) If the fractions have different numerators and denominators, then compare the given fractions to 0, $\frac{1}{2}$ or 1.
 Eg:- $\frac{1}{3}$ is less than $\frac{8}{9}$ since $\frac{8}{9}$ is almost 1 but $\frac{1}{3}$ is not even $\frac{1}{2}$.
 A number line picture can help to understand it better.



$0 \quad \frac{1}{3} \quad \frac{1}{2} \quad \frac{5}{9} \quad 1 \quad \frac{8}{9}$
 $\frac{1}{3} < \frac{8}{9}$

> Pictures can be also useful ^{to} compare and order the given fractions.



$\frac{2}{3} > \frac{1}{4}$, since more of the same whole is shaded.

Figure 3. Transmissive approach

In Figure 3, it appears that the respondent intended to explain the strategy of comparing fractions using the formulated procedure, “if the fractions have the same denominator, the fraction with the greater numerator is greater, for example, $\frac{4}{7} < \frac{6}{7}$ ”. In this case, there is limited opportunity given to students to explore and construct their own meaning rather than listening to the teacher’s explanation. There was no indication of and intention for students to perform the task themselves and so gain conceptual knowledge. Instead, the sample appeared to be an information input from the teacher rather than a learning task to be given to students for them to construct their own knowledge. As argued by Stein and Lane (2006), such teacher-centered transmission limits the opportunity for students to do mathematics through manifold approaches with multiple repre-

sentations and explanations.

The majority of respondents avoided incorporating the most demanding process standards, such as reasoning and communication. This result tends to suggest the dominant planning practice in conducting mathematics lessons is still the talk and chalk method, where students are encouraged to be passive listeners. Such approaches lead to surface learning and procedural knowledge (Skemp, 1976). With regards to the way the majority of respondents manifested their beliefs through their planning practice, their beliefs tend to be the antithesis of a social constructivist approach to the teaching and learning of mathematics. The analysis suggests a discrepancy, or a gap, between their expressed beliefs and those evident in their planned practices. Despite respondents' general indication of a strong reform-oriented viewpoint in their expressed beliefs, their planning provided evidence of classroom pedagogy that seemed counter to process teaching. This belief is associated with more explanation from teachers and less involvement of the students performing a task.

The analysis showed that the majority of respondents seemed to lack ideas in designing an activity in which students are encouraged to think, share and justify ideas based on their previous knowledge and experiences. Rather, most of the tasks tended to be procedural, involving a single solution approach and representation, with barely any opportunities for discussion and communication of mathematical ideas. The activities generally appeared to lack provision for students to think and make sense of mathematics.

In summary, two crucial findings, which have resulted from the analysis of the sample learning activities, are as follows. The majority of sample learning activities:

- lacked an emphasis on engaging students actively in doing mathematical activities; and
- emphasised procedural knowledge resulting in instrumental understanding (i.e., the 'what' of mathematics), rather than reasoning and the associated relational understanding (i.e., the 'why' of mathematics).

The findings from the analysis of teachers' beliefs survey items suggest that the respondents generally expressed support for social constructivist views of teaching and learning of mathematics. This observation contrasts with the findings of the analysis of the sample learning activities, which suggest that the respondents adopted practices, at least at the planning stage, associated with teacher-centered transmissive approaches consistent with a Platonist view of mathematics. As indicated in Table 7, five of the 21 belief items included in the survey questionnaires were sorted further to compare and identify the link between teachers' expressed beliefs and their practices (i.e., manifested beliefs).

Table 7. *Comparison of teachers' beliefs and their practices*

Statement	Macro phase		
	Beliefs	Survey	Sample learning activities
12. Mathematics learning is enhanced by activities which build upon and respect students' experiences.	Experimentalist	Indicated (majority)	Not indicated (majority)
13. Children construct their mathematical knowledge.	Experimentalist	Indicated (majority)	Not indicated (majority)
14. Teachers should provide instructional activities which result in problematic situations for learners.	Experimentalist	Indicated (majority)	Not indicated (majority)
16. The role of mathematics teacher is to transmit mathematical knowledge and to verify that learners have received this knowledge.	Platonic	Indicated (majority)	Indicated (majority)
21. Mathematics instruction should be organised to facilitate children's construction of knowledge.	Experimentalist	Indicated (majority)	Not indicated (majority)

Analysis of responses to Item 12 showed that the majority of respondents agreed or strongly agreed in supporting experimental beliefs about mathematics and mathematics education. However, when the same findings were compared with the teachers' planning practices, there was a clear mis-match. A similar pattern was found with the rest of the key belief items, except with Item 16, which appears to contradict the other four identified belief statements. Such results tend to align with Handal (2001), who argued that many mathematics teachers could be concerned only with students acquiring facts and performing skills prescribed by the syllabus and assessed summatively, rather than with broader educational goals. Thus, the sample learning activities show instructional approaches based on teachers' explanation rather than engaging students in exploring and constructing their own knowledge.

DISCUSSION

Teacher beliefs and their approach in designing learning activities were explored through a survey of 80 teachers from 40 randomly selected schools across Bhutan. The objectives of the study reported in this paper have been expressed as two research questions. The first research questions aimed to investigate respondents' beliefs in regard to three categories, namely:

- Beliefs about the nature of mathematics
- Beliefs about the learning of mathematics
- Beliefs about the teaching of mathematics

Each category had a set of belief statements requesting responses on a five-point Likert scale. The belief statements were a mixture of aligned and misaligned statements associated with a constructivist approach to teaching and learning of mathematics. For instance, in regard to the first category respondents agreed or disagreed with certain statements based on their beliefs about the nature of mathematics. As Leatham (2006) pointed out, beliefs cannot be unswervingly perceived or measured but must be inferred from what people say, intend and do. Given these findings, it would be reasonable to expect that teachers would plan and implement practices aligned with their expressed beliefs. The second research question posed examined respondents' practice as evidenced in the sample learning activities they provided.

Winston Churchill, the former Prime Minister of the United Kingdom, stated that plans are of little importance, but planning is essential. Similarly, Superfine (2008) argued that "planning commonly refers to the time teachers spend preparing and designing activities for students" (p. 11). The implication is that plans reflect beliefs. Roche, Clarke, and Clarke (2014) argued that "what teachers choose to commit to writing provides a lens into what they possibly hold to be most important" (p. 856). However, in this study, although the majority of respondents suggested they held strong reform-oriented beliefs, but they showed limited evidence of implementing a pedagogy that matched those beliefs.

Analysis of all respondents' sample learning activities indicates that the majority of respondents tend to plan more procedural/mechanical approaches rather than experiences that foster genuine understanding. A study conducted elsewhere by Cooney (2001) argued that interest in teachers' beliefs has been grounded on the conjecture that what teachers do in their classrooms is a product of their beliefs. This seemingly contradicts the findings of the present study in regards to beliefs expressed in the survey questionnaires and teachers' sample learning activities. This finding is similar to that of Perrin (2008), who claimed that there was no significant correlations found between teachers' beliefs scores and their reported level of the use of NCTM-aligned practices.

Consistent with the work of Keys (2007), this research suggest that teachers possess distinct types of beliefs which he described as their expressed beliefs, entrenched beliefs and manifested beliefs. Accordingly, all three types of teachers' beliefs are evident in this study. However, the type of beliefs manifested in the sample learning activities did not seem to align with the way they responded to the belief statements. These findings confirm previous reviews conducted within Bhutan by the Royal Education Council and Educational Initiatives (2010),

which found that the majority of teachers leaned more towards procedural/mechanical teaching than teaching for genuine understanding.

Based on the survey, the majority of respondents expressed beliefs, which supported a constructivist view of teaching and learning of mathematics. However, in practice, the majority of the respondents appeared to be quite limited in their knowledge of engaging students productively to work on their own. Teachers seemed to be seriously lacking in terms of engaging students in learning by doing, thereby limiting students in connecting their own understanding of knowledge both vertically and horizontally. In this case, as supported by Keys (2005), teachers' manifested beliefs could be strongly associated with their entrenched beliefs. Hence, based on the practice of the respondents it would seem that their beliefs strongly align with Platonic beliefs.

CONCLUSION AND IMPLICATIONS

The overall findings from the survey in terms of beliefs were encouraging, with a high percentage of respondents supporting experimental beliefs aligning with a constructivist approach to teaching and learning of mathematics. However, there was a contradictory result in the planning. Teachers' practices depicted Platonic beliefs, intending to spend more time explaining the concept in detail than having students explore knowledge and ideas on their own. The teachers appeared to be limited in practicing what they know and believe. For instance, the majority of the respondents said they believed that students are capable of constructing their own knowledge but in practice, they seem unable to engage and encourage students to do so. The teachers' practices are manifested in ways that draw on entrenched and not expressed beliefs, thereby showing a mis-alignment between the survey result and the way respondents designed their sample learning activities.

The issue that emerged from these findings is that although teachers are aware of the importance of constructivist approaches to teaching and learning mathematics, they are not able to implement them practically in the classroom. This finding tends to indicate a strong requirement for ongoing professional learning activities associated with practically modelled lessons on constructivist views of the teaching and learning of mathematics. For instance, providing opportunities for apparently more successful professional development practices such as the Japanese Lesson Study model (e.g., Doig & Groves, 2011). While Lesson Study is applicable in all curriculum areas in Japan, it was found to be most commonly practiced in mathematics, and the same applies in other countries as well. This model provides an opportunity for teachers to become engaged deeply in learning themselves while preparing a lesson. As argued by Sadler (2010), teachers learn best by doing and building their own understanding rather than being told. This issue aligns with the findings of Herbel-Eisenmann,

Lubienski, and Id-Deen (2006), who claim that a teacher's comprehensive orientation toward teaching profoundly influences their instructional practices. Findings reported in this paper reveal that there is a strong requirement for teachers to move from the traditional model of professional development (of just providing knowledge and skills) to the inclusion of reflective practice that makes a connection with existing beliefs. Therefore, it is recommended that the Bhutanese government and teacher training institutions should provide a clear vision of the constructivist view of teaching and learning of mathematics (upon which the curriculum is based) and how this should be enacted at the classroom level.

Berman and McLaughlin (1976) stated that "the bridge between a promising idea and the impact on students is implementation, but innovations are seldom implemented as intended" (p. 349). Although some awareness of desired practices was reflected while responding to the survey belief statements associated with mathematics and mathematics education, it was not matched in action when designing the sample learning activities. It is important for all concerned officials to realise that mathematics education is a field which can develop properly only after a rigorous teacher education program based on both theory and aligned teaching methodology (Wittmann, 2005).

The findings from this study appear to have revealed a gap between teachers' expressed and manifested beliefs. Thus, it might be possible that through the documentation of these teachers' experiences, this study could be used to inform pre-service teacher training curricula and also to inform professional learning activities for in-service mathematics teachers. As indicated by VanBalkom and Sherman (2010), most of the faculty members in the two colleges in Bhutan use traditional lectures as their main strategy in teaching and do not model different teaching strategies, particularly those informed by social constructivist perspectives. On the basis of the evidence in this study, failing to do so probably leads to the production of poorly prepared graduates and this in turn contributes to another generation of mediocre teachers to repeat the cycle. Hence, the Bhutanese government, instead of investing heavily in engaging experts and consultants from abroad, would be best advised to fund long term professional development through pre- and in-service teacher training programs.

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Bhutanese teachers' and students' perceptions on using literary texts as English as a Second Language (ESL) teaching and learning materials

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Abstract

Literary texts have been used in English as a second language education frequently in recent times for the students studying both in schools and universities. This study investigates the perceptions of Class IX and X teachers and students of one school on the use of literary texts both intensively and extensively as teaching and learning materials for English as a second language in Bhutan. Data were gathered through two separate focus group interviews, one with teachers (n = 3) and the other with students (n = 4) and student survey (n = 211). The findings of the study revealed that the literary texts are helpful for learning various cultures, language and personal development. However, there are issues related to the teaching of grammar, selection of literary texts, and difficulty level of literary texts that needs to be addressed in order to make the English curriculum for Classes IX and X more relevant and as per the students' standard. The teaching of grammar emerged as the most controversial issue that needs immediate attention of the relevant stakeholders. Recommendations for the improvement of the literary texts in terms of relevance and standards are presented.

Keywords: Literary text, ESL, perceptions, English curriculum, English and literature, Bhutanese teachers and students

Introduction

Literary texts in the Bhutanese education system are predominantly used in teaching English as a Second Language (ESL) to the students. According to Dyenka (1999), selected literary texts in the previous English curriculum (curriculum before 2006) consisted of colonial origins of British English education in India. Texts such as Shakespeare's drama and some classic literary genres were included. These texts neither enhanced the practical applicability of the texts in students' lives nor was the learning made enthusiastic for the students (Dyenka, 1999). Dyenka further concluded that the teachers mostly dominated

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the teaching and learning of these texts. At around the same time, there was a widespread perception that the standard of English in the Bhutanese schools had declined (CERD, 2002). The Ministry of Education (MoE) immediately reacted to this general perception of the declining quality of English, the outcome of which was the *The Silken Knot: Standards for English for schools in Bhutan* (CERD, 2002). Therefore, a timely intervention was implemented by the MoE in 2006 following the revision of English curriculum for all class levels as per the standards incorporated in *The Silken Knot*. With the revision of the curriculum, the choice of literary texts was also revised.

The current English curriculum for all school levels which was implemented since 2006 consists of both classic and contemporary literary texts. Literary texts for Bhutanese ESL lessons are grouped into two categories: fiction and non-fiction. Fictions included poetries, novels and short stories written by established writers such as Lois Lowry, Maya Angelou, Robert Frost, Alfred Noyes, Mark Twain and Anton Chekov. Non-fictions include essays, reports, biographies, and autobiographies of great people such as *Toasted English* by R.K. Narayan, *Nature is not always kind* by Helen Keller and *Bhutan: A Biodiverse Diamond of the Himalayas* by Robin Smilie.

Consistent to the existing literature on the worth of literary texts in the curriculum (Carter & Long, 1991; Khatib, Rezaei, & Derakhshan, 2011; Lazar, 1993; McKay, 1987; Rai, 2012), the fiction and non-fiction texts in the Bhutanese curriculum also present themes related to love, family, values, aspirations, tolerance, patriotism, significance of nature, spirituality and religion. Accordingly, the literary texts in the English curriculum were selected to help students with the acquisition of knowledge related to language skills (listening, speaking, reading and writing), culture and for personal growth (CERD, 2002, 2009; CAPSD, 2005; NEF, 2009). Also, *The Silken Knot* specifically mentions that:

Language study be given pride of place among the areas of English study usually found in an English curriculum. It recognizes that Bhutan is a country where English is used as a second language and that students who frequently hear and use English only at school, need direct teaching in the grammar, pronunciation, and syntax of English in a consistent and thorough manner. (CERD, 2002)

The teachers are also expected to use various activity-based approaches to teach the texts. Some of the guidelines for classroom practices that teachers need to follow as reflected in CAPSD (2005) are: students share their prior knowledge and experience; relate to the topic of the texts that they are about to see; reading and comprehending the texts; acquiring new vocabularies; practicing

the language through a variety of activities like role-plays, dramatizations and recitations; writing similar kind of writings; discussing the morals and values learned; discussing important messages conveyed; and exploring cultures. Therefore, the use of literary texts in Bhutanese ESL classrooms is not only about the acquisition of English language skills but also about the enhancement of cultural awareness and personal growth (CERD, 2002; CASPD, 2005; NEF, 2009).

There is literature to show that literary texts and teaching approaches have to be appropriately selected and should include texts and approaches that are culturally responsive, according to the level of the students, and with occupational and academic goals (McKay, 1987; Khatib, Rezaei, & Derakhshan, 2011). In the Bhutanese context, it has been more than a decade now that the current curriculum has been implemented. Till date there has been no study carried out particularly to find out if the literary texts as ESL teaching and learning materials have been able to achieve the intended goals. Thus, this study intended to explore whether the literary texts have been useful for teaching and learning of ESL or not.

While it was beyond the scope of this study to cover all levels of school education, the intent of this study was to explore the use of literary texts at the secondary level with specific focus on Classes IX and X. Hence, the current study intended to bridge the gap in the existing literature through exploration of teachers' and students' perceptions on literary texts. Therefore, this study addressed the following research questions:

Overarching question:

What are the perceptions of teachers and students on the use of literary texts in classes IX and X?

Sub-questions:

1. What are the perceptions of Class IX and X English teachers on the literary texts that are used as teaching and learning materials in ESL classroom?
2. What are the perceptions of Class IX and X students on the literary texts that are used as teaching and learning materials in ESL classroom?
3. How do literary texts enhance the learning of English as a Second Language?
4. How relevant are the literary texts used in Classes IX and X?

Literature Review

The role of literary texts has reemerged with the loss of predominance of the Grammar Translation Method and the growth of Communicative Language Teaching Method in teaching English language since the 1970s and 1980s (Carter, 2007). Literary texts are reconsidered because of its authenticity, more

imaginative and representational use of language, and educational and cultural values (Carter, 2007; Tehan, Yuksel & Inan; 2015)). In addition, some scholars found the richly used language in the texts beneficial in teaching and learning all four language skills (listening, speaking, reading, and writing), vocabulary, grammar, and pronunciation (Carter & Long, 1991; Khatib, et al., 2011; Ihejirika (2014); Lazar, 1993; McKay, 1987; Rai, 2012). Furthermore, Carter and Long (1991) and Tevdovska (2016) emphasized that the content of the literary texts is enriching as it helps students to enhance their cultural knowledge, language development, and personal growth.

However, some researchers like Carter and Long, (1991), Khatib et al., (2011), Lazar, (1993), McKay, (1987), and Tevdovska (2016) opined that there are issues about the use of literary texts. For instance, firstly, the complexity of the context and literary language was difficult for the learners to understand. This could result in deterring the students' enthusiasm and comprehension. Secondly, the literary texts were found insignificant in achieving both occupational and academic goals. Thirdly, literary texts if not selected appropriately were known to provide structural complexity and the unique language which at times served little purpose in learning grammar. In addition, Tehan, Yuksel and Inan (2015) state that convincing the benefits and relevance of the literary texts to the students is one of the challenges.

Nevertheless, in order to overcome the above constraints, McKay (1987), Khatib et al. (2011), and Tevdovska (2016) suggest appropriate selection of literary texts and teaching methodologies. They recommend the texts to be selected according to students' language proficiency level and social background. Curriculum writers could choose simplified, readable and familiar literary texts over culturally complex texts as the learners are expected to enjoy the text that they are able to connect to. In the Bhutanese context, no research has been carried out to discover if the literary texts in the English curriculum are relevant and up to the standard of the students. Are the students able to enjoy the texts? Are the texts culturally relevant? Are the students able to make connections to their life situations? These were some of the concerns that this study addressed.

Furthermore, while teaching the texts, the teachers could highlight the use of old English vocabularies and phonological systems in some of the old literary texts or could sometimes select modern literary texts closer to the standard. Also, teachers could provide background of the texts prior to reading to reduce difficulties in understanding unfamiliar and difficult conventions of literary genres. No research has been carried out to ascertain if the Bhutanese English teachers follow such practices. Therefore, this study was designed to explore and find out the current situation of the use of literary texts in classes IX and X. It is important that students are provided opportunities to explore literary texts to not only enhance their motivation but also quicken the language learning

process. Language is the basis to all kinds of subject areas. It is important that literary texts are used to teach all the four language skills integrated within the texts without isolating them.

Conceptual Framework

In order to explore the perceptions of teachers and students on the literary texts used in Classes IX and X, three approaches of teaching literary texts as proposed by Carter and Long (1991) is used as the conceptual framework. The reason for using this model is that most of the aspects in using literary texts proposed by the scholars such as Widdowson (1975), Lazar (1993), Khatib et al. (2011) and McKay (2014) overlap with the models proposed by Carter and Long (1991). According to Carter and Long (1991), there are three models for using literary texts in a language classroom: the cultural model, the language model and the personal growth model.

Carter and Long state that these models are associated with specific pedagogical practices. *The cultural model* represents the teacher centered approach which focuses on acquiring information on social, political, literary and historical contexts of a specific text. Literary texts must be culturally relevant to the students. The students could also understand and compare various cultures and ideologies. However, this model provides little opportunities for the students to learn about language.

The language model is a student-centered and activity based approach that provides opportunities to learn language systematically and mechanically through various kinds of strategies such as prediction exercises, jumbled sentences, summary writing, creative writing, jigsaw reading, matching, gap-filling, reading aloud, paraphrasing, and role play. Nevertheless, according to Carter and Long (1991) and Savvidou (2004), this approach could divert students' attention towards learning linguistic aspects which at times could deteriorate their appreciation towards the beauty of literary texts.

The personal growth model encourages students to express opinions, feelings, and make connections between their own personal and cultural experiences and those expressed in the texts. This promotes students' knowledge about various human lives and experiences which enables them to connect with the texts practically and facilitate their learning process. However, Carter and Long, (1991), state that student engagement with the text for personal growth is difficult to measure as the outcome of this approach could be noticed in students only if they apply the learning practically in their lives.

Methodology

As this study explored perceptions of teachers and students on the use of literary texts in the ESL classroom, a concurrent mixed methods approach was

employed (Creswell, 2009). One higher secondary school was purposefully selected as the Principal author taught in that school. The school is located in the southern belt of Bhutan with around 1800 students (classes PP to XII) and they came from different family backgrounds such as civil servants, farming, military, business and corporations.

The data were collected using questionnaires from 211 students studying in Classes IX and X (female: 113 and male: 98), and focus group discussions (FGDs) with four students and three teachers. The three teachers had ESL teaching experience of about 10 years on an average. Furthermore, these teachers also had the experience of studying literary texts during their school days.

The questionnaire adapted from Kim (2010) was used to collect quantitative data from 211 students. Kim studied how literature-based language instruction benefited the English learning of Korean high school students. The 63 five point Likert type scale (ranges from 1 to 5: 1 = 'strongly disagree', 2 = 'disagree', 3 = 'neither agree nor disagree', 4 = 'agree', 5= 'strongly agree') items in the questionnaire were divided into seven categories (see Table 1).

Table 1: Summary of the Questionnaire

Part	Content	No. of Items
I.	Characteristics of literary texts based English classroom	8
II.	Development of English Language Proficiency	7
III.	Development of Reading and Writing Skills	11
IV.	Learner-Centered Collaborative Learning	16
V.	Development of Critical Thinking Ability	7
VI.	Literature as a Medium	11
VII.	Assessment and Evaluation	3
Total		63

Four students and three teachers of Classes IX and X volunteered to participate in two separate FGDs. There were eleven guiding questions for the student FGDs and seven for the teacher FGDs. The questions aimed at inquiring after the teaching approaches employed by the teachers in teaching the literary texts, their likes and dislikes, and the strengths and weaknesses of using the texts with their own justifications.

Quantitative data were analysed using Statistical Packages for Social Sciences (v22) to calculate simple descriptive statistics. A content analysis technique was employed to analyze the qualitative data generated through FGDs (Cohen & Morrison, 2011). The FGD data were categorized into the three models of using literary texts in a language classroom proposed by Carter

and Long (1991).

Findings from the survey

The overall findings from the quantitative data (M = 3.96; SD = .92) showed that the students had positive perceptions about the use of literary texts as ESL teaching and learning materials (see Table 2). Students agreed that the literary texts helped in developing their English language proficiency. All the characteristics of the literary texts were perceived to support English language learning because the texts were found to enhance interaction and collaboration among the students, different language skills, and critical thinking ability. In addition, the participants agreed that the methods of evaluation adopted by the teachers assessed both their content knowledge and skills.

Table 2: Students’ general perceptions on the use of literary texts

Category	Mean	SD
I. Characteristics of literary text-based English classroom	4.00	.88
II. Development of English language proficiency	4.23	.84
III. Development of reading and writing skills	3.85	.92
IV. Learner-centered and collaborative learning	3.91	.93
V. Development of critical thinking ability	3.83	.92
VI. Literary texts as a medium	4.00	.94
VII. Assessment and evaluation	3.95	.93
Overall Mean	3.96	.92

Development of English language proficiency topped the list (M= 4.23; SD .84) followed by characteristics of literary text-based English classroom (M= 4.00; SD= .88) and literary texts as a medium (M= 4.00; SD= .94). Although the score for each category was higher than the centre point of three, the ‘development of critical thinking ability’ had the lowest score (M= 3.83; SD=.92) followed by ‘development of reading and writing skills’ (M=3.85; SD=.92). This is an indication that students appeared to relatively show weaker perceptions on critical thinking ability, and reading and writing skills. Findings clearly suggest that the current literary texts in the English curriculum need to be well aligned to promote critical thinking, and reading and writing skills in secondary students. Otherwise, it will be difficult to achieve the writing and reading standards as reflected in *The Silken Knot*.

Findings from the FGDs

The qualitative data collected from two separate FGDs with three teachers and four students were transcribed and analysed through identification of themes and patterns. Two distinct groups of themes emerged from the data, which are categorised into opportunities and challenges in terms of teaching literary texts in Classes IX and X. In the presentation of each theme, teacher participants are referred to as Teacher A, Teacher B and Teacher C, while girl students are referred to as Girl A and Girl B, and boy students as Boy A, and Boy B.

Opportunities

A total of three themes were categorised as opportunity themes. These themes were mainly concerned with helping students develop their cultural, language, and personal competence through learning of different literary texts.

Literary texts for cultural development

Findings from this study suggest that the content of the literary texts is rich in terms of information. The literary texts are written by both native and non-native English writers around the globe; hence, each text was perceived to generate information on various countries' cultures, social issues, political systems, general knowledge, and human ways of life. For instance, the writers mostly depicted the social and political situations at their time. Boy B mentioned, "A poem 'Why the Caged Birds Sing' is about the racism. It shows us the reasons to avoid racism. It teaches us why we should not practice racism and how people were discriminated and how they fought for their freedom." Similarly, Teacher A said, "If you are reading a Victorian poem, good knowledge about Victorian era is learned. Novels like Thomas Hardy shows the social lives in England at that period of time."

Nevertheless, both the teachers and students suggested that the literary texts are to be supplemented by other authentic materials such as newspapers and journals in case students need to study the factual information and current happenings as most texts are fictitious and are written based on past events. Teacher A mentioned, "Other than the prescribed texts, we do use some other articles and journals. If we think only about the texts, maybe sometimes we limit the knowledge." Girl B stated, "Teachers should not go only with the literary texts but sometimes use other resources like inspirational videos and documentaries. We do not only learn necessary information about some current happenings in the world from literary texts alone." There seems to be some contradiction between what the teacher and the student said. However, such findings clearly indicate that English teachers hardly use other resources such as videos and documentaries to make their English lessons meaningful and engaging.

Literary texts for language development

Findings from this study showed that the literary texts have helped enhance students' participation in learning through various kinds of student activities such as debate, role-play, book talk, speech, debate, presentation, extensive and intensive reading, and dramatization. For instance, Teacher B said, "I have seen many of my friends teaching the poem 'The Highway Man' through dramatization. So, in a way it enhances students' creative and language skills as they have to create settings, design costumes and memorize dialogues." Similarly, Boy B stated, "interesting thing about literary texts based English classroom is that we acted situations in the literary texts. I love dramatization because most of the time scenes acted out were very funny and interesting."

The following excerpts further indicates the implementation of activities in literary texts based language classroom, "there are lots of events we agree but our friends do not. We debate over different ideas shared. We really enjoy these because we could share and exchange ideas and refer to different sources to be sure about what we say" (Boy B). Similarly, Teacher A mentioned that, "students are given a platform to talk to the class through activities such as 'talk a minute' and 'speeches'. Students are given a topic to talk." Discussing how learning of a novel helps in improving language skills, Girl A shared that:

For the novel, we had to do the presentations and teacher gives us guidance on how to go about our presentations. During the presentation, we were given chance to ask questions and exchange our opinions. In order to answer the questions and present better, we have to read the texts over and over again. I found this helpful because it improves our language skills.

Both the teacher and student participants found that such activities helped motivate students to learn language and develop all four language skills, vocabulary, confidence, imagination and creative skills. For instance, Teacher C comment, "if a person knows how to read, naturally he or she could be a good listener, speaker and a writer. So, I found this literary text very resourceful for acquiring all these strands."

Furthermore, this study also discovered that, literary texts written by native writers were perceived to model authentic language. Students learn the ways and words used by native speakers and they get ideas on how to write like one of them. Girl A said, "there is a story called 'I have got Gloria'. There are many dialogues in there. So, when we go through that, we know how English people speak, type of dialogue used in different kinds of situation." She also said, "After our English madam showed us essays like 'Himalaya', I got an idea on how to write expository essay. There are poetries and short stories of great poets, from there we get ideas to write poems and stories also." Also, students

need to read the literary texts both intensively and extensively to understand well and perform better. Such practices seem to inculcate reading habit amongst the students. For instance, Boy A said, “directly or indirectly reading literary texts force us to read and I like it because we realize it improved our reading. This has helped me to develop reading habits.”

Literary texts for personal development

Most of the literary genres depict human lives and experiences. Both the teacher and student participants remarked that this feature promoted opportunities for the students to explore human lives and experiences, reflect and relate their personal lives to that of the events given in the texts, to author's and to their friends' lives. For instance, Teacher A mentioned:

Students are enthusiastic about the genres as they participate and interact with teacher and their friends a lot. They were able to relate the situations in the texts to their real-life situation. Sometimes they are able to transform the situations into real-life situation and how they feel the situations would have been better. Sometimes they are able to narrate similar kind of problems and how they solved them. That gives us hope that they are enjoying and learning.

In addition, students were able to empathize with the situations faced by the characters in the stories and novels, and also to the events mentioned by the writers. Girl B said, “we used to chase away dogs whenever they came near us but now from the character ‘Dawa’ in the novel, we know how dogs feel when we throw stones at them. So, we do not do it anymore.” Such realization in the young minds is an encouraging development that can help promote the country's development philosophy of Gross National Happiness (Sherab, 2013). It is imperative that both teachers and students focus on such life changing learning experiences as they interact with other literary texts in the English curriculum. Similarly, Boy A learned to set goals and develop determination to achieve them through a character in one of the novels. He said:

... the protagonist was determined to cure mange and was able to cure it at the end of the story. It encourages me to have goals and we can achieve it either on our own or with the help of other friends for every task given to us.

The participants also mentioned that the literary texts shared and sensitized the youth related issues and problems such as teenage pregnancy, substance abuse, choosing a right career and necessity for keeping options in one's lives. Teacher C comment, “all the life issues like teenage pregnancy and substance abuse are discussed in the text. The text helps the students to lead their lives in

a right track and how to face challenges in one's life." Given the current youth issues that Bhutan faces, it is commendable that the English curriculum through various literary texts deals with such issues in the schools (Sherab, 2013).

Through the above-mentioned situations, students were able to learn how to deal and make decisions if ever they faced similar kind of situations in their lives. Students were noticed by the teachers making their own judgments and justifications for their opinions stated. This process enabled students to be reflective individuals and have prepared students towards leading better lives. With much satisfaction, Teacher A clarified, "every time students read the text they grow in terms of their knowledge and experiences. They get extra energy to explore and provide justifications when they could relate to the world around them and with their lives."

Overall, the participants noted that all the literary genres were written with a purpose by the writers which they called the theme. Through the themes of the texts, the teacher participants perceived that the students learned some of the life-long values related to society, psychology and ethics which attributed towards making individuals better humans and productive citizens. For instance, Teacher C remarked, "there is a combination of skills. The text prepares students to be productive citizens. While teaching in the class, sometimes I do not feel I am teaching them for examination but for the preparation for their lives to come." It is critical that all teachers in Bhutan exhibit such perceptions with regard to the delivery of the English curriculum.

Challenges

The study also found some challenges associated to the literary texts such as the literary texts and grammar, inappropriate choice of texts, and level of cognition. Each of these themes are presented in the following sections.

Literary texts and grammar

Findings from this study suggest that both the teachers and students perceive grammar rules significant for learning language. The students expect to learn grammar more in a language classroom. They opine that the confidence in using English language is determined by the appropriateness of grammar rules. Pointing at the weaknesses of the current grammar teaching in the Bhutanese schools and how it impacts their speaking and writing skills, Girl B claim that, "at times when we get opportunity to speak in public, we are not very confident because we are not taught English grammar well. I am not confident in writing also because I fear making lots of grammar mistakes." Although the students were of the opinion that they learned the practical applicability of grammar rules from literary texts, the current practices seem to provide minimal focus. Boy A said, "the way apostrophes, inverted commas and commas [are] used in

the literary texts through dialogues provide us with ideas of how to use these in our writings.” Discussing the issue of grammar teaching, this student further added, “teachers stress more on reading literary text than on grammar. Grammar should be taught on [a] weekly basis.”

On the other hand, the teacher participants argued that they were instructed during the curriculum orientation to teach grammar in context to the literary texts rather than taking a separate class. Moreover, Teacher A maintained, “at times it is challenging to teach grammar points in the literary texts because the content of the literary texts is vast and it consumes more time to teach those.” Teacher C added, “the only disadvantage I find in using the text is the time allocation for teaching the content of the texts and the activities divert our focus of teaching the grammar in context.” Such findings are a clear indication that English teachers provide more emphasis on teaching of content rather than on the language skills. Findings from this study confirm the earlier findings that the Bhutanese education system is focused on syllabus coverage and preparation for examination (Education Sector Review Commission, 2008; REC, 2009; Maxwell, Rinchen, & Cooksey, 2010; Sherab, 2014). Without significant changes to the current system of rigid examination and teacher attitude towards intended goals of the curriculum, not much is likely to change in terms of teaching language and grammar skills.

Inappropriate selection of literary texts

Both the teachers and students perceive that the literary texts were advantageous for developing their knowledge on culture, language (through various activities), and personal growth. However, they expressed that the literary texts are advantageous only if the texts were appropriate to the students' social and cognitive background, and their language proficiency. For instance, Girl A argued:

There are some poems and essays that are not useful for us. For example, [the] Poem ‘Professor’ is not applicable to our life and is not meaningful to us. That is why I did not enjoy the poem as it did not make any sense to me.

Similarly, Teacher B said, “children learn less from literary genres that are difficult to understand because of difficult language or context.” The students seem to enjoy and make sense from the texts that are familiar to their social context, easy to comprehend, and when comprehensible linguistic features are used. The students could hardly make sense out of inappropriate texts that present unfamiliar social contexts from theirs with incomprehensible linguistic features. If the texts are considered too high for students to comprehend both contextually and linguistically, minimal benefit is derived from such texts.

The problem does not seem to be with just students, even teachers faced

challenges in teaching unfamiliar contexts in text. For instance, one of the teachers found teaching the novel 'Dawa' easier than 'The Giver'. She found the novel 'Dawa' easier as the context given in the novel was familiar to the students, whereas, 'The Giver' consisted of imaginary world of western culture which is difficult for the students to imagine as there are hardly any Bhutanese children who have experienced western lives. One of the teacher participants also found it challenging to convince the 21st century students of the Victorian and Renaissance settings depicted in some genres. There is evidence to show that school curriculum must be relevant to the students' culture for better learning (Yazzie, 1999; Feger, 2006; Sealey-Ruiz, 2007).

Level of cognition for different genres

Both teachers and students perceive short stories and essays easier compared to poetry and the novel. The students were noticed facing difficulties in comprehending and analyzing the figurative and symbolic languages used in novels and poems. For instance, Teacher B explained, "in [the] novel 'Dawa', students do not have to think much because it does not contain many symbols, whereas 'The Giver' needs a lot of thinking process to comprehend and analyze." Similarly, Teacher A added, "Poetry requires higher level of thinking. It contains lots of figurative languages where Bhutanese children find [it] difficult. Unless children are familiar with all those figurative devices, poetry becomes [a] Herculean task for them [students] and sometimes even for the teachers."

Similarly, students suggested a need for strategies and techniques to comprehend and analyze figurative languages used in the poems. Boy A said, "Most of our friends do not get good marks in poems. To improve, strategies and techniques to analyze the figurative languages and what the poets are trying [to] convey in the poems could be stressed more." Such findings are an indication that the current English curriculum for Classes IX and X have texts that are of a higher standard than their level.

Discussion and Conclusion

In alignment to previous studies (Carter & Long, 1991; CERD, 2002; Divsar & Tahriri, 2009; Khatib et al., 2011; Kim, 2010; Lazar, 1993; Nair et al., 2012; Paran, 2008; Rai, 2012; Rosenblatt, 1995; Tevdovska, 2016; Varul, 2013), findings of this study also revealed that the content of literary texts are beneficial in learning about various cultures, language, and life-related experiences. Particularly, the literary texts prescribed in the Bhutanese ESL curriculum benefitted students in learning language through various activities, acquiring information about different cultures in the world and enriching life-related lessons and experiences. However, there were also some challenges found in using the texts such as the negligence of teaching and learning grammar rules,

inappropriate selection of texts, and the difficulty level of the texts.

The literary texts provided information on culture, historical events, political settings, social lives and the human race through which students gain knowledge about various cultures in the world as stated by the scholars such as Carter and Long (1991), Khatib et al., (2011), McKay (1987), Nair et al., (2012), and Tehan et al., (2015). Most Bhutanese students come from middle and low socio-economic backgrounds. As a result, they hardly get opportunities to travel abroad. Most of them are deprived from personally experiencing the outside world and community other than their own. The literary texts at least provide them with the opportunity to explore the world. In addition, in order to analyze and know the current situations, it is important to know the root of the current history or past scenarios. Thus, literary texts enhance students' knowledge about the history of the current scenarios and compare the current scenarios to that of the previous.

Students' experience with different kinds of literary genres helps them to learn about authentic English language usage, different kinds of literary genres in the texts and inculcate reading habits. The conversations included in novels and short stories written by native writers illustrate authentic English language for communication (Carter & Long, 1991; Khatib et al., 2011; Rai, 2012; Widdowson, 1975). There is evidence to show that the literary texts have helped the students in enhancing their language skills for communication. Also, students learn about how English language is practically used by the natives. Findings from this study corroborates with the earlier findings of Ihejirika (2014), that when students are exposed to all kinds of genres they not only gain knowledge about these genres but also about strategies to write these literary genres and promotes reading habits in the students. Moreover, students could come up with their literary criticism as they are exposed to the variety of genres.

Themes of literary texts unlike other texts impart moral values and sensitizes students about human lives than simply teaching the content and language. There are literary genres talking about moral and social values, ethics, humanities, and awareness on different issues such as culture and youth; students learn to become better individuals and productive citizens of the society as a whole in this globalized world (Khatib et al., 2011; Kim, 2010).

Nevertheless, there are some challenges that need to be addressed in order for the students to benefit from the literary texts. While selecting the texts to be used as ESL teaching and learning materials, teachers and curriculum developers must be mindful about the choice of literary texts and teaching approaches employed by the teachers (Carter & Long, 1991; CERD, 2002; Divsar & Tahriri, 2009; Ihejirika, 2014; Khatib et al., 2011; Kim, 2010; Lazar, 1993; Nair et al., 2012; Paran, 2008; Rai, 2012; Rosenblatt, 1995; Tevdovska, 2016; Varul, 2013). Students prefer learning from the texts that suit their language

proficiency, cognitive level, and social background. The findings of this study corroborated with that of earlier studies conducted by Carter and Long (1991), Lazar (1993), McKay (1987), and Widdowson (1975), that the students either gained minimal benefit or found the texts meaningless when the texts were found inappropriate for them. Nevertheless, as mentioned by Carter and Long (1991), Lazar (1993), McKay (1987), and Widdowson (1975), selecting the right choice of literary texts for the students is one of the greatest challenges. Moreover, in teaching the texts teachers are recommended to use a variety of student-centered teaching strategies for students to acquire all four language skills, vocabulary, pronunciation, critical analysis skills, creativity, moral values, and more importantly motivation to learn (Kim, 2010; Kim, 2013; Nair et al., 2012; Varul, 2013).

Despite all the advantages of using literary texts as teaching and learning materials, the findings of this study revealed that the time spent on teaching the content of the texts and other language skills have deprived students from learning the grammar rules. Learning grammar is considered as core essence for literary texts based language classroom despite the disparity in features between the two subjects. Therefore, future researchers could investigate how grammar is best integrated or contextualised in context to literary texts.

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Adolescents' Perception of Parental Communication about Sexuality

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Abstract

The purpose of this study was to explore the adolescents' perceptions of parental communication about sexuality. This study also examined the relationship between the gender of parents and gender of adolescents in terms of communicating about sexuality. A structured anonymous survey questionnaire that broadly categorized sexuality into three broad constructs namely Human Growth and Development, Sexual Behaviors, Attitudes and Values, and Sexual Safety was used as an instrument for data collection. The questionnaire was administered to the students of grade 9 to 12 in one of the higher secondary schools in Wangdue district. The response rate was 95.1 percent (n=594) with 35.1 percent male (n=209) and 64.8 percent female (n=385). The data were analyzed by using descriptive statistics such as counting the frequency and calculating percentages. The findings indicated an infrequent communication regarding sexuality between adolescents and parents. As compared to fathers, the mothers have occasionally communicated about sexuality with the adolescents. The sexuality communication was comparatively more often between the female adolescents and mothers. Both male and female adolescents perceived mothers as the main source of sexuality communication.

Keywords: Adolescents, parents, sexuality education, parental communication, perception

Problem Statement

Adolescence is a time of increased freedom to make choices and the ability of the adolescent to confront these choices and make healthy decisions crucial to development. It is the period during which they need accurate information and skills (Opara, Eke, & Tabansi, 2012) to help them learn about the fundamentals of the human development process since they are exposed to numerous life-changing or sometimes life-threatening circumstances. Without sound ideas and experiences to face the challenge of abrupt changes, children during this period of transition from childhood to adolescence, require special support and

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guidance to make informed choices (Opara et al., 2012) about their physiological and psychological health and wellbeing.

Sexuality is one primary component that forms the basis in understanding and accepting human existence. It plays a crucial part in the adolescents' reproductive health (Topkaya, 2012) and general wellbeing (Pop & Rusu, 2015). Despite evidence (Pop & Rusu, 2015; Opera et al, 2012; Topkaya, 2012) that sexuality communication is important and beneficial, several other studies point out to the challenges or difficulty of sexuality communication. For example, for some cultures, Nambambi & Mufune (2011) and Akpama (2014) contends that with so many misconceptions and cultural and religious taboos about sex, it is largely questionable to trace how many of, in this instance, Namibia in Africa (Nambambi and Mufune, 2011) and Nigerian (Akpama, 2014) adolescents are accurately informed about sexuality. Because it is so delicate and sensitive in nature, many parents shy away from communicating about sexuality with their children. Most parents elsewhere feel themselves ill-equipped and nonetheless find it daunting (Rosenthal & Feldman, 1999; Nundwe, 2012) to talk about sexuality. In some situations, they are either hesitant or afraid of talking about sexuality with their children because their cultural setting does not allow one to do so. While few parents who grew up in a cultural setting who did not talk about anything related to sexuality or reproductive health generally feel 'unknowledgeable and uncomfortable' (Huebner & Howell, 2003) to talk with their children, and thus, resulting in the same trend of rearing the children in the same way they were brought up. This trend of taboos on sexuality education is predominantly visible in many of the cultures even to this date and Bhutan is no exception.

Due to the existence of such cultural and religious barriers in discussing sexuality with the adolescents (Izugbara, 2008), numerous negative health consequences leading to unhealthy relationships and unwanted pregnancy (American Academy of Pediatrics, 2001), illegitimate children and Sexually Transmitted Diseases (Akpama, 2014) which may be otherwise avoidable are constantly on the rise. In 2013, of the total of 346 HIV reported cases in Bhutan, 22 were children below 15 years of age (Ministry of Health, 2014a). Likewise, 23.2% of the population aged between 15-24 possessed comprehensive knowledge and awareness on health risk behaviors particularly HIV/AIDS (Ministry of Health, 2014b). Such gap can be minimized by initiating consistent open communication about sexuality with children (Huebner & Howell, 2003).

As the majority of Bhutanese parents are largely ill-informed and hesitant to open up about sexuality with their children, due to the fact that we are 'bound to the culture of shame and respect (Ngotsha)' (Passang, 2015). This research was motivated to explore the adolescent-parent communication about sexuality in the Bhutanese context. Sexuality education has been in the limelight in

Bhutan since 2008 with the introduction of life skills education in which a comprehensive sexuality education forms an integral part of it (Department of Youth and Sports, 2014). Further an educational programme such as the School Parenting Education Awareness (SPEA) programme initiated to foster positive parenting has impacted in delivering the knowledge to the parents in understanding adolescence.

However, it was not until the Paro College of Education hosted an international seminar on sexuality education in collaboration with the United Nations Population Fund (UNFPA) in 2015 that gathered a range of literature in identifying context specific gaps regarding the sexuality education in Bhutan. Similarly, a national seminar on life skills based comprehensive sexuality education organized by the Samtse College of Education under the auspices of the UNFPA, accumulated a wide range of research on various aspects surrounding the concept of sexuality, such as mass media influence on adolescents' sexual attitude and behavior, sexual harassment, contraceptives, sexually transmitted infections, sexual orientation (LGBTI) and sexual abuse to name a few. However, very little information is available regarding the adolescent-parent sexuality communication in particular, based on the Bhutanese context.

This study attempts to address this gap in the current literature by examining the adolescents' perception of parental communication about sexuality using a structured anonymous questionnaire. In doing so, this study intends to address the following research objectives:

1. Explore adolescents' perceptions of parental communication about sexuality;
2. Examine whether adolescents' perceptions of parental communication about sexuality is affected by the gender; and
3. Determine the relationship between gender of adolescents and source of sexuality information based on adolescents' perceptions.

Scope of the study

The study was undertaken in one of the higher secondary schools in Wangdue district. Using a questionnaire survey, a sample of 594 students (male, n=209 and female, n=385) from grade 9 to 12 were involved in the study. The sample involved were from different parts of the country but currently studying in the same school as their parents work within this catchment area.

Literature Review

Sexuality is one concept that covers biological, physical, emotional and spiritual aspects in it. According to the Sexuality Information and Education Council of the United States (SIECUS), the key concepts/dimensions for a

comprehensive sexuality education for ages 15 to 18 years includes:

- 1) *Human development* (Sexual and reproductive anatomy and physiology, puberty, reproduction, body image, sexual orientation, gender identity);
- 2) *Relationships* (families, friendship, love, dating and romantic relationships, marriage and lifetime commitments, raising children);
- 3) *Personal skills* (values, decision-making, communication, assertiveness, negotiation, looking for help);
- 4) *Sexual behavior* (sexuality throughout life, masturbation, shared sexual behavior, sexual abstinence, human sexual response, sexual fantasy, sexual dysfunction);
- 5) *Sexual health* (reproductive health, contraception, pregnancy and prenatal care, abortion, sexually transmitted diseases, HIV & AIDS, sexual abuse, assault, violence and harassment);
- 6) *Society and culture* (sexuality and society, gender roles, sexuality and the law, sexuality and religion, diversity, sexuality and the media, sexuality and the arts) (SIECUS, 2004).

The knowledge on sexuality is important not only for the adults but is vital for adolescents as well. Identifying adolescence as one crucial period of human development that experience changes in sexual aspects such as increased sex drive and high level of inquisitiveness (Akpama, 2014), is now seen as a global priority aimed at improving the sexual and reproductive health of young people (Bastien, Kajula, & Muhwezi, 2011). However, in many cultures, the discussion of any sexual matters within a family or in the society involving the adolescents was largely considered as a religious or cultural taboo (Izugbara, 2008; Nambambi & Mufune, 2011; Asampong, Osafo, Bingenheimer, & Ahiadeke, 2013; Akpama, 2014; Ogundipe & Ojo, 2015). Depending on the cultural construction of sexuality, adolescent-parental communication about sexuality was attributed to something embarrassing, unnecessary and irrelevant (Wang, 2016) or as an adult affair (Nambambi & Mufune, 2011) and therefore completely forbidden. Some forms of sexuality issues were largely portrayed as 'dangerous, unpleasant, and unsavory' (Izugbara, 2008) and discussions with the children were mostly resorted to warnings or threats (Wamoyi, Fenwick, Urassa, Zaba, & Stones, 2010) or indirect speeches and ambiguous messages (Wang, 2016). Consequently adolescents making an attempt to explore information regarding sexuality were generally set aside to their own discretion. Under such circumstances, adolescents were often at risk of gathering misconstrued knowledge about sexuality from various sources and it is likely that such myths and misconceptions acquired may be passed down to the generations (Opara et al., 2012).

Due to such information deficit, widespread health consequences related to sexuality such as increasing incidence of teenage pregnancies (American Academy of Pediatrics, 2001) and Sexually Transmitted Diseases (STDs) (Akpama, 2014) because of unsafe sex may be observed. Hence, in some industrialized countries such as the United States of America, school programmes on sexuality education were established in response to narrow the deficiency in the knowledge and reduce increasing rates of unwanted teenage pregnancies and sexually transmitted infections (Brewer, Brown, & Migdal, 2007). Gradually, many international organizations adopted broad sexuality programmes as one fundamental form of public health strategy with parents, caregivers, school programmes and public health campaigns in mainstream avenues.

Parents have long been accounted as one of the most influential socializing agents of sexuality for their children (Rosenthal & Feldman, 1999; Nambambi & Mufune, 2011; Widman, Choukas-Bradley, Helms, Golin, & Prinstein, 2014). There is a widespread belief among many parents that it is their role to provide sex education for their children as a way to protect them from negative sexual health consequences and unintended pregnancies (Rosenthal & Feldman, 1999; Dilworth, 2009). However, in actual practice they usually do not communicate about the aspects of sexuality with their children (Wilson & Koo, 2010; Asampong et al., 2013). For those who engaged in limited sexuality communication, the focus was only on matters concerning physical growth (Bastien et al., 2011) and sexual safety instead of more personal or physiological or relationship-based issues. The nature of adolescent-parental sexuality communication is often limited with parents finding it difficult to deal with sexual topics (Rosenthal & Feldman, 1999) for issues being sensitive or parents lacking adequate knowledge. In fact, sexuality and sexual health itself is broad and challenging (Walker & Milton, 2006).

Many parents feared that the interventions, which aim to promote healthy sexual behaviors by introducing sexuality education to the adolescents would contribute for early sexual experimentation among young people (Kirby, Obasi, & Laris, 2006; Izugbara, 2008; Nundwe, 2012). But Rodgers (1999) has established that adolescents who talk with their parents about sexuality are capable of judging their sexual behaviors and therefore can minimize sexual risks besides realizing the parental expectations on sexual responsibility. In general, adolescents exposed to an early introduction of sexuality education were potentially impacted with positive knowledge, attitudes, intentions and norms (Bastien et al., 2011), sexual beliefs, attitudes, and behaviors (Lefkowitz, Kahlbaugh, & Sigman, 1996), delayed sexual activities and prevention of pregnancy and STDs and protected against early sex debut, and frequency of sex and condom use (Rodgers, 1999; Widman et al., 2014). The parent-adolescent communication on sexuality has been recognized as a protective factor for

adolescent sexual behavior and reproductive health (Rodgers, 1999; Wilson & Koo, 2010) including HIV infection (Bastien et al., 2011).

For sexually active adolescents, sexuality communications were critical to equip them with the information and negotiation skills essential to overcome sexual health problems (Widman et al., 2014). Nevertheless, one primary element that can influence adolescent-parent sexuality communication is the nature and quality of the relationship they share. Parents that regard adolescents with high quality relationship are more likely to initiate discussions about sexuality (Huebner & Howell, 2003). The adolescent-parent closeness and connectedness can lower the risk of adolescent pregnancy (Miller, 2002; Nambambi & Mufune, 2011). Or else, the task of parents delivering accurate information would not be accomplished. At the very least, Rosenthal and Feldman (1999) argue that adolescents being listeners needs receptivity so as to allow flow of accurate information from the parents.

Any productive interventions during early adolescence regarding sexuality is indispensable even if most young people have not yet engaged in sexual experiences. At this period of development, sexual maturity begins but their attitudes and behaviors towards sex are not rigid. Parents would find it easier to talk to the adolescents about sex when they are younger (Nambambi & Mufune, 2011). As parents participate in the communication of sexuality with adolescents, that process of teaching and learning can extend and involve the family members such as siblings and even grand parents (Walker & Milton, 2006). While both school (Rosen, Murray, & Moreland, 2004) and family share the responsibility of educating the adolescent on sexuality, parents are by far regarded as the most responsible agent in providing adequate information to their children (Pop & Rusu, 2015). An effective adolescent-parent sexuality communication has an important impact on family relationships and the adolescent's development including the adolescent's current and future behavior (Lefkowitz et al., 1996) and their sexual health (Nambambi & Mufune, 2011). Parental avoidance of communication about sexuality with their children might handicap the knowledge of negotiating safer sex (Izugbara, 2008) and risk their children indulging in hazardous sexual activities. When an adolescent-parent relationship is associated with effective sexuality communication, trust is established and adolescents are encouraged to ask questions and initiate talk about sexual issues (Nambambi & Mufune, 2011).

Viewing the adolescent-parental relationship as crucial in determining adolescents' life-changing decisions particularly with regard to sexual and reproductive health, life skills education that includes comprehensive sexuality education (Department of Youth and Sports, 2014) and School Parenting Education Awareness (SPEA) programmes have already been established as a part of the curriculum in the schools in Bhutan. Without such education,

adolescents were not only poorly prepared for adulthood but potentially vulnerable to coercion, abuse, exploitation (Department of Youth and Sports, 2014; Seden, 2016), violence, maternal mortality and morbidity and sexual or gender discrimination (Seden, 2016). However, parental participation in such programmes has largely advocated and enhanced the accessibility of information on adolescents reproductive health education and its risks associated if not properly addressed. Since Bhutan is 'bound to the culture of shame and respect (*Ngotsha*)' (Passang, 2015) and 'open discussion of which was traditionally problematic in households and communities' (Department of Youth and Sports, 2014), issues such as sex remain largely silent among the adults and children (Passang, 2015). Consequently, such practice poses a challenge for the parents in assisting young people to gather information associated with sexual negotiation skills, sexual health, gender and sexuality in particular. Adolescent-parental communication about sexuality is imperative in order to understand the changing pattern of adolescent sexual behaviors, which if not taken care of seriously, could have potentially fatal lifelong consequences that may not be easily repaired. Parents play a pivotal role in providing healthy sex education for their children and making informed decisions about negative health consequences. Thus, the aim of this study was to explore the adolescents' perception on parental communication about sexuality.

Research Approach

This study involving one of the higher secondary schools in Wangdue district employed a quantitative research approach using a survey questionnaire. A sample of 594 students (male =209 and female=385) studying in grade 9 to 12 were involved in this study. A survey questionnaire were constructed using a three-point Likert scale, was used to collect the data. The data collected were analyzed using counting the frequencies and finding percentages.

Research Instrument

The survey questionnaire used in the study was adapted from relevant literatures such as Rosenthal and Feldman (1999), Huebner and Howell (2003), Barber, Maughan, and Olsen (2005) and Opara et al., (2012) and was submitted to two subject experts for content validation and contextual applicability. Considering the suggestions of the reviewers, four items that failed to measure the intended objectives were removed. Hence, only a total of sixteen items categorized under three broad constructs namely Human Growth and Development, Sexual Behaviors, Attitudes and Values, and Sexual Safety were considered. The reliability of the instrument was established through a pilot study involving 32 participants that shared a similar socio-economic background and age level. The internal consistency (Cronbach alpha) of more

than 0.8 was obtained for all the constructs, indicating that the items were valid for implementation.

Sample

The sample consisted of 594 students (male, n=209 and female n=385) of grade 9 to 12 studying in one of the higher secondary schools in western Bhutan. With an age ranging from 15-19 years, the students were from a comparable socio-economic status. This study strictly involved only those students living with their biological father and mother. The condition of having a surrogate or the parents who have adopted them were not included in this study since this research study aimed to determine sexuality communication only between the adolescent and their parents.

Data Collection and Analysis

The data were collected from those students who volunteered by giving their consent and expressed their genuine interest to participate in the study. In order to ensure more comfort and convenience, they were asked to submit the questionnaire at their own pace during the one hour time of the implementation. The privacy and confidentiality of the participants were deemed as the top most priority so as to elicit higher and factual responses especially on those sensitive variables. Wherever necessary, the students were directed to tick more than one option. The questionnaire that comprised of three broad constructs was further divided into sixteen items. The participants were asked to rate those items on how it was related to them using a three-point Likert scale (2:often; 1:occasionally; 0:never). The data were analyzed using the descriptive statistics by finding frequency and percentage.

Results and Discussion

Adolescents' perception of parental communication about sexuality

The findings indicated that parents talk occasionally about sexuality with their adolescents. As shown in Table 1, sexual aspects such as pregnancy and physical development were largely discussed with mother at 84% each respectively and father at 72.4% and 74.9% respectively. The mother communicated occasionally with their adolescents on aspects such as menstruation (76.3%), dating/romantic relationships (79.8%) and sexually transmitted diseases (77.4%). This can be partly attributed to the fact that mothers have experienced some of those biological changes such as menstruation and thus preferred sharing their concern. However, fathers communicated occasionally about molestation/rape (71.4%) and sexually transmitted diseases (71.9%). Some sexual aspects such as masturbation were rarely discussed by either the mother (52.1%) or father (46.1%). The sexual concept that was more often discussed

by both the mother and father was safe sex at 52% and 48.7% respectively.

Table 1. Frequency of sexuality communication by father and mother for each item

Construct	Items	Mother			Father		
		2 (%)	1 (%)	0 (%)	2 (%)	1 (%)	0 (%)
Human Growth and Development	Menstruation	22.7	76.3	1.00	20.3	59.3	20.4
	Puberty	22.4	75.8	1.90	21.2	64.0	14.8
	Pregnancy	14.3	84.0	1.70	14.4	72.4	13.1
	Abortion	21.2	60.8	18.0	18.4	46.8	34.9
	Physical development	13.3	84.0	2.70	12.5	74.9	12.6
	Sexual orientations	33.7	45.3	21.0	31.3	45.3	23.4
Sexual Behaviors, Attitudes and Values	Dating/romantic relationships	19.2	79.8	1.00	16.2	66.4	17.4
	Dealing with sexual desire	32.0	46.1	21.9	26.3	44.7	29.0
	Masturbation	35.9	12.0	52.1	34.1	19.8	46.1
	Wet dreams	45.3	34.2	20.4	23.9	38.1	38.0
	Molestation/Rape	24.7	73.0	2.40	23.1	71.4	5.40
Sexual Safety	Safe sex	52.0	27.4	20.5	48.7	27.9	23.5
	Sexually Transmitted Diseases	20.9	77.4	1.70	20.2	71.9	7.90
	HIV/AIDS	20.5	75.6	3.90	19.7	68.4	12.0
	Contraception	24.9	70.5	4.50	23.9	66.5	9.60
	Sex before marriage	17.5	74.4	8.10	14.3	65.7	20.0

*2=Often, 1= Occasionally, 0= Never

In general, it was observed that parental-adolescent sexuality communication largely focused on the sexuality aspects of human growth and development (See Table 2). This is in keeping with the study conducted by Wang (2016) where the knowledge of physical development was often the most communicated aspect of sexuality. Communications on sexual aspects such as this is because they are not sensitive and rather tends to be perfunctory (Nundwe, 2012). However, this aspect of sexuality was conversed only occasionally by both mother (71%) and father (60.5%). Sexual safety was another concept that was discussed by both

mother (59.9%) and father (57.1%) more often than sexual behaviors, attitudes and values. This might possibly be because sexual behaviors are sensitive and embarrassing to include in an open family discussion. Although both the parents discussed sexuality only occasionally, it was mothers who communicated about sexuality more frequently than fathers. This finding shares the similarity with the claims of having mothers as the frequent communicators (Bastien et al., 2011).

Table 2. Frequency of sexuality communication by father and mother for each constructs

Constructs	Mother			Father		
	2 (%)	1 (%)	0 (%)	2 (%)	1 (%)	0 (%)
Human Growth and Development	21.3	71.0	7.7	19.7	60.5	19.9
Sexual Behaviors, Attitudes and Values	33.4	49.0	17.6	24.7	48.1	27.2
Sexual Safety	30.1	59.9	14.0	26.8	57.1	17.8

*2=Often, 1= Occasionally, 0= Never

Adolescents’ perception of parental communication about sexuality based on gender

As shown in Table 3, many aspects of sexuality are discussed between mother and female adolescents compared with mother and male adolescents. Similarly, male adolescents perceive their fathers as the main communicator about issues related to sexuality (Also see Table 4). This analysis indicates that the adolescents-parent communication about sexuality largely depends on the gender of both the parent and the child. This finding is in keeping with a study in the United States where adolescents perceived parental communication on sexuality being influenced by the gender (Rosenthal & Feldman, 1999; Wilson & Koo, 2010). A study in Australia by Rosenthal and Feldman (1999) reported that adolescent girls were having more sex communication by their mothers when compared to adolescent boys. Topkaya (2012) has also concluded that Turkish adolescents were conservative in sexual attitudes and that females preferred their mothers while the males favored fathers in talking about sexuality. Similar differences between genders in the pattern of sexuality communication was also reported in the study by Nundwe (2012). Besides considering it shameful to communicate about sexuality with the children of the opposite sex, discussing about sexuality was restrained due to the fear that it might be misconstrued by the children as an invitation for having sex with them or direct them into sexual experimentation (Nundwe, 2012). Nevertheless, sexual aspects such as menstruation (96.5%), physical development (93.2%), dating/romantic relationships (95.3%), wet dreams (96.9%), molestation/rape (96.6%), STDs

(97.9%), HIV/AIDS (97.4%) and sex before marriage (92.7%) were often talked between mothers and female adolescents than with male adolescents. Partly the reason for this is because the onset of menstruation that indicates the child's fertility and sexual development prompts the mothers to act (Nambambi & Mufune, 2011). In some cases, compared to the son's sexual activity, the mothers are concerned about their daughter's sexual activity (Fingerson, 2005). In another way, the growing vulnerability of the female adolescents due to an increasing molestation or rape stories in the mainstream media and rising number of STDs and HIV/AIDS might have compelled the mother, who shares the same gender to communicate quite often. On the contrary, aspects such as dating/romantic relationships (84.2%) and STDs (76.1%) are occasionally discussed between the father and male adolescents. Whether the sexuality talk is between the mothers to male or female adolescent or is between fathers to male or female adolescent, one major sexual aspect often communicated was dating/romantic relationships. These findings share the similarity with the study in China in which Wang (2016) found out, that dating was considered detrimental to study and grades particularly during their adolescence.

Table 3. Relationship between gender and parental sexuality communication

Items	Mother						Father					
	Female			Male			Female			Male		
	2 (%)	1 (%)	0 (%)	2 (%)	1 (%)	0 (%)	2 (%)	1 (%)	0 (%)	2 (%)	1 (%)	0 (%)
Menstruation	96.5	3.50	0.00	2.90	10.5	86.6	15.8	58.2	26.0	28.7	60.3	11.0
Puberty	83.9	15.1	1.00	43.1	52.2	4.80	11.2	69.9	19.0	73.6	19.7	6.70
Pregnancy	88.1	10.4	1.60	21.1	74.6	4.30	10.6	72.5	16.9	21.1	72.7	6.20
Abortion	27.3	64.2	8.30	23.9	41.1	34.9	13.5	50.1	36.4	64.3	3.60	32.1
Physical development	93.2	4.70	1.60	14.8	78.9	6.20	11.2	75.1	13.8	74.6	14.8	10.5
Sexual orientations	28.8	50.1	21.0	43.5	35.4	21.1	26.0	49.1	24.9	41.1	38.3	20.6
Dating/romantic relationships	95.3	2.90	1.80	82.8	15.8	1.40	56.9	17.1	26.0	84.2	14.4	1.40
Dealing with sexual desire	32.2	49.1	18.4	32.1	40.2	27.8	23.6	46.5	29.9	31.6	40.7	27.8
Masturbation	35.8	25.2	38.7	1.00	2.90	96.2	31.4	24.4	44.2	38.8	11.0	50.2
Wet dreams	96.9	2.10	0.80	27.3	37.3	35.4	22.1	38.4	39.5	26.8	37.8	35.4
Molestation/Rape	96.6	2.60	0.80	1.40	16.7	81.8	20.3	71.7	8.10	28.2	71.3	0.50
Safe sex	63.1	18.7	18.2	40.7	37.3	22.0	54.0	21.8	24.2	38.8	38.8	22.5
STDs	97.9	2.10	0.00	20.6	78.0	1.40	20.0	69.6	10.4	20.6	76.1	3.30

HIV/AIDS	97.4	2.60	0.00	26.8	65.1	8.10	15.8	70.1	14.0	26.3	65.6	8.10
Contraception	23.9	68.8	7.00	31.1	68.9	0.00	20.0	65.5	14.5	31.1	68.9	0.00
Sex before marriage	92.7	6.80	0.50	1.90	7.20	90.9	12.5	64.4	23.1	17.7	67.9	14.4

*2=Often, 1= Occasionally, 0= Never

Gender of adolescents and source of sexuality information

In examining the gender of adolescents and source of sexuality information, it was found that the mothers were the main source of sexuality education. The findings are consistent with Wilson and Koo (2010), Opara et al. (2012), Nundwe (2012) and Kelleher, Boduszek, Bourke, McBride, and Morgan (2013) where adolescents perceived mothers as the central source of sexual communication. This might be attributed to the fact that women in general are considered as the primary care-givers or immediate health educators in the home (Nambambi & Mufune, 2011; Kelleher et al., 2013). Female adolescents prefer communicating with their mothers – their fellow females because mothers can understand sexuality better besides being caring and understanding (Nambambi & Mufune, 2011). For example, in Bhutan, Seden (2016) confirmed in her study on menstrual cycle that it is only through their mothers that the girl child receives information on aspects of sexuality. In contrast 21.3% of fathers have shared the role of discussing issues on sexuality with females. Similarly, friends were also perceived as the source of sexuality information by both male (72.7%) and female (86%). In addition to the father and mother, friends and books were also conceived as source of sexuality information. However, the findings of this study was in contrast with Passang (2015) whose study found that the majority (61.7%) of the respondents (n=160) relied on the media for sexuality information.

Table 4. Table showing source of sexuality information with respect to the gender

Gender	Source of Sexuality Information						
	Mother (%)	Father (%)	Teacher (%)	Friends (%)	Books (%)	Media (%)	Others (%)
Males	112 (53.6)	186 (88.5)	75 (35.4)	153 (72.7)	142 (67.9)	67 (31.6)	75 (35.4)
Females	378 (98.2)	82 (21.3)	81 (21)	331 (86)	319 (82.9)	110 (28.6)	78 (20.3)
Total	490 (151.8)	268 (109.8)	156 (56.4)	484 (158.7)	461 (150.8)	177 (60.2)	153 (55.7)

Conclusion

The findings reported identified that communication on sexuality between adolescents and parents takes place occasionally. Issues on sexuality are rarely a topic of family discussion. Situations such as these in which parents hesitate

to open up about important life changing concepts particularly for the growing adolescents may affect their sexual beliefs and attitudes and behaviors in a manner that could have long term negative consequences.

The mothers were found to have initiated communication regarding sexuality much more frequently than fathers. Based on the adolescents' perceptions, communication about sexuality was comparatively more frequently undertaken between individuals of the same sex - female adolescents to mothers and male adolescents to fathers. However, both male and female adolescents perceived mothers as the main source of sexuality communication. Anecdotally, this finding may largely depict the Bhutanese traditional belief of assuming sex as an embarrassing topic to be discussed inside a family circle.

Other factors such as the parents being preoccupied, uninterested or reluctant to open up with their adolescents, or simply parental lack of knowledge on sexual and reproductive health may also attribute to the findings.

It was found that a comparatively low percentage of females perceived the father as the source of information. However, this study found that an array of factors related to sexual matters particularly on human growth and development constructs were a topic of discussion.

Considering sexuality as a positive part of social discussion is one thing while capacity building particularly for parents and teachers as the main source of empowering sexuality information is another. The findings of this study highlight the needs to institute more educational programmes in the field of sexuality education in Bhutanese context. In a cultural context like ours where adults find it challenging to initiate sexuality communication with the adolescents, it is crucial that the future research should investigate the extent to which parents support their adolescents in terms of delivering family-based sex education and most importantly the factors inhibiting their involvement.

Recommendations

While sexuality education is already a part of the school curricula through life skills education and School-based Parenting Awareness Programmes (SPEA), it is advisable to further enhance its accessibility to the adolescents through various rigorous programmes by involving both parents and the teachers. Inclusion of both parents and teachers can reinforce the goal of comprehensive sexuality education in making it more open and conventional for family discussions like any other issues discussed. Parents should be equally educated and advocated regarding the period of adolescence, which is characterized by increased sexual drive and changes. Initiative such as youth-friendly reproductive health education should be initiated in the schools after providing appropriate trainings to the teachers and parents on reproductive health knowledge so that the common myths and misconceptions can be addressed. Once the teachers are adequately

trained, their interventions are logistically the easiest to implement in the schools (Kirby et al., 2006). At the school level, adolescent sexuality should be featured as an open agenda item during any teachers-parents conventions so as to ensue clarifications on the aspects of sexuality that are deemed in conflict with Bhutane beliefs and traditions. It is the school-based sex education that is effective in conveying health information and skills resulting in the prevention of sexually transmitted infections (STIs) and unwanted pregnancies among adolescents (Shrestha et al., 2013).

Limitations

The findings of this study, which are exclusively based on the adolescents' perspective of one higher secondary school in the country and without inclusion of any parental view points limits its generalizability. The future studies need to seek an extension to incorporate parental views on sexuality communication. Such an extension may help in generating contextually validated characteristics of sexuality education and reveal some prominent parenting styles in guiding our adolescents' sexuality issues. Inclusion of some influential variables such as adolescent-parent closeness and adolescent-parental attitudes towards sexuality can be worthwhile, to gather more data about adolescent-parent sexuality communication.

In an attempt to collect a wide range of adolescents' perspectives on sexuality communication by their parents, a questionnaire was administered that was deemed to be a simple instrument in which to gain responses. However, due to the variations in the levels of understandings of the questions and interpretations by each grade of adolescents, their responses may be open to conjecture.

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Exploring the relationship between factors that support teacher education and the confidence of the pre-service teachers to teach competently and impact students they teach

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Abstract

The teacher education institutions in Bhutan since its inception in the early 1970s have made tremendous contributions in the development of education. However, as Bhutan witnesses rapid socio-economic changes, there is a growing need for teaching professionals who can respond to the changing needs and aspirations of the learners and the society. This study was carried out to explore and understand what relationship exists between the factors that support teacher education and the confidence of the pre-service teachers to teach competently and impact students they teach. The data from 290 graduating pre-service teachers were used for this study. A stepwise multiple regression procedure along with the factor analysis was performed to identify the most significant set of explanatory variables that were effective in predicting the pre-service teachers' confidence in professional competency as well as their confidence to make an impact on students' learning and development. Sixteen factor components having factor scores with eigenvalues greater than one were selected as the explanatory variables for multiple regression analysis. The results showed that the factor components such as; content knowledge beliefs (self-efficacy), academic ability beliefs (self-efficacy); professional skills development (campus based courses), and faculties' teaching effectiveness (faculty competence) significantly predicted the pre-service teacher's confidence in their professional competency. Similarly, the factor components; content knowledge beliefs (self-efficacy), academic ability beliefs (self-efficacy), teaching practice effectiveness (mentor teacher support) and social support services (learning environment) strongly predicted the pre-service teachers' level of confidence to make an impact upon students' learning and development. Thus, this study was able to provide some insights on how improvement in essential factors that support teacher education could improve pre-service teachers' confidence in professional competency as well as making an impact in students' learning and development.

Key Words: teacher education, professional competency, confidence, self-efficacy, students' learning, pre-service teachers

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Rationale of the Study

Teachers, school leaders, and teacher educators play a very important role in developing and improving the quality of education. Arcaro (1995) strongly urged that if the quality of education is to improve, “the improvement must be led by today’s education professionals” (p. 1). Thus it is very important to pay close attention to how the teachers are trained and supported in their professional learning stage. Teaching is not confined only to competence of subject knowledge, but also includes the all-round development of personality which requires systematic training (Saxena, Mishra & Mohanty, 2003). Besides academic competence, teachers must also have other professional and social responsibilities. The visions and missions of most of the teacher education colleges and universities (e.g. St. Anthony’s College, Penn State college of Education, Michigan State University, NIE, Singapore, and Hope College) aspire to prepare prospective teachers with knowledge, skills, attitudes, and a behaviour that are appropriate in performing their tasks in classrooms, schools and in the wider community. To deliver such qualities in classroom, teachers during their training period are expected to achieve sound learning experiences. The core objectives of most teacher education programmes are to equip teachers with knowledge, professional skills, and self-confidence. The colleges equally invest substantial resources into every aspect of the programme to assure high academic achievement, quality, and confidence of the graduating teachers.

In Bhutan, there are only two teacher education colleges. These colleges offer a wide range of programmes at the diploma, undergraduate, and postgraduate levels for pre-service and in-service teacher candidates. Both the colleges seek to excel in the Bachelor of Education primary and secondary teacher education, educational leadership and research programme by ensuring quality graduates based on the principles and values of Gross National Happiness (Paro College of Education, 2012, Samtse College of Education, n.d). In keeping with the above missions, these colleges strive to prepare professionally competent, ethically sound, and progressive teachers. All programmes offered are responsive to the changing needs and aspirations of the learners and society at large and at the same time creating positive learning environments for the intellectual, emotional, and social growth of the learners. In order to achieve such commitments, the programme offered at these colleges commits to three core programme components: a) personal development, b) professional development and c) content enhancement (PCE, 2010, 2011). These colleges have also been trying their best to put into place all the necessary supporting services and resources that are required for a teacher candidate to achieve their teaching preparation. However, not much research has been attempted to understand what relationship exists between the factors that support teacher education, the learning outcomes of the programme, or the confidence of the pre-service teachers in Bhutan. This

study explored the relationships that exist between the supporting factors of teacher education, the students' learning outcomes, and their level of confidence after graduation.

Research Questions:

1. How well do the factors that support the teacher education programmes best explain the pre-service teachers' confidence about professional competency?
2. How well do the factors that support the teacher education programmes best explain the pre-service teachers' confidence to make an impact upon children's learning and development?

LITERATURE REVIEW

While trying to explore the relationship between supporting factors and outcomes of the teacher education programme and to examine the confidence level of pre-service teachers, two things have to be broadly understood; the supporting factors that are essential for teacher education and the expected outcomes of the programmes offered.

According to Aggarwal (1995), the main objectives and functions of the teacher education are: 1) Better understanding of the students 2) Building confidence 3) Familiarization on methods of teaching 4) Building a favorable attitude toward the teaching profession 5) Training for democracy 6) Improving standards or quality 7) Familiarizing with the latest knowledge and innovation in education 8) Familiarization with school organization 9) Creating social insights. In a similar manner, Nirajan (2005, cited in Sarsani, 2006) has described eight different indicators to ensure quality in teacher education. These are, 1) Selection of aspirants, 2) Dynamic nature of the course and duration of the course, 3) Restructuring the teacher education institution, 4) Methods and strategies of training, 5) The support for research, 6) Selection of teacher educators, 7) Role of professional organization, 8) Need to meet multicultural society. The programmes offered in teacher education colleges are therefore expected to provide training in teaching skills, provide pedagogical concepts, impart content knowledge and develop attitudes and values (Singh & Singh, 2004).

Many different factors influence teacher education and its programme, however, the essential indicators used in this study that support teacher's development are: campus based courses (curriculum), school mentor support (teaching practice), self-efficacy of teachers, learning environment and competency of faculty members. Each of these factors are described below:

1. Campus based course content

The teacher training programme should include both aspects of theoretical and practical teaching procedures to foster a significant teaching experience for the learners and the changing needs of the society (Sarsani, 2006). Educationist such as Schön (2003 as cited in Allen & Peach 2007, p. 1) suggest that “separating a theory from practice creates a false dichotomy and that teaching is a profession in which theory is embedded in and inseparable from practice”. The programme offered should contain enough theoreticcal bases on different teaching strategies so that there is a sound transformation into actual practices. The content of the subject and courses should equip trainee teachers with considerable subject knowledge to handle the curriculum with confidence, conviction and enthusiasm (Programme Document, 2011). The pedagogy courses taught should prepare the pre-service teachers with sufficient pedagogical content knowledge so that they are confident in their teaching practicum (Smith & Lev-Ari, 2005 as cited in Cheng 2012).

2. School mentor support

Mentoring has become a more prominent feature in teacher education programmes throughout (Power, Clarke, & Hine, 2002 cited in Hudson, 2005). According to Willani (2002), the “mentor programme to support and induct new teachers which became popular in ‘80s can be highly effective” (p.7). Mentoring allows mentors and the prospective teachers the opportunities to engage in pedagogical disclosure and reflective thinking (Hudson, 2005). Hudson emphasizes that the role of mentors as teachers and the mentor’s personal attributes, pedagogical content knowledge and feedback were effective for the prospective teacher’s improvement. The school mentor also has much more influence than a university professor on pre-service teacher’s attitude and perceptions (Richardson-Koehler, 1988 cited in Cheng, 2012). This shows that for the success of pre-service teachers, it is imperative for the mentors and the faculty members at training colleges or universities to work together. The mentor teachers equally need support to master the subject knowledge as well as enhance their teaching skills so as to assist prospective teachers in improving the teaching and learning processes.

3. Self-efficacy of pre-service teachers

According to Bandura, self-efficacy is “ones belief in one’s ability to succeed in specific situations. One’s sense of self-efficacy can play a major role in how one approaches, goals, tasks and challenges” (cited in Nagel 2013, p.110). The pre-service teacher’s self-efficacy would relate to the beliefs they hold about their own capability in undertaking certain teaching and learning tasks. It is an extent of their learning effectiveness in the way they perceive, learn or experience

the teaching and learning tasks. Self-efficacy of pre-service teachers, therefore, becomes an important predictor of achieving the Bhutanese teacher education programme outcomes that have been highlighted in the training programme document.

4. Learning environment

As per the recent academic literature, the UNESCO report on lessons from research on learning environments (2012), has described learning environment as “the complete physical, social and pedagogical context in which learning is intended to occur” (p. 12). This term also refers to different learning spaces, distance learning contexts, impact on learning processes and outcomes in both cognitive and affective domains as well as natural environment surrounding school buildings when they are used as a learning space. The teaching and learning processes are, therefore, shaped by their physical, social and organizational environment. As previous research on making good schools has suggested, there are a number of school characteristics which are associated with student achievement. The characteristics place an emphasis on teaching basic skills, high expectations for student achievement, frequent evaluation of students’ progress, a safe and orderly school climate, and educational leadership (Reynolds et al. 1996 cited in Wilson, 2002 et al). A similar study carried out to find out the relations among school environment variables and student achievement also revealed that elements of the learning environment have a direct influence on student outcomes as well as the nature of the teaching (Wilson 2002, et al).

5. Competency of the faculty members/teacher educators

Competency is the ability to do something successfully or efficiently. However, in the educational setting there are different terms used synonymously to refer to competency such as; teacher effectiveness, teacher performance, teaching competency or teacher competency. Rao (2008) however, has defined teacher competency as “any single knowledge, skill, professional value which (1) a teacher may be said to possess, and (2) the possession of which is believed to be relevant to the successful practice of teaching” (p.83). In a similar manner, Singh (2010) has described teaching competency as an effective performance of all the observable teacher behaviours, knowledge, skills, abilities and attitudes that facilitate or bring about pupils learning. Halamandaris and Loughton (1973) suggest that a balance between skill, competence and empathy-competence must exist in teacher education. A teacher must have expertise in subject matter, however, the empathy-competence which is the ability of a teacher to genuinely consider, as a first priority the rights, feelings and achievement of the individual students in all teaching activities is necessary.

Confidence level of the teachers

Yeung (2009) has mentioned that confidence is the ability to take appropriate and effective action allowing people to achieve their goals. The confidence related to teaching has been described as a belief in the efficacy of one's teaching skills and techniques (Tolbert, 2008). According to Aggarawal (1995), teacher training builds confidence in potential teachers who can not only face the class with confidence but also tackle many odd situations. The confidence level of teachers has shown to increase with training, exposure to diverse situations, knowledge, and involvements (Jung et al, 2011). The teachers with higher levels of confidence are more likely to try new ideas, try difficult and more powerful teaching strategies (Ross, McKeiver, & Hogaboam-Gray, 1994; Tschannen-Moran & Hoy, 2001 cited in Tolbert 2008). It has also been claimed that students in classes taught by teachers with more teaching confidence are more likely to achieve greater appreciations to the high standards set by the teacher (Ross, McKeiver, & Hogaboam-Gray, 1994 cited in Tolbert 2008).

Programme objectives in Bhutanese teacher education

Different teacher education universities and institutions around the world have different views on their programme content and outcome. In most cases, they are designed to best suit their own societies or country's need. However, all the teacher education universities and institutions share similar goals in terms of educational visions, missions, curriculum, and programme outcomes. Likewise, training programme in colleges of education in Bhutan aim to produce teachers who can teach effectively, instill a positive attitude towards learning and the teaching profession, equip students with knowledge, skills and attitudes, and instill a true sense of loyalty and commitment to the teachers' code of ethics (PCE, 2011). These entire teacher education programme components have been specified into three broad categories:

1. Professional Development Studies: This component of the programme is to enhance the student's professional knowledge, skills and attitudes required for effective teaching in Bhutanese schools. The courses included in this area of study provide opportunities for the students to; learn teaching skills, methods and strategies to make learning effective, enhance the professional growth of teacher and professional knowledge about learners and the principles and processes of learning. It is also to enhance knowledge about curriculum development processes, assessment and evaluation of student progress and achievement. Besides allowing learning about the current developments and issues related to the Bhutanese education system in comparison to other systems; it also allows for the acquisition of knowledge and skills related to community development, participation and research in the field of education.

2. *Personal Development Studies:* This component of the programme will develop student teacher's knowledge, skills and competencies in language and information communication technology (ICT). The students will also learn basic visual communication for effective teaching in Bhutanese schools. More specifically this is expected to provide opportunities to; enhance the student's basic knowledge and skills of communication in Dzongkha (National Language) and English, and use information technology in education and visual communication for effective teaching in Bhutanese schools. It is intended to acquire skills of communication in Dzongkha and English required for effective teaching and smooth social interaction. The pre-service teachers are also expected to acquire basic knowledge and skills in the use of information technology in education. Likewise, it is also aimed at providing opportunities for learning about visual media and utilization methods, the basic tools necessary for effective communication of information and ideas. The teachers are also expected to acquire basic knowledge and skills in the use of visual communication for the preparation and use of teaching and learning aids in education for effective teaching in Bhutanese schools.

3. *Content Enhancement:* This component of the programme is to specialize in the subject in order to develop adequate content knowledge and skills in the subjects of specialization and to foster a lifelong desire for further exploration and inquiry into these disciplines. This will provide opportunities to engage in an in-depth study of the subjects of specialization and acquire specialized knowledge and skills in these academic disciplines. It is expected that teachers develop a firm grounding in their subjects of specialization, so that they can teach these subjects with confidence, conviction, enthusiasm and the breadth of knowledge required at various levels of teaching. Their content knowledge of these subjects will be upgraded and they can keep pace with the developments in these disciplines. It will also let students learn appropriate teaching methods and effective ways of preparing learning materials related to their respective subjects. It also focuses on becoming intimately familiar with the current school curriculum, especially with regard to the content, aims, instructional approaches and evaluation of their teaching subjects.

MATERIALS AND METHOD

Using a census (enumeration of all) method, the survey data were collected from the entire graduating pre-service teachers of the Paro College of Education who have undergone the campus-based course work and the teaching practicum. The survey questionnaire items consisted of the pre-service teachers' overall learning experiences and the four demographic information such as gender, types of programme, year of programme and the accommodation. The explanatory

variables were classified into five factor clusters such as; campus based courses, school mentor support, self-efficacy of the pre-service teachers, learning environment and the pre-service teachers' perception of faculty competency. The response variables included the learning outcome, especially focused on the pre-service teachers' level of confidence on professional competency as well as the confidence to bring change in students learning. In order to have a high degree of valid items, the researcher also carried out the content analysis for each factor cluster. The gender was coded 0=female, 1=male, types of programme: 1=primary, 2=secondary, 3=PGDE, year of programme; 1=first year, 2=second year, 3=third year, 4=fourth year; accommodation; 0=boarder (in campus), 1=day scholar (off campus). The 83 explanatory variables used a five-point Likert Scale coded 1=Strongly Disagree, 2=Disagree, 3=Neither Agree nor Disagree, 4=Agree, 5=Strongly Agree. The response variables were the self-assessment of the pre-service teachers' level of confidence on various aspects of learning outcomes coded as 1=Not at all Confident, 2=Not very Confident, 3=Neutral, 4=Confident, 5=Very Confident.

The survey instrument was pre-tested using reliability test which indicated high internal consistency of the scale in the instrument and the Cronbach's alphas for the five factors were as follows; all items combined 0.953 (98 items), campus based courses 0.870 (20 items), school mentor support 0.985 (15 items), self-efficacy of the pre-service teachers 0.798 (17 items), learning environment 0.886 (18 items), competency of the faculty members 0.922 (13 items), and self - confidence 0.911 (11 items). A sample size of 290 pre-service teachers was used in this study. A statistical package SPSS version 22 was extensively used to analyze the data. The approach used for data interpretation and analysis in this study is quantitative in nature.

RESULTS AND DISCUSSION

A total of 290 graduating pre-service teachers completed and returned the survey questionnaire with a response rate of 96.35% (290/301). Of all the respondents, males accounted for 58.3%, whereas females accounted for (41.7%). The majority of the pre-service teachers belonged to B.Ed primary which constituted 56.6%, followed by B.Ed secondary 30.3% and a Post Graduate Diploma in Education 13.1% (Table 1). All these pre-service teachers were graduating (fourth year) teachers and 86.2% of them lived as day-scholars.

Table 1: Frequency distribution of demographic characteristics

Demographic Variables	Frequency	Percentage
Gender		
Male	169	58.3
Female	121	41.7
Total	290	100.00
Programme		
Primary	164	56.6
Secondary	88	30.3
Post Graduate Diploma	38	13.1
Total	290	100.00
Year of Programme		
4 th Year	290	100.00
Accommodation		
Boarder (In campus)	32	11
Day-scholar (Off campus)	250	86.2
Total	282	97.2

The data analysis in this study was carried out in two different stages. In the first stage, a method of Principal Component Analysis (PCA) was employed to reduce the number of variables in each five supporting teacher education factors by using factors to represent the number of variables. This would allow creating a set of independent variables that are uncorrelated and fit the dependent variable as well as the original independent variables (IBM Corp, 2013). In the second stage, a stepwise multiple regression was conducted using the factor scores to predict the level of confidence of pre-service teachers. The principal component analysis reduces the dimensionality of a data set which consists of a large number of interrelated variables, while retaining as much as possible of the variation present in the data set which are achieved by transforming to a new set of variables known as principal components (Jolliffe, 2002). Five different principal component analyses were conducted to reduce the dimension of the data set for each factor that support teacher education.

The Keiser-Meyer-Olkin (KMO) statistics showed that the measure of sampling adequacy was above .832, which fell into a meritorious category. Kaiser recommends accepting values as <0.50 unacceptable, 0.5-0.59 miserable, 0.60-0.69 mediocre, 0.7-7.9 middling, 0.80-0.89 meritorious, >0.90 marvelous (Keiser, 1970 as cited in Norman & Streiner, 2008). The Bartlett's test which evaluates whether or not correlation matrix is an identity matrix (1 on the diagonal, 0 on the off-diagonal) was significant at (p=.000 <.0001) for all analyses. This showed that there was a strong relationship among variables or the correlation matrix was not an identify matrix. It indicated that factor

analysis can be preceded.

The latent root criterion (Kaiser’s criterion) for a number of factors to extract, indicated that there were 16 components to be extracted from all five supporting factors since there were 16 variables with eigenvalues greater than 1. An eigenvalue is the amount of total variance explained by that factor (Norman & Strainer, 2008). As the principal components analysis is done on the correlation matrix, the variables are standardized in which each variable has a variance of 1 and the total variance is equal to the number of variables used in the analysis. With the eigenvalue rule, only those factors with an eigenvalue of 1.0 or greater are retained. Thus, through this analysis, 16 new explanatory and two new response variables were created for further data modeling. The factor components generated using Varimax rotation method for the five supporting factors are shown in table 2.

Table 2: Factor components for five supporting factors

Sl. No.	Supporting Factors	Factors Components/Scores
1	Campus based courses	FAC1_1 - Course content and dynamics
		FAC2_1 - Professional skills development
		FAC3_1 - Course planning
		FAC4_1 - Implementation of assessment policies
2	School mentor support	FAC1_2 - Mentor teacher’s effectiveness
		FAC2_2 - Teaching practice effectiveness
3	Pre-service teachers’ self-efficacy beliefs	FAC1_3 - Academic ability beliefs
		FAC2_3 - Content knowledge beliefs
		FAC3_3 - Underachievement beliefs
		FAC4_3 - Academic effort beliefs
4	Pre-service teachers’ perception of faculty competency	FAC1_5 - Faculty teaching effectiveness
		FAC2_5 - Faculty empathy competency
5	Learning environment	FAC1_4 - Teaching-learning facilities
		FAC2_4 - Social support services
		FAC3_4 - Student support services
		FAC4_4 - Social climate
Pre-service teachers’ perceived confidence level		FAC1_6 - Confidence about professional competency
		FAC2_6 – Confidence about teacher impact
<i>FAC denotes factor components</i>		

Multiple Linear Regressions

Model 1: Pre-service teachers' perceived confidence about professional competency

Professional competency encompassed all the skills, knowledge and attributes that are valued by the education profession. A multiple regression model using pre-service teachers' perceived professional competency confidence as the response variable and the 16 factor component scores as explanatory variables were generated to determine which factor components best explain the pre-service teachers' perceived professional competency confidence. As factor component scores consisted of numerous explanatory variables, there could have been several non-significant coefficients which would not contribute much to the model. Therefore, a stepwise multiple linear regression was preferred to find out the most significant set of explanatory variables that were effective in predicting pre-service teachers' confidence about professional competency. In stepwise regression, the variables are added to the regression model based on a purely mathematical criterion (Field, 2009). In this process, the predictor that best predicts the outcome variable are selected in the model one at a time using the statistical criterion of maximizing the R^2 of the included variables. The analysis stops, when none of the possible addition can make a statistically significant improvement in the R^2 .

The important assumptions that the multiple regression requires, such as the assumption of linearity, normality, multi-collinearity, independence and the homoscedasticity showed reasonable statistics satisfying all the conditions needed before running the final model. There were four steps in the process and all other variables were removed from the model in which the step selection was terminated in step four.

In table 3, using the stepwise method, it was found that factor components such as content knowledge beliefs, academic ability beliefs, professional skills development and faculties' teaching effectiveness explained a significant amount of the variance in the pre-service teachers' confidence about professional competency ($F(4, 205) = 44.698, p < .05, R^2 = .47, R^2_{\text{Adjusted}} = .46$).

Table 3: Results of multiple regression analysis for confidence about professional competency

Model	Standardized Coefficients		t	Sig.	95.0% Confidence Interval for B	
	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	.027		144.775	.000	3.887	3.994
4						
Content knowledge beliefs	.029	.354	6.407	.000	.129	.244
Academic ability beliefs	.028	.390	7.403	.000	.150	.258
Professional skills development	.030	.205	3.720	.000	.053	.172
Faculty's teaching effectiveness	.031	.172	3.237	.001	.039	.160

a. Dependent Variable: Confidence about professional competency

The analysis showed that content knowledge ability (Beta = .354, $t(209) = 6.407$, $p < .01$), academic ability skills (Beta = .390, $t(209) = 7.403$, $p < .01$), professional skills development (Beta = .205, $t(209) = 3.720$, $p < .01$), and faculty's teaching effectiveness (Beta = .172, $t(209) = 3.237$, $p < .01$) did significantly predict the pre-service teachers' confidence in professional competency. The analysis of Cohen's d effect size showed 0.9 which indicated the largest magnitude of effect on the response variable, according to the Cohen's effect size interpretation.

There is a positive and significant effect of content knowledge beliefs, academic ability beliefs, professional skills development, and faculty teaching effectiveness on pre-service teachers' confidence about professional competency. The greater the pre-service teachers' content knowledge beliefs, academic ability beliefs, professional skills development and faculty teaching effectiveness, the greater their probability of achieving confidence about professional competency. As Bandura stresses that self-efficacy is one's belief in one's ability to succeed in specific situations, the ability of the pre-service teacher to understand the content knowledge, and their ability to perform well academically will have a strong positive influence in achieving professional competencies. Hence, pre-service teachers' beliefs about their content knowledge and ability to achieve academically can predict the confidence that pre-service teachers have about their professional competency that is their ability to teach.

The regression model also showed that professional skills development in communication and technological skills along with pre-service teachers' perception of their instructors' teaching competency also can impact the pre-service teachers' perceived confidence about their own professional competency. It is imperative, therefore, that faculty teaching pre-service teachers are competent and effective in their teaching.

Model 2: Perceived teacher impact confidence

Teachers’ impact upon pupils refers to teachers who can bring about effective transformation in children’s learning, improvement and development. A similar multiple regression model was developed to see if the same 16 factor component scores generated by the principal component analysis could predict the confidence of the pre-service teachers to make an impact upon students learning and development. A stepwise multiple regression was used to find out the most significant set of explanatory variables that are effective in predicting the confidence of the pre-service teachers in making an impact upon students learning and development.

The assumption of linearity, normality, multicollinearity, independence and the homoscedasticity for this model also showed a reasonable statistic satisfying all the conditions needed before running the final regression model. There were four steps in the process and all other variables were removed from the model in which the step selection was terminated in step four.

From the regression output in table 4, it was discovered that factor components such as content knowledge beliefs, academic ability beliefs, teaching practice effectiveness, and social support services explained a significant amount of the variance in the pre-service teachers’ perceived self-confidence to make a positive impact upon the pupils they teach ($F(4, 205) = 25.054, p < .05, R^2 = .33, R^2_{Adjusted} = .32$).

Table 4. Results of multiple regression analysis for teacher impact confidence

Model	Standardized Coefficients		t	Sig.	95.0% Confidence Interval for B	
	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	.031		136.406	.000	4.108	4.229
4						
Content knowledge beliefs	.032	.351	5.869	.000	.123	.247
Academic ability beliefs	.031	.357	6.109	.000	.127	.248
Teaching practice effectiveness	.032	.127	2.133	.034	.005	.131
Social support services	.032	.120	1.994	.047	.001	.125

a. Dependent Variable: Teacher impact confidence

The analysis showed that the content knowledge beliefs (Beta = .351, $t(209) = 5.869, p < .01$), academic ability beliefs (Beta = .357, $t(209) = 6.109, p < .01$), teaching practice effectiveness (Beta = .127, $t(209) = 2.133, p < .05$), and social support services (Beta = .120, $t(209) = 1.994, p < .05$), did significantly predict the pre-service teachers’ perceived self-confidence in making an impact on children. The Cohen’s d effect size was 0.50 which showed a reasonable magnitude of effect on the response variable, according to Cohen’s effect size

interpretation.

The finding showed that there is a significant positive effect of content knowledge beliefs, academic ability beliefs, teaching practice effectiveness, and social support services in pre-service teachers' confidence of making an impact upon the students' learning and development. This means that the increase in the pre-service teachers' content knowledge beliefs, academic ability beliefs, teaching practice effectiveness, and social support services would greatly increase the confidence of the pre-service teachers to make an impact upon the students. Therefore, the pre-service teachers' beliefs about their content knowledge and their ability to achieve academically, can predict their confidence that they can make an impact upon students learning and development. Similarly, Hudson (2005) has highlighted that mentor teacher support through engaging pre-service teachers with field experiences very necessary in the professional development of teachers as this would not only provide the opportunities to engage in pedagogical discourse but also transform theory into practice during the learning process. Teaching is a profession in which theory is embedded and cannot be separated. Effective teaching practices, therefore, develop the confidence of the pre-service teachers to make an impact on students. The findings have also shown that social support services have a positive relationship with the confidence of the pre-service teachers to make an impact upon students. This is because the teaching and learning processes are shaped by their physical, social and organizational environment.

CONCLUSION

This study was able to provide some insights on how the necessary improvement of factors that support teacher education could improve the pre-service teachers' level of confidence in their professional competency as well as in bringing impact upon students' learning and achievement. The findings revealed that the factor components related to self-efficacy, campus based courses and competency of the faculty were significant in predicting the level of confidence in professional competencies. The improvement of self-efficacy beliefs could be focused on the pre-service teachers' content knowledge beliefs as well as improving their academic ability beliefs. For the campus based courses, special effort may be made to improve the faculty's teaching effectiveness. The findings also revealed that the campus based courses could focus more on developing the communication and technological skills along with the professional teaching skills.

Similarly, to have a greater self-confidence in making an impact on the students' learning and development, there is a need to improve the pre-service teachers' content knowledge beliefs as well as improving their academic ability beliefs. Regarding the mentor teacher support, special attention could be pro-

vided in developing their field experiences through effectively involving them in teaching practice. Similarly, to impact upon students' learning, they should also be groomed through the provision of better social support services.

Limitations of the study

Among the two teacher education colleges in Bhutan, the study sample was drawn from only one college, a comprehensive study including samples from both colleges could have yielded better results.

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Working in the chemistry laboratory: Unfolding the ground realities of students' experiential learning

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Abstract

The current high school science curriculum in Bhutan which was implemented in 2012 is guided by a constructivist approach that encourages the use of hands-on inquiry learning. Inquiry based laboratory work allows students to learn by doing experiments and the school laboratory provides special potential for students' learning. Examining the effect of specific laboratory experiences in the school is important given the associated context on student learning. The current study explored students' experiential learning in a chemistry lab through the inquiry approach to understand their experiences. A case study involving 43 grade 11 science students participated in the study. Students' reflective journals and semi-structured interviews were used to collect data. The interview data were analyzed using thematic coding and reflective journals were analyzed descriptively. Findings indicate that students enjoyed learning by doing. Such learning environments helped students in building confidence, promoted cooperative learning and science processing skills. However, time constraints, difficulty in handling of simple lab apparatus and learning focused on examinations were some issues that became evident. The current study also found that the students' lack of lab experience impacted their learning. The need for skills acquisition in handling and use of simple lab equipment from the lower grades itself is felt important besides the need for frequent laboratory experience for all grade levels. An introductory pre-lab session on skills acquisition of basic lab equipment should be carried out for inexperienced students. The primary and secondary schools should provide enough opportunities for students to gain experience of working in a lab.

Key Words: Inquiry lab, hands-on activity, school laboratory, constructivism, chemistry

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1. Introduction

The teaching of chemistry is difficult due to its abstract nature. Research has shown that teaching chemistry to the majority of students is still problematic (Gabel, 1999; Gilbert et al., 2002; Nakhleh, 1992; Sirokman, 2014; Turk, Ayas, & Karsli, 2010). To address the issue, teachers are encouraged to use different approaches, new strategies, techniques, methods and to develop appropriate activities (Kurt & Ayas, 2012; Nakhleh, 1992; Turk, Ayas, & Karsli, 2010) designed for a constructivist learning environment (Yadigaroglu & Demircioglu, 2012). From the constructivist point of view, learning is active; learning is the interaction of ideas and processes; learning is augmented when students engage in discussions of ideas and processes involved (Bybee, 2002).

The current science curriculum in Bhutan which was implemented in 2012 is guided by a constructivist approach where learning is active; learning is both an individual and a group process where children learn and make meaning of their experiences; and that learning is an ongoing process (National Education Framework of Bhutan, 2012). The shift in paradigm from a traditional approach towards a constructivist approach was initiated because there was too great a focus on content (Childs, Tenzin, Johnson & Ramachandran, 2012). The goals of the science curriculum in Bhutan includes development and application of inquiry, investigation, problem solving and logical reasoning skills and the preparation of learners for higher studies in science and technology (Department of Curriculum and Research Division, 2012).

The shift has seen major changes not only in science but in the education system as a whole. The Bhutan Education Blueprint, 2014-2024 (MoE, 2014) has recommended many initiatives to address some emerging challenges including a national curriculum review, the formation of a teacher professional support division (TPSD), a one teacher one subject policy, and central schools. The education system is now emphasizing 21st century skills and STEM (science, technology, engineering and mathematics) education is now a division of the science curriculum development under the Royal Education Council. The new science curriculum for grades 11 and 12 has especially embedded science process skills in project work and practicals, and many hands-on activities are incorporated into the grades 7 and 8 science textbooks to enhance 21st century skills. So the Bhutanese science curriculum recommends the use of active hands-on learning as effective pedagogy involving more of the inquiry approach.

Studies indicate that hands-on activity and lab-based inquiry approach have a positive impact on the students' perception and attitude towards learning (Ayyildiz & Tarhan, 2012; Holstermann, Grube & Bogeholz, 2010; Orntein, 2006; Sesen & Tarhan, 2012; Wen-jin, Chia-ju & Shi-an, 2012). Inquiry led lab work allows students to learn by doing experiments and provides special potential for learning. Hands-on activities are a teaching strategy where students usually

work in groups, interact with peers, ask questions, collect data and attempt to explain natural phenomenon (Satterthwait, 2010). The implementation of lab-based inquiry in schools showed positive impact on students' understanding as well as in their attitudes. However, there have been some confining issues and challenges in its implementation especially in the laboratory. A lack of time and content overload (practical classes sometimes take place after school); a lack of expert technical support; and a lack of teacher expertise, and the withdrawal of practicals in the secondary schools are some of the issues raised in Bhutan (Childs et al., 2012). Such challenges have resulted in wide range of students' experience in laboratory activity. Wallace and Kang (2004) revealed that students' laboratory experience in the secondary school depends on the learning environment such as the curriculum, syllabus and school culture. For this reason, the experience of students doing laboratory work differs from school to school, culture to culture, curriculum to curriculum and as a whole from the educational framework of the country itself. Hofstein and Lunetta, (2004) highlighted that science educators need to examine the effect of specific school laboratory experiences and associated context on students' learning.

The lack of study of students' experiential learning while working in the school lab in the Bhutanese context has been the background for the current study. So, based on above rationale, the current study looked into understanding the ground reality of students' learning in chemistry laboratories during an inquiry lab. The study explored the associated context of students' perception in order to examine the effect of school laboratory experiences and the context of students' learning.

2. Methodology

A case study involving 43 grade 11 science students from one of the schools in the eastern part of Bhutan participated in this study in September, 2014. Two inquiry-based lab activities about the concept of particle size and the scattering of light to teach colloids were developed and implemented. The students worked in groups of 4 or 5 and the lab activities took 2½ hours. The first lab activity involved guided inquiry where students were provided with materials and were required to find out the differences between solution, suspension and colloids. The students designed their own procedures in groups, collected data, interpreted and presented their findings. The second lab activity included a structured inquiry where students were provided with procedures to prepare silica sol-gel. They collected data, observed, interpreted, discussed and presented their findings. The whole experiment was done in a lab setting.

2.1 Tools

Students' reflective journals and semi-structured interviews were used to

collect data. The tools are described briefly in the following section.

2.1.1: Reflective journal

A journal is a rich resource for studying students' thinking and a valuable tool for students as a planning resource for exams. It provides opportunities for learners to understand their own learning processes and take ownership of their learning (Dianovsky & Wink, 2012). The journals provide information about students' academic development, their personal and affective sides and allows students to reflect on their scientific understandings and express their views and feelings about the learning process (Avci & Karaca, 2012).

Using the student reflection format of Lingua Folio training modules (Carter, 1997) which contain guiding phrases to help student reflect, each student was asked to write a reflection at the end of each activity. The reflection format contains two categories for students to reflect upon, reflection on the topic and reflection on the lesson. A descriptive analysis was carried out using a thematic approach using similarities that came up often as the basis of the themes.

Table 1: Student reflection activity of Lingua Folio containing guiding phrases (Carter, 1997)

Topic	Lesson
<i>I have learned.....</i>	<i>I like best....</i>
<i>I can.....</i>	<i>The most interesting thing is...</i>
<i>I am good at....</i>	<i>I don't like.....</i>
<i>I haven't managed to....</i>	<i>Any suggestion....</i>
<i>I don't understand....</i>	
<i>I had difficulty in....</i>	

2.1.2: Semi-structured interview

Semi-structured interviews were carried out at the end of the implementation of two inquiry based lab activities. The interview protocol was followed for selection of participants for the interview. The students' academic record was used to classify them into high, medium and low achievers in chemistry. Two students from each group were selected randomly. The whole process was done discreetly. Two more students were also interviewed as they volunteered making it eight interviewees. An interview protocol was used as a guide and they were questioned about their name, birth place, hobbies, favorite subject, sports, likes, dislikes and others in order to understand the student's background. The question answer session in the process was intended to make the interviewee comfortable and approachable. The protocol assured the interviewees of keeping their responses confidential.

The interviews were audio taped and transcribed. The transcribed data were then analyzed using pre-determined categories using thematic coding. Three experts who had at least 5 years of teaching experience and a sound knowledge of educational research checked the appropriateness of each question item.

Table 2 indicates the instrumentation of six interview questions which are grouped under three pre-determined categories. The data were collected and analyzed using thematic coding adopted by Boyatzis (1998).

Table 2: Instrumentation of semi-structured interview

Categories	Description	No. of items
Comparative differences	Compare the class under study with other normal classes. To evaluate the differences and similarity.	2
Challenges and difficulties	To find some of the challenges and difficulties faced by students during the implementation of lab-based inquiry lesson	1
Improvement and Overall feeling	To find out the overall reaction or feeling about the student for the whole lessons; Ask for students' opinions and suggestions in order to improve the implementation of such activities	3

Validity

The learning unit and the tools were validated by three experts. The content validation test using the Index of Item-Objective Congruence (IOC) was used (Rovinenelli & Hambleton, 1976; Turner & Carlson, 2003).

3. Results

This section consists of the analysis of the reflective journals and semi-structured interviews. The analysis of reflective journal was completed in two parts, reflection on the topic and reflection on the lesson. Participants' responses were analyzed in each part based on the guiding phrases (given in bold). The semi-structured interviews consisted of participants' responses that were described in the three pre-determined categories (Table 2). The response of each participant for the reflective journal are referred to as Student (A, B, C....) while participants for semi-structured interviews are referred to as Participant (A, B.... & H).

3.1. Reflective Journals

3.1.1. Reflection on the topic

There were two lab inquiry hands-on activities developed on the topic:

- 1) to distinguish between solution, colloids and suspension and
- 2) the preparation of colloids.

Upon analyzing the six guiding phrases, students' response on the first phrase "*I have learned...*" mainly included content.

"*I can...*" students reflected some confidence in performing the experiment without difficulty. Student A said "*I can do [the] practical myself about this topic and I can confidently say that I am perfect in [the] practical that we have done*". Student B mentioned "*I can perform the practical myself. I got new ideas on doing practical work*" while Student C added "*I can do [it] myself if this experiment has to be done again*". The response reflects each student's ability to perform it better showing confidence, and also echoed the student's lack of confidence at the beginning of the lab activities.

The majority of the students responded that "*they are good at*" using the terms like "*preparing*", "*observing*", "*recognizing*", "*finding*", "*doing*" "*helping*", "*handling*" which are a positive indication of students experiencing science process skills. Students reflected their ability to enhance their skills which also indicated their confidence in performing the lab activity. Slightly more than half (51%) of the participants responded that they "*haven't managed to*" complete the experiment on time. Six participants responded: "*I haven't managed to conduct [the] experiment on time*"; "*I haven't managed doing [the] practical in a given time*". Student D mentioned "*I haven't managed the time in an experiment as it is the first time for me*". The difficulty in doing the experiment on time points to the students' lack of lab experience as they mentioned that it was the first time for them.

The starting phrase "*I don't understand...*" included mainly the understanding of the concept behind the topic. Students also had difficulty in collecting data and analyzing the results. Participants responded "*I have difficulty*" in observing the results and drawing conclusions from the data. Surprisingly, the majority of the students mentioned the difficulty in the use and handling of simple laboratory apparatus. Student E mentioned "*I had difficulty [with] the procedure, since the lab experiment was done for first time, the function of the apparatus was strange*". Student F said "*I had difficulty in handling the materials because it is all made up of glass and there are chances of breaking*". It seems students were reluctant and not comfortable in using the lab equipment emphasizing their lack of experience in handling such equipment and apparatus.

3.1.2. Reflection on Lesson

"*I like the best*" students' response varied and included observing the result; preparing the solution; getting the result; and designing the procedures. Student G said "*I like the best designing practical because we are able to learn more*"

while Student H mentioned “*I like the best going about of the experiment by myself and exploring things though it was challenging*”. The students enjoyed learning by doing it themselves.

Doing things practically by themselves and getting the result was “*the most interesting thing*” that the majority of students have mentioned. “*Setting up of apparatus*” were key words mentioned by most of the students. Student I said “*setting up [the] apparatus for [the] experiment was the most interesting thing*”. It is also worthy to mention that a few of the students found it interesting to have a group discussion, the presentation of the group results, and the question and answer session. Student J said “*one of the most interesting things was having [the] discussion among [the] groups and [the] presentation*” while Student K mentioned “[*the] question and answer session among friends and facilitator was most interesting thing*”.

Prominent responses students mentioned under the “*I don't like*” section were “*waiting for the result*”, “[*the] smell and condition of the lab*” and “*handling fragile apparatus and chemicals*”. It seems students were impatient, reluctant and lacked experience working in such environments. Perhaps this has prompted more than 50% of the students to mention that “*waiting for [the] result*” was “*the most boring thing*”. The impatience of students to wait for the result reflects their curiosity to learn but it also indicates that students lack the scientific attitude while doing the experiment. They expected to achieve results at their first attempt quickly: “*the most boring thing is when I fail and have to do again and repeat the procedures*”.

Some of the excerpts in the “*suggestion part*”:

Student L: *Usually I learned more through practical than theory. [The] practical session is the most interesting session*”

Student M: *Experiments need to be done faster because in exam we get only three hours;*

Student N: *If Sir could kindly tell us the use of different materials arranged to do experiment (uses of materials)*

Student O: *If Sir could request the school administration to provide us [with] science practical equipment and let us work on our own;*

Student P: *If Sir could give time [for us] to do [the] practical ourselves, then it would be furthermore knowledgeable and experience for us.* From these students' suggestion, it is implied that they need more practical sessions as they enjoy working and learning by themselves. Participants expressed their concerns about the time constraint of having to do such a practical in the exam. They shared the difficulties in handling the lab apparatus and equipment and suggested more individual hands-on experiences.

3.2. Semi-structured interview

The semi-structured interview consisted of three categories which are described under the tools (see Table 2).

3.2.1. Comparative differences

Students mentioned that by doing the practical or hands-on activities, it helped them learn better as they could experience with their senses. Participant A said: *I would say that when we do practical on [a] particular topic, we learn better than by learning theory or from [a] notebook. Because when we learn through theory, for example when we learn the name of the solution..., we just know the name but can't see.....but when we do practical, we can learn the name as well as see and also touch; we learn through doing many different activities*". Participant B added *"By doing [the] practical we know how it takes place and can see with our eyes and in the regular class, we just learn theory and cannot see. So in [the] practical it helps more.*

Students found the cooperative learning strategy a new learning experience and they found it interesting, engaging, interactive and easy to work. Participant C mentioned, *"I learned how to manage with my group friends. It is much easier to do in the practical group"*. A comment supported by Participant D, *"I learned how to cooperate with group members. The new thing we get to do is as [a] group member we work together, cooperate with each other"*.

Interestingly, the whole approach of working in the lab with hands-on activities, and the inquiry approach seemed new to the students as Participant E mentioned that, *"doing [the] practical we learn more. Everything is new, Sir. Since I have never been to [a] chemistry lab, it's [the] first time so it is interesting to work in[a] group because we got more interaction, we get to know more about them"*. Participant F supported that, *"since it is first [time] we got [the] opportunity to work with [the] equipment, get to know the nature of solution"*.

3.2.2. Challenges and Difficulties

Experiencing working in this kind of environment, the students found they were a bit nervous, hesitant, impatient and had difficulty starting out in the beginning and handling the materials.

Participant B said *"not much difficulties, but with handling of materials and apparatus because it is first time and [a] bit nervous. No experience learning like this. We visit the lab but didn't get a chance to experiment [on] our own"*. Participant G added *"I had difficulty in differentiating [the] test tube and measuring cylinder and in recognizing [the] apparatus"*. Participant A said *"since the class was [the] first practical class in chemistry, most probably I was nervous.....maybe the nature of it that some of the reactions were slow for doing [it] the first time. I didn't have patience to wait also"*. Participant

H added “*we are doing [it] for first time, we don't know how to begin*”. The students experienced working in the lab for the first time and had difficulty in handling simple laboratory apparatus. They were uneasy working in the lab as it was a new experience.

3.2.3. Improvement and overall feeling

The students suggested reducing the group size (which was 4 or 5 members in each group) or by giving them the chance to carry out the activities on an individual basis. They required more involvement by themselves emphasizing it from the examination point of view. Some of the excerpts from the students:

Participant E: *If there are more materials, we have less members like two members. Less is better because all students can [be] involved in the activity.*

Participant F:

Instructor could have given [us the] chance to do individual [experiments] as exams are done on individual basis. If equipment favor and available and if time permits instructor would have given chance to do in individual basis because sometimes we need to examine ourselves”.

Overall students found it interesting and a good learning experience that helped them to learn better. “*I feel interesting to learn about the topic through [a] practical*” says Participant H while Participant D mentioned “*it was [a] good experience. We came to learn more about the particular topic. It was interesting*”. Participant A expressed

It was [a] new experience because till now, 12 years of learning what we did was sit in the class and just listen to the lecture. Whereas in this class we could explore our self, go about how to do [the] practical. When things are done by our self we learn better. Not just listening and seeing but by doing and feeling. The subjects make us understand better. So I found it very informative and I could get lots of knowledge.

Students suggested more involvement by demanding to do the activity individually as the exams are performed at an individual level. However, they found it interesting, a new learning experience and it helped them to understand better.

4. Discussion and Conclusion

Kilinc (2007) states that one should understand with thoughts and feelings in order to make inquiry-based learning a powerful learning experience for both teachers and students. However, such learning experiences should also

consider the need to cover the curriculum, prepare students for examinations, and keep the science classroom efficient (Wallace and Kang, 2004). The current study is limited to a sample of one school and the findings are confined to a particular school culture and practice, so to discuss and judge the prevalence in other settings or institutions is restricted by the nature of the study. However, the results of the current study reflect some important insights into the ground realities of students' experiential hands-on learning in the laboratory.

The data from the students' reflection and interview showed that the students enjoyed learning by doing the lab-based hands-on activities. It taught them how to work in a group. They found it enriching. However, students showed impatience, reluctance to handle equipment and apparatus, and a lack of experience working in the lab. The time factor and students' inability to handle lab equipment were some confining factors that hindered their processing skills. They suggested for more opportunities to experience such hands-on activities in the future.

The findings from this study indicate that the inquiry lab hands-on activity was interesting, enjoyable, engaging, interactive and satisfying. It was meaningful because it provided them with the opportunity for hands-on experience of working in groups, learning to design their own procedures, and using and handling laboratory apparatus. The findings are in agreement with the existing literature that the inquiry-based lab work increases students' interest in learning (Deters, 2005). Furthermore, Sesen and Tarhan (2013) found that instruction based on inquiry-based laboratory work caused significantly better acquisition of scientific concepts with a more positive attitude towards chemistry and the laboratory.

The study also showed that such lab activities helped students to build their confidence through engagement in hands-on lab activities, acknowledging the earlier findings of Brownell, Kloser, Fukami, and Shavelson (2012). One of the findings from this study states that such lab experiences taught students how to work in groups, which they found engaging, interactive, interesting and it was easier to learn. Hofstein and Lunetta (2004) stated that such laboratory settings provide a unique learning environment, a setting in which students can work cooperatively in small groups to investigate scientific phenomenon with a more constructive interaction between students, students and teachers, promoting social interaction and creating positive learning environments (Hofstein & Kind, 2012). The benefit of group or cooperative work for students in the present study was a new level of experience for the students, and the students adored it.

The current study acknowledges the issue of the time factor raised by the students. Toplis and Allen (2012) reported time constraint as one of the restrictions to practical investigative coursework and Bowen (1999) found that time anxiety was high because an affective dimension like anxiety affects

learning and performance in a laboratory situation. The current study had similar results to this previous research but, surprisingly, the data indicates that the factor contributing to the time constraint was the students' lack of experience in the laboratory. Therefore, findings from this study suggest that since the laboratory experience was their first time, and it was obvious that students had difficulty in using and handling the simple lab materials. They were unfamiliar with the lab materials and how to use them.

The students' lack of experience in working in the lab made them hesitant about their work and made them impatient and doubtful. It is a concern to learn from the data that students are not able to recognize simple lab-equipment and their function. The lack of experience working in the lab at this grade is a serious issue. Such shortcomings are the outcome of practice and the system. Kim and Tan (2011) stated that it is not just the background, materials or time but also the complex schema of experiences, values and traditions of knowledge and teaching. Students could not use prior knowledge in the laboratory as they lacked the experience of working in the laboratory.

Such findings are difficult to apprehend yet it silently echoes the ground reality of the Bhutanese system on which the curriculum is built upon. Perhaps that is the reason students suggest more opportunities to do the experiments individually on the basis of examinations. Wallace and Kang (2004) suggest that these difficulties arise from the influence of culturally based beliefs about exam preparation which differs from school, curriculum, and society and the education system of a country as a whole. The National Education Framework of Bhutan (2012) also supports the idea that the teaching-learning process is founded on enabling students to pass examinations rather than fostering the skills of rational inquiry, learning how to learn, and effective problem solving. The findings indicate that despite the positive aspects of working in groups or the acquisition of knowledge and skills, passing the examination is regarded by many students as their most important priority.

5. Implication of the study

The launch of the new science curriculum with a major shift in the education system already underway, the prospect of quality in education is optimistic yet the accomplishment of such productive students equipped with knowledge and skills will take some time to develop. The focus is on 21st century education, new pedagogical methodologies, innovative and creative awareness, science, technology, mathematic and engineering (STEM) education and the inquiry approach which are all based on the constructive approach of active learning. The approach of delivery is being shared but the implementation of instruction in a real classroom is still a challenge. It is hard as to comprehend given the present scenario, that there are students who have never gone to a chemistry lab and

have never had hands-on experience in their 12 years of schooling. Almost all the participants in the current study experienced laboratory work for the first time.

The use of the constructivist approach of learning, using hands-on activities, inquiry and using the laboratory show some indication of success in this study and future works of design and implementation that can be carried out more effectively with the use of the above approach. It should be noted that the current study found some difficulties of students using laboratory equipment due to their limited experience of working in the lab. This probably has implications for their learning as the lack of experience demanded more effort and time. Students struggled to cope with the new environment. Nevertheless, students found it very meaningful and worthwhile. Therefore, laboratory experience and familiarization with the lab equipment and materials are important. Prior knowledge about students on such use and capability needs to be checked. It should not be taken for granted that students in XI and XII standard will be equipped with use of basic laboratory equipment, handling and comfortable working in lab. As already stated by Wallace and Kang (2004) studies of student response to inquiry should take place in classrooms where teachers are currently implementing inquiry within the constraints of school culture, rather than special camps, classes, or programmes. Introductory pre-lab sessions focusing primarily on the use and handling of apparatus is deemed important before the start of the lab session. The pre-lab session could involve skills acquisition of basic laboratory equipment based on the nature of lab activities (Southam et al., 2013).

The implementation of lab-based activities requires sound knowledge about students' experience so that the development and design can be more suited and also to avoid problems during the implementation phase. The need for skill acquisition in the use and handling of basic laboratory equipment and exposure to lab environment from an early age of schooling is very important. Therefore, it implies that the science teachers and school administration from primary and secondary level should provide opportunities for students to explore their learning in the lab setting. The school should provide a platform for students to acquire skills to deal with basic lab equipment by providing enough resources and spaces. The establishment and proper utilization of a science lab in all settings of schools is important.

The overall result and findings of this study is based on one school, so it cannot be generalized and more studies are required to further confirm it. Even then, the study gives some insight into the real classroom situation which is explicitly discussed based on students' data and literature review. The present study acknowledges the limitations based on students' background knowledge. Further studies can be carried out in other schools to find students' experiential learning in the lab and hence comparatively validate the findings of the current study in the future.

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Effective English as Second Language (ESL) Teachers' Characteristics as Perceived by the Students from a Higher Secondary School in Bhutan

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Abstract

Studies claim effective teacher characteristics as one of the factors that affects learners the most. However, what constitutes effective teacher characteristics varies from context to context. This study investigated effective ESL teacher characteristics from the perspective of students of a higher secondary school in Bhutan. Data for this study were obtained from 12 students through semi-structured interviews and essay writing. The analyses of these data revealed three distinct characteristics: ESL teachers' personal qualities, subject-related knowledge, and professional characteristics as effective ESL teacher characteristics. The findings from this study provide an insight into effective ESL teacher characteristics which would be useful for the teacher training colleges, pre-service and prospective ESL teachers, and other stakeholders like the Royal Education Council (REC) in Bhutan.

Keywords: Teacher characteristics, Bhutanese ESL teachers, Bhutanese ESL students' perceptions

1. Introduction

Studies claim the importance of studying effective English language teachers' characteristics from students' perspectives. This is because if learners' expectations are understood, teacher practitioners will better "understand how to approach and improve their practice" (Barnes & Lock, 2013, p. 19). However, effective teacher characteristics vary greatly from discipline to discipline, and from context to context. This variation is mostly due to universality and domain-specificity of the disciplines (Ghasemi & Hashemi, 2011). Other causes include teachers' experiences, knowledge, and beliefs (Chacon, 2005; Moradi & Sabeti, 2014; Pajares, 1992; Richardson, 1996). In addition, the nature of the subject, the content of teaching, methodology, teacher-learner relationship, issues related to being native or non-native speaker of the language, and teachers' personal characteristics (Borg, 2006) are believed to affect the identification of effective language teacher characteristics. In general, English language teachers'

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reading proficiency, speaking proficiency, the ability to arouse students' interest, motivate, and inspire are widely held as the necessary characteristics of English language teachers (Ghasemi & Hashemi, 2011; Park & Lee, 2006; Ramazani, 2014).

However, high school students' perceptions about effective English language teachers seem to be neglected as most of the previous studies were conducted with either college or university students. Moreover, there is little evidence of this issue being studied from the perspective of ESL students in Bhutan. Therefore, little is known about effective ESL teachers and their characteristics in the Bhutanese context. There was, therefore, a need for investigating the characteristics of effective ESL teachers characteristics within a Bhutanese context.

2. Literature Review

Numerous scholars have studied effective English language teacher characteristics in different contexts. For example, Park and Lee (2006) studied the characteristics of effective English as foreign language (EFL) teachers from the perspective of 169 teachers and 339 students in a South Korean context. Their study revealed mismatches between students' and teachers' perspectives. From the three effective EFL teacher characteristics, teachers rated English proficiency higher than pedagogical knowledge while students ranked pedagogical knowledge higher than English proficiency. Both the groups of respondents rated teachers' socio-affective skills the least among the three categories. Chen and Lin (2009) surveyed effective EFL teacher characteristics on 198 students in Tainan, Taiwan, using a questionnaire. The 50-item questionnaire comprised effective EFL teacher characteristics such as instructional competence, personality, and teacher-student relationship. The respondents endorsed teachers' personality as the most important characteristic while teacher-student relationship was ranked second. Instructional competence received the lowest ratings. Despite some disagreements between male and female students, the study found teachers' enthusiasm to teach English, friendliness, open-mindedness, respectfulness, and caring about students as the most important effective EFL teacher characteristics.

Barnes and Lock (2010) conducted a qualitative study employing a free writing instrument on 105 freshmen studying at a women's university in Korea. They reported rapport as the most important effective EFL teacher characteristic, followed by delivery, fairness, and knowledge and credibility. In addition, organization and preparation was rated as the least important characteristic. DinÇer, GÖksu, TakkaÇ, and Yazici, (2013) reviewed 30 studies conducted in different foreign language educational settings. Their findings reported four main characteristics which the English teachers need to have in order to better language teaching and learning. The four categories were (a) socio-affective skills, (b)

pedagogical knowledge, (c) subject matter knowledge, and (d) personal qualities.

According to the Ministry of Education (2013), the ministry initiated a nation-wide *Educating for Gross National Happiness* (GNH) program in 2010 for all teachers across the country. Through it, both teachers and students (GNH graduates) are to acquire qualities like faithfulness, resourcefulness, punctuality, patience, and interdependence, for example, characteristics that benefit themselves, their families, workplaces, and local and global communities.

Sherab (2013) investigated behavioral and cognitive engagement of 29 teacher-trainees in Bhutan. His action research reported that teachers' characteristics such as being approachable and caring, and ability to provide active learning opportunities in the class enhanced both behavioral and cognitive engagement of students in the class. Similarly, Puntai and Wangchuk (2015) surveyed the characteristics of effective ESL teachers on 177 ESL students in Bhutan. Their study found attributes like rapport, fairness, delivery, and organization and preparation as the most important characteristics of effective ESL teachers in Bhutan. Also, it revealed ESL teachers' knowledge and credibility as important characteristic of them.

This study investigated effective ESL teacher characteristics from the perspective of Bhutanese higher secondary school students. Its purpose was to investigate effective ESL teacher characteristics as perceived by the Bhutanese students. The findings from this study provide an insight into effective ESL teacher characteristics which would be useful for the teacher training colleges, pre-service and prospective ESL teachers, and other stakeholders like the Royal Education Council (REC) in Bhutan.

3. Research Method

This study adopted a qualitative research design. It aimed to obtain in-depth information about effective ESL teacher characteristics from students' perceptions in a higher secondary school.

3.1 Participants

Participants for this study were twelve eleventh and twelfth graders of a higher secondary school. Four participants from the streams of science, commerce, and arts participated in this study. They were recruited based on their willingness and interest to share their thoughts and feelings on effective ESL teacher characteristics and their availability during the data collection time. Of the total participants, six were males and six were females. They were aged between 18 to 20 years, and these groups of students were chosen based on proximity and centrality of the school's location in the western part of Bhutan.

3.2 Data Collection Tools

A semi-structured interview and essay writing were used to collect data in this study. They consisted of two parts. Part I of both the data collection tools sought participants' demographic information such as gender, age, grade, and stream.

In part II semi-structured interview, the researcher used a set of self-prepared questions for a group of six students who were selected from the total students studying in grade 11 and 12 (research site) using purposive sampling technique. The questions were developed to elicit richer and deeper information about these participants' preferences of ESL teacher characteristics during the face-to-face interviews with them. Besides asking these questions, additional questions were also asked to clarify some of their unclear responses.

Part II of the essay writing asked the other six participants (also selected using purposive sampling technique) to write an essay each on effective ESL teacher characteristics. This was done to collate and support the data obtained from the semi-structured interview.

To validate both the instruments, copies of both the data collection tools were sent to three experts (university professors), who had a minimum of five years of experience in research, to comment on their clarity, appropriateness, content, and the relevance of the questions. Then, the researcher modified some questions as per their advice before administering them.

3.3 Data Analysis

The qualitative data obtained from both semi-structured interviews and essays were analyzed using a content analysis technique. The content analysis is "a research method for the subjective interpretation of the content of text data through the systematic classification process of coding and identifying themes or patterns" (Hsieh & Shannon, 2005, p. 1278). Following this definition, and also as stated by Fraenkel, Wallen, and Hyun (2012), the researcher coded the descriptive information into categories.

4. Results

The research question, 'What do students in a higher secondary school perceive as characteristics of effective ESL teachers in Bhutan?', frames the discussion of the study results. To answer this question, a total of six students were interviewed and another six were asked to write an essay each. The interviewees were given pseudonyms Dorji, Phuntsho, Karma, Kinley, Zam, and Choney, and the essay writers as Chencho, Yeshey, Yewong, Tshering, Nima, and Khandu. Aged between 18 to 20 years, these students were studying in science, commerce, and arts in the eleventh and twelfth grades at the time of the data collection.

4.1 The Participants' Opinions on Effective ESL Teacher Characteristics

This section presents the effective ESL teacher characteristics drawn from interview transcriptions and essays. To analyze the data obtained from them, the researcher listed all the comments that described effective ESL teacher characteristics. They were, then, grouped according to the major themes and subcategories.

The collation of data gathered from the interview transcriptions and the essays revealed three effective ESL teacher characteristic themes: (a) personal qualities, (b) knowledgeable, and (c) professional characteristics.

4.1.1 Personal Qualities

Personal qualities comprised of varieties of comments that the participants claimed important in building and maintaining strong rapport with students. This theme initially consisted of categories of comments that were eventually collapsed into three subcategories: *motivating personality*, *affectionate*, and *receptive*. All comments obtained from the transcriptions and essays are discussed in relation to these three subcategories.

4.1.1.1 Motivating Personality

The participants cited personality characteristics such as being frank, fair, encouraging, entertaining, humorous, and understanding as important factors in motivating them to learn English. Six participants emphasized the importance of frankness of ESL teachers to developing good relationships with students. When teachers opened up and shared all their personal stories, the students also showed no hesitation in sharing theirs. Two of the participants put it:

I love my English teachers to be frank and open because I can deal with him or her personally. Moreover, it brings me closer to him or her and that gives me a sense of courage and confidence when teachers tell about themselves. (Kinley, interview, 7 March, 2015)

If a teacher is frank, then, the students will not hesitate to tell their feelings, and what they have learned in the class . . . it will encourage the students to be interactive and talk more in English in order to learn it better. (Dorji, interview, 7 March, 2015)

Frank ESL teachers seemed to have impacted their students learning. They indicated that this attribute reduced fear or discomfort that interfered with their learning and increased confidence and courage. As a result, the students became more participative and interactive in learning English.

Six participants highlighted fairness as an important attribute of effective

ESL teachers. It is referred to how fairly each student was graded, assigned works, or treated in an “unbiased and impartial” way. For example, Yeshey said:

I felt encouraged to work harder when my English teacher showed no favoritism and treated everyone equally in the class. My English teacher gave what we deserved [grades] in an unbiased and impartial way. (Essay, 6 March, 2015)

Similarly, Tshering wrote in her essay:

I feel happy when my teacher is fair and impartial. I can also learn better and my expectations increase when I see myself and others being treated equally either during or after class. I wish to have more of such kind of English teachers. (Essay, 5 March, 2015)

This attribute increased students’ expectations and encouraged them to work harder in learning English.

Eight participants wanted ESL teachers to be *entertaining*, *encouraging*, and *humorous* in order to make the English classrooms lively. These participants wanted ESL teachers to display their encouraging behaviors through jokes, stories, and actions. Describing an ESL teacher as a voracious reader, Yewong, for instance, acknowledged his “same reading habit” to an encouraging ESL teacher:

He did not tell us anything about the importance of reading books, instead he read a lot. I think he would have finished reading almost all the books we have in the school library. And seeing him read all the time, even during breaks, I started emulating him. I enjoy it now! (Essay, 8 March, 2015)

Similarly, Yeshey and Phuntsho remarked:

. . . I owe my love for books to her [English teacher] and personally, I think, my habit of reading books led to scoring good marks in English. (Yeshey, essay, 6 March, 2015)

Teaching seems drowsy and boring so if a teacher wants to make his students learn . . . he must have to entertain . . . , arouse interest . . . through educational jokes or stories which are important for language learning. (Phuntsho, interview, 6 March, 2015)

Believing that the ESL teachers are responsible in making lessons either enjoyable or mundane, the students wanted ESL teachers to engage them in

entertaining and humorous English classes.

Being considerate with student-related issues was cited as an attribute of an effective ESL teacher. For example, two students, who failed to do their daily readings or homework because they had to travel between school and home every day, expressed their appreciations for their ESL teachers' considerateness. Probing on it further, Zam said:

Despite losing time traveling between school and home, I wanted to complete all assigned works in time like any other student. But I sometimes could not for which I regretted. That is why I am happy that my English teacher understands me that time. (Interview, 6 March, 2015)

Also, Yeshey wrote:

Her understanding nature makes her my good teacher. When I forget to bring notes or do homework, she never takes action before asking the reasons why I failed. But she does take action if she finds me either careless or forgetful. (Essay, 6 March, 2015)

She further added:

The way she understands us sometimes surprise me. When we are faced with any problems related to academics, family, or friends, and unable to confide to anyone, she is the one lending her helping hands.

A female participant praised the *welcoming and friendly* nature of her ESL teacher. She referred to that teacher as “child-friendly” who not only created an environment conducive to learning, but also ensured every student’s safety and comfort. She wrote:

Her [English teacher] friendliness attracts us like bees to that of flowers. She is so humble that we feel welcomed every day. She is so friendly that none of us feel like missing her class. That is why we feel safe and comfortable learning English under her. (Choney, interview, 8 March, 2015)

Personality characteristics described above are the comments regarding effective ESL teachers. The students want fair, open, frank, humorous, understanding, entertaining, encouraging, and child-friendly ESL teachers.

4.1.1.2 Affectionate

Affection, an ability to show liking emotions, comprised of numerous emotional comments that rekindled students' "curiosity" (Phuntsho & Tshering), "morale" (Chencho & Yeshey), sense of "volunteerism" (Khandu & Nima), and "confidence" (Zam, Khandu, & Nima).

The participants expressed their keenness about teachers' patience, the ability to bear with students' inability to reach their expectations. It is viewed as how calm and responsive a teacher was when students faced language learning difficulties. Tshering, for instance, explained:

All I had was curiosity, and all my English teacher had was patience. That good match between the two of us impacted me the most. Today I am grateful to her for how well she responded patiently and responsibly at the time I was learning English. If she was not patient, I would not have learned English well. (Essay, 5 March, 2015)

In agreement with Chencho, Yeshey also believed that a patient ESL teacher increases students' morale by accepting language related errors:

In the class she invited each and every one of us to volunteer freely without any fear of making mistakes or errors. Instead she advised us to learn from mistakes, but not to repeat the same error again. And she was also ready to commit herself a thousand times until she was convinced that we understood her. (Essay, 6 March, 2015)

The participants also associated ESL teachers' patience with love, kindness, compassion, helpfulness, and interest to help children facing difficulties in learning English. They acknowledged the benefits of these characteristics in helping them gain confidence and develop the willingness to learn.

. . . we not only feel open, but also get the confidence to share our problems Then we tend to learn more from that kind of teacher. (Zam, interview, 6 March, 2015)

I am not a fast learner . . . so patience, I think, is the basic thing that the teacher must have. And because of her patience, I was able to learn the language. (Karma, interview, 8 March, 2015)

In summary, ESL teachers need to have strong affective qualities that not only make children feel loved and cared for, but also feel encouraged to work together to strengthen their English language capabilities.

4.1.1.3 Receptive

Receptiveness is understood as the teachers' passion and patience to listen to what the students had to say. It means respecting students' views, suggestions, or opinions. The participants liked those ESL teachers who listened to them when answering questions or doing presentations. For instance Dorji (interview , 7 March, 2015) and Yewong (essay, 8 March 2015) comment:

When teachers listen to us patiently, we can share both our non-academic and academic problems. Then we get timely help They should listen to us when we answer questions, share our opinions or views in the class as when I find them not interested, then, I don't feel like participating in the next.

. . . teachers must listen to us, our concerns, or opinions regarding our learning. I learn better when my English teacher listens to me, my problems, and then help accordingly.

The participants in both interviews and essays opined the importance of ESL teachers' receptiveness whether in in-class or out-class conversations, and students expect ESL teachers to help them personally and academically.

4.1.2 Knowledgeable

Being knowledgeable was another important effective ESL teacher characteristic that emerged out of this study. It included comments related to teaching styles, methods and strategies, content, and assessment. *Ability to use different methods and strategies, be proficient in teaching grammar, and providing feedback on students' learning progress* were its subcategories.

4.1.2.1 Ability to use Different Methods and Strategies

The respondents did not want their ESL teachers to use only one method, style, or activity in English language classrooms. They wanted teachers to initiate different learning activities such as discussions, storytelling, and debates that could give them opportunities to practice the four language skills. For instance, Nima (essay, 6 March, 2015) and Yewong (essay, 8 March, 2015) showed:

An effective English teacher makes children work in groups by providing all required materials. Then we get to share our knowledge among ourselves before sharing it to the whole class. In fact we learn more from friends as we work on different topics in different groups.

Initiating story telling sessions in between lessons not only reduces

boredom and sleepiness, but also helps us acquire language skills such as speaking and listening. And I believe this initiative has improved my speaking skill very much. I am glad for it.

Also, they wanted English language classrooms to be communicative where the two parties- teachers and students- exchange views, opinions, and ask questions. This seemed to have helped them improve their English language proficiency and boosted their confidence levels. Chencho explained:

Through his teaching not only could I grasp the lesson and do some exercises, but also ask questions which I never did in the past. Gradually, I felt myself walking along the path of improvement. (Essay, 5 March, 2015)

Moreover, they praised those teachers who employed different teaching styles and methods, and teaching materials. A science student said,

English teaching should involve materials beyond chalk and chalkboard. And thus, effective English teachers use modern materials like projectors, visuals, or flash cards that are educative and related to the content of the subject. I learn and remember the best when different such materials are used in the teaching and learning process. (Kinley, interview, 7 March, 2015)

Surprisingly, students wanted ESL teachers to teach English “beyond textbooks”. This, they say, was to ensure ESL learning depth and breadth. Dorji remarked:

My English teacher does not teach me the textbook. He teaches me all topics because he initiates discussions on beyond the topics already there in the textbook. Language learning is more than teaching the prescribed text. (Interview, 7 March, 2015)

Similarly, Kinley said:

He/she should also teach beyond the prescribed textbooks. He/she should collect other important information which are related to the text of learning. I love my teacher But teachers’ help is needed when discussing out-of-text topics. It is interesting though. (Interview, 7 March, 2015)

Teaching beyond text books, organizing different learning activities, and employing different methods are characteristics of effective ESL teachers.

4.1.2.2 Proficient in Teaching Grammar

Most participants agreed that ESL teachers should be proficient in teaching grammar. To improve and enhance students' English language proficiency, they wanted teachers to teach grammar points and give them enough exercises to practice. Zam (interview, 6 March, 2015) and Phuntsho (interview, 6 March, 2015) mentioned that:

Getting students involved in different grammar related activities, for instance for improvement and learning I get encouraged and feel like doing more activities in the process of learning . . . it increases the level of my interest, thus, impacts my learning of English positively.

My English teacher corrected my writings, and not only gave me corrective feedback, but also underlined those incorrect statements, or sentences which I avoided repeating them later. (Phuntsho,

The respondents wanted ESL teachers to teach them grammar intensively in order for them to be equally proficient in all the four language skills such as writing, speaking, reading, and listening. For this, teachers need to have good grammatical knowledge.

4.1.2.3 Providing Feedback on Students' Learning Progress

Assessment involves teachers' evaluating students' progress in language and doing necessary follow-ups. To do so, the respondents wanted their ESL teachers to conduct tests and quizzes frequently, and appraise them. For example, Choney said:

Tests and quizzes that test how much we have learned in the class are very important. Unless teachers conduct such activities to assess our progress, we will not know how much we have learned. Therefore, we want English teachers to test our progress as many times as possible. (Interview, 8 March, 2015)

Also, they wanted teachers to provide corrective feedback for the tests, presentations, or quizzes. Chenchu praised:

He [teacher] would correct all completed works immediately and give corrective oral and written feedback individually. He would explain how

to write those incorrect sentences correct. And those comments were helpful as I read them to avoid making the same mistakes later. (Essay, 5 March, 2015)

Assessing students' works and providing corrective feedback are two important characteristics that students wanted their ESL teachers to do continually under this subcategory.

4.1.3 Professional Characteristics

The respondents expected their ESL teachers to be professionals committed to doing any works related to the teaching of English. *Be fluent in both English and Dzongkha*, and *dedicated to teaching English* are the subcategories of ESL teachers' professional characteristics.

4.1.3.1 Fluent in both English and Dzongkha

Participants not only wanted ESL teachers to be fluent and proficient in English, but also wanted them to "speak slowly, softly and clearly" in order to convey the messages clearly. Besides expressing their appreciations for those English teachers who spoke the first language fluently, they wanted them to use it to explain some difficult concepts which were difficult to elucidate in English. With regard to this, Choney said:

I admire those teachers who are good at both English and Dzongkha. I feel good when they speak slowly, softly and clearly because I find it difficult to catch them if they spoke very fast. (Interview, 8 March, 2015)

In a similar manner Karma added:

Whenever I have some difficulties, I go to those English teachers who are equally good at Dzongkha because I can ask questions in Dzongkha and he can answer me in the same language. Then, I read the same in English. This is why I prefer to have English teachers who can speak Dzongkha also fluently. (Interview, 8 March, 2015)

ESL teachers' communicative skills are important elements of professional characteristics. Students want ESL teachers to be fluent and proficient in both English and Dzongkha. They want the latter to be used as a secondary means of instruction to explain difficult concepts.

4.1.3.2 Dedicated to Teaching English

The participants wanted their teachers to be industrious who love teaching

and are enthusiastic about teaching English. Some traits that inspired them to be more responsible are their teachers' dedication, commitment, hard work, preparation, punctuality, and organization in teaching English. For instance, Choney mentioned that:

When I see my English teacher committed, I tell myself to be more responsible. And when I become responsible and try to work with him, he does not mind sparing his time whenever I have some difficulties or questions. I do not want to disappoint him by being irresponsible. That is why I like to work hard when he is committed to helping me. (Interview, 8 March, 2015)

Similarly, Yeshey commented that his English teacher:

is a hardworking teacher. She prepares all the notes beforehand for our reference. She sacrifices her free time to check our notes and comments on where to improve and compliments the good ones. (Essay, 6 March, 2015)

Interestingly, students wanted teachers to be “willing to learn from students”. In this regard, Dorji remarked, an “English teacher should be somebody who is open-minded . . . who is ready to listen to our answers, and learn from us in order for him or her to teach us better.” (Interview, 7 March, 2015)

Three participants appreciated their ESL teachers' punctuality. They implied it to being responsible, unselfish, and enthusiastic about teaching English although it literally means doing something or arriving in/on time. These participants wanted ESL teachers to get the works [teaching, correcting assigned works etc.] done in time. Appreciating his English teacher, Khandu remarked that:

He never delayed his works. Rather my English teacher spared his precious time in giving us more activities with the intention of improving our language. It was also intended to keep us engaged for a good purpose. And those activities did improve my English language dramatically. He was also unselfish and showed us his concerns regarding English language improvement . . . and that is why I admire his teaching personality. (Essay, 7 March, 2015)

ESL teachers' professional characteristics constituted language proficiency, commitment and dedication, teaching beyond textbooks, willingness to learn from students, and punctuality. ESL teachers who have these characteristics are said to be dedicated ESL teachers who love teaching the English language.

5. Conclusion & Discussion

This study investigated the characteristics of effective ESL teacher characteristics in the Bhutanese context. The results indicate that the participants placed the highest importance on teachers' *personal qualities* while *pedagogic knowledge* of ESL teachers was given a second preference. *Professional characteristics* were the third important effective ESL teacher characteristic. Each theme was further subcategorized based on comments obtained from interview transcriptions and essays. Subcategories of personal qualities were motivating personality, affection, and receptiveness while pedagogy, content knowledge, and assessment were the subcategories of pedagogical knowledge. Subcategories of professional characteristics were communication, and industriousness and love for teaching English.

The participants perceived *personal qualities* such as being fair, frank, open, empathetic, exemplary, humorous, and punctual as the most preferred characteristic themes of ESL teachers. These dimensions were perceived important in building trusting relationships between students and ESL teachers, and "vital in establishing an environment that supports students and encourages them to learn" (Cruickshank, Jenkins, & Metcalf, 2009, p. 361). Goodlad (1984) referred to these dimensions of characteristics as "nurturing behaviours" that ensure the students' trust and belief in their ESL teachers, and create conducive learning environment (Sherab, 2013; Sherab & Dorji, 2013). Besides it, they also weaken affective filters that interfere with the process of second language acquisition (Krashen, 1982), and provide scopes to produce GNH graduates who possess these qualities (MoE, 2014; MoE, 2013). These personal qualities also create emotional environments (Walls, Nardi, Minden, & Hoffman, 2002) that strengthen positive classroom culture and climate and build respectful learning environments. Findings from this study are consistent to the existing literature from different contexts (Arikan, Taser, & Sarac-Suzer, 2008; Barnes & Lock, 2010; Chen, 2012; Chen & Lin, 2009; Colker, 2008; Faranda & Clarke, 2004; Shishavan & Sadeghi, 2009). According to these scholars, these characteristic dimensions are the most important personal characteristics of an English language teacher.

The studies conducted by Barnes and Lock (2013), Chen (2012), Park and Lee (2006), and Wichadee (2009) emphasized the importance of English language teachers' pedagogic knowledge. This knowledge entails teaching materials, teaching methods and strategies, students' participation, questioning skills, and enthusiasm for teaching English to non-native learners. Similarly, this study found ESL teachers' *pedagogic knowledge* as the second important characteristic. Findings from this study suggest that ESL teachers need to have good pedagogic knowledge that could facilitate the learning of English as a second language. This finding is in line with Ramazani's (2014) study that

reported pedagogical knowledge as the most important characteristic of English language teachers. As suggested by the finding of this study, any ESL teacher who has these traits would likely be considered an effective ESL teacher in the Bhutanese educational setting as well. However, as revealed by the findings of the MoE (2014), Puntai and Tenzin (2015), and Tenzin (2016), large classroom size may affect this characteristic.

The findings also revealed *professional characteristics* of the ESL teachers as the third important characteristic. This characteristic includes dimensions like language proficiency, organization and preparation of lesson plans and lesson materials, and enthusiasm to teach English, commitment, industry, dedication, and ability to teach beyond textbooks. These “deep-seated patterns of behaviour” (McBer, 2000, p. 19) can profoundly impact students’ learning of English when integrated into teaching styles (Cruickshank et al., 2009). This finding supports Wichadee’s (2009) study which reported characteristics such as organization and communication skills, and English language proficiency as very important. Also, the finding of this study is in line with Brosh’s (1996) finding. Both groups of participants in Brosh’s study attributed their strong agreement on some professional traits. They endorsed command of the subject matter, ability to transmit knowledge, and organization of materials and teaching methods as important effective language teacher characteristics.

This study was conducted in one higher secondary school involving only twelve students, therefore, the findings can in no way be generalized to the whole Bhutanese context. The researcher recommends a mixed methods study which is capable of generalization by involving additional higher secondary school students. It is also recommended that a large scale quantitative study be carried out as a follow-up to this study.

Nevertheless, this study contributes to ESL teachers’ professional, personal and pedagogic developments. Besides creating awareness, the ESL teachers would understand the needs of students in learning English as a second language.

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RABSEL – the CERD educational journal

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