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Spelling Difficulties of 4PCD Student Teachers at Paro College of Education

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Spelling is reproducing the correct sequence of letters in a word in an oral or written form. Spelling becomes complicated because many people are not aware of strategies to learn spelling and, as a result, make many errors. Further, with the advent of technology, short messages or texting have reduced the importance of proper spelling. This has been the motivation to undertake an action enquiry to find some strategies to improve spelling of our class during the final year of study in the primary curriculum section D (4PCD). The baseline data collected through analysis of notebooks from our class of 36 confirmed our concern of spelling difficulties at tertiary level. Through the analysis of baseline data, six participants who were mostly unaware of the letter-sound relationship of vowels and some consonants like C and S, spelling rules and homophones were identified for support. To this effect, we adopted intervention strategies to address their problems. Post-intervention data were gathered using the same tool as in baseline data. From the post-intervention data analysis, we noticed measurable improvements in all areas of concern. However, it is concluded that there is still room for improvement in minimizing spelling difficulties of all ages and gender.

Keywords: Spelling difficulties, strategies, phonology, morphology and homophones

Introduction

English and Dzongkha are the languages of classroom instruction in Bhutan. Dzongkha is our national language and English is the internationally accepted language for developmental programs (Zangmo, Burke, Toole & Sharp, 2015). Almost all the subjects in schools and colleges are taught in English while only a few subjects are taught in Dzongkha. Therefore, it is important for every educated Bhutanese to use the correct spelling and also know the importance of using the correct spelling in written language.

Writing correct spelling of every word is difficult and it is one of the most complicated and complex phenomenon but, spelling is one of the most important aspects in improving the standard of our language particularly in writing. So we cannot leave it as a choice (Invernizzi, Abouzeid, & Bloodgood, 2004; Aziz, Shamim, Aziz, Avais 2013; Yousaf & Ahmed, 2013; Moats, 2006). Research has shown that learning to spell correctly makes a person pronounce a word appropriately, speak fluently, helps to cement the connection between letters and their sounds and helps in conveying accurate message to others through their writing (Anastasiou & Griva, 2012). Teaching and learning to spell words correctly help in developing the four strands of language— listening, speaking, reading and writing. Thus, this action research was designed to examine “How we can collectively minimize the spelling difficulties of our class (4 PCD) at Paro College of Education”

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Situational Analysis

Like any other societies, Bhutanese society also expects that any educated person to spell words correctly, yet literate adults commonly characterize themselves as poor spellers and often make spelling mistakes (Moats, 2006). Our experiences have shown that many Bhutanese students (including us) encounter problems in spelling simple words from primary school to the university level. Most of the time, we struggle even to write a short paragraph with correct spelling as spelling is puzzling. As a result, we end up trying and writing the words on a separate sheet of paper to check the spelling. The most common spelling mistakes can be noticed in students' leave applications. Often common words such as "diarrhoea for diarrhea, live for leave, grand for grant, and attain for attend are misspelt". Through our observations, we concluded that it is a serious issue that needed to be examined further. Spelling is the heart of writing and should not be ignored, as it is an exceptional component in conveying accurate information to others. Due to this, it is important to look for some ways to improve our own and peers' spelling. The major factors affecting correct spellings are - spelling rules, homophones and phonological awareness (Al-zuoud & Kabilan, 2013; Anastasious & Griva, 2012; Aziz & Avais, 2013 & Moats, 2006).

Literature Review

Spelling is the learner's ability to write a word correctly. It also adds quality in overall writing, and passes accurate message to the readers (Al-zuoud & Kabilan, 2013). Spelling is considered to be the foundation of reading, the greatest ornament of writing and heart of all four strands of language (Joshi, Treiman, Carreker, & Moats, 2009). Spelling is puzzling and difficult for those who learn English as a second language but there are solutions to this problem (Miressa & Dumessa, 2011). Spelling difficulties mean learner's or writer's difficulties or inability to write correct spelling of words. Studies indicate that English spelling is the most complicated and complex phenomenon since it has different origins and rules to follow (Al-zuoud & Kabilan, 2013; Miressa & Dumessa, 2011; Moats, 2006; Invernizzi, Abouzeid, & Bloodgood, 2004). Many scholars have researched to find some strategies to overcome spelling difficulties in other countries but no one has ever attempted to research on this topic in the Bhutanese context. Given its importance, an action research was carried out to explore and find solutions for the problem with our classmates (4PCD) of Paro College of Education, Royal University of Bhutan. Our study was focused on improving spelling through the teaching of the letter- sound relationship (phonological awareness), spelling rules and homophones (Al-zuoud & Kabilan, 2013; Anastasious & Griva, 2012; Aziz & Avais, 2013 & Moats, 2006).

Teaching Strategies to Improve Spelling

Despite many factors that affect spellings such as word meaning, grammar, parts of speech, homophone, phonological awareness, orthography, morphology, and etymology (Invernizzi, Abouzeid & Bloodgood, 2004; Moats, 2006; Webb, 2007; Aziz, Shamim, Aziz & Avais, 2013; Yousaf & Ahmed, 2013; Hall, 2014), some researches have found that the way a teacher teaches spelling and the kind of teaching strategies used also affect the students' ability to spell the words correctly (Wallace 2006; Moats, 2005; Miressa & Dumessa, 2011). In the Bhutanese context, we feel that the above factors make spelling difficult. However, in this study, based on the literature suggestion and the time available, we have focused only on how the teaching

of phonics with both regular and irregular spelling, morphology with spelling rules, and the teaching of homophones through meaning can improve spelling. Research has shown that these teaching skills can be taught through reading since reading and spelling can go hand in hand (Invernizzi, Abouzeid, & Bloodgood, 2004). We have particularly focused on a variety of strategies because, if we focus only on one specific strategy, it may not be applicable for all since different students have different ways of learning and different problems with spelling. They may not be facing a spelling problem with one specific strategy, so we incorporated several strategies to cater to the needs of their problems (Kernaghan & Woloshyn, 1995).

It is generally expected that literate people, especially the teachers are supposed to be good spellers and that they should teach students how to spell a word correctly. According to Graham, Morphy, Harris, Chrzempa, Saddler, Moran, and Mason (2008); Herrington and Horarik (2015), teachers in most part of the world tend to approach spelling as a task of rote memorization and they feel that it is the best way of teaching spelling to students. The correct spelling is important, but it needs to be built on the understanding of how the English spelling system works. To this effect, researchers have used different types of teaching strategies to teach spelling depending on the needs and the context of their research. In this particular action research project, we used audio-visual aids, spelling games and handouts to teach phonics, morphology and homophones (Kwong & Brachman, 2014).

Phonology, Morphology and Homophones

Learning to spell and learning to read rely on much the same underlying knowledge - the relationships between letters and sounds, the meaning of the words and, designing spelling instructions to help the student to better understand the key knowledge - resulting in better reading and spelling (Moats, 2006). Teaching spelling skills incidentally through the use of extensive reading and writing activities have shown better results in improving spelling with students (Wallace, 2006). Further, he also suggested that creating word lists of homophones based on students' reading, classroom thematic units and letting students choose the words they thought they needed to learn to spell can also help students to learn spell words better. With this method, it was anticipated that students would become more interested in their spelling of words, become more self-directed, develop an interest in learning to spell new words, and select words whose proper spelling would remain in long-term memory.

To learn the rules of spelling, students can develop a deep understanding of English by choosing to study the meanings of roots, prefixes, and suffixes, families of related words, the historical development of the English language, and words' origin of language (Invernizzi, Abouzeid, & Bloodgood, 2004; Moats, 2006; Webb, 2007). If we have good knowledge of morphographs, we can create many words in the written English language by following a small set of rules for combining morphograph. For example, "the word recovered is made up by adding the prefix re, on the root word cover, and the suffix ed" (Simonsen, Gunter & Mertella, n.d; Moats, 2005). By using the principles that govern the structure of words, we can use the morphemic approach to spell and use instruction to teach students morphographs rather than teaching whole words and the rules for combining morphographs to spell whole words correctly (Kabilan & Al-zuoud, 2013; Herrington & Horarik, 2015). Using a morphemic approach, students would be taught that when a base ends in the letter 'e' (e.g., make) and is to be combined with the /ing/ suffix, the letter 'e' is always dropped (make becomes making)

(Simonsen, Gunter & Mertella, n.d.; Anastasious & Griva, 2012). It seems that if teachers can adopt such kind of rules in the classroom, students will have fewer problems in spelling a word correctly. We can also teach through reviewed spelling rules. For instance, when a short morphograph ends with a consonant – vowel – consonant (C-V-C) letter sequence and the next morphograph begins with a vowel, the final consonant will be doubled (Simonsen, Gunter & Mertella, n.d; & Wallace, 2006). That way ‘hop’ will become ‘hopping’ and ‘hope’ will become ‘hoping’ (Simonsen, Gunter & Mertella, n.d.).

Being able to use the relationship between letters and their corresponding sounds is an important skill to successful reading and spelling performance (Simonsen, Gunter & Mertella, n.d.; Joshi, Treiman, Carrekar, & Moats, 2009). When students read, letter-sound correspondence allows them to identify the sounds that correspond to the written symbols in printed reading passages and when they spell, they identify the written letters that correspond to the spoken sounds. So, this is how phonemic awareness helps them to become competent readers and writers (Simonsen, Gunter & Mertella, n.d). Many words in the English language have regular phonemic patterns and they are not very complex to spell the words. “For example, the word hat has three sounds /h/, /a/, and /t/ and can be correctly spelled using the three letters that correspond with each of those sounds (h, a, and t)” (Simonsen, Gunter & Mertella, n.d, p. 5). Nevertheless, all words cannot be spelled using the letter-sound relationships. Some of the words do not have regular phonemic patterns and they are irregular which makes spelling complex. For example, words like friend, phone, yacht and quit cannot be spelled using letter-sound relation but some other strategy like the whole-word approach where explicit and implicit learning strategies are used to memorize the spelling to make it easier (Simonsen & Gunter, 2001; Hall, 2014).

Homophones are examples of how spelling patterns indicate differences in meaning, although the sound does not change. The study of homophones of more than one syllable and homographs can help in building awareness of spelling-meaning and spelling-grammar (Perry, Ziegler, & Colthers, 2002; Invernizzi, Abouzeid & Bloodgood, 2004). For example, there/their, accept/except, sit/seat, where/were and here/hare are some homophones which are confusing and easily mistaken.

Spelling difficulties mean an individual’s inability to spell correctly in English is the most complicated and complex phenomenon due to its different origins and the systematic rules from the different origins (Invernizzi, Abouzeid, & Bloodgood, 2004; Moats, 2006; Miressa & Dumessa, 2011; Al-zuoud & Kabilan, 2013). It is indeed disappointing to note that many pupils from lower primary to the university level have major issues with spelling. Teachers are not spared as well. They too are confronted by spelling issues and are often incognizant of the strategies to fix these problems.

Phonological skills appear to be critical, in addition to orthographic knowledge, memory for word images, and awareness of morphological structures and semantic relationships as well as knowledge of spelling rules (Keuning & Verhoeven, 2008 as cited in Staden, 2003). It has also been demonstrated that teaching students about morphemes and homophone is a powerful teaching tool for spelling instruction. Spelling is a developmental process and teachers should be conscious of which spelling strategies will be appropriate depending upon a student’s grade level to overcome the problems. Hence, this action study addressed the following research question.

Research Question

How can we collectively minimize our spelling difficulties in 4PCD at Paro College of Education?

Action Plan

We used a qualitative method for our study because qualitative research helps to explore meaning, purpose, or reality of the problems or issues (Hiatt, 1986 as cited in Harwell, n.d.). We used document analysis as our tool. It is a form of qualitative research in which documents are interpreted by the researcher to give voice and meaning around an assessment (Creswell, 2009). Document analysis was chosen to collect data because documents are unobtrusive and can be used without imposing on participants (Glesne, 1999 as cited in Thinley, n.d.). It was also a good source of background information and had provided us with information and issues behind the scenes that had not been directly observed.

Our research sample was based on stratified purposive sampling because it helped us in identifying and selecting information-rich cases related to the phenomenon of interest (Plainkas, Horwitz, Green, Wisdom, Duan & Hoagwood, 2013). To examine our participants with spelling difficulties, we went through 36 notebooks of our classmates in Paro College Education, Royal University of Bhutan. After the exercise, a total of six student teachers with the highest number of misspelled words were selected as our participants. It was a heterogeneous group of three boys and three girls from different socio-economic background and culture. The participants were all in the age range of 22-24. English was the second or third language for all participants. From the second week of September, baseline data collected by scrutinizing the notebooks of our participants for one week. Detailed information of the misspelled words was compiled by taking photographs.

During the next week, we analyzed the data collected by grouping misspelled words to find out the root causes of spelling errors. To work on the causes and to minimize the spelling mistakes, we designed plans for improvement with strategies suggested in the literature section above. The teaching of the letter-sound relationship of both regular and irregular words, teaching morphology of words with spelling rules and teaching those homophones with meaning were some of the intervention strategies that were implemented.

Starting from the fourth week of October, we implemented our intervention strategies for minimizing spelling difficulties through various methods like video clips, spelling games, audio phonic chant, handouts and worksheets. The intervention was carried out over five weeks where participants were taught for one hour per week. By the end of October we gathered post-intervention data using the same tool of going through their notebook of the same participants. Similar to baseline data, we grouped the misspelled words for post-intervention data and compared baseline data and post intervention data with the number of words misspelled in both the datasets. Findings were presented in the form of tables and the interventions analyzed for whether they were instrumental for our participants to minimize the spelling difficulties.

Factors Making Spelling Difficult

Analysis of the baseline data from the six participants revealed that most of the spelling mistakes were due to problems in the letter-sound relationship of vowels and some consonants like C and S (phonological awareness), the use of homophones, morphological awareness

(spelling patterns), pronunciation, omission and addition errors. While there were other factors which make spelling difficult, we have mainly focused on the factors which are listed above for this small-scale action research purpose in the limited time available. Each of these main issues is discussed in the following section:

1. Letter-Sound Relationship (Phonological Awareness) of Vowels and Consonants like C and S

Phonological awareness is a vast topic. Given the time limit and also our lack of experience in action research we did not focus on all the aspects. We just addressed a few letter-sound relations where our participants made mistakes. It was found that most of our classmates misspelled the words because of similar letter-sound relationships between the letters like a, e, i, o, u and y (vowels) and some consonants like c and s (for data, see Appendix 1). Vowels are tricky and each vowel has more than one sound and there are no universally agreed concepts of what each vowel sound should be (Shemesh & Waller, 2000). For example, letter E can be /e/ in case of *bed, led, end and red* where /e/ makes the sound of ‘EH’ which is the short sound of letter E. In case of words like *keep, free and seem*, /i/ makes the sound of EE, in case of words like *each, dream and tea*, /i/ makes the sound of EA and there are many different sounds produced by /i/. Similarly, the combination of letters also changes the sound. For example; the letter ‘a’, where it can be the short ‘a’ like in ‘hat’ or the long ‘a’ as in ‘make’. So, because of this, we get mixed up or puzzled with the sounds and we misspell the words. To get rid of this problem, we have used some intervention strategies (see ‘Intervention strategies’ section).

Vowels are problematic and we have difficulty in using them, but consonants are not as problematic as vowels but even then, we tend to make mistakes because there are some consonants which make two sounds. For example, letter C makes /k/ and /s/ sounds and G makes /j/ and /g/ sounds according to the usage of the letters (Roach, 2007). So in such cases, we have to know the rules about when letter C will make /s/ and /k/ sounds and when letter G will make /j/ and /g/ sound. For example, our participant A had written ‘desicion for decision’ which indicate that he/she had problem-related to letter C and S. In order to minimize this kind of problem, the teacher has to teach students, rules about when letter C will make /s/ and /k/ sound and when letter G will make /j/ and /g/ sound. To minimize this kind of problem, we have used some intervention strategies (see in ‘Intervention strategies’ section).

2. Pronunciation

While examining participant’s notebooks, we came across the word ‘carieer’ when the sentence structure needed ‘career’. We originally thought that it might be because of mispronunciation of the word but Participant A pronounced the word correctly. When asked why has he/she spelled career as carieer? She/he replied to say “I have written as carieer because my teacher told me as carieer and not as career”. From there, we concluded this participant had misspelled the word because of mispronunciation made by the teacher. Along the way, we came across similar kind of problems and we did the same thing with the participants who made spelling mistakes due to pronunciation. The problem with pronunciation is not only with the case of students or teachers; it can be from both the side which will hamper in writing correct spelling of the word. Pronunciation is not an intrinsic component of the dictionary (Burns & Claire, 2003; Ibarrola, 2010; Riswanto & Haryanto, 2012). Modern English does not always

display consistency in sound and spelling. For example words like *love, move, and rove*, look as though they would be pronounced similarly but they do not sound alike. On the other hand, words like *breeze, cheese, ease, frieze, and sleaze* are rhyme words but they are all spelled differently. This mismatch between words that look alike and words that sound alike makes it difficult to write correct spelling of the words due to the pronunciation of the words. Different words have different origins and they are pronounced differently leading to complexity in writing correct spelling of the words. For example words like *parachute, entente, technique, basque* are some of the words which are spelt differently unlike their pronunciation due to its French or Spanish origin.

Many English words have silent letters. Silent letters are not pronounced but make a huge difference in the meaning and pronunciation of the word (Ranbom & Connine, 2010). For example, words like *know, psycho, gnat, knife, gnash, gnaw, hour, honest, and honor* are some of the words where some letters are kept silent while pronouncing the word but those silent letters are written to spell the word correctly.

3. Morphological Awareness - Specially Related to Spelling Rules

From our baseline data, we came across some problems which were due to ignorance of spelling rules. There are around 42 spelling rules which make spelling easier (Anderson, 1987; Shemesh & Waller, 2000; Benyo, 2014; Moats, 2006, Ridout, 1990) (refer Appendix 12). Most of the participants made mistakes which were related to the use of double consonants after the vowels. Participants A, B and C misspelled words like *sucsess/success, accomodation/accommodation, questionnaire/questionnaire, buton/button and scaffolding/scaffolding*. It was found that some of the spelling mistakes were due to ignorance of the spelling rules. As per the Oxford grammar, after a vowel, one has to write a double consonant (for example: *scaffolding, accommodation, ...*) but there are some words where there is no double consonant after the vowel (for example: *mature, future, ...*). However, one is not sure when to use and when not to use the double consonant because of unfamiliarity with the rules. Vowels can be problematic and each vowel will have more than one sound but commonly each vowel will have short and long sounds (Pons & Toro, 2010). According to spelling rules, after short vowel sounds, we usually use double consonants and after long vowel sound, we use single consonant in writing the spelling of the words (Anderson, 2002). So if we are familiar with this rule, there are fewer chances of making these kinds of mistake.

4. Omission and Addition Errors

From baseline data, we also came across some mistakes related to omission and addition errors where participants have omitted or added some letters in a word (refer Appendix 3). The main cause of omission and addition errors is the lack of knowledge of the relationship between sounds and written symbols and faulty pronunciation (Al-zuoud & Kabilan, 2013). Students omit or add some letter to the words because they do not know the actual spelling of the words. From our data we have realized that most of our participants have omitted letters like /n/, /c/, /s/, /l/, /w/, /a/, /r/, and /e/, where each letter makes a huge difference in spelling and pronunciation of the word. This could be as a result of ignorance and carelessness. Other than the omission of letters, some of our participants have added some letters which are actually not required.

Therefore, based on the addition and omission of letters, we have grouped the words separately (refer Appendix 3 & 4).

5. Homophones

Homophones are the words with the same pronunciation but with different meaning and spelling (Treiman, Seidenberg, & Kessler, n.d.). In such a case, there is an increased chance of making mistakes in using the words according to their context. For example, *meet* and *meat* are homophones and the meaning has to be known in order to use each one correctly. Participant C wrote ‘basic *principal* of writing’ when it should be a *principle*. Therefore, it is important to know the meaning of words. So we categorized some of the misspelled words according to the idea of homophones (refer Appendix 5). Spelling mistakes made by each participant were all listed in each table as participant A, B, C, D, E, and F, in line with their problem (refer Appendix 6, 7, 8, 9, 10, & 11).

Intervention Strategies

We started our intervention over five weeks from 13th September 2015 to 18th October, 2015. In each week, we intervened all the participants for an hour as and when we were free. During our intervention period, different strategies were adopted like the teaching of spelling rules, phonics and homophones by giving the meaning of the words. We focused on these three topics because, from our baseline data analysis, it was observed that, the participants had difficulties in these three areas. To be able to use all those teaching strategies meaningfully, different teaching-learning materials like video clips, phonic chants, handouts and activities were applied so that they would be clear with the concepts.

Spelling Rules

Although there are rules, there are many cases where they do not apply, and there are often exceptions to the rules (Carlin & Trail, 2009). According to the baseline data collected, the main focus of the intervention should be only on one rule –“the use of double consonants after vowels”, but we focused on all the spelling rules because we wanted to minimize the problems related to addition and omission of letters. We taught them all the spelling rules to address the problems through video clips from https://www.youtube.com/results?search_query=spelling+rules and handouts. According to Anderson (1987), Shemesh and Waller (2000), Benyo (2014), and Moats (2006), the following are the basic rules to learn spelling.

1. Use of Letter I before E, except after C

This rule is applicable only when the **IE/EI** cluster is pronounced as one syllable, and it does not apply when the letters are divided into two syllables, as in **deity** and **science**. If words are borrowed from a foreign language, then the rule may not be applicable. For example: **sheik** and **reichsmark**. There are some words which are simple but do not follow the rule as in- heir, height, and weird. Table1 shows some of the words which follow the rules and those that do not.

Table 1: Examples of words which follow the rule and some that do not

Use of I before E	Use of E before I after C	Use of I before E after letter C (exceptional cases)	Use of E before I without letter C (exceptional cases)
Believe	Receive	Sufficient	Foreign
Friend	Ceiling	Glacier	Reign
Quiet	Deceive	Ancient	Freight
Piece	Receipt	Proficient	Seize
Priest		Deficient	Weight
Achieve		Efficient	Height

2. If the Word Ends with E, DROP the E if you Add Suffix (Drop the Final SILENT e)

This rule concerns words that end in a silent e, such as **make** and **argue**. When a suffix is added to a word ending in a silent e, drop the e if the suffix begins with a vowel, for example - **ing**, -**ile**, **ed**, and keep the e if the suffix begins with a consonant, for example, -**ment**, -**ly**, -**ful**. Table 2 shows some of the words which follow the above rule and Table 3 shows the exceptions.

Table 2: Example of words which drop E and do not drop E

Word	Suffix	New word
Serve	-ile	Servile
Page	-ing	Paging
Educate	-ing	Educating
Rampage	-ed	Rampaged
Time	-ly	Timely
Atone	-ment	Atonement
Care	-ful	Careful
Combine	-ation	Combination
Fame	-ous	Famous
Scarce	-ity	Scarcity
Move	-able	Movable

Table 3: *Some exceptional cases in applying Rule*

Word	Suffix	New word
Argue	-ment	Argument
Due	-ly	Duly
Intervene	-tion	Intervention
True	-ly	Truly
Canoe	-ing	Canoeing
Convene	-tion	Convention

Words ending in **ce** or **ge** usually keep the **e** before a suffix beginning with **a** or **o** in order to retain the soft sound of the **c** or **g**. But when the beginning of the suffix is **i**, the **e** is usually chopped or removed. But there are some exceptional cases in applying this rule. Some of the examples are mentioned in table 4, 5 & 6;

Table 4: *Example of words ending with ce and ge and the suffix beginning with a or o*

Word	Suffix	New word
Change	-able	Changeable
Advantage	-ous	Advantageous
Knowledge	-able	Knowledgeable
Courage	-ous	Courageous
Services	-able	Serviceable

Table 5: *Example of words ending with ce and ge and the suffix beginning with i*

Word	Suffix	New word
Force	-ing	Forcing
Finance	-ing	Financing
Reduce	-ing	Reducing

Table 6: *Exceptional cases with the words ending in ce and ge and the suffix beginning with I*

Words	Suffix	New words
Age	-ing	Ageing
Singe	-ing	Singeing

3. Change Y to I

This rule applies when you add a suffix to a word that ends in **y**. Change **y** to **I** before a suffix when the **y** is preceded by a consonant. For example, **apply+ance=appliance**. Do not change **y** to **I** when the **y** is preceded by a vowel; for example, **pay + -s = pays**. Some of the examples are given below in Table 7 and some of exceptional cases are mentioned in Table 8.

Table 7: Examples of words changing y to I when we add a suffix

Word	Suffix	New word
Flabby	-est	Flabbiest
Lazy	-er	Lazier
Pray	-ed	Prayed
Lonely	-ness	Loneliness
Marry	-ly	Merrily
Prey	-ed	Preyed
Byway	-s	Byways

There are some exceptions in applying this rule:

- a. If the suffix itself begins with an **I**, as in, **-ing** or **-ine**, then do not change the **y** to **I** before adding the suffix

Table 8: Examples of words which do not change y to I when the suffix begins with -i

Word	Suffix	New word
Fry	-ing	Frying
Merry	-ing	Marrying
Worry	-ing	Worrying

- b. Certain irregular verbs have exceptions to this rule in their past tense form. You can memorize the irregular past-tense pattern of these three verbs. For example words like;

Pay.....paid
 Say.....said
 Lay.....laid

4. Change IE to Y

When we add -ing to words ending with **IE**, we can change them to **Y**.

Table 9: Example of words ending with IE and changing to 'y' when we add suffix beginning with -ing

Word	Suffix	New word
Die	-ing	Dying
Lie	-ing	Lying
Tie	-ing	Tying

5. Doubling the Final Consonant

This rule is very useful, but it is bit complicated and more confusing than the previous ones. However, the rule is worth studying because it explains why some letters are doubled whereas in some there is an only single letter. For example, there are two **r**'s in **preferred**, but only one in **preference**.

The Rule for Doubling a Final Consonant has Three Parts:

- A final consonant may only be doubled before a suffix beginning with a vowel; e.g., **-ed**, **-ing**.
- The final consonant must be preceded by a single vowel, e.g., **get** + **-ing** = **getting** but **greet** + **-ing** = **greeting**.
- The base word must either be only one syllable, sit, stop, spit or it must have an accent on the final syllable when the suffix has been added, **beginning**, **occurrence**, but not **reference**, or **development**. An accented syllable is one that is emphasized or is the loudest one you hear.

Note: generally we use double consonants after a short vowel sound and we do not use a double consonant after a long vowel sound or if two vowels precede the consonant. Examples are given in Tables 10, 11 & 12.

Table 10: *One syllable words ending in a consonant*

Word	Suffix	New word
Drag	-ed	Dragged
Hid	-en	Hidden
Shop	-er	Shopper
Stun	-ing	Stunning

Note: The reason we do this is to “protect” the short vowel sound of the root word.

Table 11: *Multi-syllable words that have the stress on the last syllable.*

Word	Suffix	New word
Begin	-ing	Beginning
Abhor	-ent	Abhorrent
Refer	-al	Referral
Occur	-ence	Occurrence
Regret	-able	Regrettable

Note: The following multi-syllable words do NOT have the stress on the last syllable and therefore, do NOT have the last consonant of the root doubled before adding a suffix.

Table 12: Multi-syllable words which do not have the stress on the last syllable

Word	Suffix	New word
Edit	-ed	Edited
Benefit	-ed	Benefited
Refer	-ence	Reference
Profit	-ed	Profited

- a) Double a final single consonant before a suffix beginning with a vowel (-ing and -ed):
- b) If the consonant ends a stressed syllable or a word of one syllable and
- c) If the consonant is preceded by a single vowel. Otherwise, do not double the consonant.

6. If UN comes before N, or IL comes before L, or IR comes before R, ADD them together. For example:

- UN + Necessary = Unnecessary
- IL+ Logical = Illogical
- IR + Irregular = Irregular

7. If a Word Ends with SH, CH, SS, O, or X add: 'ES' to Make the Word Plural

- Dish/dishes
- Church/churches
- Boss/bosses
- Box/boxes

But there are some exceptional cases. For those words which end with **O**, we cannot use **ES** to make it plural. So we have to use **s** to make it plural. For example:

- Radios
- Studios
- Videos
- Autos
- Limos
- Memos
- Photos
- Pianos
- Tacos
- Hobos

8. If a word ends in ‘F’ or ‘FE’, replace the ‘F’ with ‘V’ and add ‘ES’ to make it plural. For examples:

- Knife + s = knives
- Thief + s = thieves
- Wife + s = wives

But there are some exceptional cases. For examples:

- Cliffs
- Layoffs
- Chiefs
- Playoffs
- Handcuffs
- Sheriffs
- Roofs
- Chefs

9. If a word has a CONSONANT before the final ‘Y’, drop the ‘Y’ to add ‘IES’ For examples:

- Try + s = tries
- Carry + s = carries
- Baby + s = babies

If a word has a **VOWEL** before the final ‘Y’, leave the ‘Y’ and add ‘S’ Examples:

- Play + s = plays
- Key + s = keys
- Buy + s = buys

10. The letter c has the sound of /s/ if followed by e, i, or y. for example: century, city, policy

11. The letter c has the sound of /k/ if followed by a, o, or u. for example: cake, comb, and cubicle.

12. The letter g has the sound of /j/ if followed by e, i, or y. for example: gingerly, age, apology.

13. The letter g has the sound of /g/ if followed by a, o, or u. for example: game, ago, guilt. To make the concept more clear about spelling rules we have also provided with the following handouts (refer Appendix 12).

Phonics (Letter –Sound Relation of Vowels and C & S)

The baseline data indicated a problem related to letter– sound relationships of vowels and C & S. So to minimize the problem related to letter-sound relationships of (a, e, i, o, u, s & c) we used video clips to teach the sounds https://www.youtube.com/results?search_query=teaching+sounds+of+vowels. After downloading video clips about the teaching of phonics, we showed the participants the clips and asked them to pronounce or say the sound of each word. Later on, we asked them to recognize the differences between different sounds of different letters. We also used phonetic songs to teach the sounds of the letters. In the process of teaching the sound of the letter, we also emphasized the pronunciations of words and how pronunciation affects the correct spelling of the words.

When some of the letters in the words are kept silent, it changes the pronunciation of the word making it difficult to spell the words correctly. To minimize problems related to pronunciation, we used video clips to teach the participants about silent letters and how they differ in pronouncing the words. To minimize the problem related to S & C, we taught them the rules about two different sounds of the letter C, /S/ and /K/. If letter C is followed by e, i, or y, it will produce /S/ soft sound of S (for example: century, city, policy) and if it is followed by a, o, or u, it will produce /K/ the hard sound of C (cat, cake, cubicle, comb). Similar to this, the letter G also has two sounds, /g/ and /j/. If it is followed by a, o or u, it will produce /g/ sound (for example: game, ago, guilty) and if it is followed by e, i, or y, it will produce /j/ sound (for example: gingerly, age, apology).

Homophones

Homophones are those words which are pronounced the same but spelled differently and have different meanings. So to minimize the problem related to homophones, we taught them the meaning of different homophones with examples (refer Appendix 13). We also gave them an activity to familiarize them with homophones (refer Appendix 14).

Post- Intervention Data Findings and Analysis

After five weeks of intervention, we collected the post-intervention data from the same participants by going through their notebooks. As in the baseline data collection, we looked into spelling mistakes, if any. We underlined the mistakes and took photographs of the word for our documentation. At the beginning of intervention period, we asked the participants to mark the date and write for our convenience to locate that page for our post-intervention data collection. After the implementation of the intervention, there were still spelling mistakes made by the participants but each one of them had made fewer mistakes compared to the baseline data. As in the baseline data, we analyzed and grouped the mistakes into different categories based on the same factors that we used in baseline data findings and analysis (refer Appendix 15, 16, 17, 18, 19, 20), listed each individual's spelling mistakes in a table as Participant A, B, C, D, E or F, in line with their problem (refer Appendix 21, 22, 23, 24, 25 & 26).

Comparison of Baseline Data with Post- Intervention Data

After the five-week intervention period, the post-intervention data were compared with the baseline data and it was then analyzed to see whether there were improvements in spelling.

Letter- Sound Relationship (Phonological Awareness) of Vowels and C & S

While comparing the data, we found some differences in the numbers of mistakes after the intervention. Table 13 compares the two data sets and it is evident that spelling problems related to the letter-sound relationship and pronunciation were reduced.

Table 13: *Data related to the letter-sound relationship*

Baseline data (misspelled words)	Post intervention data (misspelled words)
Ravels	Cooperate
Enternal	
Instructur	
Conflect	
Aximining	
Discison	
Currupted	
Receiving	
Brows	
Vedio	
Evidance	
Chang	
Practics	

Table 14: *Data related to pronunciation*

Baseline data (misspelled words)	Post-intervention data (misspelled words)
Carieer	Attent
Stanble	Comprehence
Comprehence	
Capicity	
Inseprable	
Seprate	
Cristain	

Homophones

Findings from the post-intervention data showed that there was an improvement in the use of homophones in their writings because we did not find any misuse of homophones.

Table 15: *Data related to homophones*

Baseline data	Post-intervention data
Break	
Muscle	
Principal	
Beach	

The above data indicated that we had made considerable progress in the use of homophones.

Morphological Awareness (Spelling Rules)

As mentioned in intervention strategies, we used the teaching of spelling rules to minimize the problems related to use of double consonants after vowels, addition and omission errors. So to teach spelling rules we used different methods which are already mentioned in intervention strategies.

Table 16: *Data related to spelling rules*

Baseline data	Post-intervention data
Success	Semed
Wont	
Accomodation	
Buton	
Questionaire	

Table 17: *Data related to omission errors*

Baseline data	Post-intervention data
Chang	Unaccetable
Aminas	
Ho	
Saf	
Intectual	
Tranfer	
Participation	
Partia	
Kimming	

Table 18: *Data related to addition errors*

Baseline data	Post-intervention data
Continuned	Descision
Quitiz	Synontmes
Similes	
Facets	

After comparing the data related to spelling rules, omission and addition errors in the above three tables, Tables 4, 5 and 6 clearly show that there was some improvement after implementation of the intervention strategies.

Discussion

From this study, it shows that spellings can be made less difficult through the teaching and learning of the meaning (morphemic), grammar, part of speech, homophone, phonological awareness, orthographic, morphology, and learning etymology of words (Invernizzi, Abouzeid, & Bloodgood, 2004; Hall, 2014; Aziz, Shamim, Aziz, & Avais 2013; Webb, 2007; Yousaf & Ahmed, 2013; Moats, 2006). It also shows that to minimize spelling problems, teaching of the letter-sound relationships (phonological awareness), homophones with meanings, and the teaching of spelling rules will be very effective for all the learners. When comparing the two data – baseline data and post-intervention data - there were some improvement in using those strategies. Finally, we have come to understand that spelling difficulties are not problem s without solutions. These issues can be solved by learning the spelling rules, phonics and by learning the meaning of different homophones. It is recommended that educators with spelling difficulties use these strategies. If all aspects are integrated, there will be improvements in all strands of the language (Alzuoud & Kabilan, 2013; Anastasious & Griva, 2012; Aziz & Avais, 2013 & Moats, 2006).

Limitations and Recommendations

As beginning researchers, it was a challenging but rewarding to conduct action research within a short span of time. It provided us the confidence and hope to continue our passion into action researches. The solution of ‘How can we collectively minimize the spelling problems of our class (4PCD) at Paro College of Education?’ was explored within a short period of time. Owing to the limited time we could not ask our participants to write more and the duration of the intervention was only five weeks. Due to this, we could not collect enough evidence to prove the effectiveness of the strategies. Therefore, to bring significant changes, future researchers could look into similar problems with longer duration of time and more participants. Since spelling difficulties hamper language competencies, it is the responsibility of all educators to look into why spelling is complex and difficult. It is the responsibility of the educator to findout means to minimize spelling problems using various intervention strategies for different standard levels. There are many factors and strategies like the use of word-to-word instructions, the use of manipulatives like word cards, parts of speech, grammar, and asking students to maintain daily journal are some of the topics which are not covered in this research. Therefore, there is still a great deal of work for future researchers and if they could

check whether or not those mentioned strategies are applicable in other standard levels like in high schools, middle schools and primary schools.

Conclusion

The journey of undertaking this action research was an uphill task but it was an enriching and delightful learning experience for us. In the process, we were exposed to new knowledge related to factors affecting spelling difficulties and strategies - the teaching of letter-sound relationships (phonological awareness), homophones with meaning and the teaching of spelling rules to improve spelling (Al-zuoud&Kabilan, 2013; Anastasious & Griva, 2012; Aziz & Avais, 2013 & Moats, 2006). We also learnt that English words originated from different languages and there were many words which are spelled and pronounced differently. There are some letters which are spelled or written in a word but kept silent while pronouncing the words making it difficult to write the correct spelling and to pronounce it correctly. For example words like *parachute, entente, technique, basque* are some of the words which are spelt differently unlike their pronunciation. Thus we cannot spell the words according to its letter-sound relationship. And words like *know, psycho, gnat, knife, gnash, gnaw, hour, honest, and honor* are some of the words where some letters are kept silent while pronouncing the word but those silent letters are written to spell the word correctly (Ranbom & Connine, 2010). Therefore, to improve spelling, individual should learn its rules, phonology, morphology and homophones.

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Appendix

Appendix 1: *Spelling mistakes due to letter-sound relationship of vowels and C & S*

Misspelled word	Correct spelling of the words
Vedio	Video
Grammer	Grammar
Aximining	Examining
Conflect	Conflict
Enternal	Internal
Ravels	Rebels
Beleiving	Believing
Dicision	Decision
Particepation	Participation
Elimented	Eliminated
Practics	Practices
Chang	Change
Brows	Browse
Receiving	Receiving
Instructur	Instructor
Currupted	Corrupted
Decisions	Decision
Evidance	Evidence

Appendix 2: *Spelling mistakes due to pronunciation problems*

Misspelled words	Correct spelling of the words
Carieer	Career
Availblibility	Availability
Cristain	Christian
Pronanciation	Pronunciation
Dilets	Dialects
Inprovement	Improvement
Inseperatable	Inseparable
Stemle	Stumble
Seprate	Separate
Inseprable	Inseparable
Comprehence	Comprehend
Capicity	Capacity

Appendix 3: *Spelling mistakes due to omission errors*

Misspelled words	Correct spelling
Performace	Performance
Attrative	Attractive
Tranfer	Transfer
Intectual	Intellectual
Ho	How
Animas	Animals
Chnge	Change
Kimming	Skimming
Partia	Partial
Interrelated	Interrelated
Stight	Straight
Trategies	Strategies
Meaing	Meaning
Ply	Play
Languag	Language
Intectual	Intellectual
Participation	Participation

Appendix 4: Spelling mistakes due to addition errors

Misspelled words	Correct spelling of the words
Aimbition	Ambition
Facete	Facts
Quitiz	Quiz
Quatotation	Quotation
Continuend	Continued
Simile	Smiles

Appendix 5: Misuse of homophones

Misused words	Correct words with the context
Their is vast change	There is vast change
Principals/ belief	Principles/belief
We have red	We have read
Councilor will give counseling	Counselors will give counseling
People aspect that literate people cannot make spelling mistakes	People expect that literate people cannot make spelling mistakes
People where busy	People were busy
I have seen great muscle on the sea shore	I have seen great mussels on the sea shore
There is a beach tree	There is a beech tree
The accident was caused due to break fail	The accident was caused due to brake fail

Appendix 6: Participant A

Misspelled words	Correct spelling	Problem
Chnge	Change	Omission of letter
Continuend	Continued	Addition
Carieer	Career	Pronunciation
Muscles	Mussels	Homophones
Beach	Beech	Homophones

Appendix 7: Participant B

Misspelled words	Correct spelling	Problem
Animas	Animals	Omission
Stamble	Stumble	Pronunciation
Ravels	Revels	Phonological
Comprehence	Comprehend	Pronunciation

Red	Read	Homophones
Enternal	Internal	Phonological
Ho	How	Omission
Instructur	Instructor	Phonological
Conflect	Conflict	Phonological
Sef	Self	Omission
Success	Success	Spelling rules

Appendix 8: Participant C

Misspelled words	Correct spelling of the word	Problem
Capicity	Capacity	Pronunciation
Intectual	Intellectual	Omission
Aximining	Examining	Phonological
Principals/believes	Principles	Homophones
Tranfer	Transfer	Omission

Appendix 9: Participant D

Misspelled word	Correct spelling	Problem
Wont	Won't	Spelling rules
Inseprable	Inseparable	Pronunciation
Seprate	Separate	Pronunciation
Participation	Participation	Omission
Dicision	Decision	Phonological
Accomodation	Accommodation	Spelling rules
Break	Brake	Homophones

Appendix 10: Participant E

Misspelled words	Correct spelling of the words	Problem
Currupted	Corrupted	Phonological
Receiving	Receiving	Phonological
Similes	Smiles	Addition
Quitiz	Quiz	Addition
Buton	Button	Spelling rules
Brows	Browse	Phonological
Vedio	Video	Phonological

Appendix 11: Participant F

Misspelled words	Correct spelling of the words	Problem
Questionaire	Questionnaire	Spelling rules
Kimming	Skimming	Omission
Cristain	Christian	Pronunciation
Evidance	Evidence	Phonological
Facets	Facts	Addition
Chang	Change	Phonological
Partia	Partial	Omission
Practics	Practices	Phonological

Word	Meaning of the word
Where/were	Where- to, at or in what place. Example: where are you coming from? Were- PAST SIMPLE OF <u>be</u> . Example: if I were you.
There/ their	There- (to, at or in) that place. Example: there are five people walking near the river Their- of or belonging to them. Example: He gave them their coats.
Know/ no	Know- to have information in your mind. Example: I know how to solve the problem
	No- not any; not one; not a. example: There's no butter left.
ail/ale	Ail- to cause to be ill. For example: The government seems to have no understanding of what ails the country. Ale- types of beer, typically one that is dark and bitter. Example: can I have ale?
ant/aunt	Ant- a very small insect which lives under the ground in large and well- organized social groups. On my way I have seen colony of ants. Aunts- the sister of someone's father or mother, or the wife of someone's uncle. Example: I have an aunt in Monger
ate/eight	Ate: past tense of eat. Example: yesterday I ate momo. Eight: the number 8. Example: She was eight years old when her family moved here.
be/bee	Bee- a yellow and black flying insect which makes honey and can <u>sting</u> you. Example: A swarm of bees flew into the garden. Be- use what can happen. Example: should be on time

beach/beech	Beach- an area of sand or small stones near the sea or another area of water such as a lake. Example: We spent the day on the beach.
	Beech- a tree with a smooth grey trunk and small nuts, or the wood from this tree. Example: the school had a chair made of beech.
beat/beet	Beat- defeat, hit, heartbeat, mix, beat of music. Beet- a plant with a thick root, which is often fed to animals or used to make sugar.
bald/bawled	Bald: with little or no hair on the head. Example: At twenty he was already going bald. Bawled: to shout in a very loud voice. Example: She bawled at me to sit down.
bare/bear	Bare: without any clothes or not covered by anything. Example: Don't walk around outside in your bare feet .Bear: to accept, <u>tolerate</u> or <u>endure</u> especially something unpleasant, animal. Example: I can't bear the suspense !
base/bass	Bass-The lowest range of musical notes, or a man with a singing voice in this range. Example: He sings bass.
	Base-The bottom part of an object, on which it rests, or the lowest part of something example: a crystal glass with a heavy base
billed/build	billeda request for payment of money owed, or the piece of paper on which it is written example: They sent us a bill for the work they had done.
	Build-to make something by putting bricks or other materials together Example: They're building new houses by the river.
blew/blue	Blew-to move and make currents of air, or to be moved or make something move on a current of air. Example: The letter blew away and I had to run after it. Blue- color blue
by/bye/buy	By- used to show the person or thing that does something/preposition. Example: The motorcycle was driven by a tiny bald man.
	Bye- greeting goodbye. Example: Bye-bye, see you tomorrow.
	Buy- to get something by paying money for it example: The company was set up to buy and sell shares on behalf of investors.
cell/sell	Cell- the smallest basic unit of a plant or animal Sell- to give something to someone else in return for money example: The stall sells drinks and snacks.
cent/scent/sent	Cent- a unit of money worth 0.01 of the US dollar and of the main <u>monetary</u> unit of many countries, or a coin with this value Scent- a pleasant natural smell example: the scent of roses
days/daze	Daze- unable to think clearly. Example: She was wandering around in a daze this morning. Days- a period of 24 hours, especially from 12 o'clock one night to 12 o'clock the next night Example: January has 31 days.

dear/deer	Dear- loved or liked very much Example: She was a very dear friend. Deer- a quite large animal
do/dew/du	Do- used with another verb to form questions and negative sentences, including negative orders, and sometimes in <u>affirmative</u> sentences for reasons of style. Example: Where do you work? Dew- drops of water that form on the ground and other surfaces outside during the night Due- expected to happen, arrive, etc. at a particular time. Example: What time is the next bus due?
die/dye	Die- to stop living or existing, either suddenly or slowly. Example: It is a brave person who will die for their beliefs. Dye- to change the colour of something using a special liquid For a change, why not dye your T-shirts?
doe/dough	Doe- the female of animals such as the deer or rabbit
	Dough- flour mixed with water and often yeast, fat or sugar so that it is ready for baking
earn/urn	Earn- to receive money as payment for work that you do Example: I earn \$30 000 a year. Urn- a large cylindrical metal container with a lid which is used for holding a large amount of drink such as tea or coffee and keeping it hot a tea urn
ewe/yew/you	Ewe- a female sheep, especially an adult one Example: ewe's milk Yew- an <u>evergreen</u> (= never losing its leaves) tree with flat leaves like needles and small red <u>cones</u> , or the wood from this tree Example: a bowl made from yew
fare/fair	Fare-The money that you pay for a journey on a vehicle such as a bus or train. Example: Train fares are going up again. Fair- treating someone in a way that is right or reasonable, or treating a group of people equally and not allowing personal opinions to influence your judgment Example: Why should I have to do all the cleaning? It's not fair!
fairy/ferry	Fairy- n imaginary creature with magical powers, usually represented as a very small person with wings Example: Do you believe in fairies? Ferry- boat or ship for taking passengers and often vehicles across an area of water, especially as a regular service Example: We're going across to France by / on the ferry.

For/four/fore	<p>For- intended to be given to. There's a phone message for you. Four- the number 4 Example: Most animals have four legs.</p> <p>Fore - to public attention or into a noticeable position Example: Various ecological issues have come to the fore since the ...</p>
Feat/ feet	<p>Feat- PLURAL OF <u>foot</u></p> <p>Feat- something difficult needing a lot of skill, strength, bravery, etc. to achieve it Example: The Eiffel Tower is a remarkable feat of engineering.</p>
Fir/fur	<p>Fir-a tall <u>evergreen</u> (= never losing its leaves) tree that grows in cold countries and has leaves that are like needles</p> <p>Fur- the thick hair that covers the bodies of some animals, or the hair- covered skin(s) of animals, removed from their bodies Example: She stroked the rabbit's soft fur.</p>
Flea/flee	<p>Flea- a very small jumping insect which feeds on the blood of animals and humans Flee- o escape by running away, especially because of danger or fear Example: She fled (from) the room in tears.</p>
Flew/flu/flue	<p>Flew- to bend an arm, leg, etc. or tighten a muscle Example: First, straighten your legs, and then flex your feet.</p> <p>Flu- an infectious illness which is like a very bad cold, but which causes a fever Example: a flu virus</p> <p>Flue- a pipe which leads from a fire or heater to the outside of a building, taking smoke, gases or hot air away</p>

Post intervention data

Appendix 15 (Letter – sound relationship of vowels- a, e, i, o, u, and c & s)

Misspelled words	Correct spelling of the words
cooperate	Cooperate

Appendix 16 (Pronunciation)

Misspelled words	Correct spelling of the words
Attent	Attend
Comprehence	Comprehend

Appendix 17 (Morphological awareness- spelling rules)

Misspelled of the words	Correct spelling of the words
Semed	Seemed

Appendix 18: Homophones

Misused words	correct use of words

Appendix 19: Omission errors

Misspelled of the words	Correct spelling of the words
Unaccetable	Unacceptable

Appendix 20: Addition errors

Misspelled of the words	Correct spelling of the words
Descision	Decision
Synontmes	Synonyms

Individual Post-interventiondata Appendix

21: Participant A

Misspelled word	Correct spelling of the word	Problem
Descision	Decision	Addition
Unaccetable	Unacceptable	Omission

Appendix 22: Participant B

Misspelled words	Correct spelling of the word	Problem
Synonymes	Synonyms	Addition
Semends	Seemed	Spelling rules

Appendix 23: Participant C

Misspelled words	Correct spelling of the words	Problem

Appendix 24: Participant D

Misspelled words	Correct spelling of the words	Problem
Comprehence	Comprehend	Pronunciation

Appendix 25: Participant E

Misspelled words	Correct spelling of the words	Problem

Appendix 26: Participant F

Misspelled words	Correct spelling of the words	Problem
Attent	Attend	Pronunciation
Cooperate	Cooperate	Phonic

Effect of LSE on Substance Abuse: A Case of Dagapela Middle Secondary School

Tandin Wangdi¹ and Hemlata Karki²

This study examined the impact of Life Skills Education (LSE) in reducing substance abuse of the students of Dagapela Middle Secondary School, Dagana District, Bhutan. One girl and 15 boys participated in the study as per the score of CAGE-aid screening tool. The participants attended 10 week LSE program designed as per the need of the participants. It was found that the LSE is a potent behavioural modification tool and the program should cater to the need of substance abusers to make it more efficient.

Keywords: Substance abuse, life skill, youth, education, behaviour

Introduction and Background to the Study

Life skills are defined as “abilities for adaptive and positive behaviour that enable individuals to deal effectively with the demands and challenges of everyday life” (World Health Organization (WHO), in Munsu & Guha, 2014, p.93). Similarly, WHO/SEARO Regional Framework puts forward that life skills are “a group of psychological competencies and interpersonal skills that help people make informed decisions, solve problems, think critically and creatively, communicate effectively, build healthy relationships, empathize with others and cope with and manage their lives in a healthy and productive manner” (in Ministry of Health & Ministry of Education, 2009, p. 1). Life skills are a set of skills that can be taught to help our youth cope with natural and contemporary difficulties they experience during the high-risk situations as they grow biologically, develop psychologically and as the sociological environment influences their decisions. It is a tool to convene the four pillars of learning- “Learning to know, Learning to do, Learning to be and Learning to live together” as they undertake the journey of education.

After the Ministry of Education in Bhutan adopted the Comprehensive School Health Division (CSHD) in 2008, schools across the nation have integrated LSE into their programs. For example, Dagapela Middle Secondary School has allotted one period a week to all the class levels for the Life Skills Education. Teachers are assigned a class each. LSE is prioritized and it is also specified in all the lesson plans that a teacher prepares. Inline with the UNESCO (2015), LSE has remained at the core of our system since “a central function of education is to foster the skills and competencies that will enable learners to support themselves and their families, and contribute to the sustainable economic development of the communities in which they live” (p.14). However, the impact and implication of the LSE program are unknown. Teachers plan their own LSE lessons and the content and mode of delivery are left to their own discretion.

This action research explored the effectiveness of a Life Skills Education program in

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the case school to reduce substance abuse. The study examined the strategic means used to prevent and to help substance abusers change their undesirable behaviour of using controlled substances. The time has come for strategic interventions aligning to the various conventions related to youth, education and nation.

Reconnaissance:

Situational Analysis

Youth in Bhutan are susceptible to substance abuse according to UNICEF (2015). More than half of Bhutan's population is below 25 years old and a third of Bhutan's total population is in the age group 10–24 years, making adolescents and youth an important age group (UNICEF, 2015). Nearly 42% of the population is age 18 and younger. The report also states that about 84% of the drug users are adolescents and youth between 13 to 24 years old, and more than 43% of them are students.

Furthermore, Bhutan has seen the number of cases of substance users reaching police increasing exponentially. The majority of those engaging in harmful drug use were students with a mean age of onset at 16 years of age (Choki, Dorji & Choden, 2014). The antisocial behaviours are in a rise in recent times due to substance abuse. Choki et al (2014) state that alcohol is the most commonly used psychoactive substance followed by cannabis, dextropropoxyphene, nitrazepam, glue (dendrite for instance), chlorpheniramine/ pseudoephedrine/ codeine-containing cough syrups, correction fluids and injectable drugs. Maximum of the substance users use alcohol (due to its easy availability) followed by cannabis (due to its abundance in the surroundings). Alarmingly, the study found that the youngest age group engages in the harmful use of significantly more types of substances than older participants.

Similarly, students are observed to use controlled substances in and out of the school premises as per the school's discipline committee's record. Students observed using controlled substances in our case school are referred to Teacher Counselor. There are three teacher counselors who have completed two weeks Basic Career Guidance and counseling organized by Department of Youth and Sports under Ministry of Education. Students suspected of using controlled substances are referred by a concerned class teacher or a school prefect. If the drug user repeats the offence, he/she has to report to the discipline committee.

The discipline policy sorts offences into three levels. In offence level one, students are asked to have a conference with their class teacher. A parent-student-teacher conference is also sometimes conducted based on the severity of the case. Level two requires a statement from the student and a letter from parents which promises that they will collaborate with the school to help students overcome their negative behaviour. Detention is assigned on a case by case basis. At the third level, students are suspended for 12 days and repetition thereafter can result in expulsion from the school. In this scenario, instead of helping our students learn from their mistake, we misguidedly tend to punish them for the undesirable behaviour. This has little impact in correcting their non-conductive behaviour and can have a negative impact on the student's life.

A quality education that helps to address substance abuse should expand beyond literacy and numeracy and encompass the acquisition of a broad set of life knowledge, skills and values as well as foster critical thinking, creativity, solidarity, dialogue and problem solving (UNESCO, 2015) and help our students to be a productive citizen. Education should guide our students

towards good decision making through open dialogues and learning forums.

The case school is a semi-urban school with little less than a thousand students studying from classes PP till X. According to the recent discipline record of the school, it was learnt that the numbers of students using substances is increasing. As per the record, the punishment and sanctions specified in the discipline policy have very less impact as the offenders are mostly repeat offenders. The authors, being the student support service and Parents Teacher Association coordinators of the school, explored the effectiveness of LSE as an intervention to reduce the substance abuse.

Background to the Study

Our students are often under stresses. Academic stress, violence and bullying, sexual assault, drug abuse, family problems (financial problems, family breakup, and violence at home), peer pressure and social problems are some of the major problems that our youth have to contend with. In addition, the rapid rise of globalization and urbanization is bringing new problems to Bhutan like substance abuse. Srikala and Kishore (2010) conducted a study to assess the impact of the life skills education program by assessing the difference between adolescents who were in the program and not in the program. They assessed in the categories of Coping, Self-esteem, and Adjustment in various areas and Psychopathology. At the end of 1 year, 605 students were taken as the sample group. The research found that the students in the program in comparison to those not in the program were significantly better adjusted to the school and teacher also opined that they were capable of coping with issues with better self-esteem. There were no differences on psychopathology assessed. The evaluation of the impact of this study showed that it improves adjustment of the adolescents with teachers and school, as well as increasing pro-social behaviour, coping, and self-esteem. There was a significant difference between the student groups who were in the program and those not in the program. Hence, there is a hope that the Life Skill Education can help reduce substance abuse.

Similarly, Royal Thimphu College conducted a year-long campaign on the theme “Living Free: Without Tobacco and Drugs.” Schofield (2013) conducted a survey of 846 students regarding their tobacco use and illegal drug use as part of this campaign in the aforementioned college. 255 students reported using tobacco at least occasionally and the main reasons to start tobacco use and illegal drug use were learnt to be “I was bored” (36%) and “My friends encouraged me” (35%) among five reasons provided. Moreover, 52% of tobacco users and illegal drug users responded they enrol in a “How to Stop Smoking” group of available. Moreover, the study concluded that over 50% of the students who use tobacco or illegal drugs adopted these behaviours before entering higher secondary school and 25% started using these substances in or before class 8. Therefore, it suggests that the prevention programs need to start when students are quite young.

Ministry of Education (2014) conducted a study to review the degree of integration of Life Skill Education into other classes or school curriculum on the whole. The study reported, inter alia, 78 percent informed that LSE had helped them to avoid drugs, alcohol, stealing and fighting and 75.9 percent considered LSE programmes as relevant. The study used a five-point Likert scale (strongly disagree, disagree, don't know, agree and strongly agree) to assess perceptions of Life Skills Education on behavioural outcomes. However, the qualitative research should support this finding since qualitative researchers can understand the experiences of an

individual from a first-person perspective (Wellington & Szczerbinski, 2008). Therefore, this study used qualitative approach.

LSE involves a broad group of socio-psychological and interpersonal skills that assist an individual with mindful decisions, to communicate effectively, improve creativity and critical thinking, improve interactive and self-management skills and adopt an active healthy lifestyle. Moshki, Hassanzade and Taymoori (2014) conducted a study to investigate the effect of LSE on preventive behaviours for drug abuse among university students and stability of the results after a 4-year follow-up LSE program. Results showed that “Life Skill Training could either promote participant’s knowledge about drug abuse preventive behaviours or decrease risk factors leading to drug abuse as a significant post-test increase in the intervention group’s drug abuse preventive behaviours mean scores was observed” (Moshki et al. , 2014, p. 582). It was also learnt that LSE is not only effective as preventive measure for drugs but was equally having a great impact on smokers and drinkers. Moreover, the authors claim that LST can promote interactivity, decision-making, problem-solving, critical thinking and stress management skills and lead to more social acceptability, which in turn, can reduce drug abuse tendency.

Furthermore, Botvin and Kantor (2000) affirmed that LSE is currently the most extensively evaluated school-based prevention approach available. More than a score of the year of research demonstrated preventive effects with respect to tobacco, alcohol, and marijuana use. The studies ranging from small-scale pilot studies involving two schools and a few hundred adolescents to large-scale, multisite, randomized field trials involving 50 schools and several thousand adolescents have tested its short-term effectiveness, its long-term durability, and the use of different delivery methods as well as the effectiveness of booster sessions, its effectiveness when conducted by different program providers, and its effectiveness with different populations (Botvin and Kantor, 2000). Hence, we selected to more closely examine the 10 week LSE program for this study.

Methodology

Action research aims to bring about critical awareness, improvement, and change in practice, setting or system (Wellington & Szczerbinski, 2008). Therefore, Cardno and Reynolds’s (2008) action research model (figure 1) was employed to have more interaction with the subjects to be more aware of the substance abuse and how Life Skills Education can bring a positive behavioural outcome.

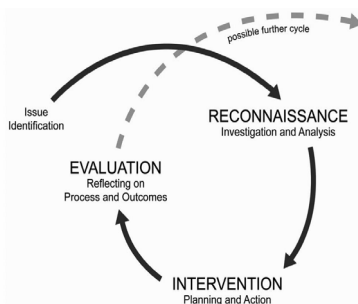


FIGURE 1. *Action Research Phases, Cardno and Reynolds, 2008, p.212.*

The participants were selected by the school discipline committee and teachers based on their records of substance abuse. All the students completed the CAGE-AID (Annexure 2) screening test in reconnaissance phase to understand the status quo prior to the action of this study. Consent was asked from the school administration, parents' of the participants and students signed on consent letter which ensured full confidentiality. The names and the description of the participants are not used though the exact quotes and thoughts are used throughout the paper. Students reported the reasons and their knowledge on the impact of substance use using semi-structured face-to-face interview.

In the planning and action phase, students attended twelve weeks of LSE program. The details of the process and sequence of the program are detailed hereunder. The group meeting was used to observe and generate immediate feedback from the participants. The researchers maintained a journal.

The evaluation or post-intervention phase included a questionnaire administered by a critical friend. The school teacher Counselor was selected as a critical friend to get authentic feedback and response from the participants.

Overarching Question:

The central question that was addressed by this study was:

How can Life Skill Education reduce substance abuse by students in the case school?

Sub-questions:

Following four sub-questions shaped the study. These are:

1. What impact does Life Skill Education have on student behaviour and substance abuse?
2. What are the efficient means to reduce substance abuse?
3. What are the perspectives of students who are substance abusers on the use of Life Skill Education as a behaviour modification tool?
4. What are the reasons for substance abuse and how can Life Skill Education prevent it?

Baseline Data:

The baseline data was collected using CAGE screening test, referring to the school discipline record and requesting students write their reasons for attending this program and their expectation from it.

CAGE screening test (Annexure 2)

The CAGE questionnaire was developed in 1968 by Ewing (Dhalla & Kopec, 2007). It stands for 4 yes/no items constituting the screening test: 1) Have you ever felt that you ought to Cut down on your drinking? 2) Have people Annoyed you by criticizing your drinking? 3) Have you ever felt bad or Guilty about your drinking? 4) Have you ever had a drink first thing in the morning to steady your nerves or to get rid of a hangover (Eye-opener)? Individual item responses are scored 0 if the person answers "no" and 1 if the person answers "yes". The total score can range from 0 to 4. "The recommended cutoff for CAGE is ≥ 2 to screen for alcohol abuse or dependence, although a cutoff of ≥ 1 has been used in some studies" (Dhalla & Kopec,

2007, p. 35). For this study, we used CAGE-aid questionnaire to screen test the students who used alcohol and other substance. The CAGE-AID consists of the CAGE questions that have been altered by expanding the scope of the questions to include drug use (Brown, Leonard, Saunders & Papasouliotis, 2001). The CAGE tool was found valid and it demonstrated high test-retest reliability (0.80-0.95) (Dhalla & Kopec, 2007).

All the students were referred to the study by the school discipline and teachers. All the students completed the CAGE-AID screening test. There were a total of 21 students and five students were withdrawn for scoring less than 2. The mean score was at about 3.4 out of 4. This indicated that the students who were screened out using CAGE-aid were addicted or dependent on the substance. 16 students including one girl made the sample of the study.

Discipline Record:

The discipline record from 13th September 2012 till 5th May 2016 was thoroughly evaluated. There were 45 cases of various degrees and offences. 15 cases were regarding the use of illegal drugs, tobaccos and alcohol. There were seven cases where students used marijuana, four cases were regarding consuming tobacco and four cases were about the use of alcohol. However, it was observed that some of the students were repeat offenders in all the three groups. There were no cases of using other kinds of drugs. The most of the offenders in the aforementioned cases participated in the study and only a few students graduated the previous year.

Participant Report

The face-to-face semi-structured interview was conducted to learn the types of substances each student is using, reasons for using the substance and their knowledge on the effect of substance uses. It was reported that maximum students chewed tobacco (except two of them), six of them used alcohol and the same number used marijuana. Five boys were using all the substances they reported. There was no record of using dextropropoxyphene, nitrazepam, glue(dendrite for instance), chlorpheniramine/ pseudoephedrine/ codeine-containing cough syrups, correction fluids and injectable drugs as most of these substances were not available in the locality or the students were not aware of it.

Moreover, it was learnt that the main reasons for substance use were peer pressure and the experimentation urge of the individuals as they saw their elders using it. Some participants used substances since class five but the majority were two - three years under the substance use which indicates that they started in classes VI or VII.

All the participants wanted to quit the substances. They were out-casted by their peers and parents. Moreover, their low image as a result of using substances was the main reason for quitting and they expected this program can help them overcome their low self-esteem in the society.

Intervention:

The Life Skills Training (LST) program includes three major components as per Botvin and Kantor (2000): Drug Resistance Skills (substance-related information and skills), Self-Management Skills and Social Skills. We adopted these three major components in our 10 weeks LSE program. The first four weeks focused mainly on drug resistance skills. Students evaluated themselves regarding the substances they use and the impact of it in their lives.

They set targets to quit and prepared themselves using life skills like decision making, creative thinking and problem-solving techniques. They marked the day on which they decided to stop using the games. In the second phase, it focused on self-management skills. They were asked to find means to fight their anger and anxiety using LSE. The participants were asked to read the stories in the book “*Coming Back to Life: a collection of the stories of Bhutanese addicts*” authored by recovering addicts and published by Youth Development Fund, MoE. They were asked to relate the stories to their behaviour and experiences and write a reflective note on it. They attended a talk with lama (monk) to learn about the spiritual values and the negative impact of the use of substances. The participants attended two hours of police talk regarding the narcotic and the penal codes regarding the substance use. The last two weeks focused on social skills. They drew posters and wrote banners on the problem of using substances. They also staged a dance during the annual school variety show. Finally, students sat for post-intervention session and shared about their life after a decade from now.

Moreover, this program was also guided by 5A’s model (Ask, Advise, Assess, Assist, and Arrange) proposed by the United States Public Health Service (Baca & Yahne, 2009). The first A, “ask,” is to identify patients with risk factors which are addressed in the first week of the program under the title “Knowing yourself”. The second A is “advise” which was used throughout the week two program. Participants were asked to share the best method they have used to reduce substance abuse. The third A is “assess” which helped to learn the willingness of the participants. They set a date and discussed what worked and what failed in the subsequent weeks. The fourth A is to “assist” the patient in making a quit plan and how to fight their anger and anxiety in the transition of quitting the substance they use. The fifth A is “arrange” follow-up within a week after the quit date. In addition, Baca & Yahne (2009) recommends adding a sixth A to the process, “affirm” (p. 210). Miller and Rollnick, (2002) proclaimed that by affirming past successes and acknowledging client strengths, practitioners increase treatment adherence (as cited in Baca & Yahne, 2009). The detail intervention program is at Annexure 1.

Post-Intervention Data

CAGE-aid

The CAGE-aid questionnaire was used after the completion of the program. The mean score was about 0.71 which is insignificant since the “recommended cutoff for CAGE is ≥ 2 to screen for alcohol [other drugs] abuse or dependence, although a cutoff of ≥ 1 has been used in some studies” (Dhala & Kopec, 2007, p.35).

Discipline Record:

No students who participated in the study were referred to the discipline committee for the misdemeanour after they were selected for the program. The discipline committee coordinator with his team helped in observing the participants though out the LSE program.

Participants Report:

A survey was conducted by a critical friend in order to garner an authentic response from the participants. Followings are the themes derived from the information provided by the participants and journal maintained by the authors:

i. Effectiveness of the Program

The entire participant expressed that the program was very informative and it helped them to quit the substances they abused before the program. The information was relevant to the personal problem of the participants and was focused on finding a solution. From this finding, the study concluded that the LSE program should be need-based in order to be more effective. A general LSE program will have very less impact on substance abuse.

ii. Behavioral Change

There was evidence of behavioural change in the participants' daily lives. The students were observed staying with their classmates and were engaged in active conversation after the intervention program was initiated. They stopped visiting toilets and aloof places individually or privately. Moreover, the way to the secret places was seen least used as students attended the program without fail. Students also started getting positive feedback from their classmates and teachers for working hard in their educational endurance. Hence, it could be concluded that the behavioural change is the outcome of students stopping to use the substances they were dependent on.

iii. The effective intervention tools

Most of the students claimed that listening to the advice of *Lama* (Head of the monastery) and taking a vow to stop substance use was one of the most effective means. Students chewing tobacco found helpful to substitute tobacco with other things like chewing raw rice, chewing dried areca nut (betel nut), chocolates and other junk foods. The participants found it helpful to drink more water and to reduce the frequency of substance use in order to prepare for the quitting the substances. Hence, the spiritual intervention was the most effective intervention to this particular group of participants.

iv. Confidence level of the participants

The confidence level of the participants was another indication of they being sober. Most of the participants shared that they feel free and fearless as they are clean and they learnt to relive a life without using the substances. Hence, the study concluded that the confidence level of students who previously abused substances gained confidence as they quit it completely.

Transformational Award

Peers noted progressive changes in some participants who had a severe addiction. Thus, one of such participants was nominated for school vice president election and secured the highest vote amongst other candidates. Unfortunately, the candidate was not favoured by the teachers and school administration based on past discipline record. Similarly, another participant was also democratically nominated for an award on "transformational change". Subsequently, the nominee (participant) also secured the highest vote to receive the award from the students. However, no awards were presented since the change observed was within a short span of time and will have to be under observation for assuring their change.

Discussion of the Outcomes of the Actions:

The discussion is structured to answer four sub-questions formulated to evaluate the impact

of LSE as an intervention to reduce substance abuse in the case school.

1. What impact does Life Skill Education have on student behaviour and substance abuse?

The study concluded that LSE has a positive impact on student behaviour and helps to reduce the degree of substance abuse. The CAGE screening tool provided good evidence where the score of 3.4 before the intervention. This clearly indicated the dependency of participants on the substance they used and demonstrated that it was reduced to a score of 0.71 out of 4 indicating insignificant or below the screening criteria to be treated substance abusers after attending the LSE program. Moreover, it was concurrent to the findings of Moshki et al. (2014) and Botvin and Kantor (2000) which confirmed the positive impact of LSE on the promotion of the intervention group's insight, drug abuse resistance skills, self-management skills and social skills. It has a positive impact on the modification of beliefs and abstract norms of the youth who abuses substances like tobacco, alcohol and marijuana through encouragements and the strategies learnt in LSE program.

Moreover, Ministry of Education (2014) findings using quantitative instrument was similar to the findings of this study using the qualitative method. With scores of "78% (46.2 and 32 percent strongly agreed and agreed respectively)" using 3-point Likert Scale by MoE (2014, p. 76) it was concluded that LSE helped students to keep away from the negative peer pressures, drugs, alcohol, stealing and engaging in fights.

2. What are the efficient means to reduce substance abuse? Why?

The authors couldn't agree more when Botvin and Kantor (2000) assert that LSE is currently the most extensively evaluated school-based prevention approach available. The school discipline policy did prevent or reduced substance abuse but LSE was preferred by most of the learners. A participant rightly shared his experience that:

"...simply telling or by using power [force] won't help other people to change. Giving them advice [and skills] and knowing about that person is more important to help them stop using substances. We should know the reason why they are using drugs and what is their problem."

There is no "one size fits all" substance abuse treatment or preventive measures. The best treatment addresses a person's various needs, not just his or her drug abuse (Nation Institute for Drug Abuse, 2013). Using 5A's model proposed by the U.S. Public Health Service (Baca & Yahne, 2009) was observed to be useful to students to reach a decision to quit the substances they abuse. The students who had just begun to use drugs, substances and alcohol were observed to be responding to this model more positively compared to those participants abused substances for more than two years.

Gradually, as students are guided through various stages specified in the program outline and as they became more aware of the drugs resistance skills and self-management skills, the participants volunteered to take a bigger step to stop the substance they use. The piritual intervention was sought by 14 participants and 2 participants were absent during the seventh week of the program when they listen to a spiritual master (*Lama*). Spirituality was observed to be "a potential sense-making framework through which these transitions can be planned and retrospectively understand via story reconstruction"

(White & Laudent, 2006, p. 58). Morgan (1999) asserts that Alcoholics Anonymous (AA) and other twelve-step programs perceive chemical dependency as a threefold disease affecting the body, mind, and soul (cited in Sneed, 2008) and spirituality is at the core of its program. In a similar tone, we observed the participants finding meaning in their life and expressed their ruefulness for using the substances before. Bhutan being a religious nation favours this intervention. However, the decision arrives through LSE program and it is not an overnight decision taken by the participants.

3. What are the perspectives of students who are substance abusers on the use of Life Skill Education as a behaviour modification tool? Why?

According to the U.S. Center for Disease Control (2005), 70% of adult smokers in the U.S. general population report that they want to quit completely (as cited in Baca & Yahne, 2009). Similarly, all the participants wanted to quit the substance they abuse. They were aware of the negative consequences of substance abuse such as health hazard, peer ignorance, parental disapproval and school discipline casting them out of mainstream. However, it was learnt that they failed to address the need to quit the substance they misused as they were not given the proper guidance.

The intervention was observed to be very useful for the participants. They proclaimed that the intervention was need-based and other life skills program also should be need-based or problem-based in order to make it efficient or LSE to be a potent behaviour modification tool.

4. What are the reasons for substance abuse and how can Life Skill Education prevent it?

There are many reasons for substance abuse. According to Griffin and Botvin (2010), substance use and abuse can be considered developmental phenomena. The authors affirm that “the degree of involvement in substance use for any teenager is often a function of the negative pro-drug social influences that they are exposed to combined with their individual developmental vulnerabilities to these influences” (p.507). These influences according to Griffin and Botvin (2010) are:

- a) Social influence Factors: Society in which adolescence is brought up has a greater influence in promoting the initiation of substance abuse. The perception of the substance in the locality, modelling of substance use by role model (parents, siblings, celebrities and others) and advertisement in media are the negative social influence.
- b) Developmental Factors: Teenage is the prime period for experimentation with a wide range of behaviour and lifestyle patterns. This is the age where adolescence looks for identity and independence. Unfortunately, engaging in alcohol, tobacco and other drugs are perceived by teenagers as a functional way of achieving independence, maturity, or popularity, along with developmental goals (Griffin & Botvin, 2010).
- c) There are three levels that affect individual, family, and school and community which influence initiation, maintenance, and escalation of alcohol, tobacco and other drugs.

Individual Factors: Lack of knowledge regarding the risk of abuse and misperception that substance use is normal are the individual risk factors. Moreover, poor self-esteem, low

assertiveness and poor behavioural self-control are psychological characteristics.

Family Factors: In particular, harsh disciplinary practices, poor parental monitoring, low levels of family bonding, and high levels of family conflict contribute to both internalizing and externalizing behaviours including substance use and abuse (Griffin & Botvin, 2010). A firm and consistent careful monitoring are required as part of positive parenting strategy.

School and Community Factors: Students' engagement in the school and in their community is very important to prevent substance abuse. Students who are not engaged in productive activities are more likely to engage in substance abuse.

Similarly, this study found that students use illicit drugs due to peer pressure and due to developmental influences. Negative parenting was not reported. It was also learnt that majority of the youth engages in substance abuses in later primary classes (Class V or VI) or early secondary classes (VII or VIII). Hence, it is recommended to start preventive measures as early as later primary classes.

Conclusion and Recommendations

The findings indicated that the intervention group observed pre-intervention and post-intervention differences using a CAGE-aid screening tool which signifies the effectiveness of LSE to prevent and stop substance abuse. The drug resistance skills, self-management skills and social skills proposed by Botvin and Kantor (2000) and 5A's model initiated by the United States Public Health Service (Baca & Yahne, 2009) incorporated all the ten core life skills. It can promote interactivity, decision-making, problem-solving, critical thinking, creativeness and stress management skills and lead to more social acceptability, which in turn, reduce drug abuse tendency (Moshki et al., 2014).

It is recommend that schools start drug preventive LSE intervention starting with classes V onwards. Behavioral therapy approaches like counselling, peer helpers, motivational incentives and motivational interview need to be encouraged in place of the stringent discipline policy of giving detention work and suspension. Moreover, LSE should be need-base though general LSE is also equally important. The LSE should cater to the needs of diverse youth with individual problems.

We recommend the case school to include the students who participated in this study in the peer-helper group as they can help others and can evaluate their behaviours in the process. Moreover, this vulnerable group can be fully engaged and can prevent relapses.

However, the sample size was very small and can contribute to the limitation of this study. The intervention program was prepared by the authors and can be misleading to state its effectiveness. The critical friend was asked to collect the feedback from students in order to narrow this falsity.

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Annexure1: Teaching Program: LSE to reduce substance abuse in the school

Session	1	2	3	4	5	6	7	8	9	10
Title	<i>Knowing yourself</i>	<i>Setting a goal</i>	<i>Preparing Yourself</i>	<i>Making a Mark</i>	<i>Fight your Anger and anxiety</i>	<i>Connecting to world you live</i>	<i>Listening to a Spiritual master</i>	<i>The national law</i>	<i>Sharing the experiences</i>	<i>A decade from now</i>
Objectives	Understand and establishing personal identity and their behavior	Expecting success in quitting	Develop a strategy to stop and manage the quitting process	Mark their change date Plan their rewards	Recognizing feelings, physical effects, choices & consequences (anger □ control techniques/ relaxation techniques .)	Read stories of those who recovered from addiction and relate to their life	Spiritual values and guidance for substance abuser	Social consequences of substance abuse	Educate others on the effect of substance abuse and suggest preventive measures	Reflecting on what they achieve or failed Imagine as a responsible student

<p>Life skill</p>	<p>Self Awareness, critical thinking</p>	<p>Decision making, critical thinking, creative thinking problem solving</p>	<p>Creative thinking, Decision making, coping with stress</p>	<p>Inter-personal relationship, effective communication,</p>	<p>Coping with stress, coping with emotion, critical thinking</p>	<p>Empathy, Effective communication, interpersonal relationships, creative thinking</p>	<p>Effective communication, Interpersonal relationship</p>		<p>Effective communication, interpersonal relationship, problem solving</p>	<p>Critical thinking, Empathy, Creative thinking</p>
<p>Major activity</p>	<p>Pair work and sharing to the class</p>	<p>Group discussion and presentation</p>	<p>Group discussion and presentation</p>	<p>Develop a garden to mark the change</p>	<p>Meditation and its benefits</p>	<p>Read through the selected stories and do a presentation to the group.</p>	<p>Meet a lama and ask questions to prevent substance abuse</p>	<p>write the laws for display</p>	<p>Role play/ dramatization</p>	<p>Art and write-ups</p>
<p>Outcomes</p>	<p>-identify positive and negative behaviour -Will negotiate, make decision and find reasons for need for change</p>	<p>-set goals to quit substances -identify students aspiration and need for the change -draw a target with the time frame</p>	<p>-identify problems and strategies to attain the goal Set a date for the change -do preparatory works for the new goal</p>	<p>-Celebrate the first day, first week and first month -develop a monitoring mechanism amongst the members to help quit the substances</p>	<p>Students will be learning meditation and its benefits -strategies to cope stress and learn relaxation technique.</p>	<p>-relating life of substance abusers -discuss the negative impacts of addiction/ abusing substances -create a new hope for quitting substances from the examples in the stories</p>	<p>-Health hazard of substance abuse -laws of our nation on substances and its consequences -Educate the students through posters</p>		<p>-Share the experiences -educate school mates preventive measures -share the negative impacts of substance abuse</p>	<p>Reflect on what they learnt in previous units Place themselves in the society as adults -comprehend their roles as active citizen</p>

Annexure 2:

CAGE Questions Adapted to Include Drug Use (CAGE-AID)

1. Have you ever felt you ought to cut down on your drinking or drug use?

Yes/No

2. Have people annoyed you by criticizing your drinking or drug use?

Yes/No

3. Have you felt bad or guilty about your drinking or drug use?

Yes/No

4. Have you ever had a drink or used drugs first thing in the morning to steady your nerves or to get rid of a hangover (eye-opener)?

Yes/No

Maximising Student-Teacher Interaction during Micro Lessons for Effective Teaching and Learning at Paro College of Education

Yeshe Wangchuk¹ and Bijoy K. Rai²

This action research was conducted with the hope to bring about changes in my teaching-learning experiences to ensure effective teaching. The paper illustrates some of the reasons why students hesitate to interact and explore for reasons that are accountable to silent classroom with minimum interaction. Interactive classes learn more than the less interactive or silent classes and most Bhutanese classes are less interactive. From the primary until the tertiary level, the classes are usually teacher-centred and students get very less chance to speak. Students are unmotivated to interact in the class either because of the teacher's personality, the way the teacher responds to students' answers or queries or the kind of environment the teachers create. The paper will present the findings of this research on maximising interaction in the final year of the B. Ed Primary section B (n= 34) at Paro College of Education for effective teaching and learning. The core idea was to bring in smooth and effective strategies during my micro-lessons in the class by involving the participants actively. It is also found that the teacher's personality and student's hesitation are closely related. This paper also outlines some of the cooperative learning structures that help to overcome the barriers in maximising teacher-student interaction

Key words: Micro lessons, student interaction, strategies, effective teaching and learning

Introduction

Classroom interaction is an action-reaction or a two-way influence which may be between teacher and students or among students (Biddle, 1967; Malamah-Thomas, 1987). Teacher-student interaction is very important especially when it comes to teaching and learning. Loreman, Deppler and Harvey (2006, p.212) state, "social interaction are considered to be important for cognitive development and academic performance and have been linked with resiliency and 'real world success'". Further, they also state that there are lots of advantages if there is active and optimum interaction in the class.

In the past, students hardly interacted with their teachers in the class due to fear of the whipping stick that was used quite rampantly for the wrong answers. Such an environment led students to be hesitant throughout our school life. During my teaching practice, my teaching used to be teacher-centred and my students were silent as I had experienced. The silence of my students in class somehow indicated that the students were hesitant. Moreover, I lacked the skills through which I could have engaged my students fully in the teaching and learning processes.

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Better learning takes place in interactive classrooms. According to the Royal Education Council (2009 as cited in Sherab, 2013a, p.165), “poor quality of classroom instruction in Bhutanese schools, mostly characterized by teacher-centred approaches, is one of the reasons for the decline in the quality of education”. This action research is thus intended to find various strategies to promote interaction during my demo micro lessons.

In the following sections, I will be discussing reconnaissance that includes situational analysis and literature review. I will also discuss about action plan, discussion of findings and conclusion.

Reconnaissance

According to Macquarie dictionary (1991), “the term reconnaissance has a geological or military pedigree and refers to surveying the land to determine a plan of action (as cited in Hills, 2011). The word is derived from the French verb ‘reconnaître’ – to recognise or to acknowledge importance (Harper, 2001). Similarly, action research is a process of collecting or gathering information about a particular topic. In the words of Mills (2007, p.26) “reconnaissance is taking time to reflect on your own beliefs and to understand the nature and context of your general idea”. Doing reconnaissance takes three forms: self-reflection, description and explanation. From the many topics available, I have chosen this action research project because I felt that if I could maximise student interaction in the micro lessons, it could lead to more learning for my fellow classmates. This learning will also enhance my competence to become a better teacher in future.

Situational Analysis

As a student, I always remained silent in the class like the rest of my classmates. It was our teachers who talked the whole time. When the teacher asked us questions, especially when it was voluntary, the students hardly would stand up and answer. I feared that my teacher would beat or punish me if I answered wrong. Research has shown that “teacher dominated lessons and rote learning are still practiced at both the schools and tertiary education in Bhutan” (Sherab, 2013a, p.165). It is also confirmed in my micro lesson classes. Ambrose, Bridges, Dipietru and Norman (2010, p.27) proposed that “what I learn is a result of the interaction that arise when I, the teacher, the material, colleagues, and friends and the circumstances in which the other items come together and interact.” Hence, active interaction plays vital role in the teaching and learning process and this is lacking in the Bhutanese schools (Sherab, 2013a).

As Orange (2000, p.37) stated “it takes courage for a student to raise her hand to answer a question and risk the embarrassment of giving the wrong answer”. During my school days, it was due to the fear of teachers’ whipping stick that we remained silent. But for now, I really do not understand why students hesitate to interact? Is it the problem of teachers managing the class? I want to find ways through which I can tackle and minimize those hesitations and maximise teacher-student interactions in the class. When students engage in a particular learning area of their choice or interest they involve themselves into the sea of knowledge and contents, leading to more learning. They understand better by clarifying all their doubts, debating on the contents and through many more interactive activities. So, through this action research, I want to find the ways to understand students better and get rid of students’ hesitation. I really

believe that interaction is a must tool in teaching and learning.

Literature Review

Students learn better when they are involved to the maximum through interaction with their tutors. As stated in Chickering and Gamson (1987) students do not learn much just by sitting in classes, listening to teachers, memorizing prepackaged assignments, and spitting out answers but instead they “learn by talking together, doing things together” (as cited in Bowring-car & West-Burnham,1997). Teaching and learning in the 21st century should be something active, with lots of involvement and interaction among the students and between teacher and the students.

In Bhutan, one can anticipate that teachers expect the students to be silent and quiet but Bowring-Carr and West-Burnham (1997) state that learning does not occur as a result of one-way input. In most Bhutanese classes, it is the teachers who speak a lot (Sherab, 2013a). However, Rai (2002) claims that the degree of dominance between the teacher and the student must be balanced. From my personal experience, students put their best effort into participating in class but most effort goes in vain as they are not properly acknowledged by the teachers. As quoted by Orange (2000, p.36), “the best way to extinguish good behavior is to fail to recognize it.” Sometimes, teachers do not notice their students’ willingness to participate in the class but it does happen when teachers purposefully ignore a group of children and do not give them the opportunity to express their thoughts. However, Rinchen (2006) argues that every student in the class should be given a same platform and treated equally despite short comings.

Students give their best effort and usually their responses come in unstructured, wrong, misspelled, incorrectly pronounced and there can be infinite number of mistakes but teachers should not criticise pupils publicly, instead they are responsible for making the students feel that their opinion is also taken account of (Orange, 2000; Rai, 2002). Furthermore Kinjir (2012, p. 84) states “if the teacher does not respond in negative way when students state their ideas, students can speak in lesson.” But teachers can end the pupils’ interest and stifle their self-esteem if they do not handle the students’ responses aptly or make fun of their responses.

Many theorists who have researched handling pupils’ responses provided various ways to appropriately respond back and act on the responses of the students. As suggested by Orange (2000, p.37) “an effective approach to handling student responses is to offer students cues or prompts, accept part of the answer or look for something positive about the response to move the student closer to the correct response.” Thus, teachers need to appropriately acknowledge the student’s contribution in the lesson than simply delivering the contents. Byrne (1990) substantiates that playing with language is essential for teachers to encourage interaction in the class. Moreover, the use of questions, requiring skill and strategy (Hamsa & Sultan, 2014) and asking open-ended questions (Kinjir, 2012) plays a vital role in enhancing teacher-student interaction in the class. However, Sherab (2013a) found that most Bhutanese teachers asked fewer thought provoking questions and gave few opportunities for students’ discussion.

Researchers state that teacher feedback is an essential part of students’ learning that helps improve their thinking and understanding of the content (Burden, 2000). I feel that the teacher should be specific in their feedback, pointing the weakness and scaffolding the learning. Allington (2002) establishes that teacher’s comments such as “this is wrong”, “that is wrong” and “this is poor” should be avoided. Furthermore, Orange (2000) affirms that teachers should

console the students by acknowledging that everyone makes mistakes and save the child from being ridiculed by friends. Providing feedback personally to the students who make mistake will make them realize their mistakes and weaknesses without being criticised. Hence, they could build good self-esteem and will not hesitate to interact with their teachers. However, research in the Bhutanese context has shown that teachers do not hesitate to criticise their students when they are not able to achieve the task provided (Sherab, 2013b).

The sort of relation teachers maintain and the way teachers talk and behave with students in the class also impact teacher-student interaction. Tonelson (as cited in Chan, 2002) suggests that teacher's personality can affect student learning outcomes via the psychological environment of the classroom. Moreover, Deiro (1996) confirms that student converse without hesitation to their teachers when the teacher exhibit caring relationship. Maintaining friendly relationship with students can aid students' interaction and there will be equal repulsive effects if not managed well (Sherab, 2013a).

Students' motivation generates, directs, and sustains what they do to learn (Ambrose, Bridges, Dipictru & Norman, 2010) and teachers need to develop a positive motivational orientation in students (Burden, 2000). Teachers are professionals and should understand that motivating students to interact is as important as interaction. Loreman, Deppeler and Harvey (2006) further assert that reminding students the importance of interaction in the class can also promote classroom interaction. A teacher's role is to teach and explain the contents (Bowring-Carr & West-Burnham, 1997) but more than this, as teachers, we should be motivating and invoking students' interest in the teaching learning process. Discussing the role of teachers, Rief and Heimburge (2006, p.151) state "among our responsibilities as educators is to enable students to experience and internalize positive feelings about themselves as capable, competent learners and valued, respected, cared-for individuals." Hence, teachers should understand the students' sentiments, create healthy relationships, motivate students to learn and stimulate active interaction.

Research Question

How can we maximise interaction of 4PCB student-teachers during micro lessons at Paro College of Education for effective teaching and learning?

Sub-Questions

1. How often do teachers interact with students in the class?
2. Why do students hesitate to interact in the class?
3. How do teachers influence student participation in the class?
4. How do teachers motivate students to interact in the class?
5. How do teachers discourage students from interacting in the class?
6. How do teachers involve the students in the class activity?
7. What do you think a teacher should do to have interactive classes?
8. What kind of teachers do students feel comfortable to interact with?
9. How do teachers respond to the students' responses?
10. What kind of opportunities do teachers provide to students to answer/interact in the class?

Action Plan

The research was conducted in Paro College of Education, Royal University of Bhutan. The outline of the study period is given in table 1.

Table 1: *Action research action plan*

Action plan	
Date	Description
August 25 – August 31	<p>Identified critical friend from the class, used stratified sampling to select four male and four female participants from the class (4PCB) for interview.</p> <p>Got ethics clearance from the college and prepared consent form for the participants which were used by critical friend while gathering the data.</p> <p>Prepared interview questionnaire and observation form in consultation with the critical friend and got it approved by the supervisor. Piloted the data collection tools to validate the instruments.</p>
September 1 – September 7	<p>Critical friend collected base line data using the interview questions and observation form.</p> <p>Transcribed the interview data and made meaning from the observation form.</p>
September 8 – September 18	<p>Analysed baseline data using Creswell’s six steps to confirm on the need to maximise student interaction during the micro lessons.</p> <p>Triangulated the findings from interview questions with observation to ensure reliability and validity of the data.</p>
September 19 – October 19	<p>Intervention: implemented the identified three intervention strategies in the class to make necessary improvements.</p>
October 20 – October 27	<p>Post-action data collection: same observation sheets and interview questions were asked to the participants to see the changes/improvement.</p>
October 28 – November 3	<p>Post data analysis: compared the baseline data with the post data and made analysis. Did the action research report, proof read and submitted for assessment.</p>

Baseline Data Findings

Analysis of the baseline data from the teacher-student interaction during my lesson delivery indicated that there were issues associated with my personality and attitudes, creating opportunities for students, and motivation. These issues are discussed in the following three themes: lack of opportunities to interact, teacher's personality and hesitation, and motivation and feedbacks.

Lack of Opportunities to Interact

Most participants responded that I provided very few opportunities to interact in the class. Many of them responded that the number of questions asked during my lesson was limited. Some responded that I was talking more and need to use a variety of strategies while teaching. One of the participants (P1) mentioned that I was trying to interact by asking questions but it was limited. Moreover, P3 said "he did not give us much opportunity and opportunities are given in groups and only 1-2 get to speak." Similarly, P4 said "I never got chance to speak" which showed that I was failing to notice those who wanted to interact and not giving them opportunities to interact. It has also been found by my critical friend as mentioned in the observation sheet that the teacher was talking more and there has been less opportunity created for classroom interaction.

Teacher's Personality and Hesitation

Most of the participants (P1, P3, P4, P5, P6 &P7) responded that they did not hesitate to interact with me in the class. However, there were some participants (P2 &P8) who hesitated to interact in the class. For instance, P2 stated, "I hesitate usually when he pinpoints at me when I am not ready and since I have to think for the answer and within this short period I can't think of an answer. So, I hesitate of giving wrong answer." And P8 stated, "Yes, I do hesitate sometimes. When we see so many people raise their hands, we feel our responses will be wrong." Moreover, my critical friend also observed that since the contents were new, participants were not very much sure of their responses and feared of critics if their answers were wrong.

Some participants (P2, P4, &P5) admitted that sometimes my serious nature and stern looks made my friends hesitate to interact in the class and tell the answers that they were not very much sure of during the micro lessons. My critical friend also noted that I had serious expression during my lesson. Furthermore, many participants (P1, P2, P3, P4, P5, P6 &P7) said that they prefer to interact with teachers who are flexible, friendly and who possess sense of humour. The critical friend also suggested maintaining friendly relation with the students for effective teaching and learning.

Motivation and Feedbacks

In the baseline data, I have found that the way teachers respond to students' responses affect students' interaction in the class. A few participants (P1 &P2) mentioned that they did not get motivated to interact since they never got chance to speak. And P3 shared that they were not motivated to interact when teachers discourage or give negative reinforcements to their responses. However, participants (P1, P2, P3, &P4) declared that I gave positive

reinforcements like ‘you did a good job’ ‘wonderful’ but I should be mindful of my expressions as it acts as a repulsive effect if appropriate gestures are not shown. One of the participants (P6) also said that the reinforcements should be age-appropriate. Therefore, to make students actively interact every day in the class, the main factor is to keep them motivated and encouraged to interact. I should appreciate their responses and make them realize that it is okay to make mistakes.

Thus, the baseline data clearly indicates the reason for me to venture into this action research. The respondents clearly identified the areas I lacked and needed to improve, in maximising teacher-student interaction in the class; such as incorporating humour during lesson delivery, using varieties of strategies to create active opportunities to interact and responding positively on students’ responses.

Action Strategies

The baseline data confirmed the need for me to enhance maximising student interaction during the demonstration lesson. The following action strategies were designed and implemented from September 19, 2015 till October 19, 2015 for duration of five weeks due to limited time available.

Creating Opportunities

Using student-centred approaches can help create opportunities to interact in the class (Rai, 2002; Rinchen, 2006; Robertson, n.d.; Sherab, 2013a). Robertson (n.d.) states that think-pair-shares and circle chats are very simple and effective strategies to make students participate in the class. To create more opportunities in the class, I lectured less in the class, exercised more activity-based lessons, and always prepared the lesson well.



FIGURE 1. *Jig-saw strategy as a means to create opportunities to maximise interaction.*



FIGURE 2. *Creating more opportunities to interact through circle chat activity.*

Teacher's Personality and Hesitation

It has been found that a teacher's personality and students' hesitation to speak in the class are closely related. Ferlazzo (2013) states that teacher should make students realize that they are cared for and should be approachable at all times. If teachers maintain a healthy relation with students and incorporate humour in the class, students interact and learn more (McNeely, 2011; Weimer, 2013). In the baseline data, it has been identified that I usually had serious looks and that I needed to use humour (Sherab, 2013a) in the class. McNeely (2011) states that when teachers share a laugh or a smile with the students, they help students feel more comfortable and open to learning. Using humour brings enthusiasm, positive feelings, and optimism to the classroom. Besides this, Eagen (2011) also states that humour encourages an atmosphere of openness, develop students' divergent thinking, improve their retention of the presented materials, and above all it is a valuable teaching tool.



FIGURE 3. *Incorporating collaborative play as a means to maximise interaction.*

Motivation and Feedbacks

Most students' interest to interact in the class is suppressed by the way teacher interprets or through feedbacks. Though many mentioned that I positively handled participants' responses but some participants confirmed that I lacked varieties. Thus, Sylwester (2007) claims that teachers should vary the types of reinforcements such as praise and non-verbal communication like smile, nods, thumps up, activities or privileges such as playing a game, sitting a special place in the class, and secondary positive remarks such as check marks and tokens. According to Sylwester (2007) some of the key points that should be taken care during verbal praises are:

1. always describe the positive behaviour
2. give praise immediately
3. vary the statements given as praise
4. attribute success to effort and ability which makes students realize that similar success can be expected in the future.



FIGURE 4. *Giving thumbs up cheers to one of the participants for his opinions to encourage more interaction.*

Cheers such as “Thumbs up”, “Wow cheers”, “applauses” were given to the participants. Moreover, whether participants gave correct or incorrect answer, I always acknowledged their responses and accepted their answer. Thus, participants interact more, even if they are not sure with their responses.

Post-Action Data Analysis

After implementing the intervention strategies within a five week period, based on the problems and requirements evident from the baseline data, I collected the post intervention data in the third week of October 2015. The same sets of interview questions for the participants and observation sheet for lesson observation used during the baseline data collection were used during the post-intervention data collection. In the following paragraphs, I will be discussing the results of implementing the action strategies.

Opportunities to Interact

Most of the participants felt that I gave numerous unbiased opportunities to interact in the class. Rinchen (2006) had propounded in his work that equal opportunity should be given to all the participants despite their short comings. Many participants (P2, P3, P4, P5, P6, P7, and P8) mentioned that I was providing lots of opportunities to interact in every part of the lesson by asking many questions, engaging in activities like circle chat, group discussions, and think-pair-share. The observation done during the intervention also showed that I provided lots of opportunities through asking of frequent questions (Hamsa & Sultan, 2014; Sherab, 2013a; Kinjir, 2012) and the design of activities for participants to interact. Moreover, the observation sheet also showed that there was balance in the teacher-student interaction (Rai, 2002). Almost all the participants found that I was giving ample opportunities to interact and the observation also supports that I provided ample opportunities for participants to interact. Participant (P8) elaborates “in order to involve us, he makes us to work in groups; he makes all the students to participate and contribute the points. In that way, each one of us gets to interact with each other, be it in pairs, groups and as a whole class (think-pair-share).”

Teacher’s Personality and Hesitation

In the baseline data, it was evident that participants hesitated due to teacher’s personality (Chan, 2002; Deiro, 1996; Thinley, 2008). In the post-action data, all the participants responded that they did not hesitate to interact in my class and most of them answered that I was approachable, friendly, accepted participants’ views, never serious instead smiled, and treated everyone equally (P1, P2, P3, P4, P5, P6, P7 & P8). The observation done by the critical friend also showed that, I was smiling throughout the lesson and participants were comfortable to interact in the class. The critical friend noted in the observation sheet “used humour related to the lesson, which brought liveliness to the class and making the class much more interactive.”

Motivation and Feedback

Regarding motivation and de-motivation, all of them said that they were not de-motivated. All the participants mentioned that I was using variety of reinforcements and most of the participants seemed contented by the way I reacted to their responses. However, P6 mentioned that chewing of doma was little de-motivating and distracting as it was unbecoming of a teacher and against the teacher’s code of conduct.

Some of the participants (P4, P5 & P8) responded that I never neglected the opinions of the students and this is what the literature says about making the students feel that their opinion is also taken account of (Orange, 2000; Rai, 2002). For instance, P5 stated that, “I get motivated by the way he takes our responses positively and he never discourages even if we answer incorrectly. He tries to encourage participation in the class and always supplements on the students’ responses.” Everyone seemed satisfied to some extent by the way I responded to their responses.

Discussion

The post-intervention data were compared with the baseline data to find out whether the intervention strategies helped in maximising interaction in my micro teaching lessons. The

findings from this action research showed that teachers are not aware of their behaviour that hampers a child's emotions and obstruct the child's learning. For example, in the baseline data P2 stated, "I hesitate usually when he pinpoints at me when I am not ready and since I have to think for the answer within this short period." Most teachers are not aware of this and they get frustrated while the students take time to answer.

It is the teachers who dominate the classroom interaction in Bhutanese classes (Rai, 2002; Sherab, 2013a). As a student, I had first-hand experience of the "authoritarian teaching style" (Thapa, 2010), thus the instinct that the teacher should talk. Hence, we talk too much, forgetting that there are many others who want to share their views, ask questions, and do some activities.

After doing this action research, I came to understand that participants enjoy varieties of strategies and activities besides the age-old "authoritarian teaching style" (Thapa, 2010). During the intervention stage, when participants were made to do activity with Circle chat, jig-saw, think-pair-share, games, and discussions, participants were engrossed in the teaching and learning. Interestingly, in the follow up of the activity, students reacted positively and there were many good learning experiences. Since I did the intervention with my classmates, they not only enjoyed the activities and experiences but some of them also realized the significance of interaction in the class and showcased similar kinds of behaviour during their lesson delivery/presentation. The participants participated more and exhibited a lot of enthusiasm in the classroom interaction when their responses were taken positively (Kinjir, 2012; Orange, 2000; Rai, 2002; Rinchen, 2006; Sherab, 2013a). Prompting participants through their incorrect or partial answer, motivating them, giving some time to think for the correct answers were very efficient in making the students feel safer and sustain classroom interaction (Ambrose, Bridges, Dipietru & Norman, 2010; Burden, 2010; Orange, 2002).

This action research was conducted within a limited time but it had a great positive impact on the participants. If this simple action research can bring about such positive effects, then I think many positive results can be generated if similar kinds of action research and strategies are incorporated in the schools and institutions.

In the nutshell, by doing this action research, I came to understand that each and every teacher is responsible for getting rid of the teacher-centred approach and shift towards more proactive student-centred learning. I also came to understand that teaching and learning experiences are fruitful when teacher and students interact at the optimum level. Interaction in the class can be maximised by creating ample opportunities for students to interact and opportunities can be provided by inculcating activity-based lessons. Teachers should create a healthy relationship with the students and add humour during lesson as well as making them active. As said by McNeely (2011) when teachers share a laugh or a smile with the students, they help students feel more comfortable and open to learning. I also found out that participants become less hesitant and comfortable to speak when their responses are accepted and acknowledged. Most importantly, to sustain students' interaction in the class, teachers should always motivate and give positive feedbacks and reinforcements.

Conclusion

Doing this action research on maximising teacher-student interaction was a wonderful learning experience. I have now greater insights of the term "interaction" and how it can be enhanced in classrooms. The data from the baseline and the post-action, along with the

works done by highly reputed pioneers like Biddle, Carolyn Orange and many others further enhanced my understandings on the topic. In my attempt to find out how I can maximise teacher-student interaction during my micro lessons, I also learnt many new teaching strategies and reinforcement strategies.

The strategies such as maintaining friendly relation (Ferlazzo, 2013), using humour in the class (Eagen, 2011; McNeely, 2011; Weimer, 2013), using strategies such as, 'circle chat', 'think-pair-share', 'jigsaw' and other group discussions (Robertson, n.d.), reinforcement and showing appropriate gestures (Sylwester, 2007) are very essential in making interactive classrooms and was very effective according to the findings of this action research. I am very much eager to try these strategies in the near future in the real classroom settings with my students.

As a novice researcher, I had many difficulties carrying out this research but as far as possible it was carried out in a very professional approach with guidance from my supervisor. Moreover, the data collection and analysis were done appropriately and findings were delivered through the eyes of the participants. This action research was done in a very short period of time spanning over the duration of four months. Thus, there was less time for intervention and the difference made is limited. Moreover, the post-action observation was not done and during the data triangulation, I used the intervention observation to support the interview data. Secondly, since it was conducted in a micro teaching situation with my classmates, the findings could be limited. However, I tried to minimise the limitations to the extent possible.

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གཞི་རིམ་རྒྱུ་ལུ་ལོ་ངོ་དང་པའི་སློབ་དཔོན་སློབ་སྦྱོང་པ་ཚུ་གིས་གཞི་རིམ་འོག་མའི་ནང་མཐའ་འཁོར་སློབ་སྦྱོང་
སློབ་སློབ་འབད་ནིའི་སློབ་སློབ་པ་བརྟམ་ཞིབ།

དཔལ་འབྱོར་། འགྲུལ་མེད་འཕྱིན་ལས་། དང་སྐལ་བཟང་རྗེ་རྗེ།

བརྩམ་དོན།

སྤྱི་རྗེ་ཤེས་རིག་མཐོ་རིམ་སློབ་གྲྭ་ནང་། མཐའ་འཁོར་སློབ་སྦྱོང་གི་སྦྱོང་ཚན་ལྟ་བུ་མིའི་ གཞི་རིམ་རྒྱུ་ལུ་ལོ་
ལོ་ངོ་དང་པའི་ སློབ་དཔོན་སློབ་སྦྱོང་པ་ཚུ་གིས་ གཞི་རིམ་འོག་མའི་ནང་། མཐའ་འཁོར་སློབ་སྦྱོང་སློབ་
སློབ་འབད་ནིའི་སློབ་སློབ་པ་ བརྟམ་ཞིབ་འབད་དགོ་པའི་དམིགས་ཡུལ་འདི་ སློབ་སློབ་པ་དག་ཞན་ལུ་བརྟམ་
ཏེ་ ལཱ་གི་གྲུབ་འབྲས་སློབ་རྒྱུ་དང་། བཟང་ཚན་གྱི་ཁྱད་པར་ཡང་བཟོ་མ་ཞིན་ཟེར་ Bandura (1994)
བཀོད་དེ་འདུག དེ་བཟུམ་ སློབ་སློབ་པ་མཐོ་དགུམ་དང་དམའ་དགུམ་གྱི་ཁྱད་པར་ལུ་བརྟམ་ཏེ་ ལཱ་གི་གྲུབ་
འབྲས་བཟང་ཚན་གྱི་ཁྱད་པར་ཚགས་སྲིད་ནི་ཞིན་ལས་ སློབ་སློབ་པ་བརྟམ་ཞིབ་འབད་ཞིན་ལས་ དེ་
དང་བསྟུན་པའི་ཐབས་ལམ་དང་གོ་ས་འཆར་ཚུ་བྱིན་ཚུ་གས་ནིའི་དོན་ལུ་ཞིན། ཞིབ་འཚོལ་འདི་ནང་བཅའ་
མར་གཏོགས་མི་ མཐའ་འཁོར་སློབ་སྦྱོང་ལྟ་བུ་མིའི་ ལོ་ངོ་དང་པའི་ སློབ་སྦྱོང་པ་ཡོངས་བསྐོས་༡༡༡༧པེ་
ཚད་འབད་ལག་ལེན་འབབ་ཅི། དེ་ཡང་མོ་༤༥དང་མོ་༤༤ལུ་བརྟམ་ཞིབ་དེ་ཤོག་བཀའ་བརྟམ་སླེ་ གནས་
སྤྱད་བསྐྱེལ་ལེན་འབད་མི་འདི་བརྗོད་དོན་ཁག་བཞི་ལུ་གཞི་བཞག་སླེ་དབྱེ་དབྱུད་འབད་མ་དེ་ སྤྱིར་བཏང་
སློབ་མཐའ་འཁོར་སློབ་སྦྱོང་ལྟ་བུ་མིའི་སློབ་སྦྱོང་པ་ཚུ་གི་ མཐའ་འཁོར་སློབ་སྦྱོང་གི་བརྗོད་དོན་ཁག་བཞི་
ཚར་ནང་ སློབ་སློབ་པ་མཐོ་དགུམ་ཡོད་པའི་དོན་འཛིན་བྱུང་ཡི། དེའི་ནང་ལས་ཡང་ མི་དང་འཕུད་པ་དེ་ མོ་
གི་སློབ་སློབ་པ་མཐོ་དགུམ་ཡོད་པ་སླེ་ཞིན་པས།

གཙོ་ཚིག་ གཞི་རིམ་རྒྱུ་ལུ་ མཐའ་འཁོར་སློབ་སྦྱོང་། སློབ་སློབ་པ། ཚུ་གས་གྲུབ། སློབ་སློབ་པ་མཐོ་
དགུམ། སློབ་སློབ་པ་དམའ་དགུམ།

གནས་སྤངས་དབྱེ་དབྱེ།

(Dorji, 2005) གིས་བཀོད་མི་ནང་། འབྲུག་རྒྱལ་ཁབ་གྱི་ སློབ་གྲྭ་ཚུ་ནང་། མཐའ་འཁོར་སློབ་སྦྱོང་གི་
ཚོས་ཚན་འདི་ཡིང་སྤྱད་ནང་འབད་སྤྱི་ལོ་ ༡༩༥༥ ལས་སློབ་ནི་འགོ་བཙུགས་ལུག། ཤེས་རིག་སྤེལ་ཁང་གཉེས་ནང་
མཐའ་འཁོར་སློབ་སྦྱོང་ སློབ་སློབ་པ་འབད་ཐངས་གྱི་སྦྱོང་བརྗོད་འདི་ རྣམ་ལས་འགོ་བཙུགས་ཅི་ག་ཡིག་ཚུ་ མ་
ཐོབ་སླེ་འབད་རུང་། དབྱུང་དེ་ལྟ་བུ་ཅིན་ དེ་སླེ་སློབ་གྲྭ་ཚུ་ནང་སློབ་སློབ་པ་འབད་ནི་ཡོད་པའི་བསྐྱེད་ལས་ སློབ་སྦྱོང་
སྤེལ་ཁང་ཚུ་ནང་ སྦྱོང་བརྗོད་འབད་ནི་ཡང་རྣམ་མཉམ་འབད་རང་ འགོ་བཙུགས་ཏེ་ཡོད་པའི་འོང་ཟེར་མཐོ་མ་མས།
དེ་ལས་སྤྱི་ལོ་ ༢༠༠༠ ལས་མཐའ་འཁོར་སློབ་སྦྱོང་གི་སྦྱོང་ཚན་འདི་རྗོང་ཁའི་ནང་སྤྱི་ལོ་འབད་དེ་ གཞུག་ལག་

༡. མཁས་དབང་ཞིབ་འཇགས་པ། སྤྱི་རྗེ་ཤེས་རིག་མཐོ་རིམ་སློབ་གྲྭ། E-mail: penjor.pce@rub.edu.bt
༢. ལེགས་བཤད་པ། སྤྱི་རྗེ་ཤེས་རིག་མཐོ་རིམ་སློབ་གྲྭ། E-mail: jurmeythinley.pce@rub.edu.bt
༣. ལེགས་བཤད་པ། སྤྱི་རྗེ་ཤེས་རིག་མཐོ་རིམ་སློབ་གྲྭ། E-mail: kezangdorji.pce@rub.edu.bt

མི་འདི་རང་ར་སོ་སོའི་ ལྷོགས་གྲུབ་ག་དེ་སླེ་ཡོད་པ་ཡིན་ན་ རང་གིས་ཉ་གོ་སྟེ་ རང་ལུ་ཕོག་མི་ལུ་འགན་ཚུ་ འདི་
དང་འཁྲིལ་ཏེ་ ལག་ལེན་འཐབ་ཚུགས་མི་ཅིག་ལུ་གོ་མ་ཡིན་པས། Bandura (1986) གིས་འབད་རུང་སློ་
སྟོབས་ཟེར་མི་འདི་མི་ཚུའི་ བསམ་སྦྱོང་དང་སྟོགས་གྲུབ་ག་དེ་སླེ་ཡོད་པ་ཡིན་ན་ ཉ་གོ་སྟེ་ཚོས་ཚན་ཚུ་འགོ་འདྲེན་
དང་ལག་ལེན་འཐབ་ཐོག་ལས་ བྱ་སློའི་དབྱེ་བ་ཚུ་དོས་འཛིན་འབད་དེ་ ལུ་འབད་ཐངས་ཚུ་མཐར་ཕྱིན་མ་སྟེ་ འབད་
ཚུགས་མི་ཅིག་ལུ་སླབ་ཡིན་པས། (as cited in Henson, 2001) དེ་གིས་འབད་ སློ་སྟོབས་མཐོ་འགྲུབ་
ཡོད་མི་ཚུ་གིས་ མ་འོངས་པ་ལུ་རང་ལུ་ཕོག་པའི་ལུ་འགན་ཚུ་སློ་བ་དང་ དང་འདོད་ཀྱི་ཐོག་ལས་འབད་ཚུགས་ནི་
དང་ དེ་ལུ་བརྟེན་ཏེ་ལུ་གི་གྲུབ་འབྲས་ཡང་ལེགས་ཤོམ་སྟེ་བཏོན་ཚུགས་པའི་རུས་པ་འོང་ནི་ཡིན་པས། གལ་སྲིད་
རང་གི་སློ་སྟོབས་དམའ་འགྲུབ་ཡོད་པ་ཅིན་ དེ་ལུ་བརྟེན་ཏེ་ལུ་གི་གྲུབ་འབྲས་ཡང་དམའ་འགྲུབ་འབད་འཐོན་ནིའི་
ཉེན་ལ་འོང་ནི་ཡིན་པས། Sia (1992) གིས་བཀོད་མི་ནང་བཟུན་ཏེ་ར་གི་ལུ་བ་དང་འཁྲིལ་ཏེ་ སློབ་དཔོན་ཚུ་ལུ་
ལག་ལེན་འཐབ་ཡོད་པའི་ཞིབ་འཚོལ་དང་ འཁྲིལ་རུང་སློབ་དཔོན་སློ་སྟོབས་དམའ་འགྲུབ་ཚུ་དང་འཕྱད་པ་ད་ སློ་
སྟོབས་མཐོ་འགྲུབ་ཡོད་མི་ཚུ་གིས་ དམིགས་བསལ་གྱི་སློ་བ་ལེན་ཐོག་ལས་ ཐབས་ལམ་རྣམ་པ་སྟེ་ཚོགས་སྦྲིག་
ཏེ་ སློབ་ཚུགས་གི་ཤེས་ཡོན་གོང་འཕེལ་གཏང་ནིའི་ལུ་ནང་བཅའ་མར་གཏོགས་པ་མས་ཟེར་ཡིན་པས། འདི་འབད་མ་
ལས་ དེ་ལུ་སློབ་སྦྱོང་འབད་བཞིན་ཏེ་ཡོད་པའི་སློབ་སྦྱོང་པ་ཚུ་གི་རྒྱུད་ལུ་ མཐའ་འཁོར་སློབ་སྦྱོང་སློབ་སྟོན་འབད་
ཚུགས་པའི་ ལྷོགས་གྲུབ་ག་དེ་སླེ་ཡོད་ག་བརྟེན་ཞིབ་འབད་ཞིན་མ་ལས་ དེ་དང་འཁྲིལ་བའི་ཐབས་ལམ་ཚུ་བཏོན་
དགོ་པ་གལ་ཆེན་འབད་མཐོང་མ་མས།

མཐའ་འཁོར་སློབ་སྦྱོང་ལྷུབ་སྟོན་འབད་མི་སློབ་དཔོན་དང་སློབ་སྦྱོང་པ་གཉིས་ཆར་གིས་ཉ་གོ་དགོ་པ་འདི་ཡང་
འདུ་ཤེས་དང་འབྲེལ་བའི་མཐའ་འཁོར་(psychological environment) དང་ཕྱིའི་སྤྱང་བའི་མཐའ་འཁོར་
(physical environment) ཚུ་སློབ་ཚུགས་ལུ་འོས་འབབ་ཡོད་པ་སྟེ་བཟོ་བཞིན་མ་ལས་ལྷུབ་སྟོན་གི་གནས་
སྤངས་ཉམས་དགའ་ཏོག་ཏོ་(healthy learning environment) བཟོ་སྟེ་ལྷུབ་སྟོན་འབད་བ་ཅིན་སློབ་
ཚུགས་ག་རང་འབད་རུང་རང་བཞིན་གྱིས་སློ་སྟོབས་གོང་འཕེལ་འབྱོར་འོང་ཟེར་ཡིན་པས།(Nayak&Rao, 2009).

དེ་ལུ་ལྷུབ་ད་ སློ་སྟོབས་གོང་འཕེལ་གྱི་དོན་ལུ་ ལྷུབ་སྟོན་གི་གནས་སྤངས་ ག་ཅི་བཟུམ་འདུག་ག་ མཐའ་
འཁོར་སློབ་སྦྱོང་ལྷུབ་མི་དང་སྟོན་མི་ཚུ་གིས་ཉ་གོ་དགོ་པ་གལ་ཆེ་བས། ག་ཅི་འབད་སློ་ཟེར་བ་ཅིན་ Sia (1992)
གིས་ཞིབ་འཚོལ་འབད་དེ་ཡོད་པའི་གྲུབ་འབྲས་སྟུན་ལྷུ་དང་འཁྲིལ་བ་ཅིན་ མཐའ་འཁོར་སློབ་སྦྱོང་ སློབ་སྟོན་འབད་
མིའི་སློབ་དཔོན་གྱི་སློབ་སྟོན་འབད་ཐངས་ལེགས་ཤོམ་ཡོད་པ་ཅིན་ སློབ་ཚུགས་གི་ནང་དོན་དང་འབྲེལ་བའི་དཀྱའ་ངལ་
ཚུ་བརྒྱ་ཆ་ལས་ ༧༠% སེལ་ཚུགས་ཟེར་ཡིན་པས། འདི་འབད་མ་ལས་སློབ་སྦྱོང་པ་ཚུ་ལུ་ མཐའ་འཁོར་སློབ་
སྦྱོང་ སློབ་སྟོན་འབད་ཚུགས་པའི་ ལྷོགས་གྲུབ་དང་ སློ་སྟོབས་ཡོད་དགོ་པ་གལ་ཆེ་བས། སློབ་དཔོན་སློ་སྟོབས་
མཐོ་འགྲུབ་ཡོད་མི་ཚུ་གིས་བཀོད་བྱའི་ཐབས་ལམ་ཚུ་ གནས་སྤངས་དང་བསྟུན་ཏེ་ རྒྱུར་བཅོས་འབད་དེ་ཡོད་པ་
མ་ཚད་ སློབ་སྟོན་ཐབས་ལམ་ཡར་རྒྱས་གཏང་ནི་དང་ སློབ་སྟོན་མཁོ་ཆས་ཚུ་ཡང་ ཡར་བསྐྱེད་ཀྱི་འགྲུར་བ་འབག་
འོང་ཚུགས་ཟེར་ཡིན་པས། (Allinder, 1994; Guskey, 1988; Stein & Wang, 1988, as
cited in Henson, 2001).

དེ་ལུ་བརྟེན་ཏེ་ མཐའ་འཁོར་སློབ་སྦྱོང་འདི་ དོན་ཚན་དང་ རང་སོའི་མཐའ་འཁོར་གཉིས་འབྲེལ་བ་འབད་དེ་
སློབ་སྟོན་འབད་དགོ་པའི་ཚོས་ཚན་ཅིག་འབད་མ་ལས་ མཐའ་འཁོར་དྲང་བསྟུན་ཏེ་ མཁོ་ཆས་བཅའ་སྦྱིག་རྒྱུ་བ་ནི་
དང་ སྦྱོང་ལུ་རྒྱུར་བཅོས་འབད་ནི་གི་དོན་ལུ་ཡང་ མཐའ་འཁོར་སློབ་སྦྱོང་སློབ་སྟོན་པ་འདི་ལུ་ ཚོས་ཚན་སློབ་སྟོན་
གྱི་སློ་སྟོབས་དོས་པར་དུ་དགོ་པ་ཡིན།

དེ་མེད་པ་ཅིན་ Sia (1992) གིས་བཀོད་དོ་བཟུམ་སྟེ་ སློ་སྟོབས་དམའ་འགྲུབ་ཡོད་པ་ཅིན་ དེ་ལུ་བརྟེན་

ཉེ་ ལྷ་གི་གྲུབ་འབྲས་ཡང་དམའ་དྲགས་འབད་འཐོན་ནི་ཉེན་ཁ་འོང་ནི་ཡིན་མཁེས་ལས་ མཐའ་འཁོར་སློབ་སྦྱོང་ནང་
 ཚུད་དེ་ ཡོད་པའི་ནང་དོན་རྒྱ་མ་ལོ་དང་མཉམ་འབྲེལ་གྱི་ཐོག་ལས་ འགོ་འདྲན་འཐབ་མ་ཤེས་པའི་དཀའ་ངལ་བྱུང་
 ཉེ་ གྲུབ་འབྲས་ལུ་ཐོ་ཐོག་སྦྱོང་ནི་ཡིན་པས།

ཐབས་ལམ།

ཞིབ་འཚོལ་འདི་ནང་ བཅའ་མར་གཏོགས་མི་ མཐའ་འཁོར་སློབ་སྦྱོང་ལྟ་བུ་མིའི་ ལོ་ངོ་དང་པའི་ སློབ་སྦྱོང་པ་
 ཡོངས་བསྟོན་ས་ ༡༡༡ ཡོད་མི་ཚུ་གི་ མཐའ་འཁོར་སློབ་སྦྱོང་ སློབ་སྦྱོན་འབད་ཚུགས་པའི་སློབ་སྦྱོབ་ས་ ཡོད་མེད་
 གྱི་བརྟུན་ཞིབ་འབད་ནི་ཡིན་མཁེས་ལས་ གྲངས་འབྲེལ་ཐབས་ལམ་ནང་ལས་ བརྟུན་ཞིབ་དྲིས་ལན་གྱི་མཁོ་ཆས་ལག་
 ལེན་འཐབ་ཅི། བརྟུན་ཞིབ་དྲི་ཤོག་འདི་ Sia (1992) and Bandura (1977) གིས་བཀོད་མི་ལྟ་བུ་དེ་
 ལུ་གཞི་བཞག་སྟེ་ ཞིབ་འཚོལ་འབད་དེ་ཡོད་པའི་བཅའ་མར་ལུ་ཐོག་པའི་ ལྷ་འགན་འབད་ཚུགས་པའི་ སློབ་སྦྱོབ་ས་/
 ཚོར་སྣང་ (self-efficacy beliefs) དང་ལྷ་འགན་གྲུབ་འབྲས་གྱི་འདོད་དོན་ (outcome expectancy
 beliefs) ལག་གཉིས་ལུ་གཞི་བཞག་སྟེ་

༡. མཐའ་འཁོར་སློབ་སྦྱོང་གི་ནང་དོན།
༢. མཐའ་འཁོར་སློབ་སྦྱོང་གི་ སློབ་སྦྱོན་ལམ་ལུ་གས།
༣. མཐའ་འཁོར་སློབ་སྦྱོན་པའི་ ལུང་རིག་གི་ཕྱོགས་གྲུབ།
༤. མཐའ་འཁོར་སློབ་སྦྱོན་པའི་ སློབ་སྦྱོབ་ཀྱི་ཕྱོགས་གྲུབ། ཟེར་བཟོད་དོན་ ལག་བཞི་བཟོ་སྟེ་ སློབ་སྦྱོབ་ས་
 བརྟུན་ཞིབ་འབད་ཡི། བརྟུན་ཞིབ་དྲི་བ། (ཟུར་སྒྲུགས་"༡"པ་ནང་ཡོད།)

ཞིབ་འཚོལ་གྱི་དྲི་བ།

ང་བཅས་ཚུ་གིས་གཞི་རིམ་རྒྱུང་བའི་ ལོ་ངོ་དང་པའི་སློབ་དཔོན་སློབ་སྦྱོང་པ་ཚུ་ལུ་ གཞི་རིམ་འོག་མའི་ནང་
 མཐའ་འཁོར་སློབ་སྦྱོང་སློབ་སྦྱོན་འབད་ཚུགས་པའི་ སློབ་སྦྱོབ་ས་ཡོད་མེད་ཀྱི་བརྟུན་ཞིབ་ག་དེ་སྟེ་འབད་ནི་?

ལག་ལེན་འཆར་གཞི།

གཞི་རིམ་རྒྱུང་བའི་ལོ་ངོ་དང་པའི་ སློབ་དཔོན་སློབ་སྦྱོང་པ་ཚུ་གིས་ གཞི་རིམ་འོག་མའི་ནང་མཐའ་འཁོར་སློབ་
 སྦྱོང་ སློབ་སྦྱོན་འབད་ནིའི་ སློབ་སྦྱོབ་ས་བརྟུན་ཞིབ་འབད་ནིའི་དོན་ལུ་ ཏུས་ཚོད་རེ་འུ་མིག།

ཨང་	ལུ་རིགས་	ཚེས་གྲངས།	འགན་ཁུར།
༡	གནས་སྡེ་ས་དབྱེ་དབྱེད་འབྲི་ཞི།	ཕྱི་ཟླ་ ༤ ཟླ་ལོ་ ༢༠༡༤།	སློབ་དཔལ་འབྱོར།
༢	རྩོམ་ཐོས་སྐྱུར་ཞིབ་དང་ ཞིབ་འཚོལ་གྱི་ དྲི་བ་བཟོ་སྟེ།	ཕྱི་ཟླ་ ༥ བདུན་པ་ལྷག་དང་ པའི་ནང།	སྟེ་ཚན་གྱི་འཕུས་མི་ག་ར།
༣	གནད་སྤྱད་བསྟུ་ལེན་གྱི་དོན་ལུ་དྲི་ཤོག་ བཟོ་སྟེ།	ཕྱི་ཟླ་དང་པའི་ ཕྱི་ཚེས་ ༤ ལུ།	སྟེ་ཚན་གྱི་འཕུས་མི་ག་ར། (འགོ་ཁྲིད་པ་ དཔལ་འབྱོར།)

ཤོས་ .06 ལས་མེད་པ་ལས་དམིགས་བསལ་གལ་གནད་ཅན་ (Significant) སློམ་ཅིག་མེན་པས། ཤོ་
མོའི་བར་ན་སློབ་སྦྱོང་གི་ཁྱད་པར་ཐོན་དགོ་མི་འདི་ག་ཅི་ལུ་བརྟེན་ཏེ་ཡིན་ན་ སྐབས་སུ་བབས་པ་ཞིབ་འཇོལ་འདི་
གི་ དམིགས་གཏང་མེན་མ་ལས་འཇོལ་ཞིབ་མ་འབད། ད་ལྟོ་གི་ཞིབ་འཇོལ་འདི་

སྤྱི་ལོ་ཤེས་རིག་མཐོ་རིམ་སློབ་གྲུ་གི་ གཞི་རིམ་རྒྱུ་བའི་ལོ་རྒྱུ་དང་པའི་ སློབ་དཔོན་སློབ་སྦྱོང་པ་ཚུ་གིས་ གཞི་
རིམ་འོག་མའི་ནང་མཐའ་འཁོར་སློབ་སྦྱོང་སློབ་སྦྱོན་འབད་ནི་འོ་སློབ་སྦྱོང་སྦྱོན་འབད་མ་བཟུགས་ བརྟེན་ཞིབ་འབད་མ་དུ་ མཐའ་འཁོར་
སློབ་སྦྱོང་ལྟ་མི་འོ་ སློབ་སྦྱོང་པ་ཚུ་ལུ་བརྒྱུ་དོན་ཁག་བཞི་ཆར་ནང་ སྤྱིར་བཏང་སློབ་སྦྱོང་མཐོ་དགའ་ཡོད་པའི་
དོས་འཛིན་བྱུང་ཡི།

དེ་བཟུམ་སྤྱི་བརྒྱུ་དོན་ཁག་བཞི་ལས་ཕོ་མོ་གཉིས་ཆར་གིས་ མཐའ་འཁོར་སློབ་སྦྱོང་གི་ནང་དོན་ལུ་ སློབ་སྦྱོང་སྦྱོང་
མཐོ་སུ་ཅིག་ཡོད་པ་འབད་ཡིན་རུང་ བརྒྱུ་དོན་གཞན་མི་ཚུ་དང་ཁྱད་པར་སློམ་རང་མེན་འདུག།

མ་འོངས་པ་ལུ་ མཐའ་འཁོར་སློབ་སྦྱོང་སློབ་སྦྱོན་འབད་མ་དུ་ རྒྱུ་བའི་དང་མཐའ་འཁོར་སློབ་སྦྱོང་གཉིས་ཀྱི་
བར་ན་ སློབ་སྦྱོན་དམིགས་གཏང་བརྒྱུ་དམངས་ལུ་ ཁྱད་པར་ག་ཅི་ཡོད་པ་ཡིན་ན་སློབ་དགོ་པའི་ཁར་ རང་བཞིན་
གནས་སྤངས་དང་ མཐའ་འཁོར་སློབ་སྦྱོང་གི་ཁྱད་པར་ག་ཅི་ཡིན་ན་སློབ་དགོ་པ་འདུག།

ཚད་འཛིན།

ཞིབ་འཇོལ་འདི་ མཐའ་འཁོར་སློབ་སྦྱོང་གི་སྦྱོང་ཚན་འདི་ སློབ་སྦྱོན་འབད་ཚར་མ་ཅིག་ སློབ་སྦྱོང་པ་ཚུ་གིས་
དད་ས་སུ་སློབ་སྦྱོང་ལུ་སྦྱོན་ནི་འོ་སྦྱོང་པ་ མ་འབད་བའི་དེ་མ་ འགོ་འདྲན་འབབ་འབབ་འབད་མ་ལས་ ལག་ལེན་
དད་ས་འབབ་འབད་མ་འབད་གི་བར་ན་སློབ་སྦྱོང་གི་ ཁྱད་པར་ཡོད་མེད་ལུ་མི་དོན་ལུ་ མཐའ་འཁོར་སློབ་སྦྱོང་
སྦྱོང་མི་འོ་སློབ་སྦྱོང་པ་ཚུ་ སློབ་སྦྱོན་སྦྱོང་པ་ལས་ལོག་ལྟོ་དེ་ཞིན་ལས་ ཁོ་ལུ་གཞི་བཟུགས་སྤྱི་སློབ་སྦྱོང་བརྟེན་ག་
ཞིབ་འབད་ཚུ་གསལ་པ་ཅིན་ དེ་གིས་སློབ་སྦྱོང་ཡོད་མེད་གཏན་འཁེལ་བཟོ་ནི་ལུ་ཕན་ཐོགས་འོང་ན་བཟུམ་ཅིག་འདུག།

བརྟེན་དགའ་ཚེར།

སྤྱི་ལོ་ཤེས་རིག་ མཐོ་རིམ་སློབ་གྲུ་འོ་ཞིབ་འཇོལ་ སྤྱི་དུ་འཛིན་མཁས་དབང་ སྐལ་བཟང་ཤེས་རབ་ཀྱིས་ ཞིབ་
འཇོལ་འབད་ནི་འོ་ འཆར་གཞི་ལས་ འགོ་བཙུགས་ཏེ་ ཞིབ་འཇོལ་རྒྱུ་སློབ་གྲུ་འོ་ཆར་ཚུ་ཚོད་འཆར་བ་མེད་
པར་ རྒྱུ་སྦྱོང་དང་ལམ་སྦྱོན་གནང་མི་ལུ་ ཞིབ་འཇོལ་པ་ རང་ཅས་གསུམ་གྱི་རྟོང་ལས་ རྟོང་དུ་མའི་དུ་གིས་
ལས་བརྟེན་ཚུ་ལྷོ་ལོ་ཡི།

རྒྱུ་བའི་དཔེ་ཐོ།

དཀར་ཚུང་འབྲུག་པ། (༡༩༩༥) གཞི་རིམ་ཚ་གཞུང་སློབ་སྦྱོང་། ཐག་རིང་ཤེས་ཡོན་སྡེ་ཐོན། བསམ་ཚུ། རྒྱུ་བའི་དཔེ་ཐོ་ཤེས་རིག་
སྤེལ་ཁང།

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ལ མཐའ་འཁོར་སློབ་སྦྱོང་གི་ནང་དོན།						
ཨང།	གནད་དོན།	༡	༢	༣	༤	༥
༡	ངགིས་མཐའ་འཁོར་སློབ་སྦྱོང་གི་ཚོས་ཚན་འདི་ཨ་ལོ་ཚུ་ལུ་སློབ་སྦྱོན་འབད་དགོ་པའི་དགོས་པ་ཤེས།					
༢	མཐའ་འཁོར་སློབ་སྦྱོང་གི་རིག་ཅུལ་དང་རྫོང་ཁའི་རིག་ཅུལ་གཉིས་ཀྱི་བར་ན་བྱད་པར་བྱེ་ཤེས།					
༣	མཐའ་འཁོར་སློབ་སྦྱོང་གི་ཚོས་ཚན་གཅིག་ནང་ཚོས་ཚན་གཞན་ལེ་ཤ་ཚུ་དེ་ཡོད་པའི་ཁྲམ་ཤེས།					
༤	མཐའ་འཁོར་སློབ་སྦྱོང་དང་རང་བཞིན་གནས་སྤངས་གཉིས་ཀྱི་བར་ན་བྱད་པར་བྱེ་ཤེས།					
༥	མཐའ་འཁོར་སློབ་སྦྱོང་འདི་སློབ་ལུ་གཞི་བཞག་སྟེ་སློན་དགོ་པའི་ཁྲམ་ཤེས།					
༦	མཐའ་འཁོར་སློབ་སྦྱོང་ནང་ལུ་སློབ་འདི་ག་ཅི་སྟེ་ཁག་ཆེས་ཡིན་ན་ཤེས།					
ག མཐའ་འཁོར་སློབ་སྦྱོང་གི་སློབ་སྦྱོན་ལམ་ལུགས།						
༧	མཐའ་འཁོར་སློབ་སྦྱོང་གི་རིག་ཅུལ་དང་རྫོང་ཁའི་རིག་ཅུལ་གཉིས་ཀྱི་བར་ན་བྱད་པར་བྱེས་ཏེ་སློབ་སྦྱོན་འབད་ཤེས།					
༨	མཐའ་འཁོར་སློབ་སྦྱོང་གི་སློབ་སྦྱོན་འབད་མཁུ་ཏེ་ཨ་ལོ་ཚུ་གསར་འཚོལ་འབད་མི་དང་སློབ་དཔོན་འདི་ལམ་སྟོན་པ་སྟེ་སློབ་སྦྱོན་འབད་དགོ་བཟེ་མི་དང་འཁྲུལ་ཏེ་སློབ་སྦྱོན་བཅའ་སྒྲིག་རྒྱབ་ཚུགས།					
༩	དོན་ཚན་ག་ཅི་སྟོན་རུང་ལུ་ཉེན་དང་བརྟུག་དཔུང་གི་ཐོག་ལས་ར་ཁྲམ་ཤེས་དཔུང་དེ་ལྟམ་ཞི་འཐབས་ཤེས་སྟོན་ཏེ་སློབ་སྦྱོན་འབད་ཤེས།					
༡༠	གནས་སྤངས་དང་འཁྲུལ་ཏེ་སློབ་ལུ་སླུར་བཅོས་འབད་དེ་སློབ་སྦྱོན་འབད་ཚུགས།					
༡༡	གནས་སྤངས་དང་འཁྲུལ་ཏེ་སློབ་ལུ་གསར་བཟོ་འབད་དེ་སློབ་སྦྱོན་འབད་ཚུགས།					
༡༢	མཐའ་འཁོར་སློབ་སྦྱོང་གི་ཚོས་ཚན་ནང་སྦྱིལ་དང་འཁྲུལ་ཏེ་སློབ་སྦྱོན་འབད་བཅའ་ཀྱི་གནས་སྤངས་ཚུ་ལག་ལེན་འབབ་ཤེས།					

དཔལ་འབྱོར་ འགྲུར་མེད་འཕྲིན་ལས་དང་ ལྷལ་བཟང་དོ་ཚེ།

ང རང་གི་བྱུང་རིག་གི་ ལྷོགས་གྲུབ།					
༡༩	དོན་ཚན་དང་འཁྲིལ་བའི་ ལྷོབ་སྟོན་འཆར་གཞི་ལེགས་ཤོམ་སྡེ་བཟོ་ ཚུགས།				
༡༩	ལྷོབ་རིམ་དང་འཁྲིལ་བའི་ ཅུས་རྒྱུན་དབྱེ་ཞིབ་ (Continue Assessment) ལེག་ལེན་འཐབ་ཤེས།				
༡༥	ལྷོབ་རིམ་དང་འཁྲིལ་བའི་ སྤྱང་རྒྱུགས་དབྱེ་ཞིབ་ (Summative Assessment) ལེག་ལེན་འཐབ་ཤེས།				
༡༦	ལྷོགས་ར་ལག་དེབ་ནང་ བཀོད་དེ་ཡོད་པའི་ ལྷོབ་ལྷ་རྩེ་ ཚུལ་བཞིན་ དུ་འགོ་འདྲེན་འཐབ་ཚུགས།				
༡༧	ལྷོབ་རིམ་དང་པའི་ལག་དེབ་ནང་ བཀོད་དེ་ཡོད་པའི་ ལྷོབ་ལྷ་རྩེ་ ཚུལ་ བཞིན་དུ་འགོ་འདྲེན་འཐབ་ཚུགས།				
༡༨	ལྷོབ་རིམ་གཉིས་པའི་ལག་དེབ་ནང་ བཀོད་དེ་ཡོད་པའི་ལྷོབ་ལྷ་རྩེ་ ཚུལ་ བཞིན་དུ་འགོ་འདྲེན་འཐབ་ཚུགས།				
༡༩	ལྷོབ་རིམ་གསུམ་པའི་ལག་དེབ་ནང་ བཀོད་དེ་ཡོད་པའི་ལྷོབ་ལྷ་རྩེ་ ཚུལ་ བཞིན་དུ་འགོ་འདྲེན་འཐབ་ཚུགས།				
ཅ རང་གི་སློབ་ས་ཀྱི་ལྷོགས་གྲུབ།					
༢༠	མཐའ་འཁོར་སློབ་སློབ་ནང་གི་དོན་ཚན་ག་ཅི་ལས་འབད་རུང་སློབ་སྤྲུག་ རྩེ་གིས་རྩི་བ་བཀོད་པ་ཅིན་ ང་གིས་ལན་རྩེ་ཐོགས་ཆགས་མེད་པར་སླབ་ཚུགས་པའི་ལྷོགས་གྲུབ་ཡོད།				
༢༡	མཐའ་འཁོར་སློབ་སློབ་ཀྱི་དོན་ཚན་དང་བསྟུན་པའི་མཁོ་ཆས་བཅའ་སྲིག་ རྒྱབ་ཚུགས།				
༢༢	སློབ་སྤྲུག་རྩེ་ལུ་དཔེ་སྟོན་དང་ལམ་སྟོན་རྩེ་ལེགས་ཤོམ་སྡེ་བྱིན་ཚུགས།				
༢༣	ང་ལུ་ཨ་ལོ་ལོ་ལོ་ལྷོགས་གྲུབ་གོང་འཕེལ་གཏང་ཚུགས་པའི་སློབ་སློབ་ས་ཡོད།				
ཆ མཐའ་འཁོར་སློབ་སློབ་རྩེ་ལུ་སྟོན་དང་འབྲེལ་བའི་གནད་དོན་གཞན་བཀོད་ནི་ཡོད་པ་ཅིན་ལོག་གི་ས་སྟོན་ནང་འབྲི་ཚོག།					

JOURNAL OF EDUCATIONAL ACTION RESEARCH

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