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Editorial

Rabsel is a popular journal amongst our teachers, teacher educators, students, student teachers, researchers, educational thinkers and practitioners. *Rabsel* has helped foster a culture of research, enquiry and investigation in the continuous search of knowledge by providing a forum for publication of research papers, reflection of professional practices, views and issues related to education.

It has also helped educators, learners; integrate the insights of systematic research on educational improvement, into the realities of varied educational contexts, that is, to produce sustainable improvement in learning for diverse learner populations. Every issue of the journal has carried new heights emphasizing the potential importance of the benefits of scientific change in designing improvements and solutions to educational problems.

This twelfth volume of *Rabsel* issue contains study on some of the crucial issues concerning education. The choice of research method is a dilemma facing many novice researchers. *Qualitative or Quantitative? A Dilemma Often faced by Novice Researchers* identifies some salient features of different research methods, which are keys to making the right choice.

Formative Assessment: The Path from Misunderstanding to a Common Understanding leave no doubt that the formative assessment in Bhutanese schools are utmost importance. The review gives better insights and clarification on the misconstrued concepts of formative and summative assessment practiced at our learning institutes. *A Literature Review on Assessment in Mathematics Classroom* presents the importance of integrating alternative forms of assessment practices in mathematics classroom.

Improving the Use of Articles, Prepositions and Tenses is an action research study which discusses the importance and the correct use of grammar in learning language and teaching and learning process. *Dissemination of Message, Imbibing Culture: Contexts of Communication in Bhutan* talks about the different sets of media utilized for communication in Bhutan at various point of time. It depicts how a communication was and is important and what are the barriers of communication in the context of Bhutan.

In *The Instructional culture at Baylling Higher Secondary School in Trashiyangtse*, we view the strengths and limitations of the instructional system and recommendations that emanated from the findings. A perspective on *Why Revamp Special Education* highlights that special education be given its due recognition and revamped. *A Change of Quality of Life through Literacy in Bhutan using Fuzzy Cognitive Mapping* illustrates how the public library system in Bhutan is converted into a fuzzy model to get the maximum literacy benefits.

A preliminary study on *Self –Esteem* looks at how the psychological aspect of child development is vital and points out that the development of self-esteem can have a profound effect on the overall success and happiness of children. Similarly, *Realizing the Golden Triangle*, a study on teacher-parent bonding towards delivery of quality education depicts parent-teacher bonding as a vital approach towards enhancing learning.

In this issue of *Rabsel*, we would like to acknowledge the continued interest and support shown in its contents by our scholars and readers. With unwavering effort of our scholars and selflessness of our education family, we have always made every publication of *Rabsel* issue possible. While, we have good reasons to be gratified with our success in the domain of educational provision, it is all the more important for us to make use of this forum and share our visions and convictions that are ever so vital for the success of our education programmes.

May *Rabsel* continue to be the mightiest symbol of our education development.

Tashi Delek

Ramesh Thapa
Research Officer

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QUALITATIVE or QUANTITATIVE

A DILEMMA OFTEN FACED BY NOVICE RESEARCHERS

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*"Research = a blind date with knowledge"
(Mimi Murray)*



Research culture in the colleges under the Royal University of Bhutan (RUB) is beginning to take root among its faculty members. Like other universities elsewhere the RUB is also giving more emphasis and encouragement on research activities for the enhancement of the quality of courses offered by the faculty members. It is now becoming a mandate for every member of the faculty to conduct research in their own fields to improve their practices and the quality of the graduates they produce.

own fields to improve their practices and the quality of the graduation they produce. While we have a few experienced researchers in the system, we also have a large number of novice researchers. As a novice researcher myself, I have experienced the difficulty in choosing the right approach in carrying out research. More importantly working with graduate students for the last couple of years, I have experienced that these students undergo the dilemma of designing a study that fits well. Often novice researchers have to undergo stressful moments when faced with this dilemma. The difficult situation faced by novice researchers is well illustrated in the clip art provided above.

Whether one is a graduate student embarking on a research study for the first time or a novice researcher, all would agree that with limited philosophical and theoretical orientation to research, we are always in a dilemma when choosing the right kind of approach for our research. Therefore, this short paper on **"Qualitative or Quantitative Dilemma"** intends to share some basic requirements novice researchers need to adopt cautiously in tackling the dilemma while designing a study. This brief and humble paper will make an attempt to support future graduate students of the College in choosing the right approach for their research projects.

Characteristics of Qualitative and Quantitative Approach

First it is crucial for every researcher to be familiar with the basic characteristics of the two main research approaches: qualitative and quantitative. I have based this discussion on the characteristics of qualitative and quantitative approaches on the points of comparison presented by Merraim (1998):

- 1. Focus of research:** qualitative researchers are basically concerned with the quality of the findings which is derived from the natural setting, often known as lived experiences. It is the development of the first-hand knowledge derived from the natural setting through direct and intensive contact with the research participants. Since it is field focused they require a substantial amount of time to be spent in the field. It is a small-scale research that emphasizes on the quality of the product. Therefore, the essence of this type of research is the "quality" as the name suggest. The fewer the number of participants with quality data, the better. On the other hand, quantitative researchers are concerned with quantity (how much and how many). It is a large-scale research focusing on numbers and the findings can be generalised to a population. The more the number of samples with huge data, the better.
- 2. Philosophical Roots:** Qualitative researchers believe in phenomenology and symbolic interaction. They study a phenomenon through face-to-face interaction with the research participants to construct meaning out of their interaction. Therefore, phenomenologist attempt to understand human behaviour in particular situations through investigating participants' lived experiences. They believe that there are multiple ways of interpreting experiences not just one. Quantitative approach on the other hand belongs to positivism and it emphasizes on empirical observation and measurement of information numerically. Positivist advocate cause and effect relationship. Therefore, they believe in examining causes that influence outcomes. According to Creswell (2003), in positivist tradition, "an individual begins with a theory, collects data that either supports or refutes the theory and then makes necessary revisions before additional tests are conducted" (p. 7). They usually begin with a hypothesis to be tested.
- 3. Associated Phrases:** Qualitative researchers use common phrases such as 'field work,' 'ethnographic,' 'naturalistic,' 'grounded theory,' and 'constructivists.' On the other hand, phrases common to quantitative researchers are 'experimental,' 'empirical,' and 'statistical.'
- 4. Goal of Investigation:** The main goals of qualitative study are to explore, discover, try to understand the meaning people have constructed, and provide a rich thick description. Qualitative researchers believe that there is always a meaning embedded in people's experiences and that this meaning is revealed through researchers own perceptions (Merriam, 1998). Discussing about the goal of qualitative research Merriam (1998) comments, "words and pictures rather than numbers are used to convey what the researcher has learned about a phenomenon" (p. 8). It also helps in generating hypothesis. Hypothesis testing, predicting, describing, and confirming with concrete data are some of the important goals of investigation in quantitative study. Generally quantitative investigators are concerned with testing existing theories and concepts.
- 5. Design Characteristics:** The nature of qualitative research is quite flexible. Researcher can go to the field without much plan and still collect data. The researcher can adapt and make changes depending on the context of study. The type of data collected can largely depend on the situation of the research site. Therefore, it is evolving and emergent in its characteristics. However, if

a research is carried out for thesis, dissertation or for funding agencies you have to have a well planned design ahead of time. Quantitative research on the other hand is more structured and predetermined. The type of data and how it will be collected are all decided well in advance. A researcher has no freedom to adapt to the situation under study.

6. **Sample:** One important point of comparison is the research sample. Qualitative researchers always have a small sample size and the selection of the sample is non-random. It is always based on the idea of purposeful sampling. Therefore, sample selection is based on some concrete criteria which can generate meaningful data. Quantitative researchers on the other hand always have large samples and it is often selected on random basis. So anybody in a given population has high probability to be selected as a sample.
7. **Data Collection:** In qualitative research, the researcher is considered to be a primary instrument for data collection. The researcher has to visit the field in person to interview, observe, and look at the documents to collect relevant data. This provides opportunity for the researcher to be responsive and adapt to the circumstances. When a researcher is in the field interacting with participants it allows the researcher to record meaning conveyed through non-verbal aspects which is far from reach in quantitative approach. On the other hand, quantitative researchers use inanimate instruments such as scales, tests, surveys, questionnaires, and computers to collect data.
8. **Mode of Analysis:** Qualitative data are analysed inductively by the researcher whereas quantitative data are analysed deductively by using statistical methods. Through inductive strategy qualitative researchers build concepts, theories, and hypothesis rather than testing existing theories and hypothesis as in quantitative study. One good thing about qualitative research is the researcher can start analysing the data collected in the field while the study is on progress. As the study evolves, the researcher can take advantage of the situation to clarify and confirm the data gathered from the participants, which can enhance the validity and reliability of the findings. To make the work easy for the researcher, both approaches now have computer software available to analyse the data.
9. **Findings:** The final and the most important point of comparison between the qualitative and quantitative approaches are on the findings of the research. Qualitative study findings are always comprehensive, holistic, expansive and richly descriptive. It is often represented in the form of themes, categories, concepts, tentative hypothesis, and theories. Quantitative findings on the other hand are precise and it is numerical.

Once the novice researchers are familiar with all the above points of comparison, it would be advisable to consider the six crucial steps presented by Punch, (2001).

Six Steps to Consider While Choosing a Research Approach

Punch, (2001) suggests novice researchers to reflect on the six steps when faced with a dilemma of choosing between quantitative and qualitative approaches. I have experienced that considering these steps vigilantly and carrying out some exercise up and down these steps helps the novice researchers to opt for the right approach.

First, go back to your questions and ask what precisely am I trying to find out. On this first step, some interaction between the questions and your guiding principles is useful. At this stage, content and research questions come first and methods come later. Some

questions can be answered only by quantitative method and some questions can be answered only by qualitative method. We should have a common understanding that to a large extent questions affect method. It can be otherwise too but it is useful to focus on the main direction of influence i.e question to method. Otherwise there is a risk of starting with methods and adapting research questions to them.

Second, are we interested in making standardised and systematic comparisons using numerical data or do we really want to gain an in-depth understanding of the phenomenon or situation in its context? Qualitative study is a small scale research aiming to carry out in-depth study of the participant's lived experiences. It is exploratory in nature, field focused, open-ended, has interpretive character, and provides rich and thick description. Generally this type of study cannot be generalised or transferred. The type of information to be collected emerges from participants during the research. Therefore, as a researcher if you have time and resources to commit to all these vital aspects of qualitative approach, it would be the best option. It also provides room for the researcher to be "innovative and to work more within researcher-designed frameworks" (Creswell, 2003, p. 23). On the other hand, quantitative study is a large scale research aiming to understand the general view of the phenomenon and it is usually generalisable. It is widely used to test a theory or explanation. The type of information to be collected is predetermined before the study. This approach would also require some statistical background because the type of data may be numeric gathered on scales of instruments.

Third, check what the literature says about different methods to the topic that you have chosen. Reading a lot of research papers in journals and books will be a good exercise to look at how other researchers have dealt with your/similar topic.

In the **fourth** step, the researcher will have to consider practical aspects and resources. These may involve time, money, the availability of samples and the data, access to the research settings, other implications, etc. Providing adequate attention to these areas would help the novice researcher to choose the right approach. For instance, if the researcher has adequate time and budget it would be good to carry out qualitative study. Sometimes the researcher might have developed the best proposal in the world and have all the required resources but the researcher has not been able to carry out the study because at the last minute he/she discovers that the boss did not sanction the leave. So right from the planning stage all these minor but crucial areas of a research have to be considered.

Fifth, consider the knowledge pay off. It is imperative that you consider the most appropriate approach that will produce meaningful insight or knowledge that would contribute to the existing knowledge. It will largely depend on the type of topic the researcher has chosen to study. Some topics would be suitable for qualitative approach but cannot generate meaningful data if you employ quantitative approach and vice versa.

Sixth, selection of an approach largely depends on the type of philosophical and theoretical orientation the researcher has. Because of your philosophical and theoretical orientation and sometimes due to your personal inclination, you would choose one approach over the other. According to Creswell (2003), "an individual trained in technical, scientific writing, statistics and computer statistical programmes who is also familiar with quantitative journals in the library would most likely choose the quantitative design" (p. 22). If you have a flavour for literary writing and some experience in conducting open-ended interviews and observations, qualitative approach would be your choice.

Finally, I have included one more point "**audience**" from Creswell (2003) which would be relevant for our graduate students. If you are a student and doing research in partial fulfillment of your course, Creswell advises you to consider to whom you are

going to report your research work. The type of design you choose should be supported and be familiar to your adviser/s.

Careful consideration and in-depth look at each of these steps will make you more fit and conscious of merits and demerits of each approach. The more comfortable you become with any approach, the easier it will be for you in choosing the approach. As a social researcher, we should know that certain research topic calls for specific approach because with all things that we do in our life it takes time to get used to these approaches. Once you get the taste of these approaches it becomes easier to use them.

However, as you gain some experience in conducting research you could go for a mixed approach, which is a combination of both qualitative and quantitative approaches. As a researcher we should understand that no one method is good or bad. In highlighting this, Denzin and Lincoln (2005) remarks that:

Each work tradition is governed by a different set of genres; each has its own classics, its own preferred forms of representation, interpretation, trustworthiness, and textual evaluation. Qualitative researchers use ethnographic prose, historical narratives, first person accounts, still photographs, life histories, fictionalized facts and biographical and autobiographical materials, among others. Quantitative researchers use mathematical models, statistical tables, and graphs, and they usually write about their research in impersonal, third-person prose. (p. 12)

Therefore, both qualitative and quantitative approaches have their own strengths and weaknesses. Building on the strengths and capitalizing on the weaknesses of each other, the mixed approach is becoming more and more popular now.

References:

- Creswell, J.W (2003). *Research Design: Qualitative, quantitative, and mixed methods approaches*. (2nd ed.). California, Thousand Oaks: Sage Publications, Inc.
- Denzin, N.K & Lincoln, Y.S (eds.) (2005). *The sage handbook of qualitative research*. (3rd ed.). California, Thousand Oaks: Sage Publications, Inc.
- Merraim, S.B (1998). *Qualitative research and case study applications in education*. San Francisco: Jossey-Bass Publications.
- Punch, K.F (2001). *Introduction to social research: Quantitative and qualitative approaches*. London: Sage Publications Ltd.

Formative Assessment: The Path from Misunderstanding to a Common Understanding

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Between September 2005 and May 2006 an internal "Review of the Continuous Formative Assessment Project" was carried out by CAPSD. By now, the review report has been printed and is ready to be distributed. The findings and recommendations show that there is some confusion concerning the term "formative assessment" and there is still a long way to go until it can be implemented in schools. But despite the lack of a common understanding, a consensus has been reached insofar as the topic is regarded to be of paramount importance. (e.g. Review Report, Recommendation 1: **Continuous Formative Assessment must receive a top priority in the education development program**)

In 1999, CAPSD published a Teacher's Guide "Continuous Assessment – Classes VI to X (Class-work, Homework and Project work)". On page 3, we can find the following assessment weighting for Continuous Assessment: Class PP – V 50%; VI 50%; VII 20%; VIII 20%. Taking into consideration the definitions given on the previous pages of the Teacher's Guide, it is obvious that assessing and marking "class-work, homework and project work" is most definitely summative assessment.

Only one year later, in 2000, the Ministry of Education published "A Guide to Continuous Assessment with Particular Emphasis on Formative Assessment". Formative assessment tools and techniques are directly linked to the Teaching – Learning – Cycle and are supposed to have a positive impact on the results of summative assessment (see page 12, Edition 2003)

The fact that these two guides were published in quick succession has contributed to the existing confusion among teachers. When teachers, lecturers or officials mention "continuous assessment", one does not really know if they refer to continuous summative assessment or formative assessment. To make it even more difficult for the

educators, the cover of the two booklets is almost the identical color: "pink".

What has to be done to develop a common understanding? The concept must be clarified and all levels of the system should come to accept a common definition. In my opinion, it is mostly the word "continuous" which is used very differently by different stakeholders. This is one of the reasons that led to considerable confusion and misunderstanding. By definition, formative assessment means that learners are assessed continuously. Summative Assessment that is carried out regularly in class or school level takes place continuously as well. During my recent consultancy at the two Colleges of Education in spring 2007, the following proposal was developed together with the lecturers. Hopefully, this definition will meet with general approval and might help to clarify the concept.

Formative Assessment (FA)

Definition:

"Formative Assessment encompasses all those activities undertaken by teachers and/or students which provide information to be used as feedback to modify the teaching and learning activities in which they engage" (Black and Willian. 1988, in Marzano, 2006).

Formative assessment is an **integral part of the teaching and learning process**. It evaluates the student's learning process and it is **carried out continuously** during the course of instruction.

Through formative assessment a teacher is becoming aware of how the students are progressing in the learning process. The information the teacher receives while carrying out formative assessment allows him or her to **make beneficial changes in instruction**, for example; dispel doubts of students, give remedial help to individual students, offer more opportunities for practice, design different activities for different groups of students, revise or re-teach the lesson etc. Characteristics of formative assessment include that it should take place frequently, give students a clear picture of their progress and how they might improve, and provide encouragement (see Marzano, 2006)

Formative assessment can comprise of a **variety of activities** such as observation, analysis of student work, questioning, class discussion, specific verbal or written feedback, conferences, self-assessment and peer assessment.

Formative assessment can be carried out more **informally**, e.g. through questioning and giving oral feedback on the spot. **More formal methods** are the use of checklists or a rubric or keeping records of observations through anecdotal records, carrying out formative assessment in a more formal way through keeping records enables the teachers to consistently plan the **necessary interventions and follow-ups** to support the students' learning process.

Some of the **main aims** of formative assessment are:

- To provide information for both the teacher and the learner to reflect on the learning process and the level of achievement
- To help teachers pay attention to individual differences and learning styles of the learners
- To make learners realize how well they can achieve the objectives and what they need to do and learn in order to improve
- To allow learners to evaluate themselves and also in peer groups
- To help teachers find out which teaching methods and materials work best

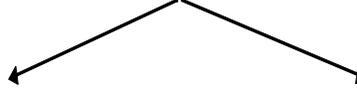
Summative Assessment (SA)

Summative Assessment (SA) takes place **after a period of instruction**, e.g. at the end of a chapter/unit, a block or a term and it requires the teacher to give marks or grades to **indicate the level achieved by the learner**. Summative assessment consists of school-based assessment (classroom-tests, class work, homework, project work) and external examinations.

Both, **formative assessment** and **summative assessment** serve **different purposes**, but both of them are needed to hit the target. Clarke (2001) uses the following gardening analogy to help to describe the different purposes:

"If we think of our children as plants (.....) **summative assessment** of the plants is the process of simply measuring them. The measurements might be interesting to compare and analyze, but, in themselves, they do not affect the growth of plants. Formative assessment on other hand, is the garden equivalent of feeding and watering the plants – directly affecting their growth".

Assessment
(Continuous Assessment)



Formative Assessment (FA)

internal (Continuous SA)

- e.g. checklists
- e.g. rubrics
- e.g. portfolio

informal

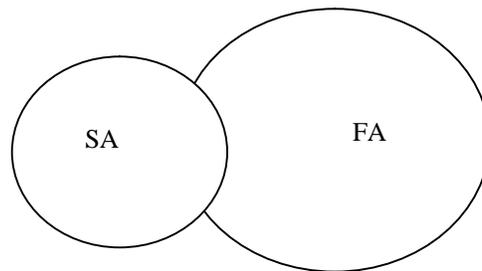
- e. g. oral feedback on the spot
- e.g. questioning/answering

Summative Assessment (SA) **Formal**

- class-tests
- class work
- homework
- project work

external:

- exams



The intersection between the two circles shows one difficulty: Sometimes formative assessment (FA) and summative assessment (SA) are very close or even overlapping (e.g. the information a teacher gets from evaluating the homework¹ of this students can be used in a formative or summative way). The different sizes of the circles are supposed to point out that in the future more “energy” in the daily teaching – learning process should be available to focus on formative assessment with the final purpose to improve results in summative assessment.

Teachers on the Threshold

While visiting some of the model schools, observing lessons and speaking to teachers about formative assessment I received the impression that **some teachers are “almost there” and only need some additional support** to develop real interest in the learning process (instead of focusing mainly on their teaching). Example: Towards the end of the learning activity a teacher usually asks, “Have you finished?” The faster or brighter ones among his or her students shout with enthusiasm “Yes, Teacher”. If , however, the teacher asked, “Who needs more time?” he or she could find out which students need additional help. Some of the teachers were very open to my feedback, which indicated that they were becoming more and more aware of how they could improve their support of their students’ learning process.

During the **present curriculum reform** in English, Mathematics and Dzongkha some of the principles of formative assessment have been implemented in these subjects.

Dimension of time

The base for successful formative assessment is a change in attitude. Teachers have to become keen on (even devoted to) knowing and understanding what is going on in their students' minds during the whole learning process. The interaction between teacher and students must improve; following-up activities have to be chosen by the teacher according to the insights gained during the formative evaluation process. Teachers who are used to "teaching to test" need time, training and support to internalize a new concept, to develop a new attitude and to develop confidence by assuming greater responsibility. If too much of a teacher's time is taken up by grading, marking and reporting, there is less time for supporting the learners.

Revision of "A Guide to Continuous Assessment with Particular Emphasis on Formative Assessment"

The projects with consultancies from Zurich University of Teacher Education were focusing on aspects of formative assessment. They were to support the development of "A Guide to Continuous Assessment with Particular Emphasis on Formative Assessment" (CFA Guide).

According to the internal "Review of the Continuous Formative Assessment Project" as well as in the opinion of many teachers and lecturers, the CFA **Guide is not reader-friendly** enough. It appears to be "overwhelming". This fact will have to be taken into consideration during the planned revision of the CFA Guide.

Through some of the formative assessment techniques and tools presented in the CFA Guide, many teachers felt exposed to a lot of additional pressure. Introducing a few informal formative assessment practices in a revised guide could work as an eye-opener for how enjoyable and fascinating learning and teaching can be.

It might be very helpful to check the possibility of producing a video on the good practices of formative assessment in Bhutanese schools along with the revision of the CFA Guide.

Conclusion

The findings in the "Review of the Continuous Formative Assessment Project", lesson-observations in schools and discussions with teachers leave on doubt that the implementation of formative assessment in Bhutanese schools is of utmost importance. The first step to face the existing confusion will be to clarify the concept. Based on a common understanding of formative assessment will meet with general approval a clear policy and strategy scan be developed. In the future, carrying out formative assessment practices results in summative assessment.

A Revised, reader-friendly guide along with a video on the successful practices in Bhutanese schools would be an invaluable benefit for teachers. But because the base for successful formative assessment is a change in attitude, above all, there is a need for consistency, patience, imagination and commitment.

Literature

Curriculum and Professional Support Section (1999) Teachers' Guide Continuous Assessment (Class-work, Homework and Project work) Classes VI to X. Thimphu: Ministry of Education.

¹ My personal opinion: it is not "just" to give marks for homework because one does not know under which conditions the student had to do his or her homework.

Clarke, S. (2001). Unlocking formative assessment – Practical strategies for enhancing Pupils' learning in primary classroom. Bristol: Hodder Murray.

Marzano, R. J. (2006). Classroom assessment 7 grading that Work. Alexandria, VA: ASCD Association for Supervision and Curriculum Development.

Ministry of Education, Bhutan (2003) A guide to continuous assessment with particular emphasis on formative assessment. Thimphu: Ministry of Education.

ANNEX III: Formative Assessment (FA)

(The following paragraphs will be integrated in the revised Teaching Skills handbook of the Colleges of Education)

Definition:

<<Formative Assessment encompasses all those activities undertaken by teachers and / or students which provide information to be used as feedback to modify the teaching and learning activities in which they engage>> (Black and William, 1998, in Marzano, 2006).

Formative Assessment is an **integral part of the teaching and learning process**. It is an evaluation of student's learning and it is **carried out continuously** during the course of instruction.

Through FA a teacher is becoming aware of how the students are progressing in the learning process. The information the teacher gets while carrying out FA allows him or her to **make beneficial changes in instruction**, for example: clarify doubts of students, give remedial help to individual students, offer more opportunities for practice, design different activities for different ability groups of students, revise or re-teach the lesson etc. characteristics of FA include that it should be frequent, give students a clear picture of their progress and how they might improve, and provide encouragement (see Marzano, 2006).

FA can take a **variety of activities** such as observation, analysis of student work, questioning, class discussion, specific verbal or written feedback, conferences, self assessment and peer assessment.

FA can be carried out more **informally**, e.g. through questioning and giving oral feedback on the spot. More formal methods are the use of checklists or rubrics or keeping records of observations through anecdotal records. Carrying out FA in a more formal way through keeping records enables the teachers to plan consistently the **necessary interventions and follow-ups** to support student's learning.

Some of the **main aims** of FA are to:

- Provide information to both the teacher and the learner to reflect on the learning process and the level of achievement
- Help teachers pay attention to individual differences and learning styles of the learners
- Make learners realize how well they can achieve the objectives and what they need to do and learn in order to improve

- Allow the learners to evaluate themselves and also in peer group
- Help teachers to find out what teaching methods and materials work best

Summative Assessment

Summative Assessment (SA) takes place **after a period of instructions**, e.g. at the end of a topic, a chapter/unit, a block or a term and it requires the teacher to give marks or grades **to indicate the level achieved by the learner**. SA consists of school-based assessment (classroom-tests, class work, homework, project work) and external examinations.

Both, **FA** and **SA** are fulfilling **different purposes**, but both of them are needed to reach the goals. Shirley Clarke (2001) uses the following gardening analogy to help to describe the different purposes:

<<If we think of our children as plant (...) **Summative Assessment** of the plants is the process of simply measuring them. The measurements might be interesting to compare and analyze, but, in themselves, they do not affect the growth of plants. **Formative Assessment**, on the other hand, is the garden equivalent of feeding and watering the plants – directly affecting their growth>

Literature

Ministry of Education, Bhutan (2003) A guide to continuous assessment with particular emphasis on formative assessment. Thimphu: Ministry of Education.

Clark, S. (2001). Unlocking formative assessment – Practical strategies for enhancing pupils' learning in primary classroom. Bristol: Hodder Murray

Marzano, R. J. (2006). Classroom assessment & grading the work. Alexandria, VA.: ASCD Association for Supervision and Curriculum Development.

A Literature Review on Assessment in Mathematics Classroom

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Introduction

Many teachers tend to equate assessment with testing of child's mastery of the content knowledge taught previously. It is important to think much more broadly, according to National Council of Teacher of Mathematics' (NCTM) *Assessment Standards for School Mathematics* assessment is the process of gathering evidence about a student's knowledge of, ability to use, and disposition toward, mathematics and of making inferences from that evidence for a variety of purpose (Reys, R.E., Lindquist, M.M., Lambdin, D.V., Smith, N.L. & Suydam 2001: 51).

Therefore this paper presents the importance of integrating alternative forms of assessment practices in mathematics classroom. Alternative forms of assessment such as observation, questioning, mathematics journals, portfolios and rubrics are discussed briefly stating their definitions, citing examples and stating advantages. Studies done by different educators on varying assessment methods are also discussed to provide evidence of effectiveness in using these different assessment methods in the classroom.

The four phases of assessment process in implementing any of these alternative forms of assessment are also discussed. The limitations of traditional assessment practices, such as paper and pencil tests and routine assignments are also discussed briefly. The purpose of this paper is also to inform mathematics teachers that there are alternative assessment practices that could make teaching learning experiences more interesting and thus achieve the wider goals of mathematics education.

Rationale

For the past few years it has been noticed that there is a decline in the quality of mathematics education in Bhutan especially in the middle secondary schools. Learning mathematics has been a nightmare for many Bhutanese students (CAPSD 1996) and Bhutanese students are poor in mathematics (Kuensel 2001). Most middle year students perform poorly in subsequent grades since they lack understanding of basic concepts that are required for learning further concepts. Such discrepancy can be improved with good assessment practices. It is known that in most mathematics classrooms assessment practices are limited.

The most common assessment practices are class tests and assignments. Such assessment practices have existed for the last few decades and studies (Columba & Dolgos 1995 cited in Koca et al. 1998: online) indicate that evaluating student computational skills by such traditional methods cannot provide enough information related to components of the overall evaluative process needed in mathematics. These traditional assessment practices encourage a student to learn mathematics for the sake of examinations focussing much on rote learning, practice and drill methods. Such beliefs affect students' learning.

Students' learning experiences are likely to contribute to their beliefs about what it means to learn mathematics and in turn, their beliefs about mathematics are likely to influence how they approach new mathematical experiences (Spangler 1992: 148). According to NCTM students' beliefs exert a powerful influence on evaluation of their own ability, on their willingness to engage in mathematical tasks, and their ultimate mathematical disposition (Spangler 1992: 148).

It is acknowledged that the typical mathematics curriculum of a generation ago emphasized teaching facts, standard procedures, and skills to groups of passive recipients. Such a mathematics curriculum did not prepare students for the challenging era ahead of them. As our educational goals broaden in scope, such assessment measures became increasingly inadequate. Clarke, Clarke and Lovitt (1990: 118) also state that there is a growing consensus that traditional paper and pencil tests are inadequate in providing useful assessment information such as understanding and misunderstanding of concepts, ability to define, formulate and refine problems and attitudes in learning mathematics.

Assessment is most valuable when it is an integral part of the teaching and learning process, not merely a tool for ranking students, but a mechanism for influencing instruction. Mathematics educational goals in the present situation includes skills and attributes that go beyond specific mathematical content, for instance, problem solving skills, attitudes, high order thinking and creativeness. Although there is consensus on the importance of such learning objectives, they have seldom been the focus of assessment by most of our mathematics teachers.

The National Curriculum of Teachers of Mathematics has reported that curriculum, designed on the finest principles with the best intentions, effects no change in classroom practice if teaching and assessment procedures remain the same (Brosnan & Hartog 1993: online). Realizing this, mathematics curriculum should address alternative assessment practices which offer students opportunities to demonstrate the full range of their mathematical power, including such important aspects as communication, problem solving, inventiveness, persistence, and curiosity. Pandey (1990 cited in Brosnan & Hartog 1993: online) supports the idea that to realize the full potential of the assessment process what is required is that the professional development of teachers should accompany the assessment tasks to measure student productivity and performance on tests that require mathematical thinking.

It is very important that teachers practice alternative assessment methods and make these transparent for the students they are assessing. A National Statement on Mathematics for Australian School has stated in Issues in Mathematics Education for Middle School (1994: 21):

What students learn and how they learn will be influenced by what they think teachers and examiners value. Their view of what really counts in learning and doing mathematics will relate quite closely to what is assessed. If we wish students to develop a range of knowledge, skills, ways of thinking and habits of thought in mathematics, then we have to ensure that we are assessing how well they are doing so.

If assessment is limited to paper and pencil tests and assignments, students restrict learning of mathematics to examination purposes and ranking themselves against peers. If teachers bring to their notice that they are being assessed beyond specific mathematical content, for instance for persistence, systematic working, efficient and effective organisation, accuracy, conjecturing, modelling, creativity and the ability to communicate ideas and procedures clearly, then students will extend their mathematics learning accordingly.

It is important that mathematics teachers in the present classroom situations change from traditional to alternative assessment practices. This movement toward alternative assessment has been not only advocated by organisations such as NCTM and mathematicians around the world but also by educators from other subject fields (Cain, Kenney and Schloemer 1994: 93). In the following sections alternative assessment methods and their integration into teaching/learning practices are briefly discussed.

Alternative Assessment

Alternative assessment is a form of assessment that allows students to demonstrate what they can do in mathematics in a meaningful context. Some examples are portfolios, performance assessments, demonstrations, checklists, self-assessment, peer assessment, learning logs and journals (Web Definition: online). It is also defined as any type of assessment in which students *create* a response to a question or task. In traditional assessments, students *choose* a response from a given list, such as multiple-choice, true/false, or matching.

Since there is a range of alternative assessment methods, available to a mathematics teacher in order to assess effectively within a mathematics curriculum, it is necessary to emphasise the broad scope of educational objectives, to be met by various assessment tools that are sensitive to process as well as product. When thinking about assessment in mathematics, it is important to consider *what* is being assessed. Zevenbergen, Dole and Wright (2004: 84) have reported that traditional ways of assessment often address relatively trivial aspects of mathematics knowledge and skills. More complex aspects such as attitudes towards mathematics, problem solving ability and mathematical thinking are more difficult to assess through such simple tools.

Assessment Process

In assessing students it is necessary to go through the four phases of an assessment process: (1) identifying what is going to be assessed and what will be the most appropriate tool for collecting the information, (2) collecting information, (3) analysing and interpreting the information, and (4) using the results.

In initial stages of planning assessment, the teacher needs to consider the actual purpose of assessment. This will inform what assessment methods will be most appropriate for collecting the information needed. For example, if a teacher needs information about students' conceptions about fractions, it becomes necessary to think about the best method for collecting such information, observing students when they are working through tasks, listening to conversations with peers about tasks, and using a worksheet, could all be useful tools for assessment.

Having collected the information, it is necessary to think about how to make sense of what has been collected. This involves data relating to individual students, to a group and to the whole class. Analysing one student's responses can be useful in determining what strengths or problems that student may have with fractions. Collectively, the data may show that whole class is making a common mistake and that there is something else other than an individual misunderstanding, so something in the teaching process may need to be reconsidered such as teaching the process again using a different approach.

Once this data has been interpreted, consideration of how the assessment results will be used must be undertaken. Individual results may be used to inform intervention strategies to support development of students' knowledge. Class results may be used to plan whole class teaching or programs so that revisions of previous learning may be implemented. For example, the whole class may undertake more work with fraction kits.

Once the results are diagnosed the next step is to consider how the results will be reported to an intended audience such as students, parents and school administrators, so that the intended outcomes of the assessment are communicated. This could be the students' mathematical knowledge, their attitude towards mathematics, mathematical thinking and the ways in which they are using mathematics.

Some Alternative Assessment Methods

Some of the alternative assessment methods that are important in mathematics classrooms are observation, questioning, self-assessment, portfolios and rubrics, which are explained in the following sections. The integration of such assessment tools in teaching learning process is also briefly explained.

Observation

One of the most commonly used assessments in the classroom is observation. During the instructional process every teacher is continually offered a wealth of assessment information. Many act on this information, but few document it. Many studies (Reys et al. 2001, Zevenbergen, Dole and Wright 2004, Clarke, Clarke and Lovitt 1990 and Hatfield et al. 2005) have revealed that documenting observations is ignored by most of the teachers. However, in everyday interactions, observation is a key tool for judgment and many teachers' intuitive knowledge about students comes through this. To fully utilise observation as an effective assessment tool, teachers need to articulate what they want to observe how they will do it and how they will record their observations.

Suppose at one time you may want to observe a particular student participating in group work. It is helpful to plan what you will observe by framing questions such as:

- Does Tashi initiate or wait for others to start the discussion or address the problem?
- Is there a willingness in him to listen to what others say?
- Does he challenge or accept the ideas of his friends?
- Is he persistent? Does the problem interest him?

With such observations, you can gain insight into a student's attitude and disposition toward mathematics. This knowledge, in turn, can help you to plan ways to encourage strengths and work on weaknesses of the particular student. A particular student's mathematical knowledge such as drawing illustrations in solving word problems and in geometrical constructions can be assessed with observation during instructional process.

Recording these observations will be useful for making anecdotal records, which can be done in many ways. An effective method is to record the comments on small index cards for each student, which can be taped on a single clipboard. Any time you want to enter notes about a particular student, you just flip to his or her card.

Another form of recording observations is the use of checklists. The records can be made by checked off items if using an outcomes list or specific list of expected behaviours, or through the use of anecdotal records against the student's name.

Questioning

Asking questions is an art that needs to be developed and practiced by every teacher. According to NCTM 2000 (Hatfield et al. 2005: 61) one aspect calls for teachers to limit the number of questions that can be responded to with a yes/no answer or with a short, one-word response. There are two main forms of questions – closed and open. A closed question provides some very focused questioning such as, 'What is the mean of 3, 4 and 5?' where there is only one answer, and which students can get either correct or incorrect, or one identified method for solving a task. Sullivan and Lilburn in contrast (1997 cited in Zevenbergen, Dole & Wright 2004: 94) argued that open-ended questions typically do not have an obvious path of resolution and have multiple answers.

An open-ended question provides for greater diversity of responses across a range of levels of understanding. Consider the question, 'If the mean mark is 6, what 5 numbers could make this mean?' Such a question allows a range of responses that could include numbers that are all same through to very large and small numbers as well as fractions and decimals. In this way the teacher has greater access to students' depth of understanding of the concept of a mean, as well as catering to a range of understandings across the classroom.

To change a closed to an open-ended question, a simple strategy can be carried out by considering the answer of a closed question, for example, 'if the area of a rectangle is 300 sq cm, find the dimensions?' There will be a number of correct and different answers to this question. Zevenbergen (2001 cited in Zevenbergen, Dole and Wright 2004: 94) stated that open-ended questions provide a wide entry point, since the students can respond to the questions in ways that allow for their particular learning levels.

Self Assessment

A study by Petit and Zawojewski (1997: 474) in a pilot study of high school assessment indicated that students engaged in a self-assessment process were able to perform better. It has also been stated by Clark et al. (1990: 123) that one of the most constructive and empowering educational goals we might frame would be to equip students to monitor their own progress.

Many studies (Petit & Zawojewski 1997, Clarke, Clarke & Lovitt 1990, Swan 1993, Zevenbergen, Dole & Wright 2004, Hatfield et al. 2005 and Reys et al. 2001) have strongly encouraged a focus on self-assessment by the students. It has also been stated that students are encouraged by self-assessment to learn about themselves as a mathematics student. Children become responsible during self-assessment. They become aware of their own mathematical knowledge, feelings of confidence and attitudes towards mathematics. Providing children with an opportunity to self assess informs teachers of the children's difficulties with the content, brings awareness of their concerns, builds a good rapport between teacher and students, and helps a teacher identify appropriate measures of improving learning instructions.

Self-assessment also helps students to cope with the problems of mathematics anxiety. Teachers can detect symptoms of mathematics anxiety in a particular child. Research by Heuser (Hatfield et al. 2005: 63) has found that self-assessment is associated with less mathematics anxiety and hence increased understanding of mathematics content. Self-assessment creates awareness in one's own mathematical knowledge, feelings of confidence, and attitude toward mathematics thus lowering mathematics anxiety.

Mathematics Journals

Journals are a form of record keeping in which students respond to specific problems or questions from the teachers. A student journal is maintained usually after class hours at home. Asking students to write in a personal journal about their mathematics learning, lessons and experiences can provide the teacher with valuable insights that would otherwise be inaccessible. Further the NCTM 2000 Standards (Hatfield et al. 2005: 63) has advocated that by asking students to explain in writing the rationale for the choices they make, helps gain insight into how students are thinking about mathematics.

The questions in the journal that help students write about the focus of assessment are an important consideration. Questions that can be posed may include:

- What did I learn today or this week?
- What was difficult for me to understand?
- What was the most interesting part that I learned?

- What are my weaknesses and need more help?
- How do I relate whatever I learnt to real life situations?
- Am I satisfied with how my teacher taught this lesson or topic?

These types of questions are important in maintaining a journal as they allow students to express freely the issues that they come across in mathematics classrooms. But it should be discussed with the students if accessibility to their journals should be kept between the student and teacher only or more open so that everyone has access to it.

Portfolio

The other assessment tool, which has been identified as potentially valuable and is currently underused in many parts of the world, is a portfolio. A portfolio is a collection of selected student work. The selected item can be a student's best or most significant efforts across a range of mathematics activities.

The collection often is a yearlong reflection of one's work. These concrete examples can show the teacher or parent the student's performance in more detail than would an abstract number or letter grade.

It has been justified by most of the studies (Crowley 1993, Koca, Lee & Jin 1998: online, Lambdin & Walker 1994 and Hatfield et al. 2005) that portfolios claim greater validity than any other assessment method. Columba and Dolgos (cited in Koca, Lee & Jin 1998: online) state that portfolio assessment is supported by many educators, because a portfolio is considered as a collection of a student's work representing his/her mathematical power, a showcase for a student work or a place where many types of assignments, projects, reports, and writing can be collected. The idea of portfolio is close enough to satisfy educators' beliefs that assessment is most effective when it becomes an integral part of instruction. The findings of the research conducted by Wolfe (in Koca et al. 1998: online) states that

Through the use of large-scale portfolio assessment, students can realize educational outcomes that are not afforded in an educational system that focuses on traditional goals such as acquiring content knowledge and performing well on standardized multiple-choice tests. Students were able to reflect on and formulate statements about their

personal beliefs and values, their understandings of themselves as learners and writers, their abilities and skills as writers, and their goals and aspirations.

Since some of the main goals of portfolios are to record a student's thinking, growth over time, mathematical knowledge, views as mathematicians, and the problem solving process, a variety of items can be included in the portfolio to achieve these goals. A richer student profile is derived when the portfolio contains a wide range of assessment artefacts. Such portfolios contain open ended questions, a mathematics autobiography, group project report, problems posed by students, several solutions to a challenging problem, a table of contents, a book review, student made concrete representations, audio tapes of student teacher interview and newspaper and magazine articles to name but a few items.

A portfolio can be managed over a term or even over a yearlong period of the school year. It is important, therefore, to introduce the concept at the beginning of the year. Students should be briefed about the types of activities from which they can select portfolio items, purpose of the portfolio, the grading criteria, the format of presentation, and the due dates. Students should also be reminded over the course of the term to be thinking about items to include in their portfolio. A student can submit mathematical products of his or her choice and, similarly teacher can also contribute an item. This joint venture gives both the student and teacher a voice in creating the profile of the student's performance and attitudes. It is further enhanced by various activities represented in the submission categories such as group work, individual work, a class

presentation, writing, problem solving, reflections and standard testing. Evaluation is not needed for all of a portfolio. For example if the primary function of the portfolio is to display a student's accomplishments, the teacher has no reason to evaluate the individual's work again. Nonetheless, some comments about the collection may be appropriate. If, however, the merits of the portfolio are to be assessed, then identifying evaluation guidelines is important. A study by Stenmark (cited in Crowley 1993: 546) proposes an excellent starter set of criteria such as problem solving skills, ability to make connections, ability to communicate mathematically, and attitudes toward mathematics and self. It is also recommended that only two or three of the criteria be evaluated at a time and that the students be informed in advance of which criteria will be evaluated.

Rubrics

A rubric is a guideline for rating student performance. The rating scales may extend from zero to ten points, which may provide specific or very general descriptors of the teaching/learning outcomes. The guidelines specify what a performance is like at various levels (superior, excellent, good, poor) and, usually, on various learning attributes such as knowledge, comprehension, application, precision, and evaluation.

According to Reys et al. (2001: 54) a rubric is a rating scale designed for use with the students for a particular task. In scoring rubrics, unlike awarding points for tests where the number of correct responses is counted, performance is scale marked along a continuum so that the overall performance is rated. Rubrics have a number of very good functions for teachers. By forcing the teacher to consider what will constitute evidence of learning, and the degree of learning, the rubric documents can determine the critical elements of the teaching outcomes (Zevenbergen, Dole & Wright 2004: 99). The rubrics specifically target the key aspects of the teaching /learning process.

Two methods that are commonly used are analytic rubric and holistic rubric. In analytic scoring, specific points are identified in detail and points are given if the student's response includes that particular point. The scales generally are designed to describe the specific outcomes. The following rubric is a specific marking rubric which shows what a teacher is expected to observe and how it will be recorded. This rubric is quite specific and is targeted at the intended learning outcomes of a very specific teaching episode.

0	Shows little or no understanding of place value. Cannot trade. Subtraction incorrect.
1	Places numbers in right columns, trades but can only do so in one column. Subtraction incorrect due to incorrect recording.
2	Place value recorded OK. Subtraction in tens but does not transfer to units column
3	Place value OK. Trading done correctly but records units place value incorrectly when trading 10 to 1.
4	Place value, trading and subtraction all completed correctly. Justifies response.

In a holistic rubric the student's entire responses are considered and assigned with points. Such scoring rubrics allow teachers to make subjective decisions about student's thinking. This rubric is used when an overall performance judgement is required and in large-scale assessments. An example of a holistic rubric is shown below which could be used for problem solving work by students.

4	Exemplary work	Goes well beyond expectations of the task (for example, problem solved in more than one way, or student has extended the problem and completed a more difficult version.
3	Excellent work	Task as stated is completed with no errors, work is clear and complete.
2	Good work	Task is completed with only a few minor errors. Work shows understanding of the problem and uses anticipated approaches.
1	Needs more instruction	Student work may include evidence that the problem was not understood completely; may use inappropriate methods or faulty reasoning; may make significant errors.

Conclusion

The purpose of assessing young children is to collect information necessary to make important decisions about their developmental and educational needs in learning mathematics. Assessment must always guide our students with opportunities to develop mathematical abilities. Quality assessment brings the teacher and student together bringing awareness of teaching/learning during the course of instruction. Best practices for the assessment of young children include carefully selected strategies and instruments that measure specific characteristics over a period of time and in many different contexts. Appropriate assessment contributes to the teacher's ability to understand the child's needs and encourages appropriate decision making to further help the child learn effectively.

As one educational goal is to prepare a child for real world situations assessment should not be limited to measuring only the computational skills and content knowledge. There are many 'alternatives' to traditional assessment which can broaden the scope of teaching and learning and thus prepare the child for ever changing situations in the modern world. Alternative assessments such as self assessment, observation, questioning and rubrics if practised effectively, can enhance the teaching learning process making it authentic and meaningful as well as enjoyable, challenging and interesting.

Informing children what we value in assessment serves as guide for them to accomplish the required learning outcomes. To best serve learning, assessment must be integrated with curriculum and instruction. A teacher's practice of assessment is not exhaustive. Through professional development efforts by taking a course on alternative mathematics assessment, reading articles and reports and trying out new ideas is how a teacher can become a better assessor. This approach to assessment practice has been described by one mathematics teacher who expressed her feelings, expectations, and goals as follows:

I was eager to try some of the new assessment techniques that I had read about; and using them, I think that I improved my knowledge about my students learning. My goal was to find some ways to align assessment with the *Standards*... and I feel that I have met this goal. I now have some usable techniques to evaluate student communication, problem solving, reasoning, mathematical power, and mathematical disposition. I wondered how I could ever implement the *Standards*. Now I have some techniques that work for me.
(Schloemer 1991 cited in Cain, Kenney & Schloemer 1994: 99)

As she continued to build and use alternative assessment methods in her mathematics classroom, this teacher organised to meet the learning needs of all the students, began to understand how students learn, established high standards for student achievement and provided equitable and adequate opportunity for all her students.

Due to limitations of traditional assessment practices, many educators have been experimenting with alternative forms of assessment, which turned out to be more

successful in teaching and learning process. Alternative assessment can help students understand their strengths and weaknesses. Such practices provide more information about student progress and encourage students to be responsible of their own learning. Therefore, students feel as they take bigger roles in the learning and assessment processes. Moreover teachers are less burdened in grading papers. Therefore it is very important that every teacher should build on alternative forms of assessment for the students of present generation if we are to make future productive citizens out of them.

References

- Bhutanese students are poor in maths, reveals study. (2001 Nov.23). *Kuensel*, p1.
- Brosnan, P.A., & Hartog, M.D. (1993). Approaching standards for mathematics assessment. In *Assessment in Mathematics Assessment*, ERIC/CSMEE Digest. Retrieved 28th September 2005 from <http://www.ericdigests.org/1993/approaching.html>
- Cain, R.W., Kenney, P.A. & Schloemer, C.G. (1994). Teachers as assessors: A professional development. In B.A. Douglas & F.C. Arthur (Eds.), *Professional Development for Teachers of Mathematics, 1994 Yearbook* (pp. 93-101). Virginia: National Council of Teachers of Mathematics Inc.
- Clarke, D.J., Clarke, D.M. & Lovitt, C. (1990). Changes in mathematics teaching call for assessment alternatives. In T. Conney & C. Hirsch (Eds.), *Teaching and learning mathematics in the 1990s, 1990 Yearbook* (pp. 118-129). Virginia: National Council of Teachers of Mathematics Inc.
- Crowley, M. (1993). Student mathematics portfolio: more than a display case. *Arithmetic Teacher*, 86(7), 544-547.
- Curriculum and Professional Support Section (1996). *Syllabus For Class IV to VI*. Thimphu: Education Division
- Department for Education and Children's Services (1994). *Issues in Mathematics Education for the Middle School*, Department for Education and Children's Services, Adelaide.
- Greenwood, J. (1993). On the nature of teaching and assessing mathematical power and mathematical thinking. *Arithmetic Teacher*, 41(3), 114-152.
- Hatfield, M.M., Edwards, N.T., Bitter, G.G., & Morrow, J. (2005). *Mathematics methods for elementary and middle school teachers*, (5th Ed.). New Jersey: John Wiley and Sons Inc.
- Koca, S., Lee, A. & Jin, H. (1998) Portfolio assessment in mathematics education. In *Assessment in Mathematics Education*, ERIC Digest. Retrieved 28th September 2005 from <http://www.eduplace.com/rdg/res/literacy/assess6.html>
- Lambdin, D & Walker, V. (1994). Planning for classroom portfolio assessment. *Arithmetic Teacher*, 41(6), 318-324.
- Leder, G.C. & Forgasz, H.J. (1992). Perspective on learning, teaching and assessment. In G.C. Leder (Ed.), *Assessment and Learning of Mathematics* (pp. 1-23). Victoria: Australian Council of Research.

- Petit, M. & Zawojewski, J. (1997). Teachers and students learning together about assessing problem solving. *Mathematics Teacher*, 90 (6), 472-477.
- Reys, R.E., Lindquist, M.M., Lambdin, D.V., Smith, N.L. & Suydam, M.N. (2001). *Helping Children Learn Mathematics*, (6th Ed.). New York: John Wiley and Sons Inc.
- Spangler, D.A. (1992) Assessing students' beliefs about mathematics. *The Mathematics Educator*, 3(1), 19-23.
- Swan, M. (1993) Assessing a wider range of students' abilities. In N. Webb & A. Coxford (Ed.), *Assessment in the Mathematics Classroom, 1993 Yearbook* (pp. 26-39). Virginia: National Council of Teachers of Mathematics Inc.
- Vincent, M. & Wilson, L. (1996) Informal assessment: a story from the classroom. *Mathematics Teacher*, 89(3), 248-250.
- Web definitions for Alternative Assessment. Retrieved 28 September 2005 from <http://www.journeytoexcellence.org/practice/assessment/glossary.phtml>
- Zevenbergen, R., Dole, S. & Wright, R.J. (2004) *Teaching Mathematics in Primary Schools*, NSW: Allen & Unwin.

Improving the Use of Articles, Prepositions and Tenses: “Action Research Study”

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Secular education in Bhutan has developed quickly over five decades. One key decision was the adoption of English as a medium of instruction about fifty years ago whereas English was not spoken amongst the population. Even now, English and grammar in particular, provides great difficulties for Bhutanese teacher trainees. Following a short course in Australia, Gajmer undertook to review some of his second language teaching strategies. A situational analysis involving thirty-two trainees in one class revealed that the teaching of English grammar was not well developed in their schools. The adventure of an action research project was embarked upon which sought to improve aspects of grammar of ten of his trainees selected from the thirty-two trainees. Data were gathered over time, which indicated that there was a clear trend to improvement amongst all ten. Importantly also, Gajmer learned much about his own teaching.

Introduction

Bhutan is a multi-lingual society (van Driem 1993, p.3), which has gone through an unprecedented period of change since the 1950s (Maxwell 2007). About fifty years ago the third King decreed that Dzongkha and English would be the official languages. Since around that time, Dzongkha and English have been the languages of instruction in the secular school system. Teachers in Bhutan need to know both languages. Some come to their pre-service teacher education at the Samtse College of Education (SCoE) with indifferent knowledge of English. As implied above, the reasons for this are not hard to find. The two main ones are: students' home language is not English and, although English is taught in schools from the earliest years, it is not done with the insights of second language instruction.

Gajmer had been an English lecturer at SCoE for more than two decades and became aware of the difficulties in English that some of his trainees faced. The purpose of this research was to carry out an action research study where the focus was to identify Samtse College trainees whose English needed improvement and try and improve selected aspects of their English. Grundy (1995) says the action research can be a powerful vehicle for improvement, either in the situation, practice or both. Action research is new in Bhutan (Maxwell 2003) where social science research, more generally, has only recently been stimulated by the inauguration of the Royal University of Bhutan (RUB) in 2004. In order to contextualize the research, it is necessary to say something about Bhutan itself, because it is so little known, and then something about teacher education as it is presently organized especially in SCoE.

Education in Bhutan

The modern education system of Bhutan has developed since Bhutan broke its self-imposed isolation in the middle of this century (Bray 1996). Monastic education has continued but, as indicated above, there has been a dramatic expansion of secular schooling. From very small numbers in secular education in the 1950s by 2002, we well as the 125,000 secular students, there were also 15,000 students in monasteries as well as, 3,000 students in vocational education and 10,000 young adults enrolled in non-formal literacy education (Maxwell 2007). In 1998, greater than two thirds of Bhutan's teachers only had Class X academic qualifications (Laird, Maxwell, Tenzin &

Jamtsho 1999) and this has only marginally improved but all have at least a two years professional qualification.

Bhutan's education system has been characterized as being dominated largely by rote learning and use of texts and a strong examination system (Thinly 1999; Dorji 1999). Likely this and the general lack of resources made the largely progressive initiative in the primary sector in the 1990s termed the New Approach to Primary Education (NAPE), less successful (Dorji 1999, 2005). These are now the students who are presenting themselves for teacher education courses. Furthermore, during the 1990 there has been a concerted push to the Bhutanese primary and early secondary curriculum. By 2010 all secondary school examinations will be developed and administered by the Bhutan Board of Examinations. Recently a senior educator in Bhutan has advocated the need to move to a greater consideration of quality in the education of Bhutanese children (Dorji 2005). One way to achieve this is through higher quality graduates of the two Colleges of Education, one based at Paro and other at Samtse. Both these colleges follow approximately the same teacher education curriculum.

Brief history of Samtse College of Education

The kingdom's first teacher education institute was launched at Samtse in the south-west corner of Bhutan on 29th May 1968. It developed a two-year teacher-training course (PTC) and this continued till 2000. A Bachelor of Education programme commenced in 1985 and a one-year Postgraduate Certificate in Education (PGCE) programme in 1989. A Distance Education programme was launched in 1995 to upgrade the PTC graduates to Bachelor level. Today, SCoE is part of the federated Royal University of Bhutan teaching 549 regular trainees in the PGCE, B.Ed (Secondary) and B.Ed (Primary), and 60 in a part-time Diploma. There are 192 in-service trainees in the B.Ed Primary in the Distance Education mode.

The three year B.Ed (Primary) has an unusual structure. There are 40 modules, which include subjects such as Elective English, English for Communication, Mathematics, Social Studies, Elective Dzongkha, Dzongkha for communication, Science, Educational modules and other general subjects. Teaching practice occurs in one semester length block in year 2. It is widely acknowledged that this large block assists the Ministry in putting teachers in front of classes as the shortage has been great during the period of rapid development (Maxwell 2007). Additionally, however, they have to study ten modules of a subject specialization of their choice, such as Science, that is based upon the secondary curriculum. Upon graduation, B.Ed (Primary) graduates will likely be teaching their subject specialization up to Class X, perhaps as well as primary classes, depending upon what the staffing needs there are. There has been some criticism of this model since it appears that teachers prepared to teach across the curriculum from Kindergarten to Class VI are becoming hard to find (Rabten 2006).

Student numbers have close to doubled in recent years with more students expected. Those who have Class XII qualification will have entrants to SCoE for B.Ed programmes. Students are paid a stipend to study, as is the case in other tertiary institutions throughout Bhutan. The majority lives in hostels on campus. However, at present with the recent increase in student numbers, these resources and facilities are not enough. Small classrooms, inadequate library and Internet facilities make learning difficult. However, SCoE is looking forward to having better infrastructure in 2007.

It is quite difficult in Bhutan to get teacher educators with the required professional and academic background. Many teachers desire to go overseas to study and some do. Only recently have lecturers begun to develop research interests consistent with their new role as university academic. Furthermore, the royal University of Bhutan's *The Wheel of Academic Law* (RUB 2006) is meant to guide teaching and learning in a very student-centered manner. Both the Colleges of Education find it extremely difficult to implement the vision of teaching and learning

under present circumstances especially as only some of the staff have Masters degrees and just two are studying for their doctorate (at SCoE).

A brief history of second language (English) learning situations in Bhutan

The development of English accelerated in Bhutan after the inception of the first Five Year Plan in 1961. All the textbooks except for Dzongkha were and are, in English. English language and literature became very prominent as subjects in schools and a tertiary level. As an international language it was, and is, seen as a means for development in the kingdom as well as the means of communication among the educated Bhutanese people.

There are at least a dozen other languages spoken in various parts of the country. However, many of these do not have scripts and have a different grammatical structure than does English. Fifty years ago, the textbooks and curriculum followed the English medium schools from India and many of the teachers came from here, particularly in secondary schools. The textbooks were of high standard and well graded. Grammar was taught rigorously from Classes III to VIII. The general standard of English was understood to be good. By the late 1980s, Bhutan's own Curriculum and Textbook Development Division was set up. It designed and published textbooks up to Class VIII. However, there were no textbooks on grammar. The English curriculum contained only some selected structures to be taught up to class VIII. By 2000,

open concern began to be expressed about the standard of English and the Ministry of Education has re-introduced formal teaching of grammar with some prescribed grammar textbooks from Class VI onwards.

Mostly, Bhutanese children start learning English at the age of six when they start school. As indicated above, this means for most they are learning English as a second language with all its attendant difficulties. For example, there is no system of articles in Dzongkha. There are very few prepositions and the usage is different. However, some children of educated parents know some elementary English before they start schools. Usually, the direct method is applied. First languages are generally not allowed. In many cases teachers do not know the children's first language. Gajmer's and colleagues' experience is that in Bhutan the children have grammatical, and hence comprehension, problems. This then is the broad background to the present study. Who follows is a more detailed analysis of the situation that pre-service teachers find themselves in with respect to their English, a fundamental tool that they need to be successful as teachers.

Situation analysis

Kemmis and Mc Taggart (1998) emphasize the importance of understanding the research site prior of action. Situation analysis is a critical and thorough study of the situation wherein the practitioner wants to bring about improvement. Situation analysis, then, can be thought of an approach to diagnosis of the situation. Maxwell (in preparation) extends this by using the situational analysis to gather benchmark (baseline) data. These benchmark data are then linked to later data gathering to produce trends can be used to tract improvement efforts. To this end, and in addition to Gajmer's experience, the background of B.Ed (Primary) Year 1 trainees, their English knowledge of grammar and their needs for improving their grammar was assessed using a questionnaire and an essay writing exercise.

Gajmer selected B.Ed (Primary) Year 1 class for the research study. He taught Academic Writing module of English for Communication to them. They were in semester II. There were twenty-five boys and seven girls making a total of thirty-two.

What follows includes the background and benchmark data on aspects of English grammar for the study.

At the beginning of semester, a questionnaire for exploring the trainees' background of grammar was conducted for the whole class. There were fourteen questions, such as 'What grammatical items did you learn up to Class V?' and 'How did your teacher teach grammar up to class VIII?' After the discussion they were asked to answer the questions individually over twenty minutes. They were told that the task would be assessed out of five marks and would be part of the continuous formative assessment, and they had to take it seriously.

In summary, the trainees reported they learnt isolated pieces of grammar indirectly up to Class VI. These pieces were listed in the teachers' manuals. Their teachers mostly used manuals, sight words, pictures, flashcards, drawings and real objects in order to teach some grammatical items. We can say that they were taught nouns and so based on situations and contexts. However, the teachers did not explain what parts of speech were or how they were used.

From Classes VI to VIII grammar was not taught separately. It was integrated into English and other subjects. The trainees indicated they learnt articles, tenses degrees of adjectives, active and passive voices, and some other elements of grammar. It appears to have been taught the eight parts of speech but in a sketchy manner, not using text-books but rather straight out of the structures and examples given in the syllabi. Further, in secondary, the trainees reported the teachers did not use teaching aids. Their teachers dictated notes and explained the terms. Learning appears to have been much less connected to real life than in primary school (Thinley 1999, Dorji 1999, 2005).

From Classes IX to XII, the study of grammar decreased still further. The trainees reported that hardly any grammar books were used but that grammar was taught in preparation for the examination. The teachers used past question papers and conducted remedial exercises only without teaching aids and activities. The conclusion that can be drawn from this first study of English grammar teaching in Bhutan from Kindergarten to class XII is that the students were not taught grammar systematically during their school days. What kinds of mistakes would this reported lack of grammar teaching is reflected in the trainees' own work at College?

In order to find out what major problems they have in grammar, writing an essay was assigned to the same trainees. The class was divided into six groups and each trainee in each group was asked to write either a descriptive, narrative, discursive, reflective, expository or imaginative 1,000-word essay. After initial class discussion and planning to minimize any questions and to enable writing of contact they were asked to complete the essays within four days. Again, the task was assessed (7 marks for grammatical errors, 5 for organization and presentation and 8 for the content as given in Table 1).

The results show that ten trainees had maximum problems in articles, tenses and prepositions (see Table 1). Gajmer decided to carry out study only on the ten trainees so that it would be easier to carry out the study and at the same time, these trainees would be brought to the level of others. In fact, Gajmer did not tell them that he was utilizing them for his study. He told them that he wanted to help them. The rest of the class also did not know that they were selected for his study. The same resources were provided to the whole class time and again. He then talked to each of the ten and explained how and what errors they had made. Gajmer encouraged them to work hard so they would really improve their grammar. They were very happy and ready to take part.

TABLE I ABOUT HERE

The ten selected trainees had very poor marks for grammar ranging from 0.5 to 2.5 marks out of 7 (Table 1). Not one of the ten secured the pass percentage of forty. This

indicates they hardly know the basic elements of grammar. They had maximum problems in the usage of tenses. Trainee H had considerable problems in all three areas (118 errors in an essay of 1000 words). Trainees A and J seemed to have minor problems in tenses and articles.

In fact, the whole class had made numerous errors in the essays. Given below are the examples of their errors:

A eldest, a idea, other wise, he said me, buried (for buried). did not satisfied, join to him, came to ralized, rturned back, passed (for past), use to go, every one, did not Qualified, money have, facilities that products, a rice, moneycreate, any how, was spend,going to stressed, one of the book, stationeries, listen their parents, childrensgoes, parent are, a mer words, it depend, if one know,furnitures, accustomd with are build, it is not a easy task, informations, it leads to miserable life, cannot achieved, should used, and, society as whole.

It seems the major grammatical errors were wrong tenses as well as omitting articles and prepositions. They did not know where to use the articles, 'a' and 'an'. They had problems ion simple spelling and subject-verb agreement. They used the wrong prepositions and past tenses after 'did'. Why might these errors be being made? Abbot and Wingard (1981) say, "We should not judge students' errors on their carelessness or negligence. They might be making errors knowing or unknowingly". There might be a number of other possible reasons for this range of errors. Usually, many trainees do not edit their written work and think it is the job of the lecturers to correct them. Sometimes their writing is influenced by their mother tongue. They think in their mother tongue and translate their thoughts into English. Mostly articles and prepositions are not used in Dzongkha and other languages spoken in Bhutan. The trainees' written work is more like spoken English. Their poor background in English grammar makes it extremely difficult to master written English, which is more unforgiving than the spoken form.

It is a serious problem as these trainees have to teach English and other subjects in English from Kindergarten to Class VI and probably in their specialization up to Class X. How much will they b able to improve within five semester during their B.Ed (Primary) courses is a big question.

Following this analysis, and considering that Gajmer himself wanted to work on (he had recently return from a short course in second language learning at the University of New England), Gajmer decided to work on an action research study focused on English grammar using the question — ' How can I improve especially these ten trainees' use of articles, prepositions and tenses during this semester?' The study was conducted following the University of New England Human Research Ethics Committee guidelines and Gajmer kept a diary, which in fact was a register. It was kept for maintaining the overall planning and organization and records of the case study. Gajmer referred to it time and again in order to focus on the overall progress of this study.

Improvement initiated

After realizing the ten selected trainees' maximum difficulties, Gajmer started with a range of strategies for them in addition to those attempted in the class. He tried the following activities in order to bring about immediate improvement. He gave:

- (1) Current English Grammar and Usage of Composition' (Singha 2002), 'English Gammar, composition and Usage' (Nesfield 2000) and "Applied English Grammar and Composition' (Mendonca 1998) to these ten selected trainees. Tenses and prepositions and prepare for remedial exercises to be conducted shortly;
- (2) Mixed remedial exercises for them to complete, for example "His advice had no affect on me' and "Is the cattle grazing in the field?";

- (3) Handouts on the usage of articles, such as 'a ewe', 'a university', 'a UNESCO', 'an LLB', 'an MP', 'an SOS', and on prepositions for example 'what is this box for?' and 'Which room did you sleep in?' These ten trainees were asked to read these handouts thoroughly; and
- (4) Directions to try as much as possible. These strategies amounted to extra attention for these trainees. However, they responded well including their regular lessons.

Check for initial improvement/further diagnosis

About one month later Gajmer assigned them, along with the rest of the class, an essay assignment (3,000 words). All 32 students were asked to pay attention to errors, to revise and edit properly. The scripts were collected and thoroughly assessed using ten marks each for errors, presentation/organization and content coverage (see Table II).

TABLE II ABOUT HERE

These errors were written down and explained particularly to these ten trainees. There was a full range of error made in grammar but there was also a very encouraging improvement in the usages of articles, tenses and prepositions when Table I (baseline) and Table II (first check) data are compared (see Table III). For example, total grammar errors had decreased considerably in each case. Similarly considerable gains had been made in the use of articles, prepositions and tenses in every case. Clearly the improvement trend was in the right direction and was quite dramatic. An alternative explanation could be associated with the conditions of the initial essay. However, the motivation process from one task to the next was similar. Students may not, however, have been 'tuned in' to college work so early in the semester and placed a lower priority on the initials exercise.

TABLE III HERE

Further action for improvement

Gajmer

- (1) explained that the ten trainees had made a tremendous gains but there was still room for further improvement;
 - (2) told them to read the grammar books further;
 - (3) conducted cloze remedial exercises on tenses such 'Tashi (leave(—— for Bangkok next week; , 'T (wish) — ((know) —— her'; and
 - (4) Told them that there would be another assignment to be attempted.
- Gajmer was available for individual assistance but not to any special degree for these ten.

Check for further improvement

The final essay assignment was conducted in very similar fashion to the initial check. The data are reflected on Table IV. Results were not as dramatic as in the initial check but this is not surprising. Also, as end of term was approaching many assignments were required of the students and so there was competition for their time.

TABLE IV ABOUT HERE

The majority of the ten made some improvement or approximately held their improvement when compared to baseline data. For example, Table V shows the baseline, initial and final check for the use of tenses for all ten students.

TABLE V ABOUT HERE

In order to check to see if the gains were maintained under examination conditions a class test was given as part of the final course assessment. A week was given for preparation. The class test was assessed: 6 marks for articles, 6 for prepositions

and 8 for tenses (see Table VI). The majority of the ten have scored more than 65%. Assuming that the level of the test was approximately the same level of difficulty as the earlier tasks, the test showed that the ten had largely maintained their grammar competence under examination conditions. Gajmer had constantly encouraged all ten to work hard, and ultimately they have been able to improve to a great extent and apparently maintained that improvement. TABLE VI ABOUT HERE

It was indeed encouraging that everybody made some improvement. The mean scores in the four tasks are: 22%, 55%, 69.5% and 70.7% (Table VI). TABLE VII ABOUT HERE

At the same time students responded differently to the work of the semester. This is illustrated by two students using a visual presentation of the data upon grammar raw totals at baseline, initial, final checks and then the test.

Trainee A

	Marks
1. Baseline	21%
2. Initial	50%
3. Final	70%
4. Test	88%

Trainee A has made constant improvement and her final score is the highest amongst all. She worked very hard and achieved high marks in the three successive phases. Not all students can or want to work as hard as Trainee A.

Trainee F

The overall marks for F show that he made a high improvement from baseline essay to the initial check assignment and then largely maintained that gain.

	Marks
1. Baseline	14%
2. Initial	55%
3. Final	50%
4. Test	68%

Reflections

Major improvement resulted from the initial impetus. Likely this was from a combination of actions including the added individual attention given to the ten while maintaining usual practices with the whole classes. Trainees seemed to work lightly and may even neglect their performance if lecturers do not show concern and interest while working with them. Gajmer came to know that if constant support is given to such trainees individually, even very weak trainees will be encouraged and will try to improve. Gajmer became familiar with the selected trainees after working closely with them. He discovered their strengths and weaknesses and helped them accordingly. Gajmer also realized that he had to work hard in order to bring about improvement in his work. Performances have to be analysed and records kept. Careful plans have to be made to ensure further improvement. Follow up is necessary.

So, Gajmer was encouraged himself. He found himself more committed towards his teaching profession. He changed work habits and his attitude to the trainees. Trainees' involvement and cooperation added to the feeling of 'adventure', as Grundy (1989) calls it, leading towards new achievements. At the same Gajmer acquired these skills of close observation, planning, organization, data gathering and analysing and writing reports. Gajmer also describes himself more self-evaluative, analytical, reflective, interactive, cooperative, understanding, committed, and above all, a more efficient lecturer.

Summary

Carrying out any action research is not easy. This is especially the case where research is not part of the culture of the organization and where the resources are limited. However, the needs of the student were evident as shown by the first study into the ways that English grammar is taught in primary and secondary schools in Bhutan as recalled by 32 teacher trainees. A follow up essay task confirmed the nature and extent of the English problem leading to the desire to improve grammar outcomes for teacher trainees using action research.

In the action research, straight-forward techniques were used with the selected ten trainees. Individual and group instruction complemented the whole class activities. The action research used data gathering techniques that were part of normal routines but added attention was paid to the data in the context of the action research. Trends were identified and these same data used to provide feedback and added diagnosis.

The action research provided the impetus for a renewed vigour in the teaching learning process at SCoE for Gajmer. He found that such a task was very useful to explore his own experiences and discover the actual needs of his students, and so carry out activities in order to improve their weaknesses thereby make his teaching meaningful and effective. Though it was a small project carried out over one semester with ten selected trainees, he realized that it was a great achievement in making himself more professional. The ten trainees were able to improve their usages of articles, tenses and prepositions. He takes this experience into his last several years of teaching at SCoE with knowledge that he has begun to learn about action research but also about connecting to students' needs. In this way a contribution will continue to be made to the development of Bhutanese teachers whose linguistic background is diverse and whose learning background has been problematic.

Reference

- Abbot, G & Wingard, P, 1981. *The teaching of English as an international language: A practical guide* Collins, Surrey.
- Cohen, L & Manion, L. (1980). *Research Methods in Education*. London: Croom Helm Ltd.
- Dorji, J. (1999). Quality of Education in Bhutan: A review of the general curriculum and the situation in schools affecting the implementation of the curriculum. Progress Report, Thimphu, Education Division, Royal Government of Bhutan, Memeo, July, 23p.
- Dorji J. (2005) *Quality of Education in Bhutan* (2n ed).Thimphu: KMT Publisher.
- Grundy, S. (1995). Action research as professional development. Perth, Australia.
- Kemmis, S & McTaggart R. 1988. *The Action Research Planner*. Deakin University Press, Victoria, Australia.

- Laird DJ, Maxwe; TW, Tenzin W & Jamtsho S. 1999 *INSET within Bhutan. 1996-1998 and the INSET Framwork with Bhutan 2000-2004/6*, Education Division, Royal Governmenmt of Bhutan, Thimphu Bhutan.
- Maxwell, TW (2003). *Action Research for Bhutanese, Rabsel*
- Maxwell, TW. (2007). The Important Issues Facing Children in the Kingdom of Bhutan, in Jyotsna Pattnaik(ed) *Greenwood InternationalEncyclopaedia of Children*, New York, Greenwood Publishers.
- Maxwell, TW (in preparation). *Foregrounding Classroom Action Research: Research serving action (Workingtitle)*.
- Mendonca, L. (1998). *Applied English Gramar and Composition*. Nova Publications, New Delhi..
- Nesfield, JC. (2000) (Edition). *English Grammar, Composition and Usage*, Macmillan, India Ltd.
- Rabten, (2006). Notes from the mid term meeting of the B.Ed (Primary) by DEmode Review, 10th July.
- RGOB (Royal Government of Bhutan) 1999 *Bhutan 2020: A Vision for Peace, Prosperity and Happiness*. Thimphu: Planning Commission, RGOB.
- Richard, JC & Nunan, David. (1990). *Second Language Teacher Education* Cambridge University Press, New York.
- Sinha, RP. (2002). *Current English grammars and Usage with Composition*.Oxford University Press, New Delhi.
- Thinly, P. (1999). *The efficiency of intervison; as a school level change process: A descriptive analysis of the experiences of four participating schools in Bhutan*. M.Ed. (Hons.) thesis, University of New England, 238p.+ vii.
- Van, D G. (1994). *Language Policy in Bhutan*, in *Bhutan: Aspects of Culture and Development*. Michael Aris and Michael Hutt (eds.), Gartmore: Kiscadale Publications, pp. 87-106

Table I: Errors and Marks for selected B.Ed (Primary) trainees' Academic Writing subtasks on 1,000-word essay, (N=10)

Trainee	Errors					Marks			
	Tenses	Arts	Preps.	Other	Total	Grammar (7)	Org./Pres. (5)	Content (8)	Total (20)
A	5	10	2	43	60	1.5	3	5	9.5
B	15	10	3	44	72	1	3	4	8
C	13	6	4	14	37	2.5	3.5	5	11
D	25	8	3	24	60	1	3.5	5	9.5
E	16	12	6	32	60	1.5	3	4.5	9
F	17	8	7	48	80	1	4	5	10
G	21	11	4	19	55	2	5	3.5	10.5
H	30	18	8	62	118	0.5	3	4.5	8
I	15	17	5	42	79	1/5	3.5	5	10
J	8	14	2	47	71	1	3	4	8

Table II: Errors and Marks for first check for Academic Writing subtasks on 3,000-word assignment by selected B.Ed (Primary) trainee

Trainee	Errors					Marks			
	Tenses	Articles	Prepositions	Other	Total	Grammar (10)	Org./Pres. (10)	Content (10)	Total (30)
A	9	20	4	7	40	5	6.5	6.5	18
B	8	12	2	10	32	6	5.5	6	17.5
C	7	9	3	15	34	6	7	7	20
D	7	12	2	6	27	6.5	5.5	6.5	18.5
E	21	3	1	16	41	5	6	7	18
F	8	10	4	16	38	5.5	7	6.5	19
G	8	12	5	12	37	5.5	5.5	4.5	15.5
H	9	10	9	12	40	5	6.5	7	18.5
I	10	11	8	10	39	5	6.5	7	18.5
J	9	12	3	14	38	5.5	6.5	7	19

Table III: Error comparison between baseline and first check for ten selected B.Ed (Primary) trainees' Academic Writing subtasks (per 1000 words)

Trainee	Tenses		Articles		Preposition		Other Errors		Total Errors	
	Baseline	First Check	Baseline	First Check	Baseline	First Check	Baseline	First Check	Baseline	First Check
A	5	3	10	6.7	2.	1.3	43	2.3	60	13.3
B	15	2.7	10	4	3	0.7	44	3.1	72	10.7
C	13	2.3	6	3	4	1	14	5	37	11.3
D	25	2.3	8	4	3	0.7	24	2	60	9
E	16	7	12	1	6	0.3	32	5.3	60	13.7
F	17	2.7	8	3.3	7	1.3	48	5.3	80	12.7
G	21	2.7	11	4	4	1.7	19	4	55	12.3
H	30	3	18	3.3	8	3	62	4	118	13.3
I	15	3.3	17	3.7	5	2.7	42	3.3	79	13
J	8	3	14	4	2	1	47	4.7	71	12.7

Table IV: Errors and Marks for second check on Academic Writing subtasks on 3,000-word assignment by trainee

Trainee	Errors					Marks			
	Tenses	Articles	Prepositions	Other	Total	Grammar (10)	Org/Pres. (10)	Content (10)	Total (30)
A	4	8	2	11	25	7	5	6	18
B	4	13	4	18	29	6.5	4.5	5	16
C	5	12	3	17	37	5.5	4	4	13.5
D	4	13	4	8	29	6.5	4.5	5	16
E	6	10	2	10	28	6.5	4	5	16
F	5	12	4	20	41	5	4	4.5	13.5
G	6	10	5	21	42	5	4.5	4	13.5
H	9	13	3	7	32	6	4.5	5	15.5
I	8	14	3	7	32	6	5	4.5	15.5
J	8	11	5	13	37	5.5	4	4	13.5

Table V : Trend comparison from baseline to second check by trainee (tense errors)

Trainee	Tense Errors		
	Baseline	First Check	Second Check
A	5	3	1.3
B	15	2.7	1.3
C	13	2.3	1.6
D	25	2.3	1.3
E	16	7	2
F	17	2.7	1.6
G	21	2.7	2
H	30	3	3
I	15	3.3	2.6
J	8	3	2.6

Table VI: Class Test Marks by grammar sub tasks and total score by trainee, %

Trainee	Tenses	Articles	Prepositions	Total
A	93.8	91.7	75	87.5
B	87.5	75	58.3	75
C	100	58.3	31.3	70
D	81.3	58.3	50	65
E	81.3	66.7	41.7	65
F	93.8	50	58.3	65
G	81.3	50	58.3	65
H	87.5	31.3	83.3	72.5
I	81.3	66.7	75	75
J	68.8	66.7	50	62.5

Table VII: Marks trend across four grammar tasks by trainee, %

Trainee	Baseline Essay	Initial check Assignment	Final check Assignment	Class test
A	21	50	70	88
B	36	60	65	75
C	36	60	55	70
D	14	65	65	65
E	21	50	65	65
F	14	55	50	65
G	36	55	50	65
H	7	50	60	73
I	21	50	60	75
J	14	55	55	63
Mean score	22	55	59.5	70.7

Improving the Use of Articles, Prepositions and Tenses: "Action Research Study"

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Disseminating Message, Imbibing Culture: Contexts of Communication in Bhutan

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Abstract:

This paper talks about the different sets of media utilized for communication in Bhutan at various point of time. The first set comprises of the traditional media that communicates the Buddhist values to the society. This set emerged from the monk body and influenced the culture deeply. The second set, unlike the first one, flourished in the lap of society and hence bear its point of view. Both these sets of media have fostered cultural values in the society. With the publishing of the national newspaper the *Kuensel* in 1967 an era of modern means of communication began. But the development of media was slow. The paper argues that the modern means of communication could secure room only in Post Coronation Silver Jubilee times i.e. after 1999.

Communication is inevitable to human beings. Technically, it is a process of transfer of ideas and information from one person to another for a definite purpose, it is communication that has not only informed the masses but has also transferred knowledge and imbibed cultural traits in the society. Societies have experienced the involvement of different types of communication media and their effective usage. In the wake of this, it must also be noted that communication also faces some barriers. Bhutan has experienced evolvement and usage of different types of communication at different points of time. It may appear small in size but provided its rugged mountainous nature and scattered population the challenges in communication cannot be under weighed.

Bhutan has a population of about 0.6 million ¹ scattered over the mountainous region of 46,500 sq kms². The country is landlocked, touching India in South, East and West and Tibet (China) in North. One may be surprised that though the size of the country is smaller but it has diverse cultural dimensions, mostly influenced by *Drukpa Kagju* school of Mahayana Buddhism that came here from Tibet. On traveling the country one may find different traits in the life style of Bhutanese living at various places, questioning the oft-cited term 'Bhutanese culture' which hints the presence of only one culture in the country. There are varied cultural traits in Eastern, Western and Northern Bhutan but what binds them all is the belief in Buddhism, its philosophy and theocratic values. The southern belt is populated by the followers of Hinduism whose native language is Nepali. Their cultural traits are similar to that of Hindus in India and hence far different than that of the people in the other parts of country.

¹ The report of the Population and Housing Census of Bhutan that was conducted on 31st May 2005 says that the population of Bhutan that year was 634,982. With the expatriate including it was 672,425.² It had been widely acknowledged by the Royal Government of Bhutan that the area of the kingdom is 46,500 sq kms. This information has been there for a long time in the school textbooks even. The people also acknowledge this information. Interestingly Encyclopedia Britannica (1981) cites the area of Bhutan as 47,000 sq kms. It also hints over boarder constraints of Bhutan with China. But now the official website of the RGoB <http://www.bhutan.gov.bt/government/aboutbhutan.php> states that the area is 38,394 sq. kms. A few years back concerns about northern border of the country has been in the air for Chinese hyperactivity. People wonder that the difference in the area has been taken over by the People's Republic of China.

Buddhism has played a significant role in the shaping of the society and culture. It was Zhabdrung Ngawang Namgyel, a Tibetan lama, who came to Bhutan in 1616 AD and unified the country that was divided into small fiefdoms. He shaped the culture, religion and society of Bhutan. And not only this, he also laid a dual system of theocratic governance in which the power was equally vested in the hands of spiritual ruler and temporal ruler, who were then referred to as Dharma Raja and Deb Raja respectively. So influential was he, his theocratic system and his governance that even after about three hundred and fifty years of his passing away we find him revered highly by the people.

Communication in Bhutan has seen various developmental stages. The rough mountainous terrain has been challenging to the development of communication facilities. Given that about 66% of the total area of the country is presently covered with forest ranging from tropical in south to alpine in north, the forest coverage could have been far more challenging for communications during Zhabdrung Ngawang Namgyel's time. That he was an outsider making his efforts for imbuing cultural and administrative reforms was one challenge and that the population was scattered and illiterate was another. And yet another challenge was geographical barrier to communicate his ideology, his laws and his system of governance. Ngawang Namgyel's success is the success of his communication. Ngawang Namgyal's reign initially saw resistance from various forces within the country and from Tibet as well. Tibet army invaded Bhutan various times and was chief concern for Bhutan.

Ngawang Namgyal's graceful victory over Tibetan army in the Tibetan invasion in 1639 communicated a message of his power and managerial skills to the society. Sometimes an incident itself becomes a message to the society and alters the way of thinking and analyzing of mass. This incident (Ngawang Namgyal's victory) itself was a message to the society. With this victory his prestige and power in Bhutan increased manifold. The entire episode of victory communicated a very strong message, which brought him the title *Zabdrung* before his name. The extension of his influence and unification of the country required him to convey his power. The first exemplary effort in the field of official communication by Zhabdrung Ngawang Namgyal was in the form of his wooden seal that had engraved on it his self composed sixteen tenets. These tenets are known to Bhutanese as *Nga Chudugma* (The Sixteen 'I').

The seal was used in official documents providing them an identity as the present day letterheads do. Official seals are most often seen as testimony to official statements. It not only attests the document but also communicates the identity of the office. Zhabdrung Ngawang Namgyal used his seal to communicate the supremacy of his system of governance. It was a powerful medium of communication, which resulted in faith of not only existing monks of different schools of Buddhism in Bhutan but also the feudal lords and the public. The victory conveyed his power and the seal conveyed his confidence through the sixteen tenets. It is a matter of further research that whether the 'I' in the *Nga Chudugma* are subjective representing himself or they represent the Lord Buddha. The seal, though, has historical and spiritual significance yet it has played a role in communication.

If the account recorded by H. Hyslop who was present at the enthronement ceremony of the first King on 17th December 1907 is taken as a testimony then it would not be an exaggeration to say that Zhabdrung cared much for the decipherability of the text engraved on the seal because he kept the size of the seal large enough so that anyone who comes across it could read at an ease. He did not make his seal just for the namesake but as a mode to communicate. A great Idea! The estimate of the care taken for readability can be made from Hyslop's following record.

The chief lama, the Tatsang Khenpo, who has possession of Dharma Raja's seal, produced this from a casket. It is a huge thing some five inches square..... (Aris 1994 P.95)

The traces of communication with foreign world are also visible during Zabdrung Ngawang Namgyal's time, which denies the existence of the so called isolation policy of Bhutan. Zabdrung Ngawang namgyel never denied communication either with India, Nepal, Tibet or Westerners. He knew the importance of communication and hence was open to it. He would go to villages in Bhutan establishing contacts with the people, performing *Rimdos* (Puja) for them. Though a Dhrama Raja he would stay in tents with his monks and allow them and people to meet him. In 1627, two Portuguese Jesuits Estavo Cacella and Jeo Cabral come here for the purpose of preaching, converting people's faith to Christianity and seeking routes to Tibet. The report Estavo Cacella wrote to his superior is not only the living account of Zabdrung Nawang Namgyel and Bhutan's the then life but also unfolds the status of communication during seventeenth century. This historical report whose photocopy is present in "the archives of the Society of Jesus in Rome" has been translated by Luiza Maria Baille (1999). The report called as *The Relacao* hints over the state of communication in Bhutan. The barrier of not knowing either party's language was overcome with the help of interpreter whereas the messages to the Zabdrung from his subordinate were mostly oral. Horsemen were used to relay message to distant places. And the process appears to be much faster even in those difficult terrain because at one point in the report we find Zabdrung's people promptly arranging things at the next point of traveling after seeking instructions from Zabdrung Ngawang namgyel who was stationed else where (17)

Buddhism made its way deeper into the society. The entire monk body contributed in preserving religious scriptures, books by copying them day and night and distributing them to different monasteries. This was a painstaking effort on their part in preservation and communication. Apart from Khenpos, Lams and Gaylongs who would propagate Buddhist canons in the society through recitation and *rimdos*, different means have been in use in the society to communicate different context.

A most common example in the society is the creating of smoke by burning cypress leaves in the open space nearby the venue of festivity or religious activity. It is normally taken as a simple gesture of purifying atmosphere with the sweet smell of the burning cypress. From the point of communication this is meant to inform the people living nearby about the performing of the religious activity so that they can come to attend it. This kind of semaphore is so common in Bhutan that it has got much of religious value than the social. It is treated as a gesture of sanctity.

Trade basically requires 'need' and 'communication'. Further, trade becomes easier with the help of a currency that holds well for both the parties. Monetization came to Bhutan of late in twentieth century; however Nicholas Rhodes (1999) finds some traces of usages of coins in the kingdom before 18th century. Coins might have been in existence but were not extensively used in trading. Trade was mainly done through barter system. India and Tibet were the two most sought trading partners. Bhutanese, Tibetans and Indians would go to either country for trade. Communication wasn't a problem at all. Even at that time Bhutanese had competency in speaking the language of neighboring countries. The language spoken in other parts except south share wide similarities with the Tibetan language. This affinity in the languages had helped Bhutanese in overcoming linguistic barriers. Father Cacella notes:

We had much difficulty in understanding the one available- as he was not of this kingdom but from Tsaparang (Western Tibet), he did not know that language of this area which was the one we most needed because although in these kingdoms they all speak the same language there are differences in pronunciation and word endings, and the corruption of the language in some areas almost makes it foreign specially in this kingdom where the language is very changed- this kingdom being in a remote corner does a little business with other kingdoms; however, all the lamas and the people generally understand the other languages and so with the one we know we are able to communicate in all at these parts... (21) Multilingual nature of the Bhutanese has helped them in making their contact fluent with neighboring societies. Jamie Zeppa

(1999) also adores this quality in her travelogue *Beyond the Sky and the Earth: A Journey into Bhutan*.

Before the advent of modern education written communication in Bhutan mainly rested in the hands of administrators and monks. Literacy in traditional Bhutanese society was limited only to privileged ones and monks. Society thus relied on the oral messages passed on to it through heads of state. The dissemination of cultural values and Buddhist canons been done through different means. Organized religious discourses like *katha* and *pravachan* in India are not a part of civil society. Lay people and women had almost no access to scriptures lest they ordain monkhood. Moreover sex was another discriminating factor for getting education and adorning monkhood to some extent. Kuenzang Choden (2005) has underlined sex as a discriminating factor in her novel *The Circle of Karma* where the protagonist Tshomo is refrained from learning to read and write for the reason that she was a girl-

You are a girl. You are different. You learn other things that will make you a good woman and a good wife. Learn to cook, weave and all those things. A woman does not need to know how to read and write,' father says quietly but sternly when she asks him to teach her. (P 21)

Though education was afar from lay people yet we can see old illiterates reciting daily prayers, observing the cultural values deep seated in Buddhist scriptures. This is the result of the effective media that have been used for ages in Bhutan. There have been different media for communicating different messages. Dharshing (prayer flags), the mani dunkar (Prayer wheel), festivals, mask dances have been widely used for disseminating religious ideas and Buddhist philosophy. These have high religious esteem in the society. The second set comprises of folklores-folktales, folksongs and folk wisdom hidden in traditional idioms and phrases. These have been widely used for religious and didactic purpose and comprise eternal part of culture. This set of media flourished not with Lamas or in the premises of Dzongs but with common people and society. They have served dual purpose; firstly they disseminate knowledge and religious ideas and secondly entertainment. These two sets of communication media have been highly influenced by Buddhist concepts hence can be clubbed together as a traditional medium of communication. A traditional medium of communication reflects the culture in which it is produced for it is the culture and society that shapes it. In this very context the traditional media represents the aboriginal taste of cultural life in Bhutan. Secondly, traditional media also cultivate mind with the cultural values.

The third group comprises of modern means of communication like newspapers, radio, television, internet etc which gained momentum in post Coronation Silver Jubilee era i.e. after 1999. This set of media is accredited to connect Bhutan to the outer world and vice-versa. Modern means of communication has imbibed a sense of pacing-with-the-world in the Bhutanese society. People widely use internet, phones, SMS to communicate for different purpose.

The deepseating of Buddhism is attributed to the traditional medium that has imbibed a profound sense of social obligation towards the religion and made its way to the cultural canals.

The prayer flags communicate deeper components of Buddhist information. Made up of thin cloth these flags are either mounted on bamboo or tree trunks or are hung across passes, bridges with a rope. They have religious scriptures and symbols printed over them. It is held in belief that their fluttering would produce the chanting of mantras printed on them, which will be carried in all the directions by air to cast their sublime effect. Furthermore, the flags are not traditionally taken off. They are rather left to wither for it will further purify the atmosphere and subdue demons. This means that prayer flags have been used to create fearless atmosphere. From the point of view of

communication, prayer flags have cultivated tenets of Buddhism in the society. They have deeply imbibed the messages of Buddhist identity in the society.

These have also served to imbibe a sense of realization and gratitude towards the basic elements of human life. The five colours of prayer flags symbolize the elements necessary for sustainability of human life; Blue for sky/space, White for Air/wind, Red stands for fire, Green represents water/vegetation and Yellow stands for earth. At superficial level the presence of prayer flags have been interpreted as just religious (especially by the westerners who come as tourists) but if observed carefully they communicate the requisites for the harmonious existence of mankind. A Buddhist cannot neglect the presence of prayer flags and chortens (Bhutanese name for stupas) for it is customary that any person passing by them is required to walk in such a way that these holy objects should be on his/her right side. This makes the passerby conscious about their presence and eventually of the holy message they religious artifacts convey.

Similarly Mani Dunkar, the prayer wheel, installed at different places is expected to be kept rotated. They can be found in the peripheries of lhakhangs, monastries and other holy and public places. Some are beautifully installed at the springs making them rotate clockwise with then natural flow of water. Prayer wheels also have Buddhist mantras painted or scribed over them which imbibes a sense of religious values. At other places the passersby rotate them with their right hand in clockwise direction. On completion of one rotation the stick projected horizontally at the top hits the bell, informing the circumambulator about the completion on one round. The bell not only tells of the completion of one round but also communicates a devotee's presence nearby. They have been so effective in communication Buddhist values that people often keep mainiature prayer wheel in their hand and keep it rotating while reciting *Om Mani Peme Hung*.

Then eight lucky symbols also convey the allegiance towards Buddhism. They preach the importance of different elements of Buddhism in human life and remind the ethics and etiquettes expected in pretext to them.

Bhutan has few festivals to its credit but each festival has a message. The first festival is Losar, the New Year which is observed in a very modest way. The main festival is Tshechu that is observed on the 10th day of a Bhutanese month to commemorate the birth anniversary of Guru Padmasambhava (Popularly known as Guru Rimpoche), an Indian saint who brought Buddhism in Bhutan in seventh century. As he was born on the 10th day of a month, customarily Tshechu is observed on the 10th day. Each Dzongkhag (District) celebrates its Tshechu on the 10th day of a definite month of Bhutanese /calendar. Months are fixed for dzongkhags to observe Tshechus but this year, in 2008, perhaps first time in the history of Bhutan that the Tshechu of religious (especially by the westerners who come as tourists) but if observed carefully they communicate the requisites for the harmonious existence of mankind. A Buddhist cannot neglect the presence of prayer flags and chortens (Bhutanese name for stupas) for it is customary that any person passing by them is required to walk in such a way that these holy objects should be on his/her right side. This makes the passerby conscious about their presence and eventually of the holy message they religious artifacts convey.

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Celebrated at Dzongs (District headquarters) with mask dances these create a mega public event. The three days festivities open with the sunrise and ends with the sunset of the third day. It provides an occasion for the people to gather at a place once in a year and hence gives an important shape to the venue. People from nearby villages come to attend it thereby giving the dzong a shape of temporary town where,

....a whole community, which is actually dispersed throughout a valley, gathers at one place at a given time and socializes making a traditional "media event" in contemporary jargon, (Pommaret 2006)

During Tshechu variety of mask dances are performed by the monks in the courtyard with the courtyard full of spectators. These dances in fact serve as a medium to communicate a variety of messages to the lay people and children who have no access to religious scripture. Performed along with the music of cymbals and drums these dances have a story at their backdrop and a message/lesson/moral at their core. The message could have been discharged in the form of story telling session or verbal discourses by lamas but realizing the size of the audience, limitations of human voice and strength of the appeal of the images different mask dances are chosen. They not only have a visual appeal but also make the lofty moral messages lighter for the audience to be grasped with the tint of entertainment. The Shingje Chham (the Yamraj Dance), the Shanag Chham (Black Hat Dance), the Legoen Chham (protector diety's dance), the Ngaging Chham, the Phole Mole Chham, Raksha mar Chham, the Drametse Nga Chham, and the Shawo-Shachi Chham (the dance of deer and hound) are some of the most popular mask dances. The presentation of these dances have a didactic value in addition to religious. While some dances narrate legendary tales, some like Phole Mole chham delineate flaws in human nature. All mask dances are meant to preach the audience "the Buddhist concepts of retribution, forgiveness and compassion" (28)

There are also same dances, which are translated versions of the anecdotes present in scriptures, Drametse Ngachham for instance. As lay people have no access to literature and religious scriptures, the important anecdotes are acted on the occasion of Tshechu for making them comprehensive enough through the mask dances to elucidate them to the lay people in its simplest form for,

.....they are written in such a way and in a language that ordinary people are neither accustomed to, nor able to read and they cannot impact the masses as vividly as an enacted story. (29)

Francoise studies the dances explicitly. She observes dances as a 'traditional medium of information.' Her observation at one point can be taken as a conclusion which goes,

the taming of one's emotions, whatever be the circumstances, is a core of Buddhist message which is imparted during these dances and grounded in concrete examples with which people can easily identify; it is this strength which makes the dance performance play role of media. (29)

The second set of media comprises of folklores, commonly referred to as oral tradition that flourished in the lap of civil society. This includes folktales, folksongs and sayings. Folktales that are seen as past-time activity have contributed a lot in shaping the civil society. While the mask dances and festivals are the media used by monks and administrators to communicate Buddhist philosophical ideals, folktales have been used as a common man's media and hence have variety of messages from the point of view of laypeople. The folktales involve much of the communication process including feedback. The listeners have to respond to the stories with a sound 'Ummm.mmm' which implies 'that the story is listened by the audience.' This is a common response but there are some other responses too. To express their sympathy or signify their listening the listener say 'Aye,' which roughly means 'yes' and when the story takes turn to some astonishments or reveals suspense the audience express their surprise or shock by 'Yaahlamah' or 'ayi wha.' Another usual say that follows the sequence is 'Aei' or 'tse ni' (in Bumthangkha) or 'delay' that means 'then.' These instantaneous feedbacks ensure that the message encoded has been decoded properly. And these instantaneous feedbacks are not very natural but have been imbibed in the society as a required custom of story-telling or listening activity. The listeners have to respond with any of the suitable words or sound for it is a custom, Choden (2002) reasons.

This customs is to prevent the spirits from listening to the stories and stealing them. As long as human beings respond and indicate that the story is being listened to, the spirits cannot steal them. (xiv)

The story telling sessions are social as well as domestic. In social story telling sessions a group of listeners assemble at a place and a story teller 'releases' or 'unravels' before the audience with utmost skills of the art of narration that could take the audience to the past to grasp the message hidden in them. To be noted in Bhutan, stories are never 'told' or 'said.' (xi). Their objective in addition to entertainment is to communicate the virtues like compassion, workmanship, benevolence, honesty, mutual trust etc. In the stories, the honest trustful characters proclaim their victory and those dishonest suffer. *The Boys who went to Buy Cows, Gyalpo Migkarla, Bum Sing Sing Yang Donma, Ap Brapchul, Lame Monkey*, are a few examples of the stories that communicate the reward for virtuousness and criticize vices. There are stories like *The Lazy Boy* who communicate to the audience the criticism about laziness. The methodology of our folktales as media to preach dignity of labour is not spiritual but far more practical and full of illustrations. Labour is not criticized but is hailed high and is portrayed as an activity full of enjoyment. The philosophy of 'Work is Worship' lies at the soul of the stories. We do find here the 'division of labour' but we do not find here traces of calling any task mean. Nor we find people classified into castes and creeds according to the work they do in the society. Every character whether rich or poor, male or female, able or disabled, young or old is found engaged in some productive activity. There are stories (like *The Borrowed Gho, Ashi Dungalidolma, Bo Serba Tung Tung*) with a focus of rich-poor conflict. Such stories communicate that vices are to be punished and virtues are to be rewarded irrespective of one's social status and position in society. Prima facie the tales communicate the philosophy of justice in action. In stories the characters do kill wild animals, sinpos, ghosts and harm the unsocial elements but their purpose is not to preach violence as a motive behind the life. They kill those who are harmful to them and all. This set of communication media observes things from the point of view of society. It doesn't criticize retribution nor the killings. It doesn't denounce materialism either. Unlike spiritual models they communicate that possession of worldly things is also necessary to some extent in the society. Our characters become happy by possessing worldly things. They fight for worldly pleasures and their life is portrayed

happy when they achieve them. Whose who loose are portrayed fool or Tsagyed. *Meme Heyley Heyley, P'chekhay, the Lazy Boy (The Story of Lazy Boy)* are depicted as fools who go on bartering their priced possessions with less important objects.

Folksongs also served as a media to communicate messages that have influenced Bhutanese society to a larger extent. They are classified into different categories and the popular ones are *Zhungdra, Boedra and, Lozey*. Zhundras are the oldest songs. It is a group song accompanied with dance and has very soft body movements. The dance is performed in standing position. The content of such songs communicate pious values. They are neither love songs nor sad songs. They are aesthetic songs containing the admirations about dzongs, mountains, seasons, peaks, religious and philosophy. One of the popular *Zhundras* sings of the famous Punakha Dzong. Another Zhundra "*Choeki Tsa-Wa Mitsuk/ Choeki Tsa-Wa Tsuk*" sings of Buddhism and devotion. Another interesting Zhundra that commences with "*Ja sa boe la min du*" is portrayal of a daughter's refusal for marriage as she finds her would-be in-laws' land sans religion. Two more Zhundras- one about Jhomolhari, the highest peak in Bhutan and the other that sings of sacred life of Gyalongs is also popular. The contents of *Boedra*, on the other hand, is picturesque. For example "*shar lha ni ha le me shar*" sings of sun, "In the morning sun was shinning from the east", "*ni pha yel gangri karmo*" represents the love and reminiscences of the singer for his far village. It says, "When I see the White Mountain I remember my village." Another famous Boedra "*jigten samling nanka mile serga rinchen.*" Boedra ends with a thumping of right foot and bending forward with open palms. Some Boedra are slow in tunes and are performed with soft movements. They communicate the societal affairs and morals in light manner laying emphasis on entertainment value.

Lozeys are concerned with historical aspect and have an epic nature. They communicate heroic achievements of a person or war or of an incident. The *Lozey of Pema Tshewang Tashi* and that of *Gaylong Sumdar Tashi* are widely popular in the kingdom. The former deals with the courage of a soldier who is moving for a war while the latter talks of a Sumdar Tashi who had to leave his family and children to join the monk-body as a matter of monk tax.

The traditional media contributed much in the shaping of the society. It not only influenced the mass but also imbibed cultural traits that gradually become an identity of the Bhutanese society. The advent of modern media in Bhutan, especially TV has been observed as a threat to it. With upcoming urbanization and various other entertainment facilities like TV, films, Internet available around its aureole is shrinking (Dorji 2002, Kinga 2001, Phuntsho 2000, Choden 2002, & McDonald 2004). The issues of protecting them and concerns for their continued existence has been widely expressed.

Intra-societal communication in Bhutan too has an interesting aspect. The interesting practice of relaying messages verbally from one person to another, from one village to another can still be seen. One good example can be observed in case of hiring labour. Labour is not hired traditionally in Bhutan in terms of monetary payments. Absence of currency may be one reason. But another reason is the low population density distributed over valleys and terrain. Labour has been exchanged for labor. Even the Royal government has entertained it at various times. Still in practice are *Chola, Changla, Jala, Zhabta Lemi* and *woola*. Changla is related to the collective help rendered to farmers in planting paddy saplings in the fields. Jala is attributed to harvesting. For either of the activity a word is passed to the villagers either by a person or by the village committee for working in a field. People work collectively in a field and the other day the owner (farmer) reciprocates by joining in the group for working in other's field. The information is mostly conveyed verbally and is respected by every able person. In lieu of work the owner provides food and drinks for the day to the group and later works in others field. Dorji (2005) and Choden (2005) while exploring the attributes of civil society in Bhutan deal with these activities in detail.

Woola is a similar kind of activity related to the construction of infrastructure in the village. In this activity one person from each beneficiary house in the village/community works for the construction of bridge, school, lhakhang (temple), village office etc. The order for woola is officially released by the government or the village head. While in the former, the words are in requestive tone and the message is oral in case of Woola the communication is in written form. It seems that in the past this was also oral. In case of absence from any house the owner of the house is subject to fine.

Of Symbols in Written Communication

Written communication in Dzongkha involves different symbols. Every symbol has its name value and particular context of usage. While some are attributes to religious context, some are to administrative context. The symbols are widely used in various formal and informal written communications. A brief list of symbols, prepared after a preliminary survey and discussions is given in Table 1.

Table 1

Sl.No.	Symbol
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A Note on Modern Means of Communication

The advent of modern means of communication can be traced back to the establishment of the first newspaper *Kuensel* that was started only in 1967 as a monthly bulletin of the Royal Government of Bhutan. It was published in India in English till 1974 because Bhutan did not have any printing press then. In 1974 Bhutan got a press and had it installed in Thimphu to print the bulletin. The Dzongkha edition could start in the same year with the preparation of Dzongkha blocks. *Kuensel* remained as a monthly news bulletin for years. It was only in the year 1986 that it could become weekly. Still it remained as the only newspaper of the kingdom for the policies didn't allow private or foreign media's existence. Till 2006, *Kuensel* was the only newspaper in the country and was published weekly.

Radio could make its way in Bhutan in 1973 under the name of "Radio NYAB" that Broadcasted news in English and some music for half an hour on Sundays. The studio was stationed in Thimphu. Before this, Bhutan has also established telecom services accessible to few areas in 1967. In 1979, the Ministry of Communication under RGOB

toke over Radio NYAB, renamed it as Bhutan Broadcasting Services (BBS) and introduced three hours daily services. An aid for UNESCO made Bhutan to start local FM station in 1987 that was also under BBS. About late 1980s when the television sets were making their way in the Asia societies a Royal Decree was issued in 1989 to ban television viewing thereby mandating dismantle the Fishbone antennas. It was at this time that people in Bhutan were using television sets and were watching Indian and Bangladeshi channels. Bhutan was thus the only nation in the world to ban television. This was done to preserve Bhutan's cultural identity. This step of Bhutan initiated mindblogging across the globe. While there were some criticisms on this step. Some sectors praised it in the wake of appalling influences of foreign media. The Government of India has been the chief donor agency for Bhutan. It has always extended its helping hand in the developmental stages of the country. The friendly ties of the two countries are exemplary for the world. In the late 80s, the Government of India understood that BBS required a facelift and keeping aside the 'ban' gifted a state of the art new complex for BBS in 1991, and BBS shifted to this complex. *Kuensel* that was still newspaper a lone the kingdom was detached from the government through a Royal Edict in 1992 and made to be operated under an autonomous corporation. Later in 1998, the government stopped its subsidy to *Kuensel* making it a self-financed corporation.

The year 1999 marked the start of developments in various fields especially in communication. It was the year celebrating Silver Jubilee of the Coronation His Majesty Jigme Singye Wangchuck. On 2nd June 1999 coinciding with the Coronation Day, Internet services started in the kingdom; and hours later to the start of Internet, television broadcast started first time in the Bhutanese history. This broadcast was from BBS. It was then for three hours in the evening of the same day. It was in this year only that the Telecom Act was approved in the 77th session of the National Assembly. The year 2000 brought FM services to the BBS, still state-owned corporation, BBS started 12 hours radio broadcast a day. Later in the month of July of this year the Telecom department became a state owned corporation and was called Bhutan Telecom.

On 11th November 2003, coinciding with the birth anniversary of His Majesty Jigme Singye Wangchuck, Bhutan Telecom launched Bhutan mobile communication service to the people of Bhutan. This set Bhutan at an even ground in the field of communication with the rest of the neighboring countries in the region. Prior to this Bhutan Communication Authority was established in the same year. The BCA has been renamed as Bhutan InfoCom and Media Authority (BICMA) since January 2005. It is the regulatory body for telecommunication facilities and transmission of TV channels in the kingdom. It was in this year only that BBS extended its television services to four hours a day (6-10pm)

The year 2005 was a setback to some TV channels as, the governemnt imposed ban on them on the grounds of cultural implications. In the month of July in the same year, Bhutan banned some Indian TV channels and this ban is still in effect. In February of this year, *Kuensel* became a biweekly publication and in December, marking it another epoch in the development of media communication in Bhutan started its Kanglung edition for Eastern Bhutan.

The monopoly of *Kuensel* as the maiden newspaper in the kingdom came to an end on 30th April 2006 with the publication 'Bhutan Times.' It is a weekly paper published on Sunday from the capital in English. On 2nd June of the same year another weekly newspaper 'Bhutan Observer' started its publication in Thimphu. It is published on Friday. Kuzoo FM, the first private FM Radio station that started its services in 2006 ended the monopoly of BBS Radio. Last year in 2007 another FM radio station named as Radio Valley kicked off its transmission and became second private radio station. Further, on 6th April 2008, Bhutan witnessed the launching of Tashi Cell, a private cellphone service that has ended the monopoly of B-mobile in telecom services especially cellphone services.

Communication during Parliamentary Elections

Bhutan is forging ahead towards a momentous change in the system of governance with the parliamentary election on 24th March 2008. The elections for two party parliamentary system of governance involved a variety of communication facilities and technique.

The message to the rural illiterate population scattered over unmotorable valleys and mountains were disseminated through public meetings held by the officials of Election Commission of Bhutan. The Electronic Voting Machines that were donated by India were demonstrated before the villagers, school students, civil servants and the general Bhutanese populace to inform them about procedure. The literate lot concentrated mainly at district headquarters. Town and cities were informed through pamphlets, brochures, and notices. Each and every mode of communication appears to have been harnessed in inculcating awareness among the people to participate in the elections. The official website www.election-bhutan.org.bt was launched for those who have an access to internet and for organization to procure information with a click. In addition to the other challenges one challenge before the EC was to make people come forward to form political parties. Only then its main work would start. Since it was a new experience for the Bhutan people were inhibited and at one point of time the EC urged the people with stimulating slogans like "Take Charge, Form a Political Party" printed on stickers in addition to appeals and interviews. It did work and two political parties came into existence.

The hustings involved were mostly oral communication and personal contacts. TV and Radiobroadcasts were also utilized in addition to the advertisements in the three newspapers and posters that were pasted only on the designated signboards installed by EC for this purpose. Graffiti was discouraged by order. Public supporters also took to campaign. An astonishing example is of the usage of SMS by the public supporters as the fastest and influential mode of communication. Samten Wangchuk (2008) reports in *Kuensel* that supporters of both the contesting parties had used SMS appealing people to vote for a favorable party. The reports cite that the SMS were from 'unknown sources' and that Bhutan Telecom did not have the record of messages sent. The cost effectiveness of SMS had lead the primary communicator to use this facility and the same factor tempted the receiver to forward it to others. It is also relevant to cite that commercial public messaging is banned. There are about 145000 cellphone users, which accounts to about 40% of the total voters. As SMS is a personal communication and hence cannot be accounted into a party's account or a candidate's expenditure; unless it is from his/her own mobile. On the other hand, tracing its origin may result in nothing other than a person's personal view communicated at his/her own cost. These two factors in addition to its economic nature prompted people to use SMS in sending or forwarding 'political message.' Now the question is 'Did it influence the decision?' Wangchuk's report is neutral to the question. At one point it says, ".....it did play a part in changing decision," yet at another point he says that it did not influence. It did produce a diplomatic neutral response to the question if not a hazy one. Interestingly, the messages urged 'to vote' for a favoured party and not for any candidate pointing to the inclination of public-wave more towards a party rather than towards contestants. Whatever, it may be the entire scenario tells that SMS has once again proven to be a medium of public expression in addition to information. So far, this service was used by Bhutanese cell phone users in sending greetings, jokes, information, chain SMSes, business messages, informal communications and picture messages but this time it was used for political reasons.

Communication now is not only limited to its verbal mode in Bhutan. A variety of means are available and Bhutanese society is using them effectively. The saga that started with a news bulletin has now reached to three newspapers, three FM Radio stations, two cellphone operators and two ISPs (one private established in 2007). And there are miles to go ahead and more goals to achieve. The year 2008 marks the centenary of the establishment of monarchy in the country and inevitably more

developmental announcements are expected. Trade and commerce has now gained momentum and this will surely add dimensions to communication.

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References

- Aris, M. (1994). *The raven crown*, London: Serindia.
- Baille, L. M. (1999). Father Estevao Cacella's report on Bhutan in 1627. *Journal of Bhutan Studies*, 1(1), 1-35.
- Choden, K. (1993). *Folk tales of Bhutan*. Bangkok: White Lotus.
- Choden, K. (1997). *Tales of yeti*. Bangkok: White Lotus.
- Choden, K. (2005). *The circle of karma*. New Delhi: Zubaan-Penguin.
- Dorji, K. (2006). Media in Bhutan: Now and then. *Journal of Bhutan Studies*, 14 (Summer), 4-10.
- Dorji, L. & Tashi C. (2005). *Understanding civil society in Bhutan*. Thimphu: Center for Bhutan Studies.
- Dorji, T. (2002). Folktale narration: A retreating tradition. *Journal of Bhutan Studies*, 6, 5-23.
- Hasrat, B .J. (1980). *History of Bhutan*. Thimphu: Education Department, Royal Government of Bhutan.
- McDonald, R. (2004). Television, materialism and culture: An exploration of imported media and its implication for GNH. *Journal of Bhutan Studies*, 11, 68-88.
- Phuntsho, K. (2000). On the two ways of learning in Bhutan. *Journal of Bhutan Studies*. 2 (2), 104-138.
- Pommaret, F. (2006). Dances in Bhutan: A traditional media of information. *Journal of Bhutan Studies*, 14 (Summer), 26-35.
- Sharma, C. S. (2007). Echoes of folksongs in Bhutanese literature in English. *Journal of Bhutan Studies*, 15, 102-114.
- Wangchuk, S. (April 12, 2008). The mobile in a modern democracy. *Kuensel*, pp 3
- Zeppa, Zamie. (199). *Beyond the sky and the earth: A journey into Bhutan*. New Delhi: Pan Books.

<http://www.bhutan.gov.bt/government/aboutbhutan.php>

The Instructional culture at Baylling Higher Secondary School in Trashiyangtse –An Introspection

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Abstract

Baylling Higher Secondary School in Trashiyangtse was established in the year 2004 and is relatively new. The staff and students are striving for academic excellence, although the outcomes of board examinations are not very encouraging for the school. Though the school is sufficiently stocked with teaching – learning resources and adequate teachers, the mediocre performance of students has triggered an issue to question the credibility of the school's instructional culture. This research project was aimed to find out the strengths and limitations of the instructional system in Baylling Higher Secondary School and formulate recommendations that emanate from the findings.

The study was conducted through a qualitative research paradigm in general and a phenomenological approach in particular. In order to generate useful and authentic insights and opinions of the school's current instructional practices, participants for the study were identified and recruited on a selective basis. The data was analyzed keeping the research questions in view to see the strengths and weaknesses of current instructional practices in the school. The findings are interpreted through the perspectives of teachers and students in instructional strategies like planning for teaching and learning, adequacy of instructional time, adequacy of resources, assignment and assessment, teacher punctuality, and class tests.

The research findings revealed some interesting perspectives from the teachers and the students of the school. Based on the insights and perspectives gathered from the study, recommendations are made for improving the instructional practices of the school.

Autobiographical Reflection

The Early Years of My Learning

I have been moved and shaped by so many people in my life. My parents have always been a teacher in informal setting, guiding me to sail across several hurdles of my childhood days. My entry into a formal school setting in the early years was a dramatic turn in my life, which ushered me into routine learning and schooling from many teachers. Some of the teachers in my early school days were to create a lasting impression on me. Attending classes and learning from teachers who used to crack frequent jokes in between teaching and using different strategies was not only interesting but also entertaining. Perhaps, I did fairly well in those subjects taught by my favourite teachers and I always looked forward to their classes. It was a moment of absolute joy when the bell rang for my favourite teachers' periods.

I did well in subjects like English, History and Geography. Perhaps, my performances were impacted by my personal attachment and interest towards the teachers who used to teach in interesting ways.

On the other hand, the teachers who were monotonous in their approach in tone and teaching and always strict (My Maths and Science teachers used to teach using sticks) in the class always kept me in fear, confusion and hence, did not learn much in their subjects. Science and Mathematics were my most dreaded subjects and has continued to be my dreaded subjects still today. Students who failed to answer were whacked by

cane and willow shafts which the Class Captain kept ready. To me, learning was immensely difficult in those subjects; not because of the nature of the subjects itself but because of the fear of teachers who taught those subjects.

I have also been influenced by some of my school Head Masters and Principals. Many of my intended and un-intended observations of the leadership styles of those Principals has a bearing on my working when I became a Principal myself.

My Experiences as a Principal

I believe that a sound instructional climate is the bedrock of an effective school. Therefore, I tried to create a sound schooling culture by building a stronger sense of team and trust, openness to care and share and readiness to learn and work, backed by the aspiration to qualify good Conscience, Attitude and Professionalism. "Leadership deals with exercising influence on others through social interaction" (Owens 1995, P. 260). I could facilitate staff cooperation to exert my influence and enhance collaborative efforts through building team spirit. An occasional 'staff gathering' where teachers sat down together to have a lunch or dinner or taking a break from the routines of official works and going on outdoor recreational programs like a picnic or a hiking, together fostered strong social interaction, created forum to shed differences and brought teachers on a common platform. Through such informal settings, I used to further share my beliefs, goals and vision for the school; teacher perspective was invited and a shared vision for the school was generated.

By virtue of nurturing and institutionalizing team spirit, cordiality and oneness, I have discovered that it has opened doors for acceptance of opinions, feedbacks and comments and recommendations in the process of giving bigger impetus to successfully create a physical scholastic landscape like the vision for school, infrastructures, and resources.

The teachers these days are entrusted the noble task to not only equip the students with content knowledge but also to prepare them to adequately meet the intellectual challenges. The eminent educationist Day (2005) highlights on the new roles teachers have to play these days. He writes:

Teachers, now, are potentially the single most important asset in the achievement of the vision of a democratically just learning society. They must, more than ever before, be more than transmitters of knowledge. In this century they need to play more complex roles if students' creativity, intellectual curiosity, emotional health, and sense of active citizenship are to be realized. (P.O)

I agree with the claims of the above articles, as they are relevant to our context. As we frequently discuss about the quality of education, the people at large view that there is quality only if a majority of students qualify for further academic studies and also if students are able to cope and responsibly adapt to the changing life patterns and make a meaningful living. And if our students are to be made productive and responsible, there should be a fine interplay between the quality of instruction, availability of teaching learning resources and the students' interest and ability to learn to ensure quality performances. Therefore, I feel that the quality of instruction has proportionate relation to the quality of students' performances.

The instructional roles teachers play in our school is certainly with proper planning executed in all good attempt to bring some wonderful results. However, the past three years' Board Examinations results have not been too impressive despite all the efforts and the commitments. Our result review meetings have often resulted in a blame game where teachers pointed out to students' weaknesses for poor performances. Often I have heard some teachers stating remarks like 'this particular child has reached the saturation of his/her potential as learner and that there is no way that this child can be taught better'. I have also come across students themselves expressing statements

like 'I cannot study any further than this limit'. Such comments have triggered me to explore more into various dimensions of creating instructional culture and climate of the school. I am often made to question the credibility of our school's instructional culture.

I am consciously kindled to do something in this area of the dynamics of instruction in our school, apart from the managerial and the supervisory roles. I also needed to introspect into our styles and system of instruction. Morris, Crowson, Porter-Gehrie and Hurwitz (1984) write that "the principals supervised the teachers, but is also responsible for establishing and of maintaining in the school, find out the strengths and weaknesses of current practice to probably propose some recommendations to improve instructional culture of my school through this study.

Aims of the Study

The primary aims of this study were:

- To find out the current instructional styles and practices of Balling Higher Secondary School.
- To find out strengths of the instructional practices that can be continued and the instructional flaws that can be corrected.
- To recommend strategies as remedial measures for better delivery of effective teaching-learning processes.

Literature Review

I have always believed that creation of a sound working atmosphere has direct relation to the end results. So, teaching is always carried out with proper planning of objectives and strategies. Sergiovanni and Starrat (1971) point out that a successful instructional leadership "requires focusing on teaching and learning in a way that ensures an emphasis on three themes: subject matter content, principles of learning, and teaching processes" (p. 263). But, all our attempts through practicing teaching learning strategies as we have been trained in the pre-services and in-service teaching courses and our attempt to bring bright results find it hard to materialize.

There are many factors that influence a sound learning climate. According to Wright (1998-2007), there are five causes that trouble a child's learning, such as:

- The curriculum design
- The teacher competency
- Role of the principal in school management practices
- Home based support from parents
- The child's physical or psychological problems

I feel that those five causes are strongly relevant in our context. While we have lesser control over the mechanics of curriculum designing, we have a big role in students themselves are critical for bringing better performances and outcomes. But, often there is a vicious cycle where the teachers blame students for learning incompetence and parents for not providing their child with adequate guidance at homes. On the other hand, the students and parents blame teachers for ineffective teaching, if the results are not good. In such situations, learning and growth does not take place. Instead, in a blame game when emotions run out of control, feelings of anger, bitterness, and betrayal consume parents and school personnel – who are then unable to work together to make educational decisions. In these cases, everyone loses. The child is usually the

biggest loser if the parents and educators cannot work together effectively (Wright, 1998-2007). **Instructional Leadership**

There are many definitions to understand a school culture. Sergiovanni and Starratt (1971) describe Culture "as the enduring characteristics that describe the psychological makeup of a particular school, distinguish it from other schools, and influence the behavior of teachers and students, as well as the "feel" that teachers and students have for that school" (p.310).

I am particularly fascinated by the idea that the school culture can also be understood by applying the metaphor of health to it. Malthew in Sergiovanni and Starratt (1971) describes a healthy school as:

One that exhibits reasonably clear and reasonable accepted goals (goal focus): communication that is relatively distortion-free vertically, horizontally, and across boundary lines (communication adequacy); equitable distribution of influence to all levels of the organization (optimal power equalization); and effective and efficient use of inputs, both human and material (resource utilization). The healthy school reflects a sense of togetherness that bonds people together (cohesiveness), a feeling of well being among the staff (morale), self-renewing properties (innovativeness), and an active response to its environment (autonomy and adoption). Finally, the healthy school maintains and strengthens its problem - solving capabilities (problem-solving adequacies). (p.312)

Back in our school, we aim at attaining the positive indicators of a healthy school culture as highlighted above but we are confronted with difficulties, especially in the area of instruction. At the same time, we also try to find out solutions to fare across obstacles through collaborative approaches and strategies involving many of our stakeholders.

When teachers, parents, and students work persistently and effectively to address difficulties, students learn many things. They learn problem solving strategies, they learn about themselves, and they learn about the value of persistence. They develop a sense of competence and become more motivated as they learn that their efforts do make a difference. The kind of rightful teaching atmosphere we set shall have an impact on the students' learning skills. Teaching is generally a group activity, while learning is a more individual activity and not all students learn at the same pace or in the same way. Schools need to consider the extent to which policies and practices lead to the labeling of students or promote the view that their capacities to learn are either limited or fixed (Heijnen, 2004, P.84). Therefore, as a head of the school, it is only befitting that I initiate to point at out difficulties and lapses and set a rightful tone to the school's instructional culture, Since our school was established in 2004 and is relatively new. I have aimed at creating the right character of a sound instructional culture.

I also believe that teachers' personal and professional commitment with right conscience and attitude can play a bigger role in ensuring the quality of instruction and hence, the quality of performances. If teachers perform duties with a selfless drive and energy; total commitment and faith to the profession, I think, we shall certainly have brighter, better results. Powdye (2007) states that "teaching is an act of faith. It is built on hope, even optimism. It is based on the principle of possibility. That ignorance will be dispelled by knowledge and there will be sweetness and light" (p.31).

It is to reaffirm that many researches and theories, established by scholars, have placed teachers and the instructional climate of the school as the heat of education to ensure that students' "desire to learn is mobilized and sustained" (Day, 2005.p.86). So, this research was aimed to probe at trying to diagnose the instructional flaws in our school and suggest some remedial measures for the improvement of instructional culture.

Methodology: Qualitative Research (Phenomenological Study)

Since my study pertained to the instructional climate of our school, I had personal experience related to the phenomenon in question and wanted to gain a better understanding of the situation. Hopeful (2006) writes that "Phenomenological inquiry, or qualitative research, uses a naturalistic approach that seeks to understand phenomena in context-specific settings" (p.36). Therefore, I employed qualitative methods as my research strategy as it facilitated me to conduct the research process on a pertinent school issue in a natural everyday setting and routines of our school. There was no need for me to take breaks from my daily works nor did I have to make special appointments and arrangements with my respondents. I could collect data according to the convenience of my respondents. Cresswell (2003) states that qualitative research takes place in the natural setting. The qualitative researcher often goes to the site (home, office) of the participants to conduct the research. This enables the researcher to develop a level of detail about the individual or place and to be highly involved in actual experiences of the participants (p.181).

I conducted the study with carefully selected samples of participants. Therefore, phenomenology was a suitable research strategy since the study "attempts to understand people's perceptions, perspectives, and understanding of a particular situation" (Eisner, 1998.p.153). This was necessary if I was to derive direct and honest opinions from my respondents. As a researcher carrying out a research on the impact of instructional styles of our teachers and students in the school, I had to be careful in sampling my participants to ensure their active involvement and participation.

I carried out the study following some features of qualitative research. The first was field focus where I went to the classes, observed, interviewed, recorded, described, interpreted and appraised settings as they were and attempted to get the school's instructional climate through my actual involvement in experiences with the participants. I also collected my data through questionnaires and interviews. The questionnaires were distributed to my respondents who were requested to sit in a classroom and they filled up the questionnaires under my supervision. This enabled them to be non-manipulative and give the true picture of instructional styles practiced.

The following participants were engaged in my study:

16 Bhutanese teachers (13 male and 3 female) and 7 expatriate teachers (all male); 40 students *20 boys and 20 girls) from different class level (classes IX-XII) and I invited respondents I knew with special focus for better coordination, honesty in sharing view and amiable interaction in my data collection processes.

Findings and Analysis

There are many techniques of data analysis. Cresswell (2003) found, the process of data analysis involves making sense out of the raw data. It demands preparing and tailoring the data beyond the more common ways to specific types of qualitative research strategies (p.190). I have analyzed the data keeping my research questions in view to see the strengths and weaknesses of current instructional practices in the school. This section also reports the findings resulted from the researcher's interpretation of the data.

I have aptly interpreted through the perspectives of teachers and the students in instructional strategies like planning for teaching and learning, adequacy of instructional time, adequacy of resources, assignment and assessment, teacher punctuality, and class tests. I have also quoted direct statements from the respondents for greater reinforcements of their points.

Current Teaching Strategies

Teacher Perspectives:

The study revealed that a majority of the teachers, 89% of teachers, used lecture method with practically no use of teaching aids other than the chalk and chalk board as the main teaching aid. Other methods, which are also tried out but at a minimal scale are discussions, project works, demonstrations, presentations and field visits.

Student Perspectives:

The students, as responded through questionnaires claimed that they did not see teachers using lesson plans during classroom teaching. Students have noticed teaching obstacles when teachers teach without lesson plans. One respondent, states that "When he doesn't bring his lesson plan book, he forgets what he is supposed to teach" (Interview, dated 27.6.2007). Another students respondent, states: "If teachers never use their lesson plan, they are not able to cover their syllabus and they rush up in the end and we don't understand anything".

I feel that an effective lesson planning is a forte of an effective classroom teaching. There is no denying that a sketchy lesson planning will result in a similar outcome. Rinchen (2006) reiterates that "the key to successful lesson is planning and organization. A tutor who plans his/her lesson well knows what to teach, what activity to carry out and how to cater to the students of varied learning abilities" (p.95).

Teaching – learning materials:

Teacher Perspectives:

While 89% of the teaching faculty claimed satisfaction over teaching-learning materials, science teachers were of the view that laboratory equipment and materials, especially for practical lessons were either not sufficient or not available according to the specifications as required from the examination point of view. A science teacher, Mr. Y, stated that there is "lack of laboratory equipments, library, internet facilities, and other reading materials, besides Kuensel".

Teaching learning time of 55 minutes a period

Teacher Perspectives:

About 87% of the teachers pointed out that their teaching work load with 55 minutes a period is adequate as of now. A teacher, respondent claims that, "I am comfortable with the time table and working hard". This teacher also reiterated that teaching time "should not be more than 24 periods. The teacher need time to prepare the lesson, correction, checking the note book, lesson planning. Another teacher states "School time table and the teaching work is very much ok and comfortable". The third respondent, Mrs. D, also states "Comparing to the past years I am very comfortable this year. Unlike the previous years, I do not have variety of teaching subjects and I am allotted with required number of periods.

Students' Perspectives:

The actual teaching-learning time of 55 minutes a period is seen to be comfortably adequate. Students have claimed that they find the teaching time adequate for them. A student respondent, Miss C states that, "I find the teaching-learning time is OK, neither too long not too short".

Assignment and Assessment Policy

Teacher Perspectives:

The teachers attribute huge class size to be an impending factor behind effective assignment and assessment policy implementation. A teacher, Mr U remarked that "the strength of the class makes a lot of difference in my teaching styles. I have experienced that if there are only about 30-35 students in the class, the quality of instruction will be better".

Another teacher, Mrs. O, also supported that "if student strength is between 32-35 in a class, I will carry out my responsibilities more efficiently and successfully".

Students Perspectives:

The research findings indicate that the school's assignment policy of assigning twice a month is not practiced: instead teachers assign the home works, either after lesson or according to their convenience. Findings also suggest that assessment also differs from teacher to teacher. This research discovered that some teachers assessed after every assignment while some teachers assessed the student assignments according to their convenience.

The assignment and its assessments are regarded as the most crucial factor to improve teaching-learning processes for teachers and the students. Assignments and assessments are not only valuable for determining the quantity of the syllabus covered but also useful to gauge the quality of one's performances. It is a process of reflection and to carry out necessary adjustments on the part of both teacher and the student to support optimal learning by every student, taking into account their different learning needs, learning speed and learning styles. Assessment is defined as the collection, analysis and interpretation of information about any aspects of a programme of education and training, as part of a recognized process or judging its effectiveness, its efficiency and any other outcomes it may have (Thorpe, 1993:5 as cited in Wangmo, 2006.p.17).

Teaching-Learning time

Teacher Perspectives:

The teacher participants stated that they had comfortable teaching workloads. A teacher, Mr. A remarked: "Manageably adjustable" and further cautioned that "demand for quantity can sometimes affect quality". Another teacher stated that "sometimes due to many activities, time is less for preparation of lesson. But overall its OK".

Student Perspectives:

At times, the school's non-academic activities like sports, cultural and literary programs become too heavy that it impedes classroom teaching and learning. But the present system of implementing co-curricular programs in our school is found to be adequate and not disturbing in the instructional hours. Student respondent (Mr. E) remarked "School programs are finding with me as we also find lots of time to study".

Strengths of Current Instructional Practices

- Students noted that teachers did use a variety of techniques like prompting students, frequently asking questions, being vigilant and strict in class. Sometimes, teachers also 'cracks jokes in the class and tell stories which keeps us alert and awake' to make student pay concentration to their teaching.

- The teachers revealed that School Level Monitoring and Support Services was found to be immensely useful as it kept them focused onto their work of planning, teaching and again planning with introspection for better delivery. A teacher (G) remarked that 'School Level Monitoring and Support Services are beneficial and it reflects the strengths and weaknesses of an individual teacher through mechanisms of constructive feedback'. Another teacher, (Mr.J) also stated that "due to Monitoring and support services, teachers prepare the lesson and give a better teaching. Coverage of syllabus is also assured".
- The teachers also found School Based In-service Programs on professional areas/subjects to be highly useful for its educative and motivating results. A teacher stated that "SBIPs enable us to clear our doubts about some of the things. It should be done once in a term, about the important things which is connected with the teaching-learning".
- The student participants claim that teacher absenteeism was not a problem in the school as teachers took leave.
- Students expressed that the teachers are found to be deeply concerned about their teaching areas.

Limitations of Current Instructional Practices

- Teachers cited huge class strength to be an impending factor in carrying out teaching through cooperative learning strategies like group works and group discussions. A teacher claimed that the 'biggest challenge is the strength of the students in a class. I am not able to give proper and personal care and attention to each and every individual".
- Due to the huge class size teachers are not able to do justice to assessments of students work. Few of the teachers also pointed out the 'huge' syllabus, especially at the higher secondary level, as a factor that actually impacts the quality of delivery.
- The frequency of class tests conducted is minimal.
- Students are of the view that the teachers hardly used supplementary teaching materials like references and expressed concern over poor referencing resources like practical equipment, internet facilities and relevant books in the school library.

Student Preferences

- It was interesting to note that while the teachers complained of huge class size to be an impeding factor in the delivery of instruction through cooperative learning strategies, the students however, preferred teachers to teach with group works/discussions and use of teaching aids. A student (Miss K) remarked "We learn more if teaching aids are used by the teacher in the class, not always lecturing and giving classroom discussion".
- Students also expressed that assignments help them to keep the chain of Learning in continuity outside the classrooms. They state that assignments "would be a practice for the exams. I would know more of the lesson if only there are more home works'. A student stated that "home works check the progress made by an individual student over the past days. It reflects how much we have learned". Another student said home works "make us to revisit text books for better comprehension of the lessons learnt. It makes us known to what is most important of that particular subject".

Recommendation and Conclusion

The study was aimed to look at the instructional climate in the school and not to expose shortcomings and limitations and demean the teachers and students. This study discovered that the school has many good practices that can be continued in the same spirit. Based on the findings from the study, the following recommendations are suggested:

1. Teachers could try out a variety of teaching methodologies like role plays, presentations, dramatization, recitation, hot seating, group discussions, explanation, demonstration, dictations, storytelling, debate, ex-tempore speech, declamations and outdoor teaching like field visits which will not only generate bigger interests in students but also enhance greater interaction in the class that would facilitate in developing greater concentration skills and make learning much more interesting and focused.
2. The subjects could be clubbed into Departments and a department head could initiate to design teaching programs relevant to their subjects.
3. The school's administration needs to work out the details of budget and ensure timely provision of teaching-learning materials like laboratory equipment and chemicals, references, question bank compilations and internet facilities.
4. The school's monitoring and support services program can continue to a greater impetus to check whether teachers use the lesson plans while teaching in the class. Also effective monitoring can ensure "that teachers go to class on time, carry out teaching related work, and guide students in class, assign works to students, correct the student works and provide feedback, show care for the welfare of the students while in school" *EPGI. 2005.p.19).
5. The school need to have a thorough discussion on the strengths and weaknesses of the current assignment policy of assigning twice a month and see whether it could be remodeled into a better workable policy.
6. The frequency of class tests conducted is lower restricting both teachers' and students' ability to know their capacities to teach and learn. The school can also plan and implement class tests at certain intervals, so that it gives a platform to introspect upon both the teachers' and students' performances.
7. The school could continue to strengthen implementation of School Level Monitoring and Support Services and also explore avenues to conduct more of School Based In-service Pograms by internal (within school) and external (beyond school) facilitators and resource persons on various need-based professional topics/subjects.
8. The school can also look into possibilities of forming help group 'where teachers could form a group to study weaker students and explore how to improve their studies' (Dorji, 2005 p.152) to ensure individual attention to the low achievers.

Conclusion

Teaching, these days has become a profession that has caught the attention of the masses. As Powdyel (2007) states, "teaching is the most public of professions – apart from public executions, perhaps. One is face to face with expectant faces, longing eyes, big ambitions, unpredictable behaviours. With all the planning, things can still go horribly wrong" (p.32). In our school, we have been working hard to excel in our

teaching-learning performances but we were often confronted with obstacles. This has led to consequent blaming of one another in the school.

Therefore, this study was aimed to critically look into the instructional climate of the school so that its findings point to some guiding light for teachers to understand their teaching strengths and weaknesses.

The study findings were an eye-opener and a big learning experience to me and my fellow teachers, giving us huge insights into the strengths and weaknesses of our present instructional styles and procedures. We would continue with the good practices; follow up on the recommendations of the study and design new strategies for a more effective teaching methodology. The study also could be treated as a guide to improve the instructional climate in the school.

References:

Bogdan, R.C., & Biklen, S.K. (1998). *Qualitative research in education: An introduction to theory and methods* (3rd ed). Needham Heights: M.A: Allyn and Bacon

Creswell, J.W.(2003). *Research design:Qualitative, quantitative and mixed method approaches*. (2nd ed). United States of America, Sage Publications.

Dorji, J (2005). *Quality of Education in Bhutan: The story of growth and change in the Bhutanese education system Phuentsholing*: KMT.

Day, C. (2005). *A passion for teaching*. London and New York: RoutledgeFalmer.

Department of School Education. (2006). *A review of continuous formative assessment* Paro. Curriculum and Professional Support Division.

Dzongkhag Education Sector. (March 2007). *School monitoring report*. Trashiyangtse.

Eisner, E.W. (1998). *What makes a study qualitative. The enlightened eye*. Ohio, Merrill: Columbus.

Evans, R. (2000). *The authentic leader in educational leadership*. San Francisco. Jossey Bass

Fullah, M. & Hargreaves A. (1992). *What's worth fighting for? Working together for your school*. Canada. Ontario Public School Teachers' Federation.

Hammond, L.D. Rosso J., Austin K., Orcutt S., & Martin D. (2003). *How people learn: Introduction to learning theory in the learning classroom: Theory into practice*. Mort Crim *Communications*, Stanford University
Heijnen, E. (Autumn 2004). *Effective teaching and effective classroom management: and the same technique?* In Rabsel. Paro. Centre for Educational Research and Development

Hoefl, M.C. (2006). *Choosing qualitative research: A primer for technology education researchers*. Retrieved on 29th Jan.2008, from <http://scholar.lib.vt.edu/ejournals/JTE/V9n1/hoepfl.html>.

Inglesby, B. (2008). *Talking with your teenager about learning disabilities*. Retrieved on 29th Jan. 2008, from <http://www.schwablearning.org/articles.aspx?r=755>

Johnston, C.A. (1998). *Let me learn*. New Delhi. SAGE Publications India Pvt. Ltd.

Jaffe, G., Ellen, B.S. & Benedictis, Tine de. (2001-2007). *Learning disabilities: Understanding the types, causes, symptoms and diagnosis*. Retrieved on 29th Jan, 2008, http://www.helpguide.org/mentallearning_disabilities.htm

Kaushik, V.K. & Sharma, S.R. (1997). *Modern methods of teaching*. New Delhi: Anmol Publications Pvt. Ltd.

Kuensel. (July 15, 2006). *Education as a priority*. (Vol.XXI No. 54.p.2)

Morris V.V. Crowson R.L., Porter-Gehrie C & Hurwitz (Jr.) E, (1984) *Principals in action*. United States of America: A Bell and Howell Company.

Owens, Robert G. (2004). *Organizational behaviours in education*. (Eighth Edition). USA. Pearson Education Inc.

Powdyel, Thakur S. (2007). *As I am, So is my nation*. Bhutan Times Ltd.

Policy and Planning Division (2005) 24th *Education Policy guidelines and instructions*, Ministry of Education.

Rinchen, S. (Autumn 2006). *The Effectiveness of the teaching-learning strategies used in chemistry lesson and students' preferred teaching-learning strategies in Rabsel*, Centre for Educational Research and Development.

Sergiovanni, Thomas S & Starrat, Robert J. (2002). *Supervision: A redefinition*. 7th Ed. USA McGraw Hill.

Vishnevsky, T. (2004). Qualitative research. Retrieved on 30th Jan. 2008, from <http://findarticles.com/P/articles/mi-MOICF/is-2-31/ai-n17206974/pg-4>

Wright, Pamela D.(1998-29007). The blame game! Are school problems the kids' fault? Retrieved 29th Jan. 2008, from <http://www.wrightslaw.com/advoc/articles/ALESSI1.html>

William.E. (2002). Learning-difficulties or (problems). Retrieved on 29th Jan.2008, From <http://www.hellofriend.org/learning/difficulties.html>.

Wangmo, T (Autumn 2006). *A formative evaluation of the B.Ed. primary distance education programme in Rabsel*. Paro, Centre for Educational Research and Development

Yontorn – CERD Occasional Papers (2006). *Paying attention to school culture* (Vol.III). Centre for Education Research and Development, Paro College of Education.

WHY REVAMP SPECIAL EDUCATION - A PERSPECTIVE

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Of late special education seem to be getting the attention that it deserves. And that should be the case. Irrespective of one's ability or disability, basic education till grade ten is one of the gifts to the children of Bhutan from His Majesty the King. It is, therefore, only fitting and right that special education be given its due recognition and revamped.

Various literature on special education suggests the revamp of special education in most countries. UNESCO's report on the state of special education in various countries strongly suggests the revamp and change of mindset towards special education. Similarly the literature on Special education in Botswana indicates strong political will and direction in mainstreaming special education in the country.

In Bhutan, till very recently, the focus on Special Education Needs was relegated to the bottom of the educational priority list with just a school that catered to the visually impaired students in the country. However, of late, various initiatives are taken that paid greater emphasis to special education in the country. The establishment of special education units at the Drugyel Lower Secondary School and Changangkha Lower Secondary School are testimonies to the growing empathy and concern for the educational needs of children with various disabilities. It is further gratifying to note that there are other NGOs that cater to such children such as the Dra-tshok Educational Center that aspires to equip such children with vocational skills. Further, the governmental and organizational support according to such autonomous organizations speaks of the commitment of the government to uplift the standards of children with disabilities.

Besides these especially established unites to cater exclusively to the children with disabilities, inclusive education has been a priority area for the education system in the country for sometimes now. Our policy and decision makers seem to have realized, albeit a bit late, that education as a system and a right, need to reach out to all members of the society and not just in the conventional sense of the word or system. As such, we find the word "inclusive education" featuring very prominently in the vocabulary of all these policy makers as if all of a sudden these words have become something that would set him/her on the path to enlightenment. Schools now are bombarded with directive requiring schools to ensure that our schools are "inclusive in operation", whatever that means. The basic presumption is that children, irrespective of one's disability, should be included in the mainstream of the educational process. That would mean that teachers should expect and be receptive to having some students in the class who may not be "normal" in the conventional sense of the word. That, as our 'heavy-weights' would like to say, is special and/or inclusive education.

UNESCO (1994) in their document, Framework for Action Special Needs Education says that schools should strive to

accommodate all children regardless of their physical, intellectual, social, emotional, linguistic or other conditions. This should include disabled and gifted children, street and working children, children from remote or nomadic populations, children from linguistic, ethnic, or cultural minorities and children from other disadvantaged areas or groups, (p.6)

With such strong international and national conventions and directives on the inalienable rights and mandates of special needs education, it is now the 'inalienable duty' of school and in essence the teachers, to ensure that children with special needs learn as much as their 'normal' counter parts.

Again as the UNESCO document on Framework for Action on Special Needs Education (1994) puts it, such schools must "recognize and respond to the diverse needs of their students, accommodating both different styles and rates of learning and ensuring quality education for all through appropriate curricula, organisational arrangements, teaching strategies, resource use and partnerships with their communities" (p. 11-12)

In order for special education to rise to the need of the special children and play its role as an integral part of the overall educational program package, the involvement of the government is necessary and ever since the inception of formal education system in the country, direct government involvement was the key factor in its success. For the special education in the country to succeed and cater effectively to needs of children with impairments or disabilities, government involvement should continue. This is especially necessary when the allocation of resources, to a great extent, is done by the Ministry of Education. In collaboration with some international agencies, the government has established special education units in some pilot schools and an independent school for the visually impaired children. Further, a separate unit called the Special Education Unit, under the aegis of the Ministry of Education, has been established. Such support and involvement of the government is crucial for the program to be successful.

The area that the Ministry may want to look into is the training of teachers to effectively respond to the educational and psychological needs of children with special education needs. Although the trend of the governmental involvement in the form of the Ministry of Education is a positive step, abstract directives and memos would not serve much purpose unless the ground issues are addressed appropriately.

Having competent teachers, flexible curriculum, resources like infrastructure, materials and finance would be more constructive than all those memos put together. The issue here is how far are we ready to go, and by the same token, relinquish some of our tightly held territorial authority, to bring about and empower the schools and teachers to competently carry out this special program? There are no dearth of examples where programs were initiated 'with full of sound and fury' owing, one would presume, to some political/international pressure and/or conventions and the same program later falling on the blind spot of the 'officials' as some new, pressing program come up to fulfill pressing conventions or eligibility criteria. These are issues that are clamoring for immediate attention should special education need to succeed. The theme for one of the Annual Education Conferences was "Toward Inclusive Schools". This speaks of the importance that the government attaches to special education in the country and the intention of the government to revamp the system. Schools in the country are supposed to be all-encompassing, receptive to children from all walks of life and all types of forms. Thus integration is another issue and/or trend in the education system in Bhutan. The Ministry of Education seems to have accepted integration as the best form of education for people with disabilities without considering the implications. The ministry greatly emphasizes the standard and quality of education. People with disabilities are to go along with the standard and quality. As Abosi, (2000) puts it, 'various researches have expressed concerns about including students with disabilities in general education classes at a time when the forces of reform have been ardently calling for an increased commitment to education excellence and rigor' (p. 48)

The issue of integration of people with disabilities is one that must be considered with care and detachment. Many teachers in the country have also expressed reservations about integration of people with disabilities despite its advantages.

Although the Ministry of Education pronounces integration of people with disabilities in ordinary school, no concrete plan as far as the schools and teachers are concerned, have been put into force. Avosi and Molosiwa (1997) pointed out that 'integration of children into ordinary schools has many implications for teachers and planners. For example, it requires attitude change, additional teaching materials, resource teachers, and modification of infrastructure'. They also stated that "placement of a child with disability in a regular school without the relevant provisions could be frustrating for both school authorities and the child".

Although there is a deliberate effort to establish units, classes, schools and resource centers for people with disabilities in the county, there is a need to further expand such programs to reach out to all those children with disabilities who have not even a clue to the existence of such programs specifically designed for them. The two special education units in the two regular schools and a school for the visually disabled may not be enough if we are really serious about the less fortunate.

In order for the system to succeed and achieve the desired goal, the key factor in the success or failure of either special education or integrated school system is the teachers. We may have the best of infrastructure, the best of policies and guidelines, the best of political and administrative will, but teachers are the key players in this whole process.

The present system is to choose or 'hand pick' a few teachers from the general pool of teachers in the system, send them for some crash-courses and/or study tours and post them in either of these two schools with special education unit. What we, especially Special Education, and more importantly, children with special needs need, is competent, specifically trained and dedicated teachers and unit heads, who have the passion, who can empathize with them, who would go to the end of the world for their cause rather than opportunists

Further, in the inclusive or integrated school system, the teachers should be well trained to handle such children with care, be able to swallow their frustrations and persevere. The outlook then should be 'teachers as human beings' and not like some kind of robots or machines that can be put to any use.

In the present system there is no clear cut guidelines as to how such children with disabilities are recognized, identified and be admitted into the special schools. The onus mostly is on the parents, who are a confused lot at best and frustrated at worst. The schools have no directions as to how special education may be availed by a deserving student.

In this direction, the Special Education Unit in the Ministry of Education may need to justify its existence by playing a proactive rather than a reactive role. It may have to spearhead efforts at identifying children with special needs, a service that need to be spread out to encompass the entire population rather than a select lot. A proper system of identification, assessment and placement may need to be put in place and should form an integral part of the overall responsibility of the Special Education Unit. There is the need to short-circuit bureaucracy and red-tapism in this area.

Although there is very strong political and administrative will at mainstreaming the children with disabilities, concrete policies need to be in place so that the program succeeds. For example Botswana has developed a National policy on Care for People with Disabilities, which was approved and adopted by the government through presidential directive. Few of the principles of the policy include the following:

- To recognize and protect the human rights and dignity of all individuals.
- To ensure participation of the basic entities of society

- To strive for a society where all individuals, including those with disabilities, develop their abilities to the fullest.
- To ensure that people with disabilities have the right and responsibility to determine their own well being.
- To ensure that integration of people with disabilities into the society is actively promoted.

Although our Constitution ensures the welfare and well being of all citizens, a separate national policy on the integration of people with disabilities might be required to provide legal backing and framework for the special needs education to gain momentum.

Given the fact that students with special education needs demonstrate a wide range of learning abilities, learning styles, and learning preferences, curriculum reform and adaptation may need to be effected. Such a practice would ensure meaningful access to curriculum, information, materials, equipments and instruction that these students would need. Curriculum is the single most significant factor or barrier that could determine the learning outcome of students.

This leads us to the issue of curriculum flexibility that is essential. Given the academically demanding, subject oriented and centrally controlled curriculum, flexibility is a luxury that teachers and schools cannot afford. In order that special education and in essence inclusive education succeed, it is vital that the central authority offer schools and teachers certain degree of flexibility in terms of curriculum adaptation, coverage and usage based on local conditions and constraints/strengths.

Special education needs or SEN must form an integral part and parcel of the overall formal education system in the country. Right to basic education is an inalienable right of all citizens and more so for the children with special education needs. The establishment of various special education units in schools and at the Ministry bears testimony to the purpose and intent of the government. Further, the focus of the Ministry in promoting all schools to be 'inclusive' schools is indicative of the seriousness with which the Ministry view this need.

While teachers and schools are appreciative of these directives, there is a clear need of having right people, resources, time and space, sound policies at the helm of affairs. The right kind of teacher education, curriculum and resources in schools would go a long way in making our schools inclusive and for special education succeed in the country. After all, with a population of just about a little over six hundred thousand, how many special education needy children can there be in Bhutan?

In the final analysis, more than directives and memos, we need sound and strong policies, adequate resources, competent and well grounded teachers and the 'luxury' of flexibility and independence to execute curriculum and its contents. If special education needs of children with disabilities are addressed appropriately many might academically perform well and succeed in life like any other typically growing children. This could lead to effective revamp of the special education program and make a difference in the lives of children who are otherwise neglected and ignored from most of the welfare services including main stream education.

References

- Abosi, C.O. (2000). *Trends and issues in special education in Botswana*. Gaborne Botswana: University of Botswana.
- Abosi, C.O. (1996). Early childhood education of children with disabilities in Botswana. *Africa journal of special education*, V(1), 33-40
- Abosi, C.O., 7 Molosiwa, S.M. (1997). In Abosi, C.O. *Trends and issues in*

special education Botswana (p.49). Gaborone, Botswana:
University of Botswana.

UNESCO (1994). Framework for action on special needs education. In Dorji, T.

Why inclusive education (p.6). Sydney. Australia:University of Technology.

Change of Quality of life through Literacy in Bhutan using Fuzzy Cognitive Mapping (FCM)

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Abstract

The internal and external expert spell's out nine concepts as the benefits relating to the existence of the public library system in Bhutan as Human benefits, Political benefits, Democracy, Ethnic Equality, Cultural benefits, Social benefits, Health benefits, Education benefits and Economic benefits. About 1120 individuals were interviewed. Using Fuzzy cognitive Maps the hidden pattern of the existence of the public Library in Bhutan is found.

This paper has four sections. In the first section we introduce the notion of fuzzy cognitive maps and combined Fuzzy Cognitive Maps (CFCMs). In section two we describe the problem and justification for the use of FCMs. In section three we give the adaptation of FCM to the problem. In the final section we give conclusions based on our analysis of the problem using FCM.

KEY WORDS: *Fuzzy Cognitive Maps (CFMs), Combined Fuzzy Cognitive Maps (CFCM), Public Library system, Social Benefits, hidden pattern, Literacy.*

Section-1

1.1 Introduction

Fuzzy set theory provides us with a respectable inventory of theoretical tools for dealing with concepts expressed in natural language. The tool enables us to represent linguistic concepts. Most of which are inherently vague. But fuzzy sets of various types, and to manipulate them in a great variety of ways for various purposes. They enable to express and deal with various relations, functions, and equations that involve linguistic concepts and they allow us to fuzzify any desired area to facilitate emerging applications. In this section we give some basic definitions and we study how a public library system in Bhutan is converted into a fuzzy model to get the maximum literacy benefits. **1.2. Definitions**

Let E be a set, denumerable or not, and let x be an element of E . Then **fuzzy subset** A of E is a set of ordered pairs $\{(x/\mu_A(x))\}$, for every $x \in E$, where $\mu_A(x)$ is the grade or degree of membership of x in A . Thus, if $\mu_A(x)$ takes its values in a set M , called the **membership set**. x takes its values in M through the function $\mu_A(x)$.

Let us write $U_Z(x): x \rightarrow M$

The function is called **membership function**. Methods developed for constructing membership function are applicable for constructing fuzzy set operations as well. Numerous methods for constructing membership functions almost based on expert's judgment have been described in the literature. All these methods are classified into direct methods and indirect methods.

In **direct method**, experts are expected to give answers to questions of various kinds that explicitly pertain to the constructed membership function. In our research study at least fifty persons in each District (Dzongkhag) have randomly been selected from all the twenty Dzongkhags. Since Thimphu, Chukha and Samtse are the most populated areas, some extra samples were added for these three Dzongkhags. All together **1120** samples have been collected, which counted as a good sample for the analysis of the

project and their opinions were given as data in the selected of attributes. As much as [possible the survey has covered both rural and urban areas to get collective opinion of the public.

In **indirect methods**, experts are required to answer simpler questions, and less sensitive to the various biases of subjective judgment, which pertain to the constructed membership function only implicitly. In our research study, one member from each zone of Bhutan were taken as the expert and their collective opinion also studied.

Neural networks are very useful in fuzzy set theory for constructing membership functions of relevant fuzzy sets. Neural network consists of simple computational units, called **neurons** that are highly interconnected. Each interconnection has a strength that is expressed by a number referred to as a **weight**. **1.3. Fuzzy Mathematical Model**

Measurements are taken of all variables that represent relevant conditions of the controlled process are converted into appropriate fuzzy sets to express measurement uncertainties. This is called **fuzzification**. The results of inferencing operation are a fuzzy set defined on the universe of possible actions. This fuzzy set is converted into a vector of values. This conversion is called a **de-fuzzification**.

The design involved the following five steps:

Step 1:

After identifying relevant input variable of the model and ranges of their values, we have to select meaningful linguistic state for each variable and express them by appropriate fuzzy sets. In most cases, these fuzzy sets are fuzzy numbers, which represent linguistic labels such as approximately zero, positive small, negative small, positive medium, and so on.

Step 2:

In this step, a fuzzification function is introduced for each input variable to express the associated measurement and uncertainty. The purpose of the fuzzification function is to interpret measurements of input variables, each expressed by the real number, as more realistic fuzzy approximation of the respective real numbers.

Step 3:

In this step, the knowledge pertaining to the given control problem is formulated in terms of a set of fuzzy interference operations.

Step 4:

Measurements of input variables of a fuzzy model must be properly combined with relevant fuzzy information rules to make inferences regarding the output variables. This is the purpose of the inference operation.

Step 5:

In this last step of the design process, the designer of a fuzzy model must select a suitable defuzzification method. The purpose of defuzzification is to convert each conclusion obtained by the inference operation, which is expressed in terms of a fuzzy set, to vector of values. The defuzzified values represent actions taken by the fuzzy mathematical model. **1.4 FUZZY COGNITIVE MAPS (FCMS)**

Fuzzy cognitive maps (FCMs) are more applicable when the data in the first place is an unsupervised one. The FCMs work on the opinion of experts. FCMs model the world of collection of classes and causal relations between classes.

FCMs are fuzzy signed directed graphs with feedback. The directed edge e_{ij} from causal concept c_i to concept c_j measures how much C_i causes c_j . The time varying concept function $C_i(t)$ measures the non negative occurrence of some fuzzy events, perhaps the strength of political; sentiment, historical trend or military objective.

FCMs are used to model several types of problems varying from gastric-appetite behaviour, popular political development etc. FCMs are also used to model in robotics like plant control. FCMs are the best suited tool in the study and analysis of the

unsupervised data. For, they are the only structures which can give the hidden pattern of the dynamical system.

Definition 1.4.1 FCM is a directed graph with concepts like policies, events etc. as nodes and causalities as edges. It represents causal relationship between concepts.

Definition 1.4.2 When the nodes of the FCM are fuzzy sets then they are called fuzzy nodes.

Definition 1.4.3 FCMs with edge weights or causalities from the set $\{-1, 0, 1\}$, are called simple FCMs.

Definition 1.4.4 Consider the nodes/concepts P_1, P_2, \dots, P_n of the FCM. Suppose the directed graph is drawn using edge weight e_{ij} from $\{-1, 0, 1\}$. The matrix M be defined by $M = \{e_{ij}\}$, where the e_{ij} is the weight of the directed edge $P_i \rightarrow P_j$. M is called the adjacency matrix of the FCM, also known as the connection matrix.

Let P_1, \dots, P_9 be nine attributes or nodes of FCMs. Suppose there is some causal flow of relation between the concepts P_i and P_j where $1 \leq i, j \leq 9$, this relation of how much the occurrence of P_i influence variations or changes in P_j can be described by signed directed graphs with feed back. Fuzzy Cognitive Maps are fuzzy signed directed graphs with feed back.

The directed edge e_{ij} from causal concept P_i to concept P_j measures how much P_i causes P_j .

The edges e_{ij} take values in the real interval $(-1, 1)$.

$e_{ij} = 0$ indicates no causality.

$e_{ij} > 0$ indicates causal increase P_j increases as P_i increases or P_j decreases as P_i decreases.

$e_{ij} < 0$ indicates causal decrease or negative causality

That is P_j increases as P_i decreases or P_j decreases as P_i increases.

Simple FCMs provide quick first-hand information to an expert's stated causal knowledge. We use in this Chapter, only simple FCMs to study the problem.

Using the directed graphs we can obtain the causal connection matrix M which is a 9×9 matrix with entries from the set $(0, 1, -1)$.

Definition 1.4.5 Let P_1, P_2, \dots, P_n be the nodes of an FCM. Let $A = (a_1, a_2, \dots, a_n)$ is called a state vector where either $a_j = 0$ or 1

If $a_i = 0$ implies the concept C_i is in the OFF state.

$a_i = 1$ implies the concept C_i is in the ON state, for $i = 1, 2, \dots, n$

Definition 1.4.6 Let P_1, P_2, \dots, P_n be the nodes of an FCM... Let $P_1, P_2, P_2, P_2, \dots$ be the edges of the FCMs.

Then the edges form a directed cycle. An FCM is said to be cyclic if it possesses a directed cycle. An

FCM is said to be acyclic if it possesses any directed cycle.

Definition 1.4.7 An FCM with cycles is said to have a feedback.

Definition 1.4.8 When there is a feedback, then FCM is called a dynamical system

Definition 1.4.9 when P_i is switched on and if the causality flows through the edges of a cycle if it again causes round and round. An **equilibrium** in this system is attained when we have a set of repeated patterns. Repeating patterns can be **fixed points or limit cycles**.

A fixed point is a single recurring pattern such as, say, $P_5 \rightarrow P_3$ in the pattern $P_1 \rightarrow P_2 \rightarrow P_3 \rightarrow P_3 \rightarrow$. A 'Limit cycle' is a set of multiple repeating patterns such as $P_3 \rightarrow P_4 \rightarrow P_5 \rightarrow P_1 \rightarrow P_2 \rightarrow P_3 \rightarrow P_4 \rightarrow P_5 \rightarrow P_3 \rightarrow P_4 \rightarrow P_5 \dots$

Thus the fixed point or limit cycle is known as the **hidden pattern** of the system.

The state vector is updated and threshold at each stage. Inference from the hidden pattern summarizes the joint effect of all interacting fuzzy knowledge. Since the data is

an unsupervised one and the study is done using only expert opinion, we to obtain an unbiased analysis of our problem and conclusions use the combined FCM. In combined FCM equal weight ages are given to each expert. FCM combination provides an unbiased solution to this problem. We can additively superimpose each experts opinion given as an FCM in an associate – memory fashion, even though the FCM connection matrices M_1, \dots, M_k may not be conformable for addition. Combined conflicting opinions tend to cancel out and assisted by the strong law of large numbers a consensus emerges as the sample opinions approximates the underlying population opinion. By adding these augmented FCM matrices M_1, \dots, M_k . We permute the rows and columns of the augmented matrices to bring them into mutual coincidence. Then we add the M_i , point wise to yield the combined FCM matrix M .

$$M = \text{"}M, \quad (\text{i.e.}) M = M_1 + M_2 + M_3 + \dots + M_k$$

1.5. Justification for using FCM model

For this project, 1120 individuals were interviewed using questionnaire. As the problems faced by them at large involve so much of feelings, uncertainties and unpredictability we felt it deem fit to use fuzzy theory in general and fuzzy cognitive maps in particular. FCMs are the best suited tools when the data is an unsupervised one. Further the FCMs are so powerful they can give the hidden pattern of the problem.

Using an expert's opinion we study the public library system in Bhutan. The internal and external expert's spell out nine concepts as the benefits relating to the existence of the public library system in Bhutan as

P_1	-	Human benefits
P_2	-	Political benefits
P_3	-	Democracy
P_4	-	Ethnic Equality
P_5	-	Culture benefits
P_6	-	Social benefits
P_7	-	Health benefits
P_8	-	Education benefits
P_9	-	Economic benefits

According to this expert, the increase in the number of public libraries in Bhutan increase the literacy rates through which more benefits will be attained and in turn this benefit become the root cause of Gross National Happiness.

❖ **Gross National Happiness**

The term **Gross National Happiness (GNH)** was first expressed by His Majesty the 4th king of Bhutan **Jigme Singye Wangchuck** in the year 1972. It is rooted in the Buddhist country; Bhutan's King felt the responsibility to define development in terms of happiness of its people, rather than in terms of an abstract economic measurement of Gross National Product". The principle describes the development as a continuous process towards a balance between material and non-material needs of individuals and society. The country's philosophy of development while recognizing the importance of economic growth as essential, to support and nurture the spiritual and social needs of the community, is not an end in itself, but one among many means of achieving holistic development. GNH is based on the ideology that the pursuit of happiness found in all people is the strongest force of desires. It is a "middle path" approach in which spiritual and material pursuits are balanced.

The GNH programme is for social and economic revision toward implementation and institutionalization of the belief that development should promote happiness as its primary value. Equal importance must be placed pm Socio-economic development,

spiritual, cultural and emotional needs of the people. Economic growth is just one aspect that improves the social requirements of society and is not seen as the dominating force in development. GNH has become the philosophical foundation for the policy making process and implementation in Bhutan. This is apparent in the 9th and 10th Five Year Plans of Bhutan, in which GNH is the overarching structure.

The four pillars of GNH are

- Sustainable and equitable socio-economic development
- Conservation of environment
- Preservation and promotion of culture
- Promotion of good governance

Sustainable and equitable socio-economic development does not prohibit economic growth and development, but is implemented by placing a priority on health and education sectors. It is estimated that over 30% of the national budget of Bhutan is allocated on the social sector. This financial dedication is tangible evidence of the government's commitment to provide a secure livelihood for its citizens and one in which its population is healthy and educated. Along these same terms, capacity building in the development of professional skills to manage development has been a common programme implemented. The equitable socio-economic development can be achieved through literacy. About 1120 individuals were interviewed using questionnaire to find the feelings of Bhutanese towards literacy and their benefits towards GNH. These benefits are identified as the attributes of FCMS. Their respond were compared in terms of literacy level.

Literacy is:

- A right still denied to nearly a fifth of the world's adult population.
- A societal and an individual phenomenon, with attention needed to both dimensions.
- Crucial for economic, social and political participation and development, especially in today's knowledge societies.
- Key to enhancing human capabilities, with wide-ranging benefits including critical thinking, improved health and family planning, children's education, poverty reduction and active citizenship.

Literacy is a right. It is implicit in the right to education. It is recognized as a right, explicitly for both children and adults, in certain international conventions. It is included in key international declarations. Research has focused on the impact of literacy upon the individual.

This section thus briefly rehearses the benefits of education in general and, whenever possible, examines the specific benefits of adult literacy programmes. The limited available evidence suggests that, as far as cognitive outcomes are concerned, the successful completion of adult literacy programme yields benefits similar to formal schooling.. Adult literacy programme can produce more adult-specific outcomes, such as political awareness, empowerment, critical reflection and community action, which are not so much identified with formal schooling. Indeed, learners' statements on the benefits of participating in adult literacy programmes include the positive experiences of the process and the social meeting space of literacy groups. . Less measurable benefits such as these are about human development dimensions, including social cohesion, social inclusion and social capital. The benefits of literacy can be conveniently, if arbitrarily, classified as human, political, cultural, and social and economic.

P₁ - **HUMAN BENEFITS**

The human benefits from literature are related to factors such as the improved self-esteem, empowerment, creativity and critical reflection that participation in adult literacy programmes and the practice of literacy may produce. Human benefits are intrinsically valuable and may also be instrumental in realizing other benefits of literacy: improved health, increased political participation and so on. There is extensive reference to the positive impact of literacy on self-esteem. Improved self-esteem has been reported in studies of literacy programmes in Brazil, India, Nigeria, the United States, and several African and South Asian countries. A review of forty-four studies on the behavioral changes involved in literacy training (Brown, 1990) also provides many examples. Literacy may empower learners – especially women – to take individual and collective action in various contexts, such as household, workplace and community, in two related ways. First, literacy programmes themselves may be designed and conducted so as to make participants into authors of their own learning, developers of their own knowledge and partners in dialogue about limit situations in their lives' (Easton, 2005).

P₂ - **POLITICAL BENEFITS**

The empowering potential of literacy can translate into increased political participation and thus contribute to the quality of public policies and to democracy. The relationship between education and political participation is well established. Educated people are to some extent more likely to vote and voice more tolerant attitudes and democratic values. Participation in adult literacy programmes is also correlated with increased participation in trade unions, community action and national political life, especially when empowerment is at the core of programme design. For example:

- An adult literacy programme set up by workers at a Brazilian construction site increased participation in union activities.

P₃ - **DEMOCRACY**

The expansion of education may contribute to the expansion of democracy and vice versa, yet the precise nature of the relationship between education and democracy remains unclear and difficult to measure accurately (Hannum and Buchmann, 2003).

P₄ - **ETHNIC EQUALITY**

It is probably reasonable to assume, however, that the impact of literacy is likely similar to that of educational expansion, i.e. that it has the potential to benefit disadvantaged ethnic groups but will not necessarily do so. A range of experiences appears to support the statement that 'It is not safe to assume that expansion in access to education will allow disadvantaged minorities to 'catch up' with initially advanced ethnic groups, at least in the short run' (Hannum and Buchmann, 2003, p.11).

P₅ - **CULTURE BENEFITS**

The cultural benefits of literacy are harder to identify clearly than benefits in terms of political participation. Adult literacy programmes may facilitate the transmission of certain values and promote transformation of other values, attitudes and behaviors through critical reflection. They also provide access to written culture, which the newly literate may choose to explore independently of the cultural orientation of the literacy programmes in which they participated. Adult literacy programmes can thus be instrumental in preserving and promoting cultural openness and diversity. However, 'any effect that literacy may have on the culture (i.e. what people believe and how they do things) of an individual or group will be slow, will not be easily and immediately accessible, and will be difficult to identify an outcomes of a single intervention such as a literacy and adult education programme' (Farah, 2005).

P₆ - SOCIAL BENEFITS

The practice of literacy can be instrumental in people's achievement of a range of capabilities such as maintaining good health and living longer, learning throughout life, controlling reproductive behaviour, raising healthy children and educating them. Improving literacy levels thus has potentially large social benefits, such as increased life expectancy, reduced child mortality and improved children's health.

The evidence has often focused on the benefits of education, as opposed to literacy per se, but evidence on the effects of adult literacy programmes is beginning to accumulate. Most literacy programmes have targeted women rather than both sexes, limiting the ways in which gender equality can be addressed holistically and directly through the programmes themselves. The programmes have thus tended to concentrate specifically on women's inequality themselves. The programmes have thus tended to concentrate specifically on women's inequality rather than gender equality. Participation in adult literacy programmes does enable women to gain access to the challenge male domains by, for instance, entering male dominated areas of work, learning languages of power previously associated with men (where only men had access to formal education) and participating in household finances. Examples of elite languages newly available to women include English in Uganda and 'posh Bangla' in Bangladesh. In some Bangladesh households, literacy has enable women to become involved in the financial management of the household, previously controlled by men. In India, an evaluation of a literacy programme using the total Literacy Campaign approach showed that; women learners had a strong desire to learn. They liked to go to the literacy classes because this gave them an opportunity to meet others and study collectively. Thus, literary classes provide women with a social space, away from home'. Many women have reported that acquiring literacy and attending a class is in itself a threat to existing gender relations. Literacy programme participants can gain more voice in household discussions through their experience of speaking in the 'public' space of the class, though this may vary according to context and the kind of decisions involved.

P₇ - HEALTH BENEFITS

A growing body of longitudinal research evaluating the health of literacy programmes points to the same impact as that of education, and indeed in some cases, to greater impact. For example, infant mortality was less, by a statistically significant amount, among Nicaraguan mothers who had participated in an adult literacy campaign than among those who had not, and the reduction was greater for those made literate in the campaign than for those made literate in primary school. Bolivian women who attended literacy and basic education programmes displayed gains in health-related.

P₈ - EDUCATION BENEFITS

Literacy has important educational benefits. It used to be thought that literacy contributed to the development of abstract reasoning. This now appears less likely. Studies in Liberia, Morocco, the Philippines and the United States indicate, rather, that abstract rather, that abstract reasoning is the result of formal schooling. In general, 'the effects of literacy are more likely to be determined by formal schooling, socialization, and the cultural practices of a particular society than by literacy per se'. However, literacy does help people understand decontextualized information and language, verbal as well as written.

P₉ - ECONOMIC BENEFITS

The economic returns to education have been extensively studied, especially in terms of increased individual income and economic growth. Education has been consistently shown to be a major determinant of individual income, alongside professional experience. While the number of years of schooling remains the most frequently used variable, recent studies tend also to use assessments of cognitive skills, typically literacy and innumeracy test scores. These studies show that literacy has a positive impact on earnings, beyond the impact of the quantity of schooling; studies of the

impact of adult literacy programmes are much rarer. However, the relationship between educational expansion and economic growth in the aggregate has proved surprisingly difficult to establish, for several reasons. Hannum and Buchmann (2003), in their literature review, propose that the apparently inconsistent findings may result from the 'difficulty of distinguishing the effects of growth on education from the effects of education on growth, and the possibility that other factors drive both educational expansion and economic growth.' Krueger and Lindahl (2000) suggest that the issue had more to do with measurement errors in education data and with the time horizon: they show an increase in schooling having no short-term impact on growth, but a statistically significant effect over the longer term (ten or twenty years). Several studies nevertheless find that economies with a larger stock of human capital or rate of human capital accumulation do experience faster growth. An influential paper by Pritchett (2001), however, concludes that educational expansion has failed to contribute to economic growth owing to the lack of an adequate institutional environment.

Section - 3

3. ADAPTATION OF FCM TO THE PROBLEM

Using the questionnaire and the experts' opinion we have taken the following nine attributes (P_1, P_2, \dots, P_9). It is not a hard and fast rule we need to consider only these nine attributes but one can increase or decrease the number of attributes according to needs. The following attributes are taken as the main nodes for study.

P_1	-	Human benefits
P_2	-	Political benefits
P_3	-	Democracy
P_4	-	Ethnic equality
P_5	-	Cultural benefits
P_6	-	Social benefits
P_7	-	Health
P_8	-	Education benefits
P_9	-	Economic benefits

The causal connection matrix M_1 is given by the first expert who is a student in the East zone of Bhutan

Using the dynamical system given by the first expert we determine the hidden pattern. Suppose the attribute P_1 that is no property is in the ON state and all the nodes are in the OFF state. Let the initial input vector be $X = (1 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0)$, where Human benefits as the ON state and all other nodes are in the OFF state.

The effect of X on the dynamical system M_1 is given by:

$$\begin{aligned}
 XM_1 \quad (101110100) &= X_1 \text{ (say)} \\
 X_1M_1 \quad (101111100) &= X_2 \text{ (say)} \\
 X_2M_1 \quad (101111111) &= X_3 \text{ (say)} \\
 X_3M_1 \quad (101111111) &= X_3
 \end{aligned}$$

(Where '!' denotes the resultant vector after thresholding and updating) X_3 is the hidden pattern which is the fixed point. When P_1 , "**Human benefits**" is in ON state (P_1) **Empowerment, Democracy, Ethnic equality, Cultural benefits, Social benefits, Education benefits and Economic benefits** all are in the ON state. **Political benefits** only in the off state. Thus self – esteem has a vital impact on the system. We have given a C-Programm to make the calculations of the problems simple in appendix. Using the C-programme we derive the hidden pattern and the conclusions are based on these analysis.

The causal connection matrix M_2 is given by an expert who is a NGO from central Bhutan

Using the dynamical system M_2 given by the second expert, when only Social benefits is in the ON state that is say the state vector $Y = (0\ 0\ 0\ 0\ 01\ 0\ 0\ 0)$ and all other attributes are in OFF state, we using the C program get the resultant vector as $(0\ 0\ 0\ 0\ 0\ 1\ 1\ 1\ 1)$ which is the fixed point of the dynamical system.

The causal connection matrix M_3 is given by a public servant living in the Western Bhutan

Using the dynamical system M_3 given by the third expert; when only **Democracy** is in the ON state the state vector $Z = (0\ 0\ 1\ 0\ 0\ 0\ 0\ 0\ 0)$. We using the C program get the resultant vector as (001111001) which is the fixed point of the dynamical system, that is poverty makes on the nodes P_4, P_5, P_6 and P_9 come to the on state and P_1, P_2, P_7 and P_8 are in the off state.

Now using M_1, M_2 and M_3 we obtained the combined matrix M ,

$$M = M_1 + M_2 + M_3.$$

Using the dynamical system, M_3 when only the node "**Political benefits**" is the ON state that is say the state vector $N = (0\ 1\ 0\ 0\ 0\ 0\ 0\ 0\ 0)$, we using the C program get the resultant vector as $(1\ 1\ 1\ 1\ 1\ 1\ 1\ 1\ 1)$ which is the fixed point of the dynamical system, i.e., all the nodes come to on state which shows that by establishing good public libraries in a right place will help the people to get all the benefits viz. **Human benefits, Political benefits, Democracy, Ethnic Equality, Cultural benefits, Social benefits, Health benefits, Education benefits and Economic benefits.**

Section – 4

4. Suggestions to Establish Public Libraries

From this study the following conclusion and suggestions were derived. The adult literacy programme and policy-makers in Bhutan have so far virtually left public libraries out of their scheme of things. All efforts and the huge amount of money being pumped into their literacy programmes will continue to be a little consequence so long as well-convinced rural library system. However, to eradicate illiteracy from Bhutan, the following programme of action at national level is suggested.

- A public library grid should be established in all the twenty districts (dzongkhags) of the country with their branches in all over two hundred blocks/ taluks (gewogs). The establishment of public libraries for all districts and blocks should be completed within ten years.

- NGOs may take a vigorous and integrated programme jointly with the government to establish and maintain village libraries and information resource centre.
- A favorable government policy relating to public library may encourage among NGOs in this regard.
- The village libraries should run night schools and impart adult education and literacy.
- The librarian should be entrusted with the responsibility of creating reading habits among the village people, especially among the children and school-going students.
- Separate budget should be allocated for library service under the Adult Education Programme funds.. In this regards, the government should give more funds for the development of public libraries.
- The primary and Mass Literacy Directorate, Non-formal Education Directorate, Rural Development and Co-operatives Division and the Social Welfare Directorate may prepare their own action plan for using their own potentiality in the promotion of mass literacy.
- The government should set up publishing houses to produce cheap, plentiful and suitable reading material which can be distributed free of charge that may be helpful to be literate.
- The Government of Bhutan has to give top priority to mass literacy. So, different activities and programmes for promoting literacy are being implemented through the government agencies and NGOs.
- The Government of Bhutan should take necessary steps to involve public libraries in the literacy movement, Public library services should be strengthened, and support services, like the radio and film vans, should be introduced in the adult education programmes. Without these ancillary services, the neo-literates will soon relapse into illiteracy. Organize seminar, workshop, training programmes for information, documentation and library personnel. And conduct study/research in various facets of library and information science and services.

Reference

American Library Association: Minimum Standards for Public Library Systems. New York: ALA, 1966.

Centre of Bhutan Studies (2007): Rethinking Development: Proceedings of Second International Conference on GNP, Thimphu: Centre of Bhutan Studies, 2007, pg.78-96

http://en.wikipedia.org/wiki/Jigme_Khesar_Namgyal_Wangchuck

<http://www.bhutan.gov.bt/government/dzongkhag.php>

<http://www.ifla.org/VII/s8/unesco/eng.htm>(Unesco Manifesto, 1994)

<http://www.tn.gov.in/policynotes/archives/policy2003-4/sedu/Public%20Libraries.htm>

Realizing the Golden Triangle: A preliminary study on teacher-parent bonding towards delivery of quality education

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"Quality is never an accident; it is always the result of high intention, sincere effort, intelligent direction, and skillful execution; it represents the wise choice of many alternatives." (Quality in Education By Willa A. Foster)

Introduction

This is an era of increasing concern about the quality of education. In Bhutan too, the government is taking extra initiatives and playing a much greater role in monitoring and maintaining academic standards.

Quality of education is a one of the burning issues here in Bhutan which has triggered strong reactions from the different social strata. The cabinet is worried, the parliamentarians are apprehensive, the educators are overwhelmed, and the teachers and the parents are anxious and vexed than ever about the much discussed and debated issue of so called 'deteriorating quality of education.'

In June 2006 it was even discussed and debated in parliament. The Prime Minister's office issued an executive order expressing an urgent need to reform the education sector, *"even at the cost of other developments."*¹

All these discussions on quality of education primarily rested on the school campus and always presented teachers in a highly critical light. Following the concerns articulated by the public in the print media, several studies had been carried out to identify the problems and suggest possible solutions. For instance, an Education Review Commission was created to conduct a study on the decline in the quality of education and recommend approaches of overcoming the problems. Unfortunately, the results of the study are little known to the public. This was followed by two separate studies by Rinchen Dorji and Centre for Educational Research and Development (CERD), the findings of which were at polar ends.²

However, what to some may seem a subject disconnected from school curriculum, activities, and the education of students, the parenting factor lies at the bottom. No specific studies have been carried out on strengthening of parent-teacher bond as an alternative to enhancing the delivery of quality education notwithstanding its magnitude.

Parent-teacher bonding is seen as a vital approach towards enhancing learning. Toward this effect, Plowden (1967: 37) points out that one of the essentials for educational

¹ Penjor, U., August 27, 2006. *Shifting gear: quality of education*. In Kuensel.

² The study findings (manuscript 2006) of Rinchen Dorji (Lecturer, Paro College of Education, Royal University of Bhutan) revealed that one of the main causes of the decline in the quality of education is the de-motivated teachers while the one by CERD contradicted it.

advance is a closer partnership between the two parties (i.e schools and parents) to every child's education. The parent is the central contributor to a child's education.

Parents and other family members play an important role in helping a child. They are a "*child's first and most influential*" teachers. And a child's meaningful education comes from the pressures created by an active and constructive parent-teacher interaction.

Like wise many studies recognize that a child's effective learning can be achieved through a robust, healthy and dynamic interaction between parents and teachers. In our endeavour to promote the quality of education we need to look beyond the traditional concept of learning and see it in a broader conception of parents as full partners in education and view children's learning as a "shared responsibility" among stakeholders, including parents.

Therefore this preliminary study³ attempts to explore this domain by asking several questions: How do the schools in Bhutan involve parents? What are the expectations of the school from the parents? What is the extent of parents' participation in the school activities and in guiding their children at home? What are the views of parents, students and teachers on parent involvement in the education of the children both at home and in the school? Further, this paper also reflects on the possibilities of engaging parents meaningfully to enhance the quality of education.

Quality of education: a 21st century perspective

Education in the 21st century traverses the frontiers of providing students with just academic knowledge and skills. It means helping children to live productively in our rapidly changing and increasingly complex society and requires contributions and commitments from everyone in the community. It also means preparing a workforce and creating a responsible citizenry. Quality of education means stimulating creative thinking, developing problem-solving skills and life skills and laying emphasis on application of knowledge.

To this end quality of education does not lie confined within the school campus. Neither does it just restrict itself to numbers and quality of teachers. It is not just about how well the Government plays its role. It looks beyond the school curricula, teacher training, pedagogical practices, teachers' professional ethics, facilities and school culture, for instance. Quality of education is all these and more. It is what goes inside the classroom and beyond. It addresses the learner as a "*whole child*" and as a "*whole person*". It goes beyond the school buildings and connects teachers, students and the community to the wealth of knowledge that the world embodies. The concept of wholesome education which charts out the education path in the schools in Bhutan answers to demand of the 21st century education.

This means that 21st century children need to be provided with extended learning opportunities and this can be achieved by involving all the key influences in the children's lives- families, communities and schools.

With frequent interactions between the teacher and the parents, Epstein (1995: 702) stresses that "*more students are more likely to receive common messages from various people about the importance of school, of working hard, of thinking creatively, of helping one another, and of staying in school.*"

In fact, education in the 21st century is a paradigm shift from learning of children as a responsibility of teachers to learning of children as a joint responsibility of teacher-

³ This study was conducted primarily through teacher, parent and student interviews, teacher, parent and student questionnaire and literature review.

parent-student triad. And it is this triad, this golden triangle which needs to be completed.

Realizing the Golden Triangle

Conventionally, a teacher is at the heart of our education. The sheer magnitude of what is expected of the teachers and the schools endows them with special status. Yet, can we afford to leave everything on their shoulder? If the student performance is dismal, who is accountable for this? Who do we blame? Oftentimes, very eagerly and rather uncritically we think of just the two – either the teacher's lapses or the student's failure. Very seldom and very few think beyond. If the quality of education goes down, is it fair to toss the blame on to the teachers alone – a single stakeholder? What about the others like the curriculum, the policy makers and the school authorities? What about the parents? For, at the heart of a child's education lies the parents' untiring interest in their children's learning.

Teachers alone cannot help children develop intellectually, personally, socially, and morally. It is the team of schools and families that play interconnected roles in this crucial mission of educating children; every member of the society has this shared moral duty and obligation, this one vision for our children. For building quality education is also about fixing accountability of every key stakeholder that can influence learning and education.

Therefore, the first move that we can make is to recognize that we cannot leave everything to the teachers as we have been doing for so long. If we seek to make major headways, we have to start involving ourselves as parents⁴ more deeply into the education of our children. For, elsewhere, parent involvement⁵ in the learning of their children is seen as an effective measure to further the quality of education.

A quality parent alone can produce a quality child and a quality child alone can make a good student. Many research works prove that the intelligence of babies is not a genetic factor, but an environmental factor decided by the quality of upbringing and parenting.

Parents are a child's first most influential teachers. Parents can teach, model and guide their children. They complete "big picture" in their child's education. In schools and in life, consistent support from parents is crucial to sustaining a student's confidence and achievement. So learning skills needs to be fostered at home.

In order that the benefits of teaching are fully realized, the soft aspects⁶ of learning should not be overlooked. The development of the soft aspects is decided more by the quality of parenting than by the quality of teaching and the infrastructure of the school. Given the pressure of syllabus and the need to finish the portions, a teacher may not be able to focus on developing the soft aspects among the children. A school may take many efforts through various interventions and activities toward this end but the intensity of these activities may not be adequate to substantially alter and mould the soft aspects of children.

⁴ The term "parents" has a reference to biological parents, adoptive and stepparents, and primary caregivers (e.g., grandmother, aunt, brother).

⁵ Parent involvement is widely defined "as having an awareness of and involvement in schoolwork, understanding of the interaction between parenting skills and student success in schooling, and a commitment to consistent communication with educators about student progress." This definition is also in line with the ones expressed by the teachers. Further, some of the informants (teachers) define parent involvement as "sharing of responsibilities."

⁶ The soft aspects include the mind, the attitude, the values and the various emotional issues of a child.

We also need to understand that teaching is different from learning. While teaching is initiated and controlled by the teacher in the classroom, learning is controlled by many other factors. Even though the quality of teaching may be very good and the school may be putting in great efforts, the quality of learning is a result of a collaborative process between the parents, students and the school. Unless the parents are adequately equipped to make full use of the efforts of the school, the full benefits of teaching will not reach the students resulting in a gap between teaching and learning. When normal teaching and learning processes of the classroom are insufficient to create learning the ability of the parents to enable and enhance learning home may be critical to children's educational success.

The home environment which is more friendly and familiar than the classroom, creates and offers *'teachable moments'* that any teacher can dream about.

Therefore, it is essential to strive towards realizing the formation of the golden triangle comprising the student, the teacher and the parents to accomplish quality learning of children at their early learning stage.

Parent involvement⁷ in schools in Bhutan: a preliminary stance

Years of research have demonstrated that parent involvement in children's education is a *"critical element of effective schooling"* and that family involvement significantly contributes to improved student outcomes. Students, parents, teachers, administrators, and communities all derive benefits from family involvement.

Henderson and Berla (2002: 1) state that *"when schools work together with families to support learning, children tend to succeed not just in school, but throughout life"*.

According to Walson (1983:175-180) *"Children of involved parents made significantly greater academic gains than children of non-involved parents"*.

Cervone and O'Leary (1982: 48-49) too lay emphasis on parent participation and points out that *"Children whose parents conducted activities with them at home significantly outperformed those receiving only in-school instruction"*.

Many studies prove that parent involvement in education of their children from early childhood has beautiful and powerful impact on children performance. It appears that the earlier the influence of parents is harnessed, the greater the likelihood of higher student achievement.

Parents know about the home situation, their extended family, history, health and issues related to the individual child. On the other hand, teachers know about the needs of all children in the setting, child development, learning, curriculum activities and peer relationships. Therefore, (Keyser, 2001) this combined knowledge of teacher-parent partnership should be harnessed to help children grow into responsible persons.

Parent involvement has been widely accepted as a valuable method to advance the delivery of quality education. But, what is the setting of parent involvement in schools in Bhutan? To what extent are the Bhutanese parents involved in their children's education? How informed are they on the educational front of their children?

A preliminary research⁸ conducted to this effect confirms that schools in Bhutan have varieties of activities and programmes which engage parents. The study findings⁹ show that parent involvement is generally in the following areas:

⁷ Parent involvement occurs when parents actively, critically, resourcefully and responsibly contribute to promoting and developing the well being of their communities (Family Support America, 2001).

⁸ The study was carried out in three schools in Thimphu comprising 50 students, 60 teachers and 60 parents in November 2008. The names of the schools and informants have been left out for confidentiality as

- Parents meetings.
- Term Result days.
- School concert.
- School Management Board Meeting.
- Students Parents Educational Activities (SPEA).
- Fete day.
- Admission time.
- School annual ritual.
- Sports day.
- Discipline problem.
- Mass clean up campaign.
- Celebrations like No Tobacco Day and World Aids Day.

What is remarkable to note is that there are two types of programmes that involves parents. One category such as school concert, sports day, fete day and celebrations requires the parents to be just physically present. The other like parent-teacher meeting, workshops and result day ideally demands the teachers and parents to interact and discuss on issues related to school activities, student performance, students' strengths and weaknesses. But, unfortunately, in many schools the programmes that are supposed to involve parents actively have become more of a formality. For instance, parents-teachers meeting day is a school dominated programme where the school authorities and teachers inform the parents of the school programmes and plans leaving very little or no time for parents to contribute meaningfully. Further, besides the parents-teachers meetings, parents are called to schools only when their children have discipline problems in the schools and not when they excel in some activities. We can see that the only time teachers and parents communicate is when there are problems related to children.

On the other hand, as voiced out by some teachers, many parents do not attend meetings and have time to consult teachers on the performance of their children. This, they said is another "frustrating" element of parent involvement.

Thus, though there are several programmes in the schools in Bhutan to involve parents, they seldom have much impact on the learning of students. Yet considering the positive impact these programmes have on the students they need to be formalized and strengthened.

For instance, even the programmes that require just the physical presence of the parents allows the parents to know one another and interact informally and discuss among themselves on the facilities and resources in the school, management of school, performance of the teacher, among others. These programmes should therefore serve as an informal parents' forum and schools should devise mechanisms to collect feedbacks after each programme.

The study¹⁰ shows that there is no effective parent involvement in schools in Bhutan but it can bring immense benefit to children's learning if parent-teacher bond is strengthened. More than 90% of the informants comprising parents, teachers and students feel that effective parent involvement can bring the following impact:

- Promote parent-teacher bond and interaction.
- Develop interactions between parents.
- Inform parents on school rules, regulations, policies, plans and programmes.
- Enhance parents' responsibility of educating children.

wished by them. The study involved formal and informal interviews as well as questionnaires. Most of the parent informants were literate & employed.

⁹ Ibid

¹⁰ Ibid

- Help parents/teachers understand strengths and weaknesses of children and respond accordingly.
- Parents understand the standard of teaching.
- Both parties devise ways to improve children's participation.
- Parents can support schools in decision making
- Provide timely advice to parents on their children.
- Understand the challenges faced by the teachers and respond accordingly.
- Communicate the expectations of the staff and parents to one another.
- Offer ideas to improve school administration.
- Generate a sense of ownership of the school in the parents.
- Promote children's learning.
- Curb discipline problems of children.

The programmes that involve parents in the schools in Bhutan are opportunities to enhance meaningful learning of the children. However, of the 60 teacher informants, 49 teachers expressed that the schools and teachers face the following challenges¹¹:

- Parents lack commitment and punctuality (parents-teachers meetings).
- Parents are passive.
- Loss of teaching time (uninformed visits).
- Demand school time adjustment.
- Parent-teacher conflict/disagreement
- Administrators and teachers worried that increased family involvement would add to their already busy schedules.
- Parents uncertain about making suggestions or asking questions (worried that children would be punished for their parents' actions by a teacher or principal who was annoyed or threatened by the parent).

The research¹² shows that there are still some parents who do not come to school. For instance, of the 50 student informants, 18 students shared that their parents do not find time to come to their school even when invited. They do not seem to feel comfortable about it. They expressed their uncertainty about their involvement in the school programmes. They do not know as to how they could contribute. As shared by many (informally) they feel inadequate and uncomfortable in the school setting. They feel that their participation does not help schools so they separate themselves from the process. But this does not mean that they don't care. This is especially true in the case of illiterate, non-English speaking, or unemployed parents who are living in the towns as they are under the impression that they cannot contribute in educating their children.

This strongly points out to the need of the school to gain the parents' trust and the confidence. The school must strive to engage in two-way, regular communication - a communication that is non judgemental and open that fosters a climate of mutual respect and trust while addressing issues related to school functions. Effective teams communicate, trust, support and inspire one another to the end goal.

Thus, it is important that schools strive to make all the parents realize that all of them have strengths and skills which they can contribute to their children's learning. Therefore, parents have to find out what they can contribute to support the teachers and school to enhance learning while schools have a responsibility to reach out to all parents.

In turn the parents' attitude toward learning needs to be changed. Working parents may not have much time to be involved at their children's schools, but they can show

¹¹ Ibid

¹² Ibid

how much they value education and take an active interest in what their children are learning.

To this effect, Whitaker and Fiore maintain that *"parents are parents– that today's parents are not significantly different from parents of 50 years ago. Parents still want what is best for their children"* (2003: 5). Regardless of the socio-economic background of the parents, all of them have unique strengths worthy of recognition and respect. *"One thing I have learned will stay with me no matter where I go or where I teach: Never underestimate the power of a parent"* adds Whitaker and Fiore to this effect (2003: 5).

Therefore, parents and teachers should avoid conflict and develop collaborative relationships that encourage the best educational opportunities for children.

Gauging the promising benefits and challenges of parent involvement in the learning process of the children convinces us that benefits clearly surpass the barriers. The barriers are related to time constraints and tension in the relationship between the teacher and the parent.

Although conflict is inevitable they can be approached in a responsive way.

An answer to this conflict and tension could also be to develop "School-parent compacts" which is a written agreement of shared responsibility with parents of students participating in such programmes. These compacts define school and parent goals for student achievement, outline each stakeholder's role in achieving those goals, and require effective communication skills by school personnel.

Family and school benefit when they cooperate. Children feel that their two most important - overlap and are integrated. Parents who help their children succeed academically gain a sense of pride in their children and themselves.

Thus, given the established benefits associated with engaging parents, it is worth the time and effort to create bridges between the two important worlds of the children. And the findings¹³ confirm that all the stakeholders agree that the school should employ practices to emphasize more parental involvement as an approach to enhancing the quality of education.

For instance, the teachers, parents and students even recommend several other opportunities of teacher-parent bonding. The opportunities of collaboration to enhance children's learning lie both at home and school and demands contributions and sacrifices from both parents and teachers.

For instance, parents can be involved in the following activities at home:

- Framing study time table.
- Guiding and helping children to revise lessons and write homework at home.
- Guiding during examinations.
- Being accessible to the needs of the children.
- Helping in development of reading habits.
- Acting as role models for children.
- Spending quality time with children.
- Monitoring children's work and progress.

In the school, parents can be involved in the following activities:

- Consulting class and subject teachers on strengths and weaknesses of children regularly.

¹³ Ibid

- Helping teachers with new ideas to better children performance.
- Participating in reading week programme.
- Participating in cleaning campaign.
- Taking part in extra and co-curricular activities.
- Volunteering in resource development.
- Discussing children's problems together.
- Informing the school on measures to be taken to improve the children's work.
- Resourcing school based-in-service programme.
- Visiting schools as guest speakers according to the needs and situations in the school.
- Volunteering and initiating new activities.
- Visiting school on monthly basis to see the child's progress.

As put forward by over 65% of the parent informants during the informal interview, one of the most important things that parents can do is to support the goals and the process of education in that school. It could well go beyond simply being physically present in the building but be very helpful and useful, so that there's a real partnership between the schools and the families and there's a commonality of interest. They can work with their children at home, energizing them and making their schools a good place to be in .

When the parents' involvement is effective and consistent with the school's goals and expectations, they help build a sense of efficacy for succeeding in the school.

Parents should come forward not only during times of crisis but also to constantly monitor the performance of the both the students and the teachers. They should take up a more pro-active role in their children's education. Parents may not still have recognition that they have a tremendous amount of collective power. And parental involvement seems to be the most untapped resource that we have here in Bhutan.

Ways to Stimulate parent participation in children's learning

How can we stimulate more parent involvement when they have demands of employment and even other external obligations? We may encounter barriers like answering to - How can we ask overburdened parents to help teachers educate their children? How can we be adequately sensitive to social and economic differences, and collaborate with illiterate parents?

Education Ministry has not yet ventured on conducting workshops or other formal trainings for the teachers to collaborate with parents or any professional training on parenting. Training can help teachers change and break away from the traditional ways of contacting parents only when a student is in trouble or during parents-teachers meeting.

Instituting effective programmes in schools will need its staff to be both open minded and well-organized in their approach to engaging parent participation.

Research has established that the most successful parent participation efforts are those which offer parents a variety of roles in the context of a well organized and long-lasting programme. Parents will need to be able to choose from a range of activities which accommodate different schedules, preferences, and capabilities. As part of the planning process, teachers and administrators will need to assess their own readiness for involving parents and determine how they wish to engage and utilize them.

The initiative of implementing these ideas should first come from the school. Thus, the first step in getting started with these ideas is to reach out to parents and share with them the benefits of family involvement in children's education. The parents should be

convinced that the schools need their participation to help in educating their children. They should also be informed that parent voices are valued in the school, and that they can be involved in the education of their children in many ways. This information will be most effective if communicated at the start of the school year and reinforced throughout the school year through newsletters, school diary and students themselves. To motivate parents to share the responsibility of educating the children, schools should therefore create conducive environment.

Schools should not be islands separated from the families they serve and the communities in which their student live.

Toward this end, the study findings¹⁴ suggest the following as measures to stimulate parent involvement by the school:

- Make parents feel welcome in the school.
- Encourage parent involvement from the time children first enter school.
- Start the school year with a parent teacher [conference](#).
- Accommodate parents' work schedules when creating parent-involvement opportunities.
- Continue to emphasize that parents are partners of the school and that their involvement is needed and valued.
- Develop a [plan to promote teacher-parent partnerships](#) at school.
- Invite parents to volunteer (bring their talents, skills, knowledge, experiences).
- Develop, in collaboration with parents, shared goals and missions concerning learning and development.
- Create a resource inventory to identify strengths of parents to be used when necessary.
- Establish open and two-way lines of communication for thoughtful and reflective conversation.
- Keep parents informed of their children's performance and school activities by means of notes, telephone calls, newsletters, conferences, and meetings.
- Offer mini-sessions for parents on ways that they can mirror learning strategies and assist their child in learning at home.
- Provide In-service training to teachers about techniques for engaging parents in learning.
- Design student projects requiring parental involvement
- Create opportunities for parents to be involved on various levels from the classroom to general school functions
- Educate parents on home-teaching techniques - (modelling, reading behaviour, conducting learning, activities at home, assisting homework, monitoring, encouraging the learning.

These findings are in line with the extensive research of Epstein (1995) and Epstein et al (2002), who proposes six core components of parent involvement which the school needs to ensure student achievement as illustrated in the table below:

Table 1

Type 1	Parenting	Activities are designed to help families understand young adolescent development, acquire developmentally appropriate parenting skills, set home conditions to support learning at each grade level, and help schools obtain information about students.
Type 2	Communicating	Activities focus on keeping parents informed through such things as notices, memos, report cards, conferences about student work, and school functions.

¹⁴ Ibid

Type 3	Volunteering	Activities incorporate strategies to improve volunteer recruiting, training, and scheduling.
Type 4	Learning at home	Activities allow coordination of schoolwork with work at home (e.g., goal setting, interactive homework).
Type 5	Decision making	Activities are designed to solicit the voice of parents in decisions about school policies and practices.
Type 6	Collaborating with the community	Activities acknowledge and bring together all community entities (e.g., with the community businesses, religious organizations) with a vested interest in the education of young adolescents.

Research has proven time and again that parent involvement is the key and the establishment of effective involvement programmes especially crucial to engage them. If school systems expect to see an impact on student achievement, then this planning process must begin now. After all the implementation of a parent involvement plan would result into student success and achievement. Parenting is not a sufficient condition in itself as it needs the school and the educators to produce a desired outcome. A close look at the findings of the preliminary study conducted for this paper and the ones by Epstein and her group reveals that the school and the teachers should make the first move to involve parents. Thus, it is time that our schools try out some of the approaches of encouraging parent involvement and strengthening the already existing programmes that engage parents. Slowly other new areas of parent involvement can be introduced which consequently would allow teacher-parent partnership.

Concluding remarks

While parent involvement is crucial and can be a promising method to bolster quality education, it is not an easy task to achieve. Today even in Bhutan we have the most diverse and the most complex family life patterns than ever before. Our life is crammed and fast-paced, we have numerous responsibilities, our hands are full and our attentions divided. And our ever hectic life leaves very little space for anything. To this end parent involvement may not be a priority among many issues which demand their time and attention.

But the truth remains that a parent who perceives his/her parental role as important and enjoys a personal sense of efficacy will make this fundamental choice and decision to become involved with the child's education. Whereas a parent who has a low or no sense of personal efficacy or parental commitment will, regardless of free time from other obligations will choose not to become involved. Parent involvement whatever forms will have a positive effect on children's educational success.

Similarly teachers and administrators are busy with an overwhelmingly multiple responsibilities and tasks. Considering the reality in schools in terms of scarce resources and scarce time, the school may not support an additional activity to encourage parent involvement. Furthermore it requires changes in traditional roles, responsibilities, expectations and schedules which can be challenging for the partners.

However we need to be convinced into treating this partnership as valuable and necessary part of a child's education. Both the parents and the educators have to view it as a priority and not as a supplemental, an additional activity, "that one more thing" that we try to accommodate into our schedule.

One should remember that building partnership requires time and a continued effort and commitments and more importantly a firmness in purpose and a willingness of all the stakeholders to explore all possible sources "to adopt and to adapt." The move towards seeing parents as equal partners may be slow but the foundations have to be laid. There clearly are many challenges but knowing that a collaborative approach will benefit children both today and far into the future we can beat the odds through this commonality of our purpose. We have to work together to address this "intersecting concerns." We must embrace this philosophy of parent-school partnership through

shared responsibility through a continual nurturing of this partnership. The idea may appeal and may be accepted, but acceptance does not always translate into implementation as we know.

Therefore parent involvement requires a communal vision and written educational policy and framework. It has to be a legitimate element of education.

Moving forward will take our nation as a whole to build on these efforts to strengthen parent teacher partnership. Our policies should start addressing children rather than just the problems themselves. We may have to put together the critical pieces of the education puzzle, such as parent involvement as an answer to the building a quality education.

Needless to emphasize, the setting up of partnership will cost hardly anything in terms of money but admittedly, it will take some amount of common "social will". Can we stand up to the challenge and make a decision that will change our collective destiny? We cannot afford to say no.

Quality education is the foundation upon which we have to build our society. The collective combinations of children, parents and teachers are vital to building a strong society. It has to be our first social priority. It is the most tangible investment which has the biggest multiplier.

So, let us invest into our future with our heart and mind by strengthening school-parent bond through parent involvement in the education of our children.

Sample Compact

PARENT

School-Parent-Community Partnerships

1. I will encourage my child to do well in school and be a good citizen in the classroom, respecting teachers, school staff, and other students.
2. I will maintain an environment and schedule at home that fosters learning and ensures that my child will attend school regularly, with the ability to learn and actively participate in school activities.
3. I will monitor out of school activities to ensure my child's well-being and safety and provide enough time for parent-child learning time together.
4. I will read all correspondence from the school and promptly respond to a request from a teacher or staff member concerning the well-being and educational activities of my child.
5. I will seek ways to assist my child in learning by reinforcing lessons from school and other community learning opportunities.
6. I will communicate to my child's teacher any circumstances that would directly affect my child's ability to learn.
7. I will make myself knowledgeable concerning the education standards set forth for the grade and subject matter for my child and be continually aware of the current status of my child's work.
8. I will volunteer personal time to my child's class and /or to the school to ensure that the school is meeting the educational needs of the community.

Signature: _____ Parent

Date: _____

Courtesy: Indiana Department of Education — Page 38

Sample Compact

TEACHER

School-Parent-Community Partnerships

1. I will encourage all of my students to do their best in school and help both my students and their parents in order for my students to achieve needed skills.
2. I will acknowledge the important role that parents maintain in the life of their child and reinforce that role with my students.
3. I will work to communicate with all parents consistently so that all parents are aware of classroom activities, their child's involvement, and how they can participate.
4. I will ensure that all parents are aware of the educational standards for the subject and/or grade that I am teaching, that parents have a copy of the curriculum outline, and that they are aware of subject matter and project time lines.
5. I will ensure that all parents know how to contact me or the school, emphasize that communication is important in helping their child succeed, and conduct face-to-face conferences with parents.
6. I will know the parents of my students in order that they may contribute to the class or school functions. I will know the parents of my students in order to provide information or assistance for community needs that they may have.
7. I will ensure that if problems arise, I will communicate immediately with parents and include the positive activities in which the student is engaged.
8. I will ensure that parents are fully informed of school policies and opportunities for parent involvement beyond my classroom.

Signature: _____ Teacher

Date: _____

Courtesy: Indiana Department of Education — Page 38

REFERENCES

- Berger, E. H. (1995). *Parents as partners in education: Families and schools working together*. Englewood Cliffs, NJ: Merill.
- Caplan, J. (2001). *Essential for principals: Strengthening the connection between school and home*. Alexandria, VA: National Association of Elementary School Principals.
- Cervone, B. T., and O'Leary, K. (1982). *A Conceptual Framework for Parent Involvement*. *Educational Leadership* 40(1982): 48-49.
- Connect for Success: Building a Teacher, Parent, Teen Alliance* National Teacher Recruitment Clearinghouse. Retrieved on: 1 December, 2008. From: www.recruitingteachers.org/news/2002pitoolkit.html
- Damien, F. (2004) *First south Asian edition (2005) parent partnership in the early years*. Continuum
- Family-school-community partnerships: A compilation of professional standards of practice for teachers* Harvard Family Research Project. Retrieved on: 16 November, 2008 from: <http://gseweb.harvard.edu>
- Henderson, A., & Mapp, K.L. (2002). *A new wave of evidence: The impact of school, family, and community connections on student achievement*. Austin, TX: National Center for Family and Community Connections with Schools.
- Indiana Department of Education (2001) *School-Parent-Community Partnerships Resource Book*
- Kathleen V. Hoover-Dempsey & Howard M. Sandeler (1995) *Parental involvement in children's education: why does it make a difference?* Vanderbilt University.
- Massachusetts Department of Education. (2000). *The parent, family, and community involvement guide*. Malden, MA: Author. Retrieved July 15, 2002, from www.doc.mass.edu
- Sridharan N.C. (2008). *Teach Children, educate parents: The Hindu online edition of India's National Newspaper*.
- Plowden Report (1967). *Children and their Primary School*. Central Advisory Council for Education. London:HMSO
- RMC Research Corporation. (1999). *Ten truths of parent involvement* (English and Spanish versions). Retrieved August 6, 2002, from <http://www.informacionparapadres.org/10truths.htm>
- Rockwell, R. E., Andrew, L. C., & Hawley, M. K. (1996). *Parents and teachers as partners: Issues and challenges*. Orlando: Harcourt Brace & Company.
- Susanne Carter (2003) *Educating Our children together: A Source Book for effective family-school Community partnerships*. Consortium

for Appropriate Dispute Resolution in Special Education
(CADRE) Eugene, Oregon 97405-0906
www.directionservice.org/cadre

Walson, T.; Brown, M.; & Swick, K. J. *The Relationship of Parents' support to children's school achievement: Child welfare* 62(1983): 175-180.

A PRELIMINARY STUDY ON SELF-ESTEEM OF BHUTANESE STUDENTS

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Abstract

Education is seen as a doorway to economic progress, and has always been the top priority of the government. Despite the unprecedented achievements made in the system, education in Bhutan still faces serious challenges. Ever since the last decade, there has been a growing skepticism and concern about the deteriorating quality of education. And the public is convinced that there is decline in the quality of education, even though when there is no researched evidence to support the view. Therefore, it has become inevitable to carry out empirical studies toward this end.

Discussions have revolved around many factors as cause of the decline in the quality of education. However, the psychological aspect of child development rarely come up as an issue of discussion though various researches in child psychology had pointed out that the development of self-esteem can have a profound effect on the overall success and happiness of children. Self esteem can have a marked effect on the way an individual engages in activities, deals with challenges and interacts with others. It also impacts a student's desire to learn, ability to focus, and willingness to take risks.

Considering the scale of the influence of self-esteem on the academic performance of students, this study attempts to identify if there are low self-esteem students in Bhutanese schools. What percentage of children suffers low self-esteem? Is there any significant difference between the levels of self-esteem of boys in relation to girls? What are the apparent causes of low self-esteem? And what can teachers and parents do to help children with low self-esteem?

1. Introduction

Economic progress and prosperity of a nation depends to a huge extent on the quality of education delivered to children. Education in Bhutan has always been the top priority of the government. As a result, education sector has made tremendous progress over the years in terms of size, space and autonomy from other systems.

Despite all these achievements, the Bhutanese have raised concerns on the decline in the quality of education. With the development of the country, people have now started to become critically conscious about the quality of education. Ever since the last decade, there has been growing skepticism and concern on the quality of education in the country. The intensity of the debate seems to be increasing with time focusing more on the decline in quality rather than on the overall achievement of the system. In the eyes of the majority of public, those were the times, when a person well below the qualification of class eight could read, write and communicate efficiently against today's graduates who can hardly write a single sentence correctly. Has something really gone wrong with the system?

Such a gossip is highly de-motivating and disheartening to the people in the system, on the contrary it is a good indication that Bhutanese people are now becoming more aware and conscious about the future wellbeing of the nation. Along with the country's developmental trend, people are now deserting their rooms of complacency and moving towards a more enlightened space.

To simply point out that the quality of education has declined is not enough. Unless a hypothesis is carefully tested through the collection of sufficient data, it will always remain a unfounded information. Hence, it has become imperative for every concerned citizen of the nation, especially the educationists to carry out sufficient empirical

studies on the subject to point out the truth about the quality of Education in our country.

Although various factors affecting the quality of education such as, quality instruction by quality teachers, strong leadership, adequate resources, good curriculum, family participation and learning environment are being discussed quite often; the psychological aspect of child development is often negated in our Bhutanese context. Given the vital role that psychology plays in an individual's life, it's worth paying some extra attention towards the subject. Therefore, this particular research focuses on the study of the level of self-esteem felt by our school children in Bhutan. Thus, the study aims to:

1. Measure the self esteem of the students of lower secondary schools in Thimphu;
2. Find out whether there is any difference in the level of self-esteem felt by girls in relation to boys;
3. Identify the factors influencing their self-esteem; and
4. Discuss strategies to help the students develop positive self-esteem.

2. Literature review

2.1. What is self-esteem?

Santrock (2001) defines *Self-esteem* as the aspect of self-concept that involves judgments about one's own worth and the feelings associated with those judgments. Self-esteem is also being referred to as self-worth or self-image and reflects an individual's overall confidence and satisfaction in them.

"In Psychology, *Self-esteem* reflects a person's overall evaluation or appraisal of his/her own worth" (From Wikipedia)

Rosenberg (1965) defined self-esteem in terms of a stable sense of personal worth and worthiness. This became the most frequently used definition for research.

Synonyms and near-synonyms of *self-esteem* include: self-worth, self-regard, self-respect, self-love, self-integrity, self-concept and so on. These terms are often used interchangeably and inconsistently, when they may relate to different ideas about how people view themselves (Strein, 1993).

When parents and teachers of young children talk about the need for good self-esteem, they usually mean that children should have "good feelings" about themselves. With young children, self-esteem refers to the extent to which they expect to be accepted and valued by the adults and peers who are important to them.

Children with a healthy sense of self-esteem feel that the important adults in their lives accept them, care about them, and would go out of their way to ensure that they are safe and well. They feel that those adults would be upset if anything happened to them and would miss them if they were separated. On the other hand, children with low self-esteem feel that the important adults and peers in their lives do not accept them, do not care about them very much, and would not go out of their way to ensure their safety and well being (Woolfolk, 1995).

Many studies (Harter, 1985; Marsh, 1986) had distinguished global self-evaluation from domain-specific evaluation. Specifically, global self evaluation (often conceptualized as self-esteem or global self-concept) represents global characteristics of the individual, and is considered more stable, depending fundamentally on the support offered by others (Harter, 1990). On the other hand, domain-specific evaluation represents the individual's sense of competence across particular domain of behaviour, such as social competence or school competence. This is considered to be more readily permeated by contextual and situational influences. The global view is older and probably the more common view among counselors and therapists (Strein, 1993).

In contrast to the traditional model of global self-concept (self-esteem), multifaceted models stress self-evaluation of specific domains or attributes, such as academic self-esteem, physical self-esteem, and so on. Harter (1985) has classified self-esteem into five domains for children. They are: Academic competence, Athletic competence, Physical appearance, Peer acceptance and Behavioral conduct. Similarly, extensive empirical research in developmental and educational psychology over the years has strongly supported the domain specific models.

To sum up, self-esteem lacks a clear definition and different views exist of the precise definition of self-esteem. Accordingly, definition is the first consideration in the assessment of self-esteem. Researchers first make themselves clear about what they understand by self-esteem and then choose a method or instrument consistent with that definition (Strein, 1993).

2.2. Importance/impact of self-esteem

Self-esteem is a major key to success in life. The development of a healthy self-esteem is extremely important to the happiness and success of children. When a student compares himself to classmates and siblings and somehow arrives at the conclusion that he is a hopelessly inferior, daily life can become intensely stressful and threatening. Such a girl or boy lives with low self-esteem, with feelings of worthlessness and unworthiness. Negative self-assessments often bring with them a loss of all motivation, profound sadness, and pessimism (Santrock, 2001).

Low self esteem is viewed as a thinking disorder based on the view the person has of himself as inadequate. Unless this basic view of self is altered, a person cannot change the negative thinking that controls his reactions. Low self-esteem is always accompanied by fear and anxiety, which affects everything a person does, says and thinks (Shore, 2005).

Individuals with low self-esteem often avoid seeking new jobs, initiating relationships, or learning new skills for fear of rejection or failure. Many avoid social settings and refrain from sharing their opinions for the same reasons. Some individuals become people pleasers and remain passive, while others get aggressive and cause havoc in their relationships. Some low self-esteem people become underachievers, achieving far less than they are capable of because they are paralyzed by fear. However, there are others who are driven to prove to themselves and others that they are adequate and deserving. These people often become overachievers, probably becoming more successful than they would have if they did not have low self-esteem. These overachievers often become workaholics, sometimes to the detriment of their families, creating relationship problems (Strein, 1993).

According to Santrock (2001), when people with low self-esteem do something, they perceive as stupid or inappropriate, they instantly feel humiliated and suffer from "self-esteem attacks". At these moments, they desperately want to run and hide, though this is not often possible. It is not easy to tell that a person has low self-esteem because many who have low self-esteem become experts at hiding their feelings and maintaining appearance of control, even though this is not what they feel on the inside.

Hence, self-esteem is a very precious commodity, one that needs to be salvaged and preserved in all students. Some students endure low social self esteem, feeling they are not as well liked as their peers or siblings, yet feel good about themselves when it come to other aspects of their lives. Poor athletic performance, concerns about being physically unattractive, or a sense that you have somehow disappointed your parents culminate in other specific breakdowns in self-esteem (Harter, 1985). Whether low self-esteem covers many areas or just one part of life, an affected student can become chronically anxious, lose motivation, and manifests serious behavioral problems. Such

a boy or girl simply may give-up trying to succeed in life (Martins, Piexoto, Pereira, Amaral & Pedro, 2002).

2.3. Does self-esteem affect academic performance?

A student's self-esteem has a significant impact on almost everything she does- on the way she engages in activities, deals with challenges, and interacts with others. As a result, self-esteem can also have a marked effect on academic performance. Low self-esteem can lessen a student's desire to learn, her ability to focus, and her willingness to take risks. Positive self-esteem, on the other hand, is one of the building blocks of school success; it provides a firm foundation for learning (Woolfolk, 1995).

A more recent study by Martins et al. (2002) had shown a significant correlation between students' self-esteem and their academic achievement, especially for younger adolescents. The result of their study indicated that students with low levels of academic achievement also suffered from lower self-esteem. Further, attitudes towards school among students with high level of academic achievement were found to be more positive than those felt by students with low levels of achievement.

Contrary to the findings by Martins et al. (2002), earlier studies revealed the absence of significant differences in self-esteem when students who suffer from low academic achievement are compared with those who do not (Robinson & Taylor, 1986; Correia, 1991). The explanations for this lack of differences between the self-esteem felt by students with different levels of achievement normally involve self-esteem protection mechanisms that are activated when a person's self-esteem is threatened.

According to Robinson and Taylor model (1986), the students with low level of academic achievement can protect their self-esteem by attaching more importance to a group culture that contradicts that of the school and in which they value anti-school behavior and attitudes. Another possible way of maintaining self-esteem at an acceptable levels involves a reorganization of the students' domain specific evaluation, whereby he/she reduces his/her investment in those areas that represents a threat to his/her self-esteem and invests in others that are potentially more rewarding. In this way, students with poor results at school are able to protect their self-esteem by reducing their investment in the academic field and investing in other domains in which they perform well, such as interpersonal relations or sports (Harter, 1998).

2.4. Summary of the impact of low self-esteem in an individual's life

- Feelings of being unloved
- Social anxiety disorders
- Overly dependent, inability to make decisions
- Fear of trying new things (inability to take risks)
- Excessive worry, anger, frustration, jealousy
- Perfectionism (need to over achieve)
- Highly critical of self and others
- Poor school performance
- Poor posture, slumping or slouching
- Continuously in poor health
- Inability to look people in the eye
- Eating disorders
- Domestic, teen, and gang violence
- Relationship problems
- Addictive behaviors

(Harter, 1985; Woolfolk, 1995)

2.5. Categories of children vulnerable to having low self-esteem

- Children who were verbally, emotionally, physically and sexually abused

- Children who were not loved and accepted unconditionally either at home, at school or in the community
- Children of parents who gamble, abuse drugs or alcohol, etc.
- Children of workaholic parents
- Children of mentally ill parents
- Children raised in high stress environment
- Children of divorced parents
- Children raised in a family headed by single parent due to divorce, death, or absence due to career
- Children raised in an environment where feelings were not openly expressed or welcome

(Harter, 1985; Woolfolk, 1995)

2.6. Strategies to overcome children's low self esteem

- *Identify the causes of low self-esteem and the domains important to the self:* Children have the highest self-esteem when they perform competently in the domains important to self. Thus, it is important for teachers to identify from low self-esteem students what area of competence they value most.
- *Provide emotional support and social approval:* Both adult and peer supports are important influences on a child's self esteem. According to Rogers (1961), an individual's low self-esteem mainly arises as a result of deprived emotional support and social approval. A student who receives too much negative feedback in the class is likely to suffer low self-esteem. So a teacher's emotional support and social approval can make a big difference to the students with low self-esteem.
- *Help children achieve:* Children develop higher self-esteem when they are able to achieve the goals they make. Self-esteem is unlikely to be fostered by easy success on a series of trivial tasks. They are more likely to benefit from a real challenge and hard work rather than from frivolous activities. Teachers can help them achieve their goals by teaching them the skills to deal with the given task.
- *Help Children deal with adversity:* When children are involved in challenging activities, they come across problems at some point. It is important that teachers teach their students to face these challenges and cope constructively when they fail to achieve what they wanted. For example, if a student encounters academic difficulties, a teacher can help her appreciate that failure is a normal part of learning and that everybody experiences disappointment or frustration at some point. Acknowledge the student's frustration and move on to help her develop strategies for improvement. A teacher can express confidence that with hard work and his support, she is likely to succeed. Self esteem increases when a child faces a problem and tries to cope with it rather than avoid it.
- *Help children feel important in the class:* A teacher can give the student with low self-esteem an important classroom job or find ways in which she can help others. Tell her that you are giving her the responsibility because you are confident she can do it well. For example, have the student collect homework, read aloud the school's morning announcements, or tutor a student in the lower class.
- *Inform parents of their child's successes:* Teachers are often quick to let parents know when their child has a problem. They are not as informative about notifying parents when their child is successful. Teachers should consider sending home a note or calling parents when their child does something noteworthy. Let the child know about it. The gesture might take only a couple of minutes but it can brighten up the student's day and stimulate positive responses from the parent to their child (Woolfolk 1995; Santrock, 2001).

3. Measuring self-esteem of Bhutanese students

3.1. Research questions

This study attempts to investigate whether we have students with low self-esteem. What percentage of children suffers low self-esteem? Is there any significant difference between the self-esteem of boys and girls? What are some of the possible causes of low self-esteem? What can parents and teachers do to help children with low self-esteem?

3.2. Methods

Three schools in Thimphu were randomly selected to collect the data. Participants were 158 students (85 girls and 73 boys) in classes 7 and 8. They ranged from 13 to 17 years.

For the purposes of empirical research, psychologists typically assess self-esteem by a self-report inventory yielding a quantitative result. They also establish the validity and reliability of the questionnaire prior to its use.

Hence, for this study, a survey questionnaire to determine self-esteem was distributed to each student to be filled up independently. The questionnaire contained a self-report inventory, specifically designed to measure self-esteem in school children. The self-report inventory was based on the ROSENBERG SELF-ESTEEM SCALE, developed by Morris Rosenberg (1965). The Rosenberg self-esteem scale is often considered as a "standard" and most widely used test for measuring self-esteem among psychologists and sociologists. The scale uses a ten-question battery scored on a four-point response-system which requires participants to indicate their level of agreement with a series of statements about themselves. The original sample for which the scale was developed consisted of 5,024 High School juniors and seniors from 10 randomly selected schools in New York State.

A list of 10 statements dealing with their general feelings about themselves (like the one given below) was given. Participants were to indicate their degree of agreement with each of the statement.

<i>Statements about your-self</i>	<i>strongly agree</i>	<i>agree</i>	<i>disagree</i>	<i>strongly disagree</i>
I am happy with the way I look				
Other people like being around me				
*My teachers don't really appreciate me				
I think I am a worthy to be loved				
On the whole, I am satisfied with myself				
*At times, I think I am good for nothing				
*Most of the time I feel lonely				
*I am shy and afraid to meet new people				
*I certainly feel useless at times				
Given the chance, I can perform better than my friends				

(Scoring: strongly agree=3, agree=2, disagree=1, strongly disagree=0. Items with an asterisk are reverse scored, i.e, strongly agree=0, agree=1, disagree=2, strongly disagree=3).

The scores for the 10 items were summed up. The higher the score, the higher the self-esteem. Scores below fifteen suggests low self-esteem (Rosenberg, 1965).

Data collected was then analyzed in general as well as separately for boys and girls. The total percentage of children falling under different levels of self-esteem was then determined.

The second part of the questionnaire consisted of free self esteem worksheets to evaluate participant's opinions of themselves, their teachers and their parents. The students specifically responded to the questions, 'What are the three things that you like/dislike about yourself?' secondly, 'What are the three things that you wish/ don't wish all teachers to have?' and thirdly, 'What are the three things that you like/dislike about your parents?' Individual responses varied from one to six statements. All of these responses were hand written and transcribed verbatim for analysis.

The analysis of the data was completed by using the phenomenographic techniques described by Dahlgren and Fallsberg (1991). This technique consists of familiarization with the data by reading through the transcripts carefully and condensation through the selection of the most representative and significant statements. The selection of the most representative and significant statements, the main result of this study, provided evidence that indicates important ways forward for these students.

3.3. Results

The results of the findings are presented under two areas:

3.3.1. Measuring self esteem of Bhutanese students,

3.3.2. Causes of low self-esteem. .

3.3.1. Measuring self esteem of Bhutanese students

As discussed earlier in the method section, the maximum score for the self-esteem scale is 30. The higher the score, the higher the self-esteem is. Scores below 15 indicates low self-esteem.

The details of the self-esteem scores obtained by the participants are as represented in the following tables (Tables 1-4).

Table 1. Self-esteem scores obtained by 158 students in class 7 and 8

Interval of scores	No. of students	Percentage of students
5-10	4	2.59%
11-15	36	22.78%
16-20	89	56.32%
21-25	26	16.45%
25-30	3	1.89%

Table 2. Self-esteem scores obtained by girls in class 7 and 8

Interval of scores	No. of students	Percentage of students
5-10	2	2.35%
11-15	21	24.70%
16-20	46	54.11%
21-25	15	17.64%
25-30	1	1.17%

Table 3. Self-esteem scores obtained by boys in class 7 and 8

Interval of scores	No. of students	Percentage of students
5-10	2	2.73%
11-15	15	20.54%
16-20	43	58.90%
21-25	11	15.06%
25-30	2	2.73%

Table 4. Number and percentage of students whose self-esteem score is below 15.

	Number	Percentage
Boys	8	10.95%
Girls	15	17.64%
Total	23	14.55%

3.3.2. Causes of low self-esteem of Bhutanese students

Table 5.1. I am happy with the way I look

	Strongly agree	Agree	Disagree	Strongly disagree
Girls	20	30	14	11
%age	23.52	35.29	16.47	12.94
Boys	30	33	8	2
%age	41.09	45.17	10.95	2.73

Table 5.2. Other people like being around me

	Strongly agree	Agree	Disagree	Strongly disagree
Girls	11	46	23	5
%age	12.93	54.09	27.04	5.88
Boys	10	46	15	2
%age	13.69	62.97	20.53	2.73

Table 5.3. My teachers don't really appreciate me

	Strongly agree	Agree	Disagree	Strongly disagree
Girls	16	26	39	4
%age	18.82	30.57	45.86	4.70
Boys	15	21	34	3
%age	20.54	28.74	46.54	4.10

Table 5.4. I think I am worthy to be loved

	Strongly agree	Agree	Disagree	Strongly disagree
Girls	17	39	20	9
%age	19.99	45.86	23.52	10.58
Boys	10	27	29	7
%age	13.69	36.96	39.70	9.58

Table 5.5. On the whole, I am satisfied with myself

	Strongly agree	Agree	Disagree	Strongly disagree
Girls	17	42	23	3
%age	19.99	49.39	27.03	3.52
Boys	13	30	26	4
%age	17.79	41.07	35.59	5.47

Table 5.6. At times I think I am good for nothing

	Strongly agree	Agree	Disagree	Strongly disagree
Girls	9	29	34	13
%age	10.58	34.10	39.98	15.28
Boys	5	21	30	17
%age	6.84	28.74	41.07	23.27

Table 5.7. Most of the time I feel lonely

	Strongly agree	Agree	Disagree	Strongly disagree
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	agree			disagree
Girls	5	49	26	5
%age	5.88	57.62	30.57	5.88
Boys	3	39	21	10
%age	4.10	53.39	28.74	13.69

Table 5.8. I am shy and afraid to meet new people

	Strongly agree	Agree	Disagree	Strongly disagree
Girls	9	45	25	6
%age	10.58	52.92	29.40	7.05
Boys	4	54	11	4
%age	5.47	73.92	15.05	5.47

Table 5.9. I certainly feel useless at times

	Strongly agree	Agree	Disagree	Strongly disagree
Girls	21	42	16	6
%age	24.70	49.49	18.82	7.05
Boys	16	40	10	7
%age	21.91	54.79	13.69	9.58

Table 5.10. Given the chance, I can perform better than my friends

	Strongly agree	Agree	Disagree	Strongly disagree
Girls	30	34	16	5
%age	35.28	39.98	18.81	5.88
Boys	24	32	15	2
%age	32.8	43.8	20.53	2.74

Table 6. Students' opinion of themselves

What I like about myself

I am good in studies, co-curricular activities, good in English and arts, good in dancing and singing, have good handwriting,

Never jealous with other, I respect the old people, obey my parents and teachers, help others, do all the work given to me, I work hard to fulfill my dream, I help my family with work

I am polite, bit better than others, I am very much interested in studying, I am well mannered, I am brave, I am a boy, understanding and helpful, I am kind and truthful, I am good in reading, I am very useful to my family, I am confident,

I love my parents, I believe in God, I like

What I don't like about myself

I am not very friendly, I am selfish I lack confidence to volunteer, I am shy and emotional, Sometimes I am rebellious, I am not good at math, My handwriting is bad, I am not good in studies, I am not good in Dzongkha, I am poor in science and math, I am black, I am not beautiful, I am careless, sometimes I am over confident, I am not hardworking, I look like a boy, I am afraid to face strangers, I don't like my spoken English

I don't like to play games, I get irritated, I like nothing about myself, I can't bear tension, I can't trust any one, can't face other people, can't make friends, can't ask doubt to my teachers, I don't have courage to participate in activities

I hate my own behavior, temper, laziness and being bother less, I don't like myself when friends call me by nickname, I don't like my face shape, I am not able to answer the questions asked in the class due to shyness, Not able to take responsibility

I tell lies, I roam too much, use bad words

the way I speak, I like the way I look, I like my hairstyle, I love my country, parents, teachers and friends, I like myself as I am chosen as the captain, I like my intelligence
 I am considered the best from my family
 Everybody likes me
 I have many friends

when angry, Most of the time I stay with boys, I fight with my parents and friends,
 When I talk and make mistake,
 When people tease me I feel I am the worst person, When others ask about my divorced parents

Table 7. Students' opinion of their teachers

What I wish all teachers to have

To be honest
 To be strict as well as friendly
 To be compassionate while marking
 To be kind to all the students
 To be interesting and fun loving
 To teach us nicely
 Be strict in the class

What I wish all teachers would not have

Beat without any reason
 Scold in the crowd
 Making fun of us
 Don't be cruel to some student
 Don't beat us in front of others
 Beating harshly
 Punishing severely
 Beating on the head
 Looking at us with big eyes
 Not to beat us like stray dogs
 Cutting student's hair
 Not to pick their favorite and ignore their worst
 No partiality
 Having their favorite students

No differentiation between boys and girls
 Never to differentiate between rich and poor students
 Love all the student equally
 Give equal opportunities to all
 Never to compare students in the class

Listen to the student
 Understand our problem
 I wish they would not neglect us
 Have respect for us

Pour their frustration and anger on students
 Blaming everybody for somebody's mistake

Find out the reason before imposing punishment
 Teach slowly and make us understand
 Punctual and come to class on time
 Be generous with giving marks

Drinking alcohol and smoking
 Giving a lot of homework
 Chewing something while teaching

Table 8. Students' opinion of their parents

What I like about my parents

They care for me
 They give what I want
 They never fight
 They understand my problem
 They care and love me
 They help me when I am in trouble
 They listen to me
 Treat and love all of us equally
 Although they are divorced, both are good to me

What I don't like about my parents

Telling me to go outside when there is guest at home, Scolding us without much reason, They beat me sometimes, Scolding me everyday, Not believing me, Not giving me money when I need,
 Not allowing me to go with my friends,
 Scolding in front of visitors, Being rude to me, They don't trust me at all
 There is nothing that I don't like about them
 Mostly I like them but when they quarrel and fight they ignore us and make us feel sad, They don't allow me to do what I want
 They always question me whenever I do something, They treat me like a baby

When they are proud of me
When I see them happy

My mom likes my brother more than me,
My parents don't give me much attention
to me,
I don't like them neglecting me and my
friends
When they don't let me watch TV
They don't look after us well
They come home very late

They don't drink alcohol
Helping me to do my homework
They worry about my future
They don't quarrel

Sometimes they are too busy
Eating doma and drinking alcohol
My father never come home in time
My father drinks too much beer
They are divorced and always backbite
about each other
I hate the fact that they are not here with
me, There is nothing that I don't like about
them because they love me so much

4. Discussion

As discussed in the method section, according to Rosenberg's self-esteem scale, if an individual's self-esteem score is below 15, that individual is considered to suffer from low self-esteem. Accordingly, the level of self-esteem of an individual depends on the measure of their scores. As a result, higher the self-esteem score, higher is the self-esteem of that individual (Rosenberg, 1965). In line with this theory, the result of the study shows that many of the students under investigation have low self esteem. The self-esteem score of 14.55% of the total number of students is less than 15 (Table 4). More over, there are 22.78% of the students whose score is in the range of 11-15, which is also a measure of low self-esteem. In contrast, the percentage of students scoring higher self esteem is very low with only 1.89% of them in the range of 25-30 (Table 3).

The above findings clearly indicate that the self-esteem status of our students is not very impressive. Given the paramount impact that self-esteem can have on a child's happiness and success in life, it is not a trivial concept that can be ignored. For a forward looking country like ours, wherein *imparting quality education to all children* is the catchphrase, one cannot afford to prepare our children into chronically anxious, spiritually negative, emotionally inadequate and socially diminished individuals, as a result of our complacency in this aspect of child psychology.

Nowadays, we see many of our youths becoming social failures. They are not able to live up to the expectations of their parents, teachers, peers and society in general. As a result they are often in conflict with them. All these problems could be attributed to the consequence of low self esteem. This is because many studies (Santrock, 2001; Woolfolk, 1995; and Rogers, 1961) had suggested that low self-esteem is a contributing factor for most of the cases involving relationship problems and social anxiety disorders.

So who is held responsible for this problem? The most obvious answer is parents and teachers, since children spend most of their time with them.

In response to the next research question (that is, to find out whether there is any difference between the self-esteem measures of boys in relation to girls), analysis of the data suggested that 10.95% of the boys under investigation have low self-esteem, while there are 17.64% of the girls who suffer from low self-esteem (Table 4). This result interestingly indicates that more girls suffer low self-esteem than boys. Bhutan's goal to eliminate gender disparities and to achieve gender equality in education would be a distant dream if the emotional aspect of girls is not monitored frequently.

There are various theories with regard to gender differentiation and development. The psychological oriented theories tend to emphasize on the inner psychic processes (Kohlberg, 1968) while the sociological theories focus on the social and cultural determinants. Further, the biological oriented theories focused on the differential roles played by males and females in the reproduction (Trivers, 1972).

It is indeed a matter of concern when studies, such as the present one suggest gender differentiation in terms of an important concept like self-esteem. Although Bhutan has been striving hard to eliminate gender differences with the assistance of UN agencies, the deeply rooted traditional notion of the males being considered as superior and females as inferior still seems to exist in its more subtle and indirect forms. This hidden social and cultural discrimination and differentiation on the basis of gender may cause inferiority complexes among females, which will ultimately lead to disparities in achievement (Trivers, 1972).

4.1. Causes of low self-esteem and suggestive approaches to manage it.

In the preceding discussion we concluded that some of the sample Bhutanese students for this study have low self-esteem. Now, in this section we will analyze the participants' ratings against each of the statement in the self-esteem inventory and identify the causes of low self-esteem.

Analysis of data collected from the self-esteem scale and the questions intended to investigate their view of themselves, their teachers and parents suggests that the following are the causes of low self-esteem in our Bhutanese students:

- *Feelings of inadequacy*

Many students have rated themselves low in the area of competence across various domains. A significant number of students had admitted that on the whole, they are not satisfied with themselves and at times they also feel useless (Table 5.5 & 5.6). Moreover, in response to the question, "what do you like/dislike about yourself?" many students have centered their responses on the area of their personal competence. Some excerpts from their responses are as follows:

"I like myself because I am good in studies; I am good in singing dancing and co-curricular activities"

"I don't like myself because I am poor in maths/science/English; My spoken English is not good; I am not confident" (Table 6).

These excerpts from their view of themselves show that competence across various domains is important to them. These feelings of inadequacy in the domains that they value may have affected their self-esteem (Harter, 1998).

The challenge in working with such low self-esteem is to restore their belief in themselves. Educators and parents can shape self-esteem every day in the normal course of interacting with their children/students. Although we cannot teach a student to feel good about himself/herself, we can nurture his/her self-esteem through a continuous process of encouragement and support. For example, we can show appreciation for the things he/she does well, expressing confidence that he/she will improve in the areas in which he/she doesn't do well, and adapting instruction so he/she can experience success.

- *Social skills*

Result indicates that we do have a significant number of students who feel diminished due to shortcomings in their social life. Many of them had agreed and some had strongly agreed to the statements, *"Most of the time I feel lonely; I am shy and afraid to meet new people; other people don't like being around me"* (Table 5.2, 5.7 and 5.8). In addition frequent statements such as, *"I don't like myself because I am not friendly; I*

can't make friends; I can't face strangers" etc. have been made (Table 6). Students with low self-esteem often feel isolated from their classmates. Teachers can promote a student's peer involvement with others by finding ways to integrate her into activities that take place both in and out of the school. If pair activities are organized, assign the student a kind and easy going partner. Parents could also help the child by arranging additional social contacts and exploring potential playmates (Shore, 2005)

- *Physical appearance*

Table 5.1 reveals that a significant number of girls (29.41%) are not happy with the way they look. Statements like, *"I don't like myself as I am not beautiful; I don't like my face shape; I look like a boy, my friends call me by nickname"* occurred frequently in the result. In contrast there are also a few statements which say, *"I like my hair style; I like the way I look"*, etc. which is an indication that physical appearance is an important and significant domain for their age.

Bhutanese girls in general are shy compared to boys. Girls may have evaluated themselves low in physical appearance, since girls by nature may attach more importance to this domain. This low evaluation in the physical domain could affect other areas like self-confidence and self-worth, thereby affecting the overall self-esteem. This result is consistent with the theory, which states that domain-specific evaluation to which an individual attaches importance and significance can affect global self-esteem (Harter, 1998).

- *Teacher-Student relationship*

It is generally understood that quality education can only be imparted by quality teachers. There is no doubt that Bhutan has well trained and dedicated teachers. However, teachers today need to be more aware and alert due to the fact that we do have some students in our classrooms with low self-esteem. Children with low self esteem are emotionally sensitive and feelings of rejection are almost always associated with them (Woolfolk, 1995). The statements that follow reflect their views about their teachers. *"I wish all teachers are impartial, understanding, love all students equally, friendly, etc.; I wish all my teachers would not differentiate between rich and poor, beat severely with much reason, Scold in the crowd, etc."* (Table 7). Further, many of them had agreed/ strongly agreed to the statement, *"My teachers don't really appreciate me"* (Table 5.3).

These results are quite alarming given the fact that our teachers have been always striving hard to give their best to provide quality education to their students. Or could it be possible that our teachers are forgetting the psychological aspect of their students in their struggle to teach their subjects effectively? Although attributes like academic achievements and behaviors can be easily determined, concepts like self-esteem can easily escape unnoticed. It is often difficult to find out whether an individual has low self-esteem because many of them become experts at hiding their feelings and maintaining control (Santrock, 2001).

Hence more effort needs to be made by our teachers to identify the causes of low self-esteem in their students and the domains important to them. Students have the highest self-esteem when they perform competently in the areas that they themselves feel are important (Harter 1998). Furthermore, an individual's low self-esteem mainly arises as a result of deprived emotional support and social approval. A student who receives too much negative feedback in the class is likely to suffer low self-esteem (Rogers, 1961). Therefore, a teacher's emotional support and social approval can make a big difference to the students with low self-esteem.

- *Parent-Student relationship*

Parents, more than anyone can promote their child's self-esteem because they have the most consistent opportunity to influence the view a child has of him-/herself. What parents wouldn't want their child to have all the feelings of self-confidence, self-worth,

and a positive self-esteem? Unfortunately, parents rarely realize that their words and actions have great impact on how their child feels about him-/herself. Most parents rely on their own childhood, their intuition, and their own sense of what works to determine how to treat their children. Many simply make the same mistake their own parents made in the process of trying to be a good parent (Clarke, 1987).

Accordingly, the result of the study suggests that many children like their parents for being caring and loving, listening to them, giving what they ask for, helping them to do their home work, and for not fighting among themselves. On the other hand, there are many others who made statements such as, *"I don't like my parents because they scold and beat me in front of guests; they don't trust me; they don't let me go with my friends; they quarrel or fight and make us feel sad; they come home late, my father drinks too much beer"*, etc. (Table 8). All these statements suggest that while many children are happy with their parents' treatment of them, there are also a significant others who are deprived of emotional support and attention from their parents. In addition, their statements also indicate that some parents are failing to be good models for their children. As Grych and Fincham (1990) had suggested that one of the surest ways to help our children develop positive self esteem is to teach them by example. Parents who resolve disagreements by quarreling or physically dominating their spouse may teach children that aggression is an appropriate solution when their interests conflict with another's. Similarly, undesirable behaviors such as, drinking alcohol, smoking and eating doma may be thought of as socially accepted behaviors.

In our Bhutanese context, it is quite common for parents to call the children by nicknames or sometimes criticize them, whether for fun or to vent anger. It is sometimes necessary to criticize a child's action and it is appropriate that parents do so. However, when the criticism is directed to the child as a person, it can easily deteriorate into ridicule and shame (Clarke, 1987). Parents are also often quick to express negative feelings to children but somehow don't get around to describing positive feelings. As a result a child is not aware what makes parents feel good about him/her. One needs to encourage the child. Thus, it is very important for parents to have a good insight on how to help their children build a healthy self-esteem.

5. Conclusion

The results of the present study show that there are a significant number of children suffering from low self-esteem in our Bhutanese classrooms. More girls suffer from low self-esteem than boys. If measures are not taken to help our children with low self-esteem it can have negative implications to their overall performance and hence to the quality of education.

It is hoped that the findings of the present study may serve as a good awareness for all the educators and parents who are responsible for bringing up our children into efficient, useful and productive future citizens of the nation. Parents and teachers, more than anyone else can do their best to promote a child's self-esteem, because the success and happiness of children and adolescents are just impossible without a healthy self-esteem.

In the future studies it would be important to find out whether self-esteem affects academic achievements of our Bhutanese children, explore how self-esteem is related to their attitude towards school and investigate the variation in the measure of self-esteem between rural and urban settings

References

- Berk, L.E. (2000). *Child development* (5th ed.). Boston: Allyn & Bacon.
- Clarke, J.I. (1978). *Self-esteem: A family affair*. Winston Press, Inc.
- Dahl, L. & Fallsberg, M. (1991). *Phenomenography as a qualitative approach in social pharmacy research*, *Journal of social and administrative Pharmacy*, 8: 443-458.
- Harter, S. (1985). *Manual for self-perception profile for children*. Denver, CO: University of Denver.
- Harter, S. (1998). The development of self-representations, *Handbook of Child Psychology* (5th ed.) New York: John Wiley and Sons.
- Kohlberg, L. (1966). A cognitive analysis of children's sex role, concept and attitudes. In E.E. Maccoby (Ed). *The development of sex differences*. Stanford university press.
- Shore, K. (2005). Education World.
- Marsh, H.W. (1986). Global Self-esteem: Its relation to specific facets of self-concept and their importance. *Journal of Personality and Social Psychology*, 51: 1224-1236.
- Martins, M.A., Peixoto, F., Pereira, M.G., Amaral, V. & Pedro, L. (2002). Self-esteem and academic achievement among adolescents. *Educational Psychology*, 22: No.1.
- Robinson, W.P. & Taylor, C.A. (1991). Correlates of low academic achievement in three countries. *Analise Psicologica*, 9:277-290.
- Rogers, C.R. (1961). *On Becoming a Person*. Houghton Mifflin, Boston.
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.
- Santrock, J.W. (2001). *Educational psychology*. Boston: McGraw Hill Companies.
- Santrock, J.W. (1997). *Life-span development*. (7th ed). p314.
- Strein, W. (1993). *Advances in research on academic self-concept*: Implications for school psychology. "School psychology review," 22: 273-284.
- Trivers, R.L. (1972). *Parental investment and sexual selection*, In B. Campbell (Ed). *Sexual selection and the descent of man* (p133-172). Chicago, Aldine.
- Woolfolk, A.E. (1995). *Educational psychology (6th ed.)*. Boston: Allyn & Bacon.

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