
Quality of Education in Bhutan
Research Papers



Proceedings of National Seminar
Rinpung, December 7-10, 2008

June 2009
Centre for Educational Research & Development

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This is an in-house Publication of the

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The Royal University of Bhutan.

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Keynote Address

*Excerpts from the address delivered by Lyonpo Thakur Singh
Powdyel, His Excellency Hon'ble Minister of Education*

His Excellency graced the opening of the seminar with His warmest greetings and gratitude in a House of Hon'ble Deputy Speaker of the National Assembly, Hon'ble Members of the National Parliament, Directors and Officials from the Ministry of Education and Royal University of Bhutan, Officials from the Royal Education Council, lecturers from Colleges of Education, Teachers, student-teachers, students and participants from other agencies within and outside Bhutan.

His Excellency continued "The quality of education has pre-occupied the mind of all the concerned Bhutanese citizens for sometimes now, and for legitimate reasons. I commend the thoughtfulness of the planners and organizers of this national seminar in giving primacy to the quality-factor as the organizing principle of this important event.

Indeed, educational institutions, university institutions in particular, have to share in the concerns of the society and provide well-informed opinions and direction to the nation. University establishments are often called the wide-awake consciousness of the society by virtue of the fact that they were home to the most qualified and educated group in any society and have access to all fields of knowledge and the accumulated wisdom of the human race.

It is only fair, therefore, that institutions such as the Paro College of Education and research facilities such as the Centre for Education Research and Development should enable the meeting of minds to ponder over and deliberate on issues that affect the life of the nation. This is the way to validate knowledge and to affirm the value of the seats of learning to the needs of the society.

Quality indeed, for small systems like ours, quality is of the essence. Within the imperative of our size and the scope of our economy, what creates and sustains our strength as a nation is the integrity of our services and the character of our people and as a nation, what ideals and values we stand on, what nourishes our nation's intellectual life.

Education is indeed the diet that builds and sustains the collective life of a people and of a nation, for good or bad. It is, therefore, critical to examine the integrity of the various elements that go to the making of an education system including vision, policy, programmes, provisions, pedagogy, modes and methods of learning, assessment and certification. I see that in the course of the next three days, we are going to examine the merits of these and allied issues that affect the quality of education.

I often hear of my fellow-teachers and managers who lost heart in the face of unbridled criticism of the quality of education. They feel that somehow the comments are directed at them-teachers and managers. Of course, as people entrusted with the task of leading and guiding the future generations, we have the primary responsibility to build and maintain a standard of education worthy of the image and heritage of our country.

As for me, I am grateful to all the people for their views and opinions. If they are commenting on the state of our education, it means that they are concerned, that they want the best for their children that they see value in education, which they want us to do better. If our fellow-citizens

were to be indifferent to education or to all that happens in the name of education, it would be a sad thing. It would be a sign of responsibility towards something as important as education.

But, I also know that with all its imperfections, we have an education system that is up and running, a system that has built a whole new generation of professionals, bureaucrats, diplomats, parliamentarians, our leaders and managers in diverse fields of our national life. I know too that with all their deficiencies and the compulsions of circumstances, our teachers are doing the best that they are capable of, and with all the challenges that our young people face, our students are among the finest in the world.

This issue of quality of quality is compounded by the fact that it is not simply a question of intellectual achievement or a pride of place in a league table. Education has multiple dimensions-intellectual, academic, moral social, cultural, spiritual, psychological, emotional, political, economic, occupational and more. Any intervention in education has to take cognizance of these critical dimensions of education.

Quality is, therefore, a collective national responsibility because everybody from the humblest to the highest has a stake in education. If we want the best for our children, we must all-parents, civil society, media, non-governmental organizations, international agencies, administrators, managers, public sector, private sector-do our bit to support and promote quality. We must not leave this important social responsibility to teachers and schools alone even though they share the biggest share of the responsibility.

With the advent of democracy, expectations have risen high. It only means that we have to do more, do better. We cannot continue business as usual. Education must find its true nature and its soul. If expectations are high, there is hope. A society without hope cannot live.

We have achieved much, but this is not enough. We have to do better. And as the body responsible for building the knowledge-base of our country, the Ministry of Education, with the whole-hearted support of the Royal Government, is committed to providing the best education to all the children of our country on the basis of equity and justice.

Within the next five years, that is the period of our Tenth Five Year Plan, the Ministry of Education has two major objectives to fulfill-access, and quality. As a national commitment as enshrined in our Constitution and by virtue of our being a signatory to several important international conventions, we have to ensure Education for All our children, that is achieve 100% enrolment.

As major strategies to fulfill the first goal, we have to continue our programme of expansion of our educational facilities, establish as may Extended Classrooms as possible, provide mobile teachers to children who move with their parents and expand enrolment both in the formal and non-formal systems.

To address quality, we have to examine the scope and strength of our curriculum offerings, adequacy and integrity of our educational materials, teacher preparation, monitoring and support, and management, among others. The main focus thought will be on the professional development of teachers because no amount of intervention professional development of teachers because no amount of intervention in the other areas will compensate for the need to invest in building the capacity of our teachers. After all, the quality of education cannot be better or worse than the quality of our teachers.

At the moment, we are faced with the problem not only of quality, but also of numbers. Over and above the increased numbers passing out of our teacher education colleges, we will recruit and engage international volunteers and expand the number of contract teachers particularly for Science and Mathematics. We are also negotiating with the Royal Civil Service Commission to examine the possibility of secondment of some civil servants to join education for a year or two under our *Light Druk Yul* project.

As you might have already learnt, the Ministry of Education is encouraging and supporting the establishment of a few fine international schools and institutions in the country. Many individuals and institutions have already expressed great interest in this venture. These international schools are expected to demonstrate the much-needed examples of good practice to the system and inspire our schools and institutions to aspire for excellence.

As soon as the National Education Policy prepared by the Ministry of Education is endorsed by the Royal Government, it will enable the participation of private individuals and institutions to set up schools and institutions in the country under the aegis of Foreign Direct Investment. This National Education Policy will guide the direction, dimension and scope of all educational services in the country.

We are happy about the establishment of the Royal Education Council which is doing an excellent job of supporting the Ministry of Education. We hope to commission several projects to the Council as soon as the terms of collaboration become clearer to avoid any possible duplication of efforts and of systems. We expect to benefit from the Royal Education Council especially in terms of research inputs and recommendations to improve quality.

All this is as it should be. However, over the years, I have come to realize that there is a limit to policy change, to curriculum reform initiatives, to teacher preparation interventions, to assessment enhancement efforts, and to material provision. No amount of intervention can replace or compensate for the human factor. If the person does not realize his or her deficiency and want to improve, external influences will only go so far and no further. Quality is, therefore, a function of personal decision. It is a function of personal integrity.

In the ultimate analysis, quality is a function of the tension between the real and the desirable. A few thoughts from the great German thinker, Werner erHard come in handy. He says:

Life is a game.
Life is a game in which
Something is more important than something else.
But if *what* is more important than *what isn't*
Then the game is over.
So life is a game in which
What isn't is more important than *what* is.

In much the same vein, we can say that education is a game in which *what isn't* is more important than *what* is. I hope this seminar will give us some fresh insights and clearer directions. Education is founded on the principle of hope, of possibility. That is the reason I believe that with our collective efforts, we will be able to reclaim some of the lost trust and restore to education the pledge that truly belongs to it.

Education will be the foundation for the success of our country, especially since we aspire to make Bhutan into a knowledge-based society. If education succeeds, nothing will fail in our country. Education failing, nothing will succeed. A sound education system will be our best tribute to our kings and to our nation in the year of the Coronation and of the Centenary of Monarchy.

I wish you every success with your deliberations and conclusions.

Tashi Delek.”

Seminar Objectives

Over the decades, Bhutan has witnessed an unprecedented development in all spheres of national life that every Bhutanese today enjoy the continued peace, prosperity and happiness. Thanks to the enlightened and visionary leadership of His Majesty, Our Beloved kings, and all the leaders who have selflessly sacrificed their life for the development and happiness of its people.

It is evident that, Education is one which has always played an immeasurable role in the overall development of the country ever since Bhutan embraced the modern system of education in the early 1960s. Today we still see, our Education receiving an important development priority and are recognized both as a right and as a pre-requisite for achieving Universal Education or Education for All (EFA), which is one of the Millennium Development Goals (MDGs). Therefore, we know, this very well corresponds with our country's development philosophy of Gross National Happiness.

Our Royal Government of Bhutan's attempt to achieve its development philosophy of attaining a GNH state, through the realization of Millennium Development Goals and Good Governance Plus should therefore be built on a strong foundation, a strong education system.

However, despite the remarkable progress and developments that the education system has seen over the last four decades, the quality of education in the country has become an issue of concern at all levels of the Bhutanese society and all the time. Even in the recent 86th session of the National Assembly, it has been noted, "the standard of education in Bhutan is deterioration" (Kuensel July 15, 2006).

It is true; no other profession in Bhutan has been subjected to as much scrutiny, debate and discussion as our education profession. Definitely, this is one of the indications that everyone in the country are now aware of the challenges, the need of careful input into education, so that, our future generations, our country is always benefited.

Despite all limitations, every individual in the education have now seen a new commitment and are consciously aware of the responsibility that every individual should shoulder in contributing towards the good quality of education in Bhutan. We know this is because Education has been the critical instrument in unraveling the genius and creativity of the Bhutanese people and in providing crucial human resource to man the different public and private sector responsibilities of our fast-developing country.

In an attempt to improve the overall quality of education, our Royal Government of Bhutan has been able to mobilize the support and assistance of donor agencies in various fields of developmental activities and education receiving a major chunk of these assistance.

We wholeheartedly thank and recognize the initiatives and contributions, efforts and commitment of our close development partners in our education system such as Helvetas, Swiss "Development Corporation (SDC), DANIDA, Save the Children, CCO, UNICEF, UNESCO etc.

Given the current concern over the deterioration of quality of education in the country, there is an urgent need to look at our existing quality of education more closely and then devise

measures and strategies to reform and improve the system in ensuring that all Bhutanese children receive the best quality of education.

However, in the light of such concerns and issues regarding the decline in the quality of education and the new political changes taking place in the country, the Centre for Educational Research and Development, PCE, in our own little possible ways, took this initiative to bring together the intellectual minds of the scholars and educators, the critics and the educational thinkers to discuss on one of the most talked about- the most controversial and debated issue of the era-the quality of education.

This is also our humble tribute to 100 years of monarchy of our glorious Wangchuck dynasty and the coronation of our His Majesty the Fifth Druk Gyelpo, Jigme Khaser Namgyel Wangchuck.

General aims and goals

We believed that this particular seminar would contribute towards the issue of quality of education in the following ways:

1. Create opportunities for teacher educators, schoolteachers, student teachers, and students, representatives from other agencies and Bhutanese society at large to express their views and opinions about the issue of decline in the quality of education in Bhutan.
2. Use the outcomes of this seminar as a base or a point of reference to devise measures and strategies to take up the challenge of combating the deterioration in the quality of education if this is the reality.

Specific Objectives

1. Holistically define what “quality” means in education and “why” quality of education matters in a Bhutanese context through the mass participation of stakeholders from different settings.
2. Authenticate with evidences if the quality of education in Bhutan has really deteriorated despite the immeasurable growth the education system has seen over the years.
3. Detect some of the core factors that determine and influence the overall quality of education in Bhutan.
4. Identify the roles and responsibilities that different stakeholders can take in combating the decline in the quality of education or in improving the overall quality of education.
5. Stock-take the praiseworthy achievements and products of Bhutanese education at the regional and international level.

Expected outcomes

1. Publish a seminar report on quality of education in Bhutan, which could be used as a reference point for the policy makers and educationists in the country.
2. Presentation of the summary of the outcomes of this seminar in the 2008 Annual Education Conference.

CERD was pleased to bring together scholars with a wide range of background and experiences. It brought together the voices from schools, institutes, listened to the views and opinions of policy makers as well as concerns of the parents. It became an extravaganza of intellectual treat as the issue of education was dealt from different angles and discernment.

This forum indeed ushered in new thought and charted new pathways for education system to grow which at large will craft the destiny of our nation. CERD sincerely wished that this mind meet would be a guiding beacon to restructuring and further strengthening of our education system.

With more than 200 participants, the three day seminar witnessed an extensive deliberations among the teacher students, teachers, principals and DEOs, Lecturers from the colleges of Education, Officials from the Ministry of Education and Royal University of Bhutan, Officials from the Royal Education Council, International Educational agencies and Coordination offices in Bhutan, Hon'ble Members of the National Council, Hon'ble members of the Education Development Committee, National Assembly, and the kind presence of His Excellency, Hon'ble Education Minister, Lyonpo Thakur Singh Powdyel and Hon'ble Secretary of Education Aum Sangay Zam.

Bhutanese Teachers' Pedagogical Orientation in the Primary Classes (PP-VI): A Factor on Quality of Education

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Abstract

Though modern education was introduced in 1914 by the first king Gongsar Ugyen Wangchuck, it was only some 40 years ago that Bhutan embarked on delivering education to all. Till then, monastic education taught in dzongs and villages was predominant. In the recent years, the country has taken huge steps to provide education to all the Bhutanese children. However, the poor performance of the high school graduates in the Call Centre interview and their failure to get selected for employment ensuing from their poor communication skill in English. On one side, this ignited widespread debate amongst the general public on standards of education in the Bhutanese schools. On the other, educators believe that this decline is a misperception rather than reality. Thus, this paper attempts to study this issue by examining the pedagogical practices in primary schools through class observation and interview of a sample of teachers from different schools in the western Bhutan. The focus was on the teachers in the primary schools as it is here at this stage that the foundations of education are laid.

Though some good practices have been initiated, the findings indicate that teacher dominated lessons generally prevail in the primary classrooms. This situation has strong implications on teacher education programmes and other stakeholders. Thus, it sends a message that there is a risk of declining quality in education if urgent measures are not adopted. The paper also presents some recommendations for improvement of the existing situation and possible future research areas.

Statement of the Problem

Ever since the introduction of the New Approach to Primary Education (NAPE) in the 1990s, the decline in the standard of education has been discussed at length. This issue is gaining the attention of more stakeholders each day. The detrimental call centre interview of the high school graduates in 2006 further ignited this issue and presented a new dimension. Since then the issue was seen as real and everybody began to talk about it: policy-makers, education officials, representatives of the people (chimis), etc. Even media kept on featuring stories on education quality and rightly played its apt role. Existing literature (Heyneman, 1997, Cheng & Tam, 1997) indicates that the quality of education is a universal issue. In the past one year, measures were initiated to address this problem at the highest level. For instance, there was an executive order from the Prime Minister's office issued to concerned agencies including the colleges of education to address this problem by working out in short, medium and long term strategies.

Educators, on the other hand, argue that the decline in the education quality is more a misperception than a reality (CERD 2007). As such there is no evidence to show that the quality of education in Bhutan has really gone down. A proper study of the matter is therefore needed to establish the real situation. The United Nations International Children's Educational Fund discusses (cited in United Nations Educational, Scientific and Cultural

Organization, 2004, p. 31) five dimensions of quality education: “healthy learners; conducive environments; relevant curricula; child-friendly pedagogy; and useful outcomes.” Teachers play a crucial role in fulfilling these dimensions. In any educational reform geared towards improving the quality of education, it is important to understand that teachers’ ways of teaching are of critical concern (UNESCO, 2004). This allows us to assert that teachers are at the heart of education system. Cheng and Tam (1997) also comment that “education quality is a multi-dimensional concept and cannot be easily assessed by only one indicator” (p. 23). In effect, we intend to study the contribution and impact of ‘teacher factor’ to the quality of education in Bhutan. Given the multidimensional nature of the problem, we specifically focused on the pedagogical orientation of the teachers in the primary schools in the Bhutanese classrooms.

The purpose of the study was to determine the types of teaching practices applied by primary school teachers. This is clearly an important contributing factor for the maintenance of standards. The researchers also attempts to determine the gaps (if any) created between the actual practices and what is accepted from the existing literature. The samples for this study were purposefully selected from the western region of the country because of practicality and logistics. Researchers believe that this sample could be generaliseable across Bhutan since the issue is same everywhere. Therefore, this research was mainly focused on the important aspects of teaching processes that our primary teachers apply in schools. It examines the impact of their pedagogical orientation on their teaching processes. We have chosen primary school teachers as their work provides foundation of education. The researchers strongly believe that the system would largely benefit if proper care is taken at the foundation level.

Objectives

This research aimed to study the pedagogy of a sample of teachers from Western Bhutan. It aims to:

1. provide insights into primary school teachers’ teaching practices,
2. explore the factors that contribute towards making teaching process meaningful,
3. examine how their philosophical belief affects teaching processes and,
4. suggest recommendations for enhancing quality education in Bhutan.

Research Question

The researchers were interested in studying and revealing the type of pedagogical orientation of Bhutanese primary school teachers. It is assumed that these practices affect the quality of education. A sample of primary school teachers and their classrooms were investigated in order to answer the questions provided below:

What pedagogical practices do primary school teachers commonly apply in their teaching?

In seeking answers to the above question, the researchers asked the following sub-questions:

1. What is their philosophy of teaching?
2. What are some of the common pedagogical practices the teachers adopt in their teaching?
3. Does their philosophy match their teaching practice?
4. Are the teachers making use of child friendly pedagogy?

5. Does the teaching exhibit characteristics of effective teaching-learning according to currently accepted best practices?
6. Do the teachers have adequate teaching-learning materials?
7. What are the factors that lead to poor teaching-learning processes being used?
8. Is there evidence of positive or negative impact of these practices on quality?

Literature Review

Introduction

It was only some 40 years ago that Bhutan embarked on initiating effective programmes to offer education to all the Bhutanese children. Till then, all that monastic education taught in the dzongs and villages instituted formally or informally prevailed at large. With the initiation of the planned development in the 1960s, the education system expanded rapidly. This was fuelled by 'Education for All policy' in the country as required by the UNICEF standards. Thanks to these that four decades later, the country has taken a step ahead to discuss the standards of education. More recently these issues have become prominent after the detrimental Call Centre interview where only 7.5% of the 600 high school students who applied were found competent enough for the job (Kuensel, May 3, 2006). This has sparked the nation to assume that the quality of education in the country is on the decline. Following the concern raised by some of the people's representative, the issue was further deliberated in the 85th session of the National Assembly in 2006. Following this the National Assembly directed the Education Ministry to conduct studies to look into the matter.

Views on Quality Education

Beeby (1966) says when people discuss quality of education they use either classroom, market place, or societal conceptions of quality. The present concerns shown by the people are basically the societal conception of quality encompassing a broader social criteria used by the people to judge the outcome of the Bhutanese school system. It is very difficult to define quality of education since it has many dimensions. In its continuous attempt to define quality education, the UNESCO under the chairmanship of Delors says quality education should consist of four pillars of learning: "learning to know; learning to do; learning to live; and, learning to put education in the perspective of life-long learning" (UNESCO, 2005 p. 30). These four pillars of learning determine the process of quality education and can be used as quality indicators. The UNICEF approach to quality education is a little different from UNESCO. According to UNICEF (cited in UNESCO, 2004 p. 31) quality education has five dimensions: "healthy learners; conducive environments; relevant curricula; child-friendly pedagogy; and, useful outcomes". In the Bhutanese context, we need to consider if these five dimensions are present in the school system in order to see if Bhutan is ready to demand quality in education from the system. Are there healthy learners in the Bhutanese schools? Are they looked after well or supported well by their parents? Many school children study as dependents to their relatives. We wonder how much care they receive. Are there conducive learning environments? Many students in some parts of the country walk some five to six kilometers every day to and from school. Anybody who drives, in the morning, on the Thimphu-Paro highway will see children waiting for lift to their school.

As regards curriculum, albeit it was made more relevant particularly in the past two decades, it needs further improvement. The modern Bhutanese Education System started by borrowing Indian curriculum in the 1960s. Although a child-friendly pedagogy was adopted in

the 1980s, we wonder to what extent teachers implement these methods. In the past when the education system had not at all matured, caning was quite common in Bhutan which is against the child-friendly pedagogy. If some of these factors are absent it is more or less obvious what the outcome will be. While some of these pillars will be the subject of other researches, this particular research will provide some insight into teachers' pedagogy at the primary level.

Further, existing literature indicates that quality of education can be achieved only if the educational development has reached the stage of meaning (Beeby, 1966). According to Beeby, education systems in any country pass through four stages: "Dame school stage; Stage of formalism; Transition stage; and, Stage of meaning" (p. 58). It is only in the fourth stage that environments are conducive for students to get a deeper and wider understanding of the subject-matter learnt (Beeby, 1966). Along similar lines, UNESCO (2004) says that quality education is reflected by government expenditure on education, teacher-pupil ratio and teaching atmosphere, teacher qualification, and length of time pupils spend in schools (p. 21). Without dwelling on other issues let us pose this question: How much quality of learning can we expect when teacher-pupil ratio is generally higher in the country?

Teachers and their Pedagogical Knowledge

It is quite evident from the discussions above that the teachers are at the heart of education system and they play the most important role in quality learning. Osborne (1999), Holt in Pollard & Bourne (2003) & UNESCO (2004) indicates that nothing can substitute effective teacher in learning. Irrespective of the condition of school, effective teachers can deliver better outcomes. This projects the importance of teachers and their teaching in the school. Crahay (cited in UNESCO, 2004) notes that even when there are significant differences in learners' backgrounds, teachers can exert a powerful influence in raising the levels of achievement. In any reform geared towards improving quality, teachers' way of teaching is of critical concern (UNESCO, 2004). According to Cole & Knowles (2000) & Shulman in Pollard & Bourne (2003) it is extremely important that teachers possess sound pedagogical content knowledge to make teaching-learning process effective and meaningful. However, having said this, it is not only that the teachers should be well acquainted with the subject and pedagogical knowledge, there should be appropriate and supportive policy decisions with regard to curriculum. For the latter, UNESCO (2004) elucidates that there must be appropriate goals, relevant content, time management, monitoring for effective teaching, consideration on language of instruction, and a sound assessment policy.

As the focus of the study is on *effective teaching*, it mandates us to look into the subject in a greater detail. While it is easy to say what good teaching is, in a superficial sense, it is difficult to actually define it. Osborne (1999) says that "curriculum can only be as good as a piece of paper until a teacher turns it into something that will help students learn" (p. 77). The 1994 Ontario Royal Commission on Learning (cited in Osborne, 1999) describes the characteristics of good teaching in the following ways:

- Teachers care about their students and their learning and know them well enough to teach them effectively.
- Teachers know their subjects and know how to teach so that students understand them.
- Teachers are guided by clear goals and organize successfully to manage students learning.

- Teachers work with others, including colleagues, parents and the community in general.
- Teachers incessantly think about what they do and persist to learn throughout their careers. (p. 82)

Further, a good teacher should not only possess a good knowledge of the subject matter but should also have the ability to deliver it in a way that it captures and holds the interest of the students using creative means to answer to their needs. Besides, a good teacher should be driven forward by a strong sense of commitment to her students and her teaching profession. A good teacher has the urge to continuously upgrade and widen her knowledge.

Osborne (1999), strongly points out that an effective teaching involves both of “what? as well as how?” (p. 83) the teacher teaches. Elaborating on this, Osborne notes that a good teacher should have: mastery in the subject material and in translating it to the students; a wide repertoire of teaching techniques; and, a skill in balancing the authority and making himself or herself accessible to students (p. 83). A UNESCO report states that of the stumbling blocks of quality education in Sub-Saharan Africa is undesirable teaching practices like “rigid, chalk-and-talk, teacher-centred, lecture-driven pedagogy” (UNESCO, 2004, p. 152). Pedagogical renewal in that part of the world is generally switching to learner-centred, activity oriented pedagogy although institutionalisation of the former in schools and training institutions has produced inconclusive results (UNESCO, 2004, p. 153). Further, according to UNESCO (2004) effective teaching practices are open-ended, discovery-based pedagogies and structured teaching (p. 153). A structured teaching is a combination of direct instruction, guided practice and independent learning which consists of “...presenting material in small steps, pausing to check for student understanding and eliciting active and successful participation from all students” (UNESCO, 2004, p. 154). In the Bhutanese context, our teachers too are trained to make use of such methods during their training period. But the ground reality presents a different situation and a scenario which impels us to ask if at all they practice the methods and the strategies that they have learnt. It’s pertinent to ask what repertoires of teaching techniques Bhutanese teachers adopt in their daily teaching. These are some of the concerns that this study will address.

Regarding the need for providing more independence to the learners, Holt (cited in Pollard & Bourne, 2003) comments:

One of the most important things teachers can do for any learner is to make the learner less and less dependent on them. We need to give students ways to find out for themselves whether what they have done is correct and makes sense. (p.8)

It has increasingly become important for Bhutanese teachers to allocate more time for the students to engage in self-learning and research based activities. We must make sure that students put in more effort and depend less on the teachers to learn and gain knowledge. With the introduction of concepts such as a child friendly school, child-centred teaching and learning, child-centred pedagogies, etc. into the Bhutanese education system, time has called upon us as teachers to reflect on our role in the school system. Are we moving towards giving more independence to our children to learn? Or, do we still follow our traditional authoritative mode of teaching in our schools? Is there a gap between the existing literature and the actual practices in the Bhutanese classrooms? It is therefore urgent that we emphasise on adapting our system to new and effective approaches of delivering education

and keep pace with the rapidly changing world. Concerned about the traditional practices, Holt (in Pollard & Bourne, 2003) expresses:

We ask children to do for most of a day what few adults are able to do even for an hour. How many of us, attending, say a lecture that doesn't interest us, can keep our minds from wandering? Hardly any. Not I, certainly. Yet children have far less awareness of and control of their attention than we do. No use to shout at them to pay attention. If we want to get tough enough about it, as many schools do, we can terrorise a class of children into sitting still with their hands folded and their eyes glued on us, or somebody; but their minds will be far away. (p. 10)

A common trend observed during the teaching practice of the pre-service teachers was instructing the students to keep their arms folded whenever children make noise or move in the class. Does such a strategy help teachers to keep students attentive in the class? How do our in-service teachers feel about this practice? This study will address some of the pertinent issues pointed out by Holt (cited in Pollard & Bourne, 2003) above. Towards this end, some lessons of selected teachers have been observed to examine the type of strategies our school teachers apply to gain maximum attention from their students. Further Holt (cited in Pollard & Bourne, 2003) states, "the attention of children must be lured, caught, and held, like a shy wild animal that must be coaxed with bait to come close" (p. 10). Teachers have to be aware that if they do not prepare adequately and create a conducive learning atmosphere, it will be very difficult to retain students' attention. Holt (cited in Pollard & Bourne, 2003) rightly argues that, "...no amount of exhortation or threats will bring it back" (p. 10). Instead it will be much more relevant to adopt the concept of democratic procedures in the teaching-learning process advocated by some prominent educational practitioners (e.g., Joyce, Weil, & Calhoun, 2000 & Davis, 2001). Since Bhutan has already embraced democracy, this concept can also be introduced gradually in the classroom settings. According to Davis (2001) teachers can improve instruction and make students learn better by following four basic rules: "promote student's intellectual development, help students contextualize new information, help students retain and retrieve new information, and help students develop effective learning skills" (p. 177-183). As teachers we must remember that students learn better when teachers are able to create active learning such as hands-on-experience, opportunity to write frequently and peer discussions. Davis (2001) comments that, "active learning situations provide opportunities for students to test out what they have learned and how thoroughly they understand it" (p. 181).

Educational Philosophies

Since teaching and learning reflects one's belief, it is appropriate to discuss four generally accepted educational philosophies as this would shed light on this study. Most educationists discuss the influence of essentialism, perennialism, progressivism, and reconstructionism, the four educational philosophies on the teachers. Each educational philosophy explains teaching and learning from a particular vantage point.

Essentialism is a philosophy which aspires children to learn the essentials or basic academic skills and knowledge including the 3 R's. Here education is perceived as preparation for some future purpose (Oliva, 1988). A teacher is considered to be a master of a particular subject and a model worthy of emulation who should take control of the classroom and decide on the curriculum (Ornstein & Hunkins, 1998).

While it is difficult to point out the influence of this philosophy on our education system, certainly teachers are considered as role models and are believed to have mastery in their subject. Further, the start of vocational education in the 90s to give employment to the high school graduates is a pointer of its influence.

As the name *perennialism* suggests, perennialists believe that one should teach the things of everlasting importance to all people. They believe that some ideas are relevant for all times and these should be the focus of education (Oliva, 1988). Parkay, Stanford & Goughon (1996), contending that these great ideas are unchanging and true for all times, refer to them as 'the truths' (p.186). The purpose of education is to discipline the mind, develop the ability to reason, and pursue truth. They believe that 'Truth is eternal, ever-lasting and unchanging'. Emphasis is placed on great books of the western world as the great ideas are reflected in

these books. The aims of Bhutanese education are close to this. We place great emphasis on the passing down of our culture and tradition believing that these are relevant for all times.

Parkay, Standford and Goughon (1996) say this philosophy believes that education must promote humankind's continuing search for truth and cultivation of human rationality and it must stimulate students to think thoughtfully about significant ideas. And teachers should use critical thinking as the main method (p. 187).

Progressivism is a philosophy which created the child-centred school and is influenced by philosophers like Rousseau and Dewey. In Bhutan the New Approach to Primary Education (NAPE) system of education introduced in the eighties is a direct influence of this philosophy. Given the fact that it mainly promotes democratic system of learning it was not suitable to the governance system and the culture of the country at that time. To this end, Oliva (1988) says that the progressivists have faith in democracy and schools are viewed as miniature democratic society in which students learn and practice the skills and tools necessary for living in such an environment. Ever since the introduction of new modalities to effective learning we have been focusing on skills and tools of learning like problem-solving method and scientific inquiry but their application has largely been limited by the prevailing social institutions. In this philosophy learning experiences emphasise on co-operative behaviours and self-discipline which are important for democratic living. According to Ornstein and Hunkins (1998) emphasis should be on "how to think" and not on "what to think".

The progressivist movement led by John Dewey maintains that it was time to subordinate subject-matter to the learner. Needs and interests of learners must be considered. Education is not a product to be learned (facts & skills) but a process that continues as long as one lives. They believe that a child learns best when actively experiencing his or her own world as opposed to passively absorbing in pre-selected content.

Further, Dewey (1902) and Rugg (1947) (cited in Oliva, 1988) contend that the proper subject-matter of the curriculum is any experience that is educative. Since the progressivists have faith in democracy they see little place for authoritarian practices in the classroom. Teachers who are influenced by progressivist thinking see themselves as counselors to pupils and facilitators of learning. We must encourage co-operation in the classroom rather than competition. Individual growth in relation to one's own ability is considered more important than growth in comparison to others (Oliva, 1988). Parkay, Standford & Goughon (1996) state that Deweyian progressivism is based on the following six assumptions:

the content of the curriculum ought to be derived from students' interests rather than from the academic disciplines; effective teaching takes into account the whole child, and his or her interests and needs in regard to cognitive, affective, and psychomotor areas; learning is essentially active rather than passive; effective teachers provide students with experiences that enable them to learn by doing; the aim of education is to teach students to think rationally so that they may become intelligent, contributing members of the society; at school, students learn personal as well as social values; and humankind is in a constant state of change, and education makes possible a future that is better than the past. (p.188)

Unlike other educational philosophies *reconstructionism* is a philosophy which believes that the role of school is to bring improvement in society rather than simply transmitting the cultural heritage or simply studying social problems (Oliva, 1988).

Subject-matter of the curriculum may be controversial or pressing social, economic and political problems like unemployment and ethnicity, but the major responsibility of the school should be to teach students to analyse and question that they perceive as being unfair to individuals or groups (Henson, 1995). According to Henson (1995) schools should motivate students to take action to correct inequities and curriculum should enlighten students politically.

As this philosophy has extremely polar end views, it is difficult to say if there is any influence of the same. Quite to the contrary, our social institutions can't accept criticism let alone reconstruction. Besides it is already taken for granted that there is only one type of knowledge which is knowledge as structured disciplines. The subject-centred approach we have in the country is the legacy of the first two ideologies discussed above.

These ideologies create sufficient ground to analyse the type of beliefs the Bhutanese teachers have to eventually understand the teaching learning modalities practiced by our teachers. For instance, the more teachers are inclined towards the progressivist views, the better is the teaching and learning in the classroom. It is however important to understand that in the practical world no teacher would have just one philosophical influence. Rather a teacher would have an eclectic philosophy to cater to the needs of the students. In effect, this study will also focus on the degree of influence of different philosophies on the teachers.

Methodology

Qualitative

This study applied qualitative approach. The experiences of the teachers of primary schools in teaching various subjects were examined. Therefore, it employed a combination of both the participant observation and semi-structured interviews. Integration of both the tools was useful to better understand the quality of teaching process in the Bhutanese schools.

Sample/Participants

For in-depth understanding of the teaching process in the Bhutanese schools a sample of 18 primary schools with levels from pre-primary to class VI were selected from the western dzongkhags of Haa, Paro, Thimphu, Wangdue, Chukha and Punakha. The participants in this study were 36 teachers with a wide range of teaching experiences; from 1 year to 27 years of teaching. The sampling was done based on the idea of purposeful sampling (Merriam, 1998). The following criteria were adopted in selecting the research participants: on an average 3

schools from all the 6 selected Dzongkhags; from each of the 18 schools a sample of 2 teachers (teaching different subjects and class levels) were selected for actual teaching observation; and out of the 2 participants from each school one was selected for a semi-structured interview. It was also ensured that there was a good representation of samples from rural, urban and semi-urban areas for wider perspectives. The sample also has a good representation of male and female participants (40:60).

Research Tools

Data were mainly gathered through teaching observations and semi-structured interviews. A series of interviews were conducted with all the 18 samples (1 from each participating school) for in-depth information. All the interviews were tape recorded and transcribed later. As participant observer, detailed field notes on the classes observed with all the 36 participants were maintained. Each participant was observed teaching two different classes at different times. Thus, interview and observation were the main tools.

Gaining Access

Prior to the commencement of the study, formal consent was sought from the Director, School Education, Ministry of Education, and subsequently informed the Dzongkhag Education Officers and the principals of the selected schools. Consent from each of the participants was also obtained before observing their classes and conducting interviews. All the participants were asked to complete the consent form. Interviews were conducted both in English and Dzongkha according to the interviewees' preferences.

Ethical Issues

This research identified and observed all potential ethical issues. First, a written permission was sought from the Ministry of Education, and other stakeholders such as school principals. The Dzongkhag Education Officers were also informed in writing. Second, confidentiality has been maintained throughout the whole process of research as well as after the research. Third, any information regarding the research such as field notes and interview transcripts will be securely stored and it will be available to only the researchers. All these documents will be destroyed after five years.

Data Presentation and Discussion

Setting the Context

A total of 36 teachers with wide range of experiences (ranging from 1 year to 27 years of teaching) from various schools in the Western region participated in this study. Data for this investigation were generated through teaching observations of all these 36 participants from 18 primary schools with levels from pre-primary to class VI and semi-structured interviews with one of the two teachers from all the 18 participating schools. A minimum of two classes of almost all the participants have been observed at different times.

Since the objective of this research was to look at the general nature of the pedagogical orientation of primary teachers, classes were observed following a flexible schedule. The class level (PP-VI) and the type of subject to be observed was determined by the willingness of the participants. As a result, it was possible to observe some class levels and some subjects more than the others (see appendix A). A total of 64 lessons were observed comprising 18 English

lessons, 19 Maths lessons, 10 Dzongkha lessons, 9 EVS lessons, 2 Science lessons, and 5 Social Studies/History lessons.

All the observations were carried out without any pre-information to enable us to see the actual teaching as planned by the teachers for their regular classes. This did not allow teachers to modify their lessons for our observations. Word to word transcription of all the interviews was done to maintain its originality. The data obtained through teaching observations was used for comparing and supplementing the information collected through interviews. To gain wider perspectives, there was also a fair representation of male and female teachers and schools from rural, urban and semi-urban locations.

Discussion of Themes

The themes and patterns were developed based on the reading of the transcripts and the field notes several times. This exercise led to the identification of two broad themes and patterns which are grouped as opportunity themes and barrier themes. Opportunity themes are the positive aspects of the teachers' pedagogical practices and barrier themes are the negative ones.

The opportunity themes include philosophical orientation, pedagogical orientation, caring teachers, subject matter, subject teachers' collaboration, teaching-learning process and child friendly pedagogy. On the contrary, the barrier themes include philosophy as opposed to pedagogical practices, teacher dominated lessons, inadequate teaching-learning materials, heavy workload, and poor reinforcements. Each theme has been elaborated in the discussions that follow. For ethical reasons, the participants in this study are coded as participant 1, Participant 2, and so on.

1. Opportunity Themes

1a. Philosophical Orientation

The interview data reveals that the teachers in the primary schools, in general, have a well formed philosophical knowledge about teaching. The philosophy of their teaching as expressed by many participants relates guiding and a mutual sharing of experiences and knowledge between teachers and students (Participants 2, 3, 6, 17, & 20). These teachers consider that teaching should be a two way process where both the teachers and students learn from one another. Participant 7 conveys this idea a little differently:

Teaching meaningfully means teaching with variety. Teaching should not be limited to information input from teachers but rather we should take into account children's experiences and further put these into group discussion. This would make teaching and learning meaningful. In addition, we need to provide varieties of activities for children. (Interview, 8/10/07. pg. 11)

Along with the teacher's awareness and understanding of individual differences of the students, variety of teaching-learning approaches is an important element for stimulating learning. Participant 10 also stresses on the importance of the teacher's aptitude, his/her professional commitment and his/her physical and mental soundness. The statement holds much truth as these factors contribute immensely towards the delivery of quality teaching and learning for some. Further, participants 7 and 12 assert that communicating at the students' levels and being friendly with them will motivate the students to express freely.

These views allow us to purport and broadly conclude that our teachers strongly believe in student-centred teaching and learning. This positive philosophical orientation of our teachers is certainly an indication that the Bhutanese education system is moving in the desired direction.

1b. Pedagogical Orientation

As discussed in the literature section, the quality of education would largely depend on the type of pedagogical knowledge teachers have as well as the pedagogy they use. Therefore, it is crucial that teachers practice a wide variety of strategies in their daily teaching-learning process. The interview data reveals that teachers broadly make use of the following strategies while teaching: questioning method, discussion, presentation, demonstration, question-answer, inquiry learning, co-operative method, explanation and group work, deductive and inductive strategies, field trip, project method, role play and simulation, lecturing, etc. (Participants 2, 6, 10, 12, 13, 15, 17, 20, 23, and 25).

In general, the different lessons observed were categorised into three broad types: student-centred; semi-student-centred; and traditional types. While all those lessons dominated by student activities are put into the student-centred category, those lessons largely dominated by teacher explanation are put into traditional category. Those lessons which have some elements of both traditional and modern methods are placed into semi-student-centred category.

Some of the lessons that observed falling into the student-centred category are: student presentation method; method which has demonstration, questioning and discussion followed by dialogue practice activity; method which has display of sight words on chalk board and reading, students copy work and do matching activity; demonstration on describing, group work and presentation; reading after teacher who shows aids, listen and draw activity; and demonstration and student activity. Some other indicators of student-centred category set for these activities are the teaching aids used and class seating arrangements. These lessons in general had teaching aids such as mirror, worksheets, pictures, newsprint, real objects and sight words (see appendix C for sample lesson on student-centred).

Lessons that are grouped under semi-student-centred are: short field trip with questioning and discussion, student reading and questioning technique, questioning/discussion/ writing, a combination of teacher explanation and whole class discussion (with teacher domination), showing a picture and saying a sentence, students repeating, teacher writing a sentence on the chalk board and reading once again for students, etc. Findings also indicate that most lessons were dominated by oral activity with very little writing opportunity for the students (see appendix D for sample lesson on semi-student-centred).

The third category of lessons which is the traditional type is a classroom environment where teacher dominates with the absence of use of teaching aids and proper grouping. This is discussed at length under the barrier theme.

The observation of some 60 classroom teaching presents the presence of a mix of traditional, semi-student-centred and student-centred teaching in the Bhutanese classrooms (see appendix E for summary of the class observation).

1c. Caring Teachers

Classroom observations and interaction with students reveal that the Bhutanese teachers generally possess a caring nature for their students. This attribute of our teachers are demonstrated in their approachability and frankness traits as well as in their habit of referring to their students by their names. Not only did they exhibit the caring nature in the classrooms but also expressed it in the interviews. (Field note, 25.10.07 and participants 2, 3, 4, 6, 7, 8, 15, 17, 19, 20, 23, 24, 26, 29, 30, & 31). Such practices are basis for effective learning and would definitely make a considerable difference in appealing the students to learn. The importance of this trait as one of the characteristics of good teaching is also spelled in the 1994 Ontario Royal Commission on Learning (cited in Osborne, 1999). Thus, it is essential for all teachers to possess this quality to ensure meaningful learning.

Further, a good teacher should always go to the classroom with a well planned lesson. A good planning includes a detailed lesson plan, appropriate teaching materials which contributes towards an effective teaching-learning process. Though many teachers had their daily lesson plans, only few teachers used teaching aids to complement their teaching. (See picture on appendix F).

1d. Subject Matter

The subject matter was not the focus of our interview but the class observations allowed us to conclude that our teachers are confident with the content they teach (Field note, 8/10/07). However, instead of sticking to the content in the text they need to teach by drawing wider examples from the real-life context. For instance, a teacher was teaching about the tools used by a carpenter. As the class discussed and listed the tools used by a carpenter, one student said, "Pencil" which was actually not mentioned in the text. This particular teacher did not accept the wonderful answer provided by that student (Field note, 22/10/07). On the other hand literature talks about initiating discovery based learning and giving opportunity for children to use their creativity. Allowing children to "think out of the box" is the most common phrase used in education and if our teachers restrict such opportunities in our children (as in the above example) the quality of education will be affected.

1e. Language

On the subject matter, observations were also made on the communication difficulties in some participants (15 & 26). They were not able to express some of the things clearly in English. We have also observed a few instances where a teacher was using vocabulary above the level of the students (Participant 2). For instance, this teacher used words such as, "distinguish, situation, and stray in class VI which children found it difficult to understand (Field note, 25/9/10).

1f. Subject Teachers' Collaboration

Collaborative culture especially amongst the subject teachers in the school seems to be well maintained in most situations (Participants 3, 7, 10, 12, 17, 23, & 25). According to participant 12:

We have a very good collaborative culture in the school. For instance, I teach math and we have a senior math teacher who taught math for almost 14 years. So if I have any problem with my math lesson or if I run short of strategies, I go to her for support. She is always there to help me. (Interview, 11.10.07, pg. 20)

Many participants also revealed that although they do not conduct formal discussion sessions, they do talk and discuss casually about their class which actually provides them some valuable insights for future improvements (e.g., Participant10). According to Fullan (1999 cited in Sherab, 2001);

Collaborative cultures are innovative not just because they provide support, but also because they recognize the value of dissonance inside and outside the organisation. (p. 142)

One of the emerging and healthy practices that most of the schools now have is the creation of subject departments in their own schools. This study has found out that teachers within their own departments maintain a close link in terms of offering their subjects. The existence of collaborative aspects amongst the teachers and the community is yet another characteristic of a good teaching (The 1994 Ontario Royal Commission on Learning, cited in Osborne, 1999). Such experiences provide scope for leadership to grow.

1g. Teaching-Learning Process

Some of the other positive aspects of teaching learning process taking place in the Bhutanese primary schools are well designed plans, attractive teaching aids, children's responses, support from the parents and community, self-reflection, and participation of students in the class. Observations of lessons and visits made to the classrooms show that teachers come to teach with well planned lessons and teaching aids are also well displayed in the classrooms (see appendix F). Another interesting observation was that students felt free to express themselves in the class. For instance, when a teacher asked a question there were many who raised hands waiting for opportunity to answer. This is a clear indication that Bhutanese classrooms are progressing well with the concept of a child friendly school. Interview data also reveals that the Bhutanese parents are now beginning to take some responsibilities in educating their children (Participant10). This study has also found that many participants knowingly or unknowingly carry out some reflection exercise after their lessons and they agree that such exercises have been constructive for future improvements (Participants 4, 10, 13, 17, 32, & 33). It has been observed that student participation in the classes such as responding to questions and reporting group work were generally high.

1h. Concept of Child Friendly School/Pedagogy

Our teachers also understand well the concept of child friendly school as advocated by the Curriculum and Professional Support Division of the Ministry of Education (Thinley, 2007). For instance, participant no. 3 defines a child friendly school as "giving opportunity to the teachers to be open with their students, not threatening them, and not scaring them. It is all about creating a conducive and free environment where children could come forward and talk to the teacher" (Interview, 3.10.07). Participant 2 who teaches at a child friendly model school adds the following:

By child friendly first we look at the infrastructure in the school such as provision of safe environment for children to study. We also make sure that there is a safe drinking water. Taking care of the students is very important. Take them to the hospital or call their parents whenever they are sick. We also make sure that the school environment is free of harassment and that there is no physical punishment. (Interview, 2.10.07)

Some participants (No.7 for instance) say that with the introduction of child friendly school they have given up traditional ways of teaching. Other participants believe that they should not blame and scold students but rather interact with them in a friendly way (Participant 10, 12, 13, & 25). However, there are also some like participant 33 who admitted that there are many teachers who do not clearly understand the concept of a child friendly school.

2. Barriers Themes

This study discovered many positive and encouraging practices in the primary classrooms. However, there were also practices and issues, referred to as barriers in this study, all the stakeholders need to consider.

2a. Philosophy Vs Pedagogical Practices

Data on philosophical understanding was basically obtained through interview for understanding the kind of beliefs our teachers have on teaching and ultimately to provide some insight on the teachers' pedagogical orientations. Data for pedagogical practices were obtained through both interviews and class observations. Careful triangulation of the data from these various sources reveal that there is a gap between what the teachers are actually practicing and what they believe to be desirable. The comparison of the philosophical orientation of the teachers gathered through interview with that of the classroom observation data reveals that there are some significant contradictions.

As elaborated above under the opportunity theme, generally teachers consider 'guiding and facilitating learning in students' as central to their teaching beliefs. This is based on the findings from the interview data. However, they were not able to articulate their views in the real classroom situation. Thus, it appears they know the jargon but it has not translated into practice.

For instance, over 80% of the teachers interviewed supported the importance of student-centred teaching and learning. However, the class observations made found out that many of the lessons observed fell under semi-student-centred and teacher-centred methods. On the other hand, there are others who believe that student-centred teaching does not work very well in their classes. It may be true because of lack of either the skills or resources in teachers and experiences in students on more independent learning. They have to be taught how to work independently. This may be partly because of lack of clarity of the concept. For instance, participant 20 has this to say:

I believe in some of progressivist and some of perennialist views. I believe this way because students alone can't learn by themselves. In the absence of a teacher, there is no dissemination of information. They should go parallel. I think that both the sides should play important roles. In the student side, when teachers usually emphasise child-centred learning, for the brighter student it is ok. They learn fast. Those students who are not able to catch up, teachers should really interfere. (Interview, 22.10.07, p.29)

Further, participant 33 comments that while high achievers do well using the student-centred methods, low achievers do not. Thus, the teachers are obliged to go for teacher-centred methods (Interview, 30/10/07). Given this, many of the lessons observed were inclined towards semi-student-centred methods, which are elaborated above.

There are still other teachers who prefer traditional chalk and talk methods. This is evident in the observation of a lesson of participant number 7. Without any introduction the teacher

writes the definition on the chalkboard while the students copy it. After explanation of the same, students are given an individual writing activity. It was mostly teacher talk and explanation, and there were no teaching aids other than the usual textbook, chalk and chalkboard. The second lesson was a better one with more student involvement in group activity and a worksheet as teaching aids. However, the lesson had some characteristics of traditional teaching such as “teacher reading and students repeating in chorus” and “teacher being excessively in control of the class.”

These findings suggest a pattern of teaching that is probably common in all the primary schools in the country. However, as this observation was carried over a very limited period of time with a few participants and only two observations the limited nature of their findings should be noted.

2b. Teacher Dominated Lessons

Teacher dominance reflects the kind of belief a teacher has. Findings suggest that Bhutanese classrooms still need a major shift in this paradigm. The notion of teacher being everything for a student is still there in the minds of both teachers and students.

While interview data analysis reveals that teachers are keen on activity based teaching the observation data analysis tells a slightly different story. A minimum of two class observations were made with almost all the participants at different times. A typical example of a teacher dominated lesson is illustrated in appendix E. The research findings indicate that students are not challenged to learn and that such teaching style does not cater to individual needs. Their thinking ability is restricted and in the process they cannot develop a critical thinking ability. Such process leads to making people think only inside the box. Our students should be provided opportunities to think outside the box which is more critical in today’s world.

On the whole we can conclude that teacher dominated lessons with less democratic procedures and less independence in learning are still practiced in many Bhutanese schools. This makes us ponder if the Bhutanese concept of “children learning more out of fear” has been wiped out of the Bhutanese mentality. Most of the teacher respondents claim that they are aware of the child friendly education introduced recently. Findings from this research suggest that children are too dependent on teachers for knowledge and there is very little effort by the students to claim knowledge learnt from their own experience. Our teachers need to realise that under such restrictive environment children often fail to get long lasting learning in their life. The culture of more time for self learning and discovery based activities are promoted only by a few teachers. The whole idea of making the students less and less dependent on the teachers (Holt cited in Pollard & Bourne, 2003) has been ignored by most primary teachers.

The following are the strategies teacher respondents claim they supposedly use:

questioning method and discussion, presentation, demonstration, question-answer, inquiry learning, co-operative method, collaborative learning, demonstration, explanation and group work, deductive and inductive strategies and field trip, project method, role play and simulation, activity-based teaching/ learning by doing, lecturing, and project work. Our classroom observations reveal otherwise in many cases. In our observations we came across a mix of teachers who use activity-based as well as lectures. Some say they use activity-based teaching but the activity comes after information input from the teachers. This is fittingly the traditional notion of ‘Teaching= Information input by teachers + Activity.’ As discussed

elsewhere we also came across teachers who totally practice student-centred teaching. For instance, presentation of work by students in the class. In these classes teachers really play the role of facilitators.

The findings indicate that the Bhutanese education system also has many teachers in the system that go for a very rigid, chalk and talk kind of method similar to the one noticed by UNESCO (2004) in the Sub-Saharan Africa. The following description highlights some traditional lessons in the Bhutanese classrooms: teacher explains about different kinds of nouns and writes these on the chalkboard; students are asked to copy; further, explanation on common and proper noun was made; the given task had no stress on either the individual or group work; the class has a row style seating arrangement which is very traditional; hardly any reinforcement was used in two third of the class observation (Field note, participant no 30, 20/10/07).

While most of the observed classrooms were arranged in groups (e.g., participants 3, 5, 6, 9, 11, 12, 13, 14, 15, 17, 19, & 21) there were still many classrooms which had traditional row seating arrangement (e.g., participants 1, 2, 4, 7, 8, 24, 27, 29, & 30). Observations have been made on the restrictive nature of such traditional seating arrangement to student movement that eventually hampers class discussion and discourages student-centred teaching and learning. However, it is also important to understand that some classrooms are arranged the traditional way because of lack of space.

2c. Inadequate Teaching-Learning Materials

According to Heyneman, (1997) one of the main causes of declining quality of education in the Middle East and North Africa is the poor supply of resources. In the Bhutanese context, while many teachers use teaching aids in the classrooms, there are some teachers who still use chalk and chalk board as the main teaching aid. Some of the teaching aids we have seen the participants use are sticks, pictures, newsprint paper, real objects, cyclostyle paper-made worksheets etc. During our visits we also saw many teaching aids hung on the wall which were an indication of use of the same.

The interview data reveal the difficulty in obtaining teaching aids for their classrooms and there are also cases where the students were asked to bring their own learning aids. For instance, participant 7 remarked that “whenever we run short of these in the school, we ask children in different groups to bring the same turn-wise” (Interview, 8/10/07). This coincides with the scanty use of teaching aids in some classrooms.

Teaching is also affected by poor supply or non-availability of teaching aids, particularly in remote areas as revealed by our observation and interviews. For instance, a teacher was observed making students do a hands-on activity on symmetry using just two broken mirrors in a crowded class (participant 33). The mirrors were passed from individuals/pairs to the next individuals/pairs. During the interview some participants shared their concern on the acute shortage of teaching learning materials. One participant said “I manage with whatever resources I get. For example, even if there is a need for four charts, I put everything in one chart” (participant 20, 22/10/07). More and more of such compromises will have a deleterious impact on the quality of education.

2d. Heavy Workload

Interview data show that teachers in Bhutan generally have heavy teaching load that adversely affect their performance. On an average they have 30-35 periods of 40-50 minutes class in a week. Another stumbling block for teachers that is often eluded is the large number of students in a class (See appendix G). Often some classes have more than 50 students that culminate into difficulty in classroom management. According to participant 6, classroom management is the most difficult thing with huge class size (Interview, 4/10/07). Further, the same participant comments that "Monday to Thursday I teach all the 8 periods" (Interview, 4/10/07), meaning that there is not a single period free. Findings from this study also indicate that teachers are shouldering other responsibilities in the school besides regular teaching. Participant 6 claims that, "In the morning I come to school at 8 am and if I am on duty I have to supervise the social work and cleaning and even the lunch duty. After class, on my duty day I have to go for prayer duty before going home" (Interview, 4/10/07, pg. 8). Similarly participant 10 pointed out that after the class hours are over teachers often get involved in organising games competitions, literary activities, cultural practices, etc. (Interview, 9/10/07). All these would mean that very little time is let for preparing their lessons and correcting assignments. When our teachers are undergoing such practical difficulties, how can we demand quality education? It is critical that the system provides adequate support to the teachers and create a conducive environment. Without much support the entire process of teaching and learning will be hindered. For instance, UNESCO (2004) has rightly pointed out that the quality of teaching and learning will be affected if the pupil-teacher ratio is high.

Observations also show that there are teachers trying out activities in a cramped classroom while others opt traditional chalk and talk even if the class size permits activity based teaching. This interesting observation demands all the stakeholders to reflect and work in collaboration to improve these nuances in teacher attitude and the classroom size that directly affects learning.

2e. Poor Reinforcements

From the behaviorists point of view reinforcement is key to teaching and learning. The use of efficient reinforcement helps the teacher to motivate students to learn. However, the use of reinforcement lacked variety and was generally limited to good and very good. The other reinforcements the participants used were: thank you, give him a big clap and vovo legso.

Recommendations

Primary education is the basic foundational stage for our children- the future nation builders. Therefore, it is necessary to devise strategies to minimize and gradually eliminate the barriers identified in this study. Based on the findings of this study, some recommendations are made towards this direction.

1. Pedagogical Shift

Careful analysis of the research findings suggests that there is an urgent need for a major shift in the pedagogical practices of our teachers. Although there are teachers who are performing extremely well this study has also found that there are others requiring change in their attitude and approach of teaching. Time is ripe to understand that teaching in the 21st century is more than an information feeding process. The role of a teacher has considerably changed; teachers now act as guides and facilitators in the classrooms. Teachers need to adopt constructivist teaching and learning and realise that the era of "a teacher standing in front

and students sitting at the feet of a teacher for knowledge” has become obsolete. Now, the students have to be provided more time for self learning through enquiry based activities. They need to take full ownership for acquiring knowledge and this is possible only if students depend less on their teachers and use their creativity and approach learning in an exploratory way.

While it is true that it is difficult to do away with the existing culture, we must also remember that often innovations emerge from such difficulties. Einstein once rightly remarked that, “In the middle of difficulty lies opportunity.” Our teachers should therefore learn to transform difficulty into opportunity by adopting innovation approaches to their teaching rather and discarding the obsolete strategies. Bridges (cited in Sherab, 2001) supports this by stating that, “Inevitably accepting something new often means letting go of something old” (p. 19). Such new demands often put teachers into critical situations for research has shown that teachers have to be theoretically and philosophically well oriented to cope with such change and shift (Ray, Lee, & Stansell, 1985 & Chen & Ennis, 1996 cited in Sherab, 2001). However, the findings of this research interestingly confirm that our teachers are philosophically and theoretically well oriented. Thus, we can conclude that our system needs to look at some of the other enabling factors such as morale of the teachers, workload, provision of adequate teaching-learning materials, etc. Above all, teachers need to change their attitudes and beliefs about their own practices and move ahead with the world of technology. According to Sparkes (cited in Sherab, 2001, p. 30), “Real change should take place with transformation of the beliefs, values, and ideologies held by teachers that inform their pedagogical assumptions and practices.” From this we understand that improvements in the schools can take place only if the mindsets of our teachers are ready and receptive to change. However, the general feeling is that the mindsets of the teachers can change only if the teachers are satisfied and happy with their career. Research (Dorji, 2007) has found out that the morale of the Bhutanese teachers is generally low which can have negative impact on the performance of our teachers. Therefore, more research needs to be conducted to study the morale of teachers.

2. Diversity for Excellence

It has been discovered that Bhutanese teachers in the primary schools follow a very structured pattern of teaching with little flexibility for student learning. Most of the lessons observed were teacher dominated and with lots of verbal activities. Research findings indicate that students do not like teachers who talk too much and do not provide them with opportunities to interact with their peers in the class (Cothran & Ennis, 2000). Teachers in the primary schools seem to make use of a limited range of methods and strategies which do not cater to the needs and interest of individual students. This clearly indicates that teachers are not aware of the individual differences and their students’ learning styles. Tomlinson (1999) rightly mentions that teachers cannot assume “one student’s road map for learning is identical to anyone else’s” (p. 2). As teachers it is imperative that we consider the learning styles of all the students in a class not just our own teaching styles. In order to respect individual differences and needs, teachers would find it interesting to use methods such as cooperative and Howard Gardner’s multiple intelligences approaches. As educators we know that some people learn better through listening while some learn through visual aids and others through reading and hands-on activities.

3. Professional Development for Teachers

The 21st century landscape is changing fast. What is discovered today is obsolete tomorrow. New discoveries are made everyday. It is critical that we stay abreast with new discoveries and developments. Therefore, stakeholders of the education system have to consider the importance of professional development in the teaching-learning process. We have teachers in the system who did not avail any opportunity to grow professionally. Earlier research (CERD, 2007) has also found out that professional development was in the priority list for teachers. This clearly indicates that our teachers are aware and keen to upgrade their knowledge and understanding through professional development programmes. If teachers are not able to update their knowledge they are not likely to make a positive impact on the quality of education.

The Ministry of Education (MoE) should devise innovative measures to address the urgent need for professional development for the cause of quality education in the system, particularly at the foundation stage. This would mean making it mandatory for all teachers to attend it once at least every two years. For instance, in Singapore it is mandatory for a teacher to attend at least one professional development programme every year. Such practices would really support and boost the morale of our teachers.

3. Strengthen the Positive Factors

The findings of this research have confirmed that there are some good practices in our primary schools. Interview data reveals that our teachers have strong philosophical and theoretical foundations. They are aware of the concept of child friendly pedagogies. Yet, why aren't they practicing what they know? There probably are some practical issues which obstruct them from putting into place their ideology such as the ones that we treated in our discussion on barriers. Findings also indicate that teachers have a caring attitude, adequate content knowledge and excellent collaboration which needs to be further improved. These characteristics of good teaching need to be reinforced and nurtured at regular intervals in our teachers for the benefit of our children and the entire nation at large.

4. Reconsider the Negative Factors

Some of the factors that affect the teaching-learning process are workload of our teachers, lack of materials and use of poor reinforcement. In the long run stakeholders have to reconsider these issues. If the work load is not reduced and adequate materials not supplied, quality of education will continue to be adversely affected.

5. Further Research on Specific Subject

This research considered the teaching of all the subjects at the primary level (PP-VI). Therefore, the findings are not specific to any subject or class level. However, in the future there is scope for more research to be conducted particularly in the area of pedagogy, in different subjects, and even for a particular class level. The findings then would be more relevant to the subject of study that would allow the stakeholders to accordingly plan and devise innovative measures to enhance delivery of quality education.

6. Further Research on other Dimensions of Quality of Education

The five dimensions of quality of education as per UNICEF discussed in the literature review section are: healthy learners; conducive environments; relevant curricula; child-friendly pedagogy; and useful outcomes. This particular research explored only the pedagogical

aspects of primary education. Therefore, more researches in other dimensions and other school levels need to be conducted to fully understand the quality of education in Bhutan.

Conclusion

This paper discussed at great length the pedagogical practices of our teachers in the primary school in the western part of the country. The findings have strong implications on teacher education programmes. It is pertinent to ask if we are actually training teachers who can handle a class with a variety of instructional strategies. The 21st century world is moving ahead very fast and we can't afford to leave individuals behind. Therefore, it is time that teacher education colleges re-examine their programmes to see if it is in line with the recent developments in education and the needs of the children.

Teaching and learning processes is not just an affair for teachers and students in the schools. All the stakeholders such as the teacher education colleges, Ministry of Education, parents, university, and other related organisations share these responsibilities. Therefore, it is imperative that some of the strengths discussed in this research are further enhanced and that weaknesses are immediately addressed. This paper has provided a detailed account of what is happening in our primary schools with regard to the pedagogical practice which has been identified as one of the indicators of quality education. Although the sample for this research was drawn from the western region, we strongly feel that the findings could be generalised across the country.

References:

- Beeby, C. E. (1966). *Quality of education in developing countries*. USA:Harvard University Press
- CERD (2007). *The state of our nation's teachers: An enquiry into teaching as a profession in Bhutan*. Paro: CERD.
- Cheng, Y. C. & Tam, W. M. (1997). Multi-models of quality in education. *Quality assurance in education*. 5 (1), 22-31.
- Cole, A.L & Knowles, J.G. (2000). *Researching teaching: Exploring teacher development through reflexive inquiry*. Needham Heights, MA: Allyn & Bacon.
- Cothran, D. I & Ennis, C. D. (2000). Building bridges to student engagement: Communicating respect and care for students in urban high schools. *Journal of research and development in education* 33 (2) 106-117.
- Davis, B. G. (2001). *Tools for teaching*. San Francisco: Jossey-Bass Publishers.
- Dorji, R. (2007). *Teacher Morale*. Unpublished research paper. PCE, Paro.
- Henson, K. T. (1995). *Curriculum development for education reform*. New York: HarperCollins College Publishers.
- Heyneman, S. P. (1997). The quality of education in the Middle East and North Africa. *International Journal of Educational Development*, 17 (4), 449-466.
- Holt, J. (2003). How children learn and fail. In Andrew Pollard & Jill Bourne (eds.), *Teaching and learning in the primary school* (p. 7-11). London: Routledge Falmer.
- Joyce, B., Weil, M., & Calhoun, E. (2000). *Models of teaching* (6th ed.). Needham Heights (MA): Allyn and Bacon.
- Marino, J. (2006). *What is "quality in education"?* Retrieved July 8th 06 from <http://www4.asq.org/blogs/edu/2006/04/>

- Merriam, S.B. (1998). *Qualitative research and case study applications in education*. San Francisco: Jossey-Bass.
- Oliva, P. F (1988). *Developing the curriculum*. London: Scott, Foresman & Company
- Ornstein, A.C. & Hunkins, F.P. (1998). *Curriculum: Foundations, principles, and issues*. Needham Heights, MA: A Viacom Company
- Osborne, K. (1999). *Education: A guide to the Canadian school debate-Or, who wants what and why?*. Toronto, Ontario: A Penguin/ Mcgill Institute Book.
- Parkay, F., Standford, B. H. & Gougeon, T. D. (1996). *Becoming a teacher*. Scarborough, Ontario: Allyn & Bacon
- Schofield, W. (1996). Survey sampling. In Roger Sapsford and Victor Jupp (eds.), *Data collection and analysis* (p. 25-54). London: Sage Publications.
- Sherab, K. (2001). *Implementing physical education curriculum in elementary schools in Bhutan: Inhibiting factors and opportunities*. Unpublished M. Ed thesis, St. Francis Xavier University, Nova Scotia, Canada
- Shulman, L (2003). Those who understand knowledge growth in teaching. In Andrew Pollard & Jill Bourne (eds.), *Teaching and learning in the primary school* (p. 84-88). London & New York: Routledge Falmer.
- Thinley, D (ed.) (2007). *Towards inclusive, child friendly schools in Bhutan: A manual for teachers, teacher educators and student teachers*. Paro: CAPSD.
- Tomlinson. C. A. (1999). *The differentiated classroom: Responding to the needs of all learners*. Alexandria, VA, USA: ASCD.
- UNESCO (2004). *Education for all: The quality imperative*. Paris: Graphpho Print
- UNESCO (n.d). *Education: Quality indicators*. Retrieved July 8, 2006, from http://portal.unesco.org/education/en/ev.php-URL_ID=27856&UR

Appendix A

The overview of classes and subjects observed are reflected in the table provided below.

Class	Male Participants						Total	Female Participants						Total	Grand Total		
	P	1	2	3	4	5		6	P	1	2	3	4			5	6
Subject																	
English	/		/	/	/	/	//	8	///	/	/	///	/	/		10	18
	/												/				
Maths			/	/	/	/	//	10	/	/		/	/	/	//	9	19
			/		/	//						/	/				
Dzongkha	/	/	/	/	/	//	7	///								3	10
EVS		/	/				3	//	/	//	/					6	9
			/														
Science														//		2	2
S.Studies/					/	//	4					/				1	5
History					/												
Total Male							32	Total Female								31	64

Appendix B

A brief overview of the different lessons observed is presented in the table below:

Subject	Strategies used	Teaching Aids	Reinforcements used
English	Short field trip followed by questioning and discussion	Chart paper	
Poetry	Student reading & Questioning	Chart paper	Clapping
EVS	Questioning/discussion/ writing	No T/L materials	Clapping
EVS	Discussion/ questioning	No T/L	Vovo legso
EVS	Group activity-writing	Real objects	
Mathematics	Demo & hands-on activity		
	Demo, copy and writing	Potato & pen knife, Cyclostyle paper	
Dzongkha	Whole class discussion/ questioning & writing		
Geography	Teacher explains the concepts & further reading of texts by students to write answer to the given questions	atlas	
Poetry	Discussion	Text book & c/board	
Mathematics	Demonstration of solving problems by teachers. Students solve problems in groups		
	Draw, write & tell & chn to draw and write	picture	
	Teacher reads, stds read & teacher explains meaning		Very good, clapping of hands
	Questioning		Very good
Maths	Demo & questioning technique, More of teacher talk		
	Demonstration, Discussion & activity	Scale, c/board	Yes, o.k., V. good Written reinforcement
	Demo, Discussion & problem solving	Text, chalk & c/board	
	Shows picture & says a sentence. Students repeat. Tr writes the sentence on c/board & reads once again for students	Picture of cow, sight words like live, cowsheds, etc	
	A combination of tr explanation and whole class discussion		Real objects

geog	Student Presentation based method	Chart and marker pens	
	Display sight words on cb & stds read. Stds copy and do matching activity	Sight words	Thank you, give him a big clap, V. good
English	Reading, questioning & discussion. Group reading		V. good, give big clap
2 English	Demo, questioning, & discussion. Dialogue practice activity	Real objects like spades and hammer	Good, ok
Dz	Chalk & talk. Fill in the blank		
Dz	Chalk & talk. Students copy from cb		
EVS	Group discussion & writing	c/board only	Hardly any reinforcement
Math	Demo, copying the c/board works & student activity		Good
Dz	Chalk & talk, copying works, student activity		Legso
SS	Student presentation & teacher support	Poor chart work	Thank you
Math	Demo & group work	Picture of a rectangle	
Poetry	Demo, discussion, independent reading & questioning	Chart work	
Eng	Demo on describing, group & presentation	News print & picture of bird	Rare use
	Questioning & discussion. Group activity	No extra t/l materials	
Dz	Teacher talk/explanation+ Activity	No extra t/l	
Dz	Chalk & talk, group activity & individual work	worksheet	
Math	Theory input, demo+ problem solving		
Math	Discussion, demo+ guided practice	compass	
English	Discussion, questioning+ group activity		
English	Reading after teacher with teaching aids. Listen & draw	Pictures of stone, leaf & real objects	
English	Discussion+ student activity		Ok, good, this is wrong again
SS	Discussion+ indi reading, answer writing+ tr summary	No t/l aids	v. good
science	Demo+ std activity	Mirror, worksheet	
Dz	Tr reading+ std repeating+ writing words on c/b	sticks	
Dz	Tr writes words on cb & reads out & stds repeat after. Tr's substitute reads for others to follow. Writing		

Appendix C

An example of a student-centered lesson

Date of visit:	9/10/07
Class taught:	Five A
Subject:	English
Topic:	Poem, "Mum, Dad, and Me"
Gender:	Female
Teaching experience:	2 years
No. of students-	37
No. of classes in a week-	36

- The class begins with a brief speech by one student on a selected topic and a thought for the day by another student.
- Teacher writes the topic "Mum Dad and Me" on the chalk board and asks students what it would be all about, children makes a guess.
- Teacher displays a chart on the chalkboard which has a list of reminders for the students to keep it in mind while reading a poem.
- Teacher then models the reading of the poem and students silently look at the book and listen.
- Teacher then asks some questions about the poem. For instance, "what is the poem about? What is happening in the poem? Which feelings, situations, or images remind you of events or emotions in your life?" etc.
- Then students were asked to read the poem individually and they had to underline the difficult words that they could not understand.
- Teacher asks children to read the difficult words one by one and then asks students if any of them know the meaning
- If students could not tell the meaning, teacher explains word by word
- Teacher asks students to read the poem once again but this time it was reading aloud in unison.
- Teacher again asks questions such as which feelings, situations, or images remind you of events or emotions in your life?" etc. Students respond and teacher further explains supporting the students' responses. Students came up with some excellent responses. For instance, students made a very relevant comparison of time- past and present. In the past they used to communicate by writing letter but now they do over phone etc.
- Teacher summarises the poem through explanation and ends the lesson.

Observer Comments (Field note, 9/10/07).

- It has been quite interesting to observe that a brief speech and sharing a thought for the day was a regular feature for this class.
- Good to ask questions where students could make a guess. That opens up the minds of students.
- Students could come up with some excellent answers. I really appreciated them.
- It is great that students could learn much new words.
- It was quite encouraging to observe that students compete to respond to the teacher's questions.
- Teacher asks well distributed questions.
- Could have included some writing activities.

- Quite an interactive class. All students were actively engaged.

Appendix D

An example of a semi-student-centered lesson

Date of visit:	22/10/07
Class taught:	II
Subject:	Environmental Studies
Topic:	Workers and Tools
Gender:	Male
Teaching experience:	8 years
No. of students:	39
No. of classes in a week:	33

- Teacher does a review of the previous topic by asking some questions and clarifying points in doubt.
- Teacher introduces the topic “Workers and Tools” by writing on the chalkboard
- Again by asking questions teacher explains what a teacher needs? What a farmer needs? What a doctor needs?
- Teacher asks students to open their textbook and notebook.
- Teacher reads and students follow the teacher.
- Teacher explains the tools used by different workers.
- Then teacher provides an individual activity for the children.
- Students had to fill up the empty boxes by writing the name of the tools required for a carpenter with the help of a picture.
- Students basically copied this from the textbook.
- Teacher corrects the work one by one as children finish.
- Teacher asks the children who had finished to learn the spelling from the text.
- Finally teacher asks children to close their books and asked them some revision questions.

Observer Comments

- A very detailed review done.
- Teacher has a very good questioning technique. Makes sure the questions are distributed well.
- Too much verbal activity and not much of writing involved.
- Teacher could have used some teaching aids to show and make the concept clear while discussing that a farmer needs a sickle, teacher could have shown a picture of sickle or could have shown a real sickle.
- Activity has to be challenging instead of just copying from the text.
- Basically this teacher taught what is there in the text. Not much creativity has been encouraged. For instance, on the question what tools are used by a carpenter, one student came up with a creative answer (at least to my observation) that a pencil is used by a carpenter. Since this is not there in the text, the teacher was not able to make a good link. Such practices by the teachers do not encourage children to think outside the box. However, we do not blame our teachers directly. We need to consider factors such as number of students, availability of teaching-learning materials, exposure, syllabus coverage, etc.

Appendix E

Date of visit: 25/9/07
Class taught: VI
Subject: English
Topic: Poem, "The cabbage white butterfly"
Gender: Male
Teaching experience: 17 years
No. of students: 31
No. of classes in a week: 32

- Teacher does recapitulation of the previous lesson by summarising what was taught.
- Teacher begins the class by reading a poem "The cabbage white butterfly".
- Teacher reads again and asks students to follow him/her.
- Teacher asks some questions and explains.
- Teacher stands in the front throughout the class- often one way interaction.
- Teacher dictates some questions and students write in their notebook.
- Students write answers to the questions individually.
- Chalkboard work all messed up (see picture no.3).

Researcher comments based on the above lesson (Field note, 25/9/07)

- While reading the poem teacher does not take care of individual attention.
- Too much teacher talk.
- Teacher needs to move around and use a variety of interaction.
- No monitoring done- teachers need to check from time to time if students are attentive and do their work carefully.
- Teacher needs to conduct more activity oriented class instead of students becoming passive listeners.
- Classroom organisation is very much traditional where students sit in rows not in groups.
- Over all text book oriented lesson.

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

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Abstract

The internal and external expert's spells 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 (FCMs), 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 tools enable us to represent linguistic concepts. Most of which are inherently vague, by 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 linguistics 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 $\mu_A(x): x \rightarrow M$

This 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 selection 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 was 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 operations 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 involves the following five steps:

Step 1

After identifying relevant input and output variables 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 a 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 nonnegative occurrence of some fuzzy event, perhaps the strength of political sentiment, historical trend or military objective. FCMs are used to model several types of problems varying from gastric-appetite behavior, 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 $P_i P_j$. E 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 decrease 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 $a_i = 0$ 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_1P_2, P_2P_3, \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, $P_3 _ P_3$ in the pattern $P_1 _ P_2 _ P_3 _ P_3$.

A 'limit cycle' is a set of multiple repeating patterns such as $P_3 _ P_4 _ P_5, P_1 _ P_2 _ P_3 _ P_4 _ P_5 _ P_3 _ P_4 _ P_5, \dots$

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 effects of all interacting fuzzy knowledge. Since the data is an unsupervised one and the study is done using only experts 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 a unbiased solution to this problem. We can additively superimpose each expert's 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 opinion 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 .

$M = M_i$

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

1.5. Justification for using FCM model

For this project there 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 spells out nine concepts as the benefits relating to the existence of the public library system in Bhutan as

P1 - **Human benefits**

P2 - **Political benefits**

P3 - **Democracy**

P4 - **Ethnic Equality**

- P5 - **Cultural benefits**
- P6 - **Social benefits**
- P7 - **Health benefits**
- P8 - **Education benefits**
- P9 - **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 king of Bhutan **Jigme Singye Wangchuck** in the year 1972. It is rooted in the Buddhist notion that the ultimate purpose of life is inner happiness. Bhutan being a 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 revisions 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 responds 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 programmes 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, 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 behavioural changes involved in literacy training (**Bown, 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 - CULTURAL 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 as the outcome 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 rather than gender equality. Participation in adult literacy programmes does enable women to gain access to and 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 enabled 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, literacy classes provided 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 benefits 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 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 numeracy 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 proven 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 has 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 to 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 (P1, P2,... P9). 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.

P1 - **Human benefits**

P2 - **Political benefits**

P3 - **Democracy**

P4 - **Ethnic equality**

P5 - **Cultural benefits**

P6 - **Social benefits**

P7 - **Health**

P8 - **Education benefits**

P9 - **Economic benefits**

The causal connection matrix M1 is given by the first expert who is a student in the East zone of Bhutan

	P1	P2	P3	P4	P5	P6	P7	P8	P9
P1	0	0	1	1	1	0	1	0	0
P2	0	0	1	0	0	1	0	1	0
P3	0	0	0	1	1	1	0	0	1
P4	0	0	0	0	1	1	0	0	0
P5	0	0	0	0	0	0	0	0	0
P6	0	0	0	0	0	0	0	0	0
P7	0	0	0	0	0	0	0	1	0
P8	0	0	0	0	0	0	1	0	1
P9	0	0	0	0	0	1	0	1	0

Using the dynamical system given by the first expert we determine the hidden pattern. Suppose the attribute P1 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 M1 is given by:

$$XM1_ (101110100) = X1 \text{ (say)}$$

$$X1M1_ (101111100) = X2 \text{ (say)}$$

$$X2M1_ (101111111) = X3 \text{ (say)}$$

$$X3M1_ (101111111) = X3$$

(Where _ denotes the resultant vector after thresholding and updating) X3 is the hidden pattern, which is the fixed point. When P1, " **Human benefits** " is in the ON state (P1) **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-Program to make the calculations of the problems simple in appendix. Using the C-program we derive the hidden pattern and the conclusions are based on these analysis.

The causal connection matrix M2 is given by an expert who is a NGO from central Bhutan

	P1	P2	P3	P4	P5	P6	P7	P8	P9	
M2	P1	0	0	1	0	0	1	0	0	0
	P2	0	0	1	0	0	1	0	1	0
	P3	0	0	0	1	0	1	0	0	0
	P4	0	0	0	0	0	0	0	0	0
	P5	1	0	0	1	0	1	0	0	0
	P6	0	0	0	0	0	0	0	1	1
	P7	0	0	0	0	0	0	0	0	0
	P8	0	0	0	0	0	0	1	0	1
	P9	0	0	0	0	0	1	0	1	0

Using the dynamical system M2 given by the second expert, when only **Social benefits** is in the ON state that is say the state vector $Y = (0\ 0\ 0\ 0\ 0\ 1\ 0\ 0\ 0)$ 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 M3 is given by a public servant living in the Western Bhutan

	P1	P2	P3	P4	P5	P6	P7	P8	P9	
M3 =	P1	0	0	1	1	0	1	0	0	0
	P2	0	0	1	0	0	1	0	0	0
	P3	0	0	0	1	1	0	0	0	1
	P4	0	0	1	0	0	0	0	0	0
	P5	0	0	0	0	0	1	0	0	1
	P6	0	0	0	0	0	0	0	0	0
	P7	1	0	0	0	0	0	0	1	0
	P8	0	0	0	0	1	0	0	0	1
	P9	0	0	0	0	0	0	0	0	0

Using the dynamical system M3 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 P4, P5, P6 and P9 come to the on state and P1, P2, P7 and P8 are in the off state. Now using M1, M2 and M3 we obtained the combined matrix M,

$$M = M1 + M2 + M3.$$

	P1	P2	P3	P4	P5	P6	P7	P8	P9
P1	0	0	3	2	1	2	1	0	0
P2	0	0	3	0	0	3	0	2	0
P3	0	0	0	3	2	2	0	0	2
P4	0	0	1	0	1	1	0	0	0
P5	1	0	0	1	0	2	0	0	1
P6	0	0	0	0	0	0	0	1	1
P7	1	0	0	0	0	0	0	2	1
P8	0	0	0	0	1	0	2	0	3
P9	0	0	0	0	0	2	0	2	0

Using the dynamical system, M when only the node " **Political benefits** " is in 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 programmes 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 of little consequence so long as they fail to make suitable reading or learning materials available to their neo-literates through a well-convincing 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 centres.
- 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 regard, 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

- [1]. American Library Association: Minimum Standards for Public Library Systems. New York: ALA, 1966.
- [2]. Centre of Bhutan Studies (CBS): Rethinking Development: Proceedings of Second International Conference on GNP, 2007. Thimphu: Centre of Bhutan Studies, 2007. pg. 78-96.
- [3]. http://en.wikipedia.org/wiki/Jigme_Khesar_Namgyal_Wangchuck
- [4]. <http://www.bhutan.gov.bt/government/dzongkhags.php>
- [5]. [<http://www.ifla.org/VII/s8/unesco/eng.htm> (Unesco Manifesto, 1994)]
- [6]. <http://www.tn.gov.in/policynotes/archives/policy2003-4/sedu/Public%20Libraries.htm>
- [7]. Karma Ura and Sonam Kinga: The Spider and the Piglet: Thimphu: The Centre for = Bhutan Studies, 2004 p. 327-349.
- [8]. Ranganathan, S.R: Public Library System and Human Sources in Herald of Library Science, 1967. vol. 6, iss.4
- [9]. Kosko, Bart (1992). *Neural Networks and Fuzzy Systems*, Prentice – Hall, Englewood Cliffs, New Jersey.
- [10]. Kosko, Bart (1986), Fuzzy Cognitive Maps, International Journal of Man – Machine Studies, 34, 65 – 75.

The Effect of Principal Leadership Behaviors on student performance in the Bhutanese context

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Abstract

The study was carried out based on literature researches of Tim Waters and et al. on Principal Leadership behaviors on student performance and Henry Zheng's common dimensions which influences Principal leadership behaviors. The study of Tim Waters and et al. has included sample of 69 studies involved 2,802 schools, approximately 1.4 million students, and 14,000 teachers in the meta-analysis and they claimed to represent the largest ever used data set of Principals, teachers, and student achievement scores for examination of research on school level leadership practices. Henry Zheng's common dimensions showed the factors which influences the leadership behaviors of the Principal. The thesis aimed to answer the following research questions;

- 1. To what extent do the Principals of Bhutan practices the 21 responsibilities identified by Tim Waters, Marzano and McNulty in their largest meta-analysis of Principal leadership and student achievement?*
- 2. Is there a relationship between Principal leadership behaviors and student performance in the Bhutanese context?*
- 3. Is there a relationship between the common dimensions (personal attributes, Education and training, professional experience, school physical environment) and Principal leadership behaviors in the Bhutanese context?*
- 4. Is the learning Gain same for the students in all the schools?*
- 5. Does school make a difference in student performance?*

Questionnaire on Principal leadership responsibilities/practices were framed and administered to teachers and Principals of 11 higher secondary schools in Bhutan in which information on Principal leadership behaviors, common dimensions of the Principals and statistical data of student performance in various subjects and parental background were collected from those schools. In each school 10 teachers teaching class XI and XII were randomly picked to answer the questionnaire consisting of 70 items to find out teachers' view on the Principal leadership behaviors. The Principal too was administered the questionnaire to reflect onto oneself. Finding in Bhutan revealed that of the 53 Principal Leadership responsibilities/practices used for computation; 9 practices are rated as strongly prevailing, 3 Principal leadership responsibilities and 6 practices are rated as moderately prevailing, 3 Principal leadership responsibilities and 11 practices are rated to have very low prevalence (positive but low correlation), 1 Principal leadership responsibility and 3 practices are rated as not prevailing (very low correlation), 2 Principal practices showed very high negative correlation (Principals & teachers didn't agree on the practice), Principals and teachers could not agree upon 12 Principal leadership practices as visible or not visible and the other 3 Principal leadership practices do not exist in those 11 schools.

Furthermore, the Principals of the 11 schools were administered questionnaire on the 14 common dimensions namely; age, gender, qualification, in-service training, management training, Principal-ship, teaching experience, administrative experience, department head

experience, assistant Principal-ship, Vice Principal-ship, counselor-ship, the number of students in the school and the location of the school. The findings showed positive correlation of the Principal leadership behaviors with age, qualification, management training, number of years served as principal, administrative experience, subject department head experience, number of years served as Assistant Principal and Vice Principal, being a counselor, and number of students in the school. Gender, and in-service training, showed more of negative correlation and the location of the school showed negative correlation with all the 18 Principal leadership behaviors.

Finding too revealed that the practices of the Principal Leadership behaviors do have positive impact on the learning gain of the students. It is interesting to see that the literature research is true in our Bhutanese context; the 11 schools differed from each other in their Learning Gain. Some schools showed better gain in learning than the others and some schools showed more of negative learning gain. The learning gain too varies very much across subjects and across schools. Among the schools in the survey, school 11 has performed the best having positive learning gain for all the subjects.

Introduction

In the literature research of my thesis it is pointed out that there are *schools that were successful in educating all students regardless of their social economic status or family background* and correlates connected to successful effective schools are; strong instructional leadership, a strong sense of mission, demonstrated effective instructional behaviors, held high expectations for all students, practiced frequent monitoring of student achievement, parental involvement, operated in a safe and orderly manner etc. Lezotte one of the researchers maintained that *"the extent to which the correlates are in place in a school has a dramatic positive effect on student achievement"* (p4). Furthermore it points out that Principal leadership determines the extent of the correlates in place. Personally I too feel that we may have a most fabulous curriculum, wonderful facilities, motivated students and wise policies but these all boil down to what the teachers make of them and acts on them and what teachers does mainly depends on the Principal leadership behaviors in the school. The Principal is the person who guides the teachers in the fulfillment of the vision and mission of the system, in making the school function optimally. In other words, an education system without Principals having leadership qualities will be a big disaster. The thesis is very much connected to Quality of Education, we all agree that the Principal is like the heart and soul of the school, for a school to function optimally a proactive Principal must be there, he/she must imbibe life in every activity carried out in the school.

A brief overview of the thesis & research questions

While carrying out literature research it was found that numerous researches on effective schools all unanimously indicated that in a school leadership of the Principal definitely affects the achievement of students. Literature researches thus helped me to believe in the findings of the West and gave me an insight to see whether those findings are prevailing in our own country. Amongst the findings the meta-analysis of Tim Waters, Robert J. Marzano and Brain McNulty (2004) on the effects of principal leadership on student achievement caught hold of my attention. In their study they reviewed more than 5,000 studies published from the early 1970s professed to have examined the effects of leadership. The meta-analysis finding of Tim Waters & et al. identified 66 leadership practices embedded in 21 leadership responsibilities, each with statistical significant relationships to student achievement. Furthermore, the Far West Laboratory model of instructional leadership of Bossert, Dwyer, Rowan and Lee, 1983 in

Henry Zheng (1996) asserted that the principal's managerial practices is influenced by a range of environmental factors, starting with their own personal characteristics. The environmental factors such as the socio-economic conditions of the local communities and personal characteristics such as the principal's work experience, education and training; their gender, race and age also influences the principal leadership (p.10). Thus, Tim Waters & et al and Henry Zheng's finding predominated my thought process as I felt their findings are very essential in any education system be it in Bhutan or anywhere else in the world and came up with the following research questions;

1. To what extent do the Principals of Bhutan practices the 21 responsibilities identified by Tim Waters, Marzano and McNulty in their largest meta-analysis of Principal leadership and student achievement?
2. Is there a relationship between Principal leadership behaviors and student performance in the Bhutanese context?
3. Is there a relationship between the common dimensions (personal attributes, Education and training, professional experience, school physical environment) and Principal leadership behaviors in the Bhutanese context?
4. Is the learning Gain same for the students in all the schools?
5. Does school make a difference in student performance?

This led me to the framing of questionnaires for teachers and Principals based on the practices and responsibilities of Tim Waters & et al and Henry Zheng's common dimensions. The research was carried out on 11 higher secondary schools in Bhutan. Survey is carried out in collecting information on Principal leadership behaviors and common dimensions of the Principals and statistical data of student performance in various subjects and parent background was collected from those schools. In each school randomly picked 10 teachers teaching class XI and XII answered the questionnaire consisting of 70 items to find out teachers view on the Principal leadership behaviors. The Principal was administered the questionnaire on common dimensions and also administered the same questionnaire administered teachers to reflect onto oneself. It took me over a month to carry out the survey and for the collection of data. The analysis of the data collected is carried out by using a program called SPSS.

Literature Research on which the study was based

Tim Waters and et al. had included sample of 69 studies involved 2,802 schools, approximately 1.4 million students, and 14,000 teachers in the meta-analysis and they claimed to represent the largest ever used data set of principals, teachers, and student achievement scores for examination of research on school level leadership practices.

The meta-analysis is shown in the subsequent pages as table 2(a), 2(b) and 2(c) indicating correlations with the responsibilities and practices of Principal leadership.

The principal leadership responsibilities and practices of Tim Waters & et al.

Table 2(a)

Responsibilities	Definition	Avg. r	Practices associated with responsibilities
1.Culture	The extent to which a principal..... ....foster shared belief and a sense of community and cooperation	.29	1.promotes cooperation among staff 2. promotes a sense of well-being 3. promotes cohesion among staff 4. develops an understanding of

2.Order	....establishes a set of operating procedures and routines	.26	purpose 5. Develops a shared vision of what the school could be like 6.provides and enforces clear structure, rules and procedure for students 7. provides and enforces clear structure, rules, and procedures for staff 8.establishes routine regarding the running of the school that staff understand and follow 9.Protects instructional time from interruptions 10. protects /shelters teachers from distractions 11.ensure teachers have necessary materials & equipment 12. Ensure teachers have necessary staff development opportunities that directly enhance their teaching 13. is involved in helping teachers design curriculum activities. 14. is involved with teachers to address instructional issues in the classrooms 15. is involved with teachers to address assessment issues 16.establishes high, concrete goals & expectations that all students meet them 17.establishes concrete goals for all curriculum, instruction, & assessment 18.Establishes concrete goals for the general functioning of the school 19.continually keep attention on established goals
3.Discipline	..protects teachers from issues & influences that would distract from their teaching time or focus	.24	
4.Resources	....provides teachers with materials & professional development necessary for the successful execution of their jobs	.26	
5.Curriculum, Instruction & Assessment	...is directly involved in the design & implementation of curriculum, instruction and assessment practices	.16	
6.Focus	....establishes clear goals & keeps those goals in the forefront of the school's attention	.24	

Table 2(b)

Responsibilities	Definition The extent to which a principal.....	Avg. r	Practices associated with responsibilities
7.Knowledge of curriculum, instruction, assessment	...is knowledgeable about current curriculum, instruction,& assessment practices	.24	20.is knowledgeable about instructional practices 21.is knowledgeable about assessment practices 22.provides conceptual guidance for teachers regarding effective classroom

8.Visibility	.....has quality contact & interaction with teachers and students	.16	practice 23.makes systematic frequent visits to classrooms 24.maintains high visibility around the school 25.Has frequent contact with students
9.Contingent rewards	....recognizes and reward individual accomplishments	.15	26.recognizes individuals who excel 27.uses performance versus seniority as the primary criterion for reward & advancement 28.uses hard work &results as the basis for reward & recognition
10.Communication	....establishes strong lines of communication with teachers and among students	.23	29.is easily accessible to teachers 30.develops effective means for teachers to communicate with one another 31.maintain open and effective lines of communication with staff
11.Outreach	....is an advocate and spokesperson for the school to all stakeholders	.28	32.assures that the school is in compliance with district and state mandates 33.advocates on behalf of the school in the community 34.advocates for the school with parents 35.ensures that the central office is aware of the school's accomplishments
12.Input	....involves teachers in the design & implementations of important decisions and policies	.30	36.Provides opportunity for input in all important decisions 37.provides opportunities for staff to be involved in developing school policies 38.uses leadership team in decision making
13.Affirmation	.....recognizes & celebrates school accomplishments and acknowledges failures	.25	39.systematically & fairly recognizes and celebrates accomplishments of teachers 40.systematically recognizes and celebrates accomplishments of students 41.systematically acknowledges failures and celebrates accomplishments of the school
14.Relationship	.....demonstrates an awareness of the personal aspects of teachers and staff	.19	42.Remains aware of personal needs of teachers 43.maintains personal relationships with teachers 44.is informed about significant

15.Change agentis willing to and actively challenges the status quo	.30	personal issues within the lives of staff members 45. Acknowledges significant events in the lives of staff members 46.Consciously challenges the status quo 47.is comfortable with leading change initiatives with uncertain outcomes 48.systematically considers new and better ways of doing things
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Table 2(c)

Responsibilities	Definition The extent to which a principal.....	Avg. r	Practices associated with responsibilities
16.Optimizer	.....inspires and leads new and challenging innovations	.20	49.-inspires teachers to accomplish things that might seem beyond their grasp 50.portrays a positive attitude about the ability of staff to accomplish substantial things 51.Is a driving force behind major initiatives
17.Ideals/beliefs	.....communicates and operates from strong ideals and beliefs about schooling	.25	52.holds strong professional beliefs about schools, teaching, & learning 53.shares beliefs about schools, teaching & learning with the staff 54.demonstrates behavior that are consistent with the beliefs
18.Monitors/evaluates	..monitors the effectiveness of school practices & their impact on student learning	.28	55.Monitors the effectiveness of curriculum, instruction, and assessment
19.Flexibility	....adapts his/her leadership behavior to the needs of the current situation & is comfortable with dissent	.22	56.is comfortable with major changes with how things are done 57.encourages people to express opinions contrary to those with authority 58.adapts leadership style to the needs of specific situations 59. can be directive or non- directive as the situation warrants
20.Situational awareness	....is aware of the details and undercurrents in the running of the school & uses this information to address current and potential problems	.33	60.is aware of informal groups and relationship among staff of the school 61.is aware of issues in the school that have not surfaced but could create discord 62.can predict what could go wrong from day to day
21.Intellectual	....ensures faculty and	.32	63.keeps informed about current research

stimulation	staff are aware of the most current theories & practices & make the discussion of these a regular aspect of the school's culture	& theory regarding effective schooling 64. continuously exposes the staff to cutting-edge ideas about how to be effective 65. systematically engages staff in discussions about current research & theory 66. continually involves the staff in reading articles & books about effective practices
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Source: McREL's Balanced leadership Framework: Developing the science of Educational Leadership by Tim Waters & et al (2004)

Henry Zheng's common dimensions which influences Principal Leadership practices

Another researcher, Henry Zheng found out that the Principal Leadership behaviors is governed by certain factors as given below:

1. Personal attributes- gender and age
2. Education and training- highest degree achieved, field of study, in-service training, management training, and principal internship.
3. Professional experience- teaching experience, administrative experience, experience as department head, experience as assistant principal, experience as vice principal, and experience as guidance and counselor
4. School physical environment- size and urbanicity

(Source: school contexts, principal characteristics, and instructional leadership effectiveness: a statistical analysis by Henry Y. Zheng 1996, p36)

Findings

As afore mentioned the questionnaires developed based on the literature researches were administered to the teachers and Principals of the 11 Higher Secondary Schools in order to answer the research questions. The answer to each research question found is given in the subsequent pages.

Answering research question 1

(To what extent do the Principals of Bhutan practice the 21 responsibilities identified by Tim Waters, Marzano and McNulty in their largest meta-analysis of Principal Leadership and student achievement?)

The independent variables considered were the Principal leadership responsibilities and practices and the dependent variable was student achievement. Considering reliability test conducted the Principal responsibilities which has shown composite score of 0.5 and above in both (rating by Principals and teachers) reliability tests are considered as independent variables and the items of the responsibilities which could not yield reliability coefficient of 0.5 are considered as individual independent variables. Thus, 53 independent variables are identified for consideration.

The finding on the 53 Principal leadership responsibilities/practices along with the correlation coefficient is shown in the subsequent pages, finding revealed:

a) 9 practices are strongly rated as prevailing (produced strong positive correlation) This indicates both the Principals and teachers in those schools perceive these Principal practices as prominently visible in their day to day functioning of the school by their Principals as shown below.

Principal Leadership responsibilities and practices

Protection of instructional time from interruptions	0.558
Provision of conceptual guidance for teachers regarding effective classroom practice	0.455
maintaining high visibility around the school	0.722
Having frequent contact with students	0.784
Maintain personal relationships with teachers	0.653
Regularly visiting all the classes to find out how students are doing in all the subjects	0.725
Ensuring the maintenance of formal record of class work, home work, class test etc by teachers	0.446
Being directive or non- directive as the situation warrants	0.567
Advocating for the school with parents	0.665

b) 3 Principal leadership responsibilities and 6 practices are rated as moderately prevailing (produced moderate positive correlation as shown below)

Principal Leadership responsibilities and practices

culture responsibility	0.356
curriculum, instructions and assessment responsibility	0.326
Ideals/belief responsibility	0.397
Establishing concrete goals for the general functioning of the school	0.364
knowledgeable about instructional practices	0.390
advocating on behalf of the school in the community	0.317
ensuring that the central office is aware of the school's accomplishments	0.389
Remain aware of personal needs of teachers	0.357
portraying a positive attitude about the ability of staff to accomplish substantial things	0.302

c) 3 Principal leadership responsibilities and 11 practices are rated to have very low prevalence (*positive but low correlation as shown below*)

Principal Leadership responsibilities and practices

communication responsibility	0.179
affirmation responsibility	0.107
change agent responsibility	0.191
Provision & enforcement of clear structure, rules, and procedures for staff	0.292
establishing routine regarding the running of the school that staff understand and follow	0.293
Protection of teachers from distractions	0.114
Establishing concrete goals for all curriculum, instruction, & assessment	0.170
providing opportunities for staff to be involved in developing school policies	0.203
use leadership team in decision making	0.292
Being informed about significant personal issues within the lives of staff members	0.190

Carrying out regular observation of classroom teaching of all the teachers	0.143
Checking the coverage of syllabuses by teachers	0.105
Adapting leadership style to the needs of specific situations	0.116
Being aware of informal groups and relationship among staff of the school	0.108

d) 1 Principal leadership responsibility and 3 practices are rated as not prevailing
(*very low correlation*)

Principal Leadership responsibilities and practices

Intellectual stimulation responsibility	0.030
Making systematic frequent visits to classrooms	0.022
Being comfortable with major changes with how things are done	0.028
Encouraging people to express opinions contrary to those with authority	0.090

e) The Principals and the teachers didn't agree on 2 Principal practices, some are of the view that it exist but others are of the view that it doesn't exist (*very high negative correlation*)

Principal practices

Ensuring teachers have necessary materials & equipment	-0.656
Being able to predict what could go wrong from day to day	-0.720

f) Here too Principals and teachers could not agree upon the following as visible or not visible
(*Moderate/low negative correlation*)

Principal practices

	r
Being aware of issues in the school that have not surfaced but could create discord	-0.228
Being a driving force behind major initiatives	-0.189
Acknowledgement of significant events in the lives of staff members	-0.160
Providing opportunity for input in all important decisions	-0.145
Use of hard work & results as the basis for reward & recognition	-0.220
Use of performance versus seniority as the primary criterion for reward & advancement	-0.116
Ensuring teachers have necessary staff development that directly enhance their teaching	-0.264
Provision & enforcement of clear structure, rules and procedure for students	-0.207
continually keeping attention on established goals	-0.396
knowledgeable about assessment practices	-0.362
inspiring teachers to accomplish things that might seem beyond their grasp	-0.338
assuring that the school is in compliance with district and state mandates	-0.100

g) The following practices are found missing in the 11 schools (*very low correlation*)

Principal practices

	r
Recognition of individuals who excel	-0.061
establishing high, concrete goals & expectations that all students meet them	-0.025
Monitoring the effectiveness of curriculum, instruction, and assessment	-0.034

Answering research question 2

(Is there a relationship between Principal leadership behaviors and student performance in the Bhutanese context?)

To answer this research question the ratings given by the teachers were used. The responsibilities and practices which showed significant reliability were taken as independent variables. According to the reliability test conducted there were 12 responsibilities and 30 Practices which showed high reliability. Thus, there are 42 independent variables under consideration. The Correlation coefficient found between these independent variables and students' achievement in each subject is shown as follows:

Table 8(a)

s/n	Principal responsibilities/practices	Correlation coefficients of teachers' ratings on students' achievement in their subjects in class XII, 2005											
		Eng	Dzo	Hist	Geo	Eco	Bmt	Com	Acc	Phy	Che	Bio	Mat
1.	Culture responsibility	-0.62	-0.51	-0.29	-0.34	0.54	0.24	0.32	-0.06	-0.34	-0.39	-0.78	-0.23
2.	Curriculum responsibility	-0.77	-0.75	-0.76	-0.63	0.28	0.03	0.07	0.28	-0.82	-0.64	0.07	-0.18
3.	Focus responsibility	-0.52	-0.62	-0.25	-0.42	0.21	0.45	-0.19	0.17	-0.11	-0.27	-0.67	0.38
4.	Visibility responsibility	-0.44	-0.35	-0.24	-0.36	0.55	0.13	0.45	-0.13	-0.11	-0.25	-0.83	-0.23
5.	Communication responsibility	-0.53	-0.45	-0.43	-0.37	0.57	0.16	0.17	-0.26	-0.07	-0.25	-0.52	0.16
6.	Input responsibility	-0.21	-0.23	-0.08	-0.29	0.62	0.49	0.08	-0.05	0.07	-0.11	-0.46	0.25
7.	Affirmation responsibility	-0.28	-0.21	-0.12	-0.14	0.66	0.28	0.11	0.12	-0.21	-0.39	-0.86	0.04
8.	Change agent responsibility	-0.60	-0.52	-0.19	-0.28	0.22	0.24	-0.08	0.15	-0.54	-0.54	-0.71	-0.25
9.	Optimizer responsibility	-0.49	-0.33	-0.17	-0.08	0.45	0.26	-0.23	0.07	-0.41	-0.59	-0.76	0.09
10.	Ideals/beliefs responsibility	-0.10	-0.31	-0.38	-0.50	0.26	0.15	-0.02	0.31	0.07	-0.11	-0.64	0.46
11.	Situational awareness responsibility	-0.5	-0.54	-0.47	-0.5	0.59	0.18	0.27	0.03	0	-0.18	-0.79	0.14
12.	Intellectual stimulation responsibility	-0.79	-0.69	-0.55	-0.42	0.33	0.11	-0.05	-0.16	-0.41	-0.52	-0.23	0.05
13.	Provision and enforcement of clear structure, rules and procedure for students	-0.41	-0.52	-0.36	-0.39	-0.31	0.42	-0.04	0.58	-0.5	-0.11	0.11	-0.29
14.	Provision and enforces of clear structure, rules, and procedures for staff	0.06	-0.17	0.19	0.02	-0.18	0.59	0	-0.16	0.22	0.41	0.19	0.63
15.	establishing routine regarding the running of the	0.14	0.04	0.19	0.22	0.07	0	0.03	-0.48	0.3	0.15	-0.17	0.95

school that staff understand and follow

16.	Protection of instructional time from interruptions	-0.25	-0.57	-0.33	-0.77	0.19	0.5	0.41	0.43	0.22	0.41	0.38	0.34
17.	Protection of teachers from distractions	-0.13	-0.08	-0.14	-0.18	0.11	0.72	0.07	0.13	-0.09	0.13	-0.39	-0.14
18.	Ensuring teachers have necessary materials & equipment	-0.56	-0.60	-0.6	-0.4	0.41	0.07	-0.39	0.44	-0.46	-0.6	-0.18	0.36

Table 8(b) continuation of 8(a)

s/n	Principal responsibilities/practices	Correlation coefficients of teachers' ratings on students' achievement in their subjects in class XII, 2005											
		Eng	Dzo	Hist	Geo	Eco	Bmt	Com	Acc	Phy	Che	Bio	Mat
19.	Ensuring necessary staff development opportunities that directly enhance their teaching	-0.29	-0.30	-0.39	-0.34	0.32	0.45	-0.34	0.11	0.25	0.09	-0.45	0.34
20.	Involving in helping teachers design curricular activities	-0.17	-0.29	-0.49	-0.35	0.38	-0.04	0.08	0.03	0	-0.09	-0.69	0.36
21.	Involving in addressing instructional issues in the classrooms with teachers	-0.63	-0.44	-0.62	-0.3	-0.11	-0.01	-0.15	0.10	-0.63	-0.37	-0.26	-0.52
22.	involving in addressing assessment issues with teachers	-0.48	-0.60	-0.58	-0.37	0.45	-0.16	-0.29	0.39	-0.16	-0.32	-0.45	0.43
23.	Recognizing individuals who excel	-0.83	-0.87	-0.56	-0.67	0.18	0.25	-0.04	0.08	-0.06	-0.21	-0.43	0.17
24.	Use of performance versus seniority as the primary criterion for reward & advancement	-0.69	-0.55	-0.36	-0.27	-0.29	0.16	-0.11	0.18	-0.75	-0.43	0.14	-0.46
25.	Use of hard work & results as the basis for reward & recognition	-0.33	-0.58	-0.45	-0.85	0.14	0.51	0.25	0.62	0.06	0.18	-0.26	0.06
26.	Assuring the school is in compliance with Education Department	-0.16	-0.26	-0.07	-0.09	0.45	-0.06	0.25	-0.13	0.08	-0.06	-0.28	0.37
27.	Advocating on behalf of the school in the community	-0.56	-0.55	-0.52	-0.59	0.28	0.15	0.48	-0.06	0.13	0.23	-0.29	-0.56
28.	Advocating for the school with parents	-0.33	-0.46	-0.51	-0.49	0.47	-0.16	0.08	0.49	-0.27	-0.32	-0.56	0.05
29.	Ensuring that the central office is aware of the school's accomplishments	-0.47	-0.46	-0.48	-0.41	0.64	0.14	0.14	0.40	-0.61	-0.53	-0.31	-0.09
30.	Remains aware of personal needs of teachers	-0.71	-0.65	-0.53	-0.63	0.02	0.52	-0.03	-0.36	0.24	0.24	-0.71	0.07
31.	maintains personal relationships with teachers	-0.32	0.01	-0.05	0.13	0.64	-0.12	0.27	-0.53	-0.04	-0.27	-0.99	-0.32
32.	is informed about significant personal issues within the lives of staff members	-0.01	-0.02	0.15	-0.06	0.74	-0.07	0.49	0.03	-0.04	-0.25	-0.11	0.07

Table 8(c) continuation of 8(b)

s/n	Principal responsibilities/practices	Correlation coefficients of teachers' ratings on students' achievement in their subjects in class XII, 2005											
		Eng	Dzo	Hist	Geo	Eco	Bmt	Com	Acc	Phy	Che	Bio	Mat
33.	Acknowledges significant events in the lives of staff members	-0.79	-0.63	-0.48	-0.26	0.27	0.21	-0.26	0.02	-0.74	-0.74	-0.15	0
34.	Monitors the effectiveness of curriculum, instruction, and assessment	-0.47	-0.35	-0.36	0.13	-0.34	0	-0.56	-0.45	-0.43	-0.32	-0.07	0.18
35.	I always carry out regular observation of classroom teaching of all the teachers	-0.65	-0.74	-0.43	-0.58	-0.01	-0.01	0.25	0.32	-0.43	-0.18	0.54	-0.36
36.	I regularly visit all the classes to find out how students are doing in all the subjects	-0.48	-0.62	-0.33	-0.57	0.15	0.23	0.3	-0.23	0.61	0.36	-0.29	0.45
37.	I don't have to check the coverage of syllabuses as my teachers are very sincere and hard working	-0.39	-0.3	0.07	-0.1	-0.43	0.21	-0.08	0.28	-0.68	-0.46	0.21	-0.54
38.	ensures formal record of class work, home work, class test etc and availability of it to parents	-0.65	-0.59	-0.64	-0.35	0.51	-0.11	-0.21	0.34	-0.45	-0.59	-0.79	-0.04
39.	is comfortable with major changes with how things are done	-0.55	-0.36	-0.16	-0.29	-0.16	-0.04	-0.04	-0.12	-0.57	-0.64	-0.43	-0.43
40.	encourages people to express opinions contrary to those with authority	-0.53	-0.31	-0.16	0.04	0.67	-0.22	0.19	-0.14	-0.49	-0.67	-0.45	-0.23

41.	adapts leadership style to the needs of specific situations	-0.32	-0.27	-0.19	-0.25	0.71	-0.07	0.38	-0.03	-0.25	-0.36	-0.61	-	0.09
42.	can be directive or non-directive as the situation warrants	-0.5	-0.29	-0.32	-0.13	0.77	0	0.2	-0.03	-0.52	-0.56	-0.16	-	0.16

Answering research question 3

Is there a relationship between the common dimensions (personal attributes, Education and training, professional experience, school physical environment) and Principal leadership behaviors in the Bhutanese context?

There are 14 common dimensions namely; age, gender, qualification, in-service training, management training, Principal-ship, teaching experience, administrative experience, department head experience, assistant Principal-ship, Vice Principal-ship, counselor-ship, the number of students in the school and the location of the school. These common dimensions are used as the independent variables. While computing correlation between Principals' ratings and teachers' ratings there are 18 Principal leadership responsibilities and practices having strong or moderate positive correlation coefficient of +0.3 and above, these are used as dependent variables. The effect of the common dimensions on the 18 Principal leadership behaviors is computed and is shown in table 10(a), 10(b) & 10(c). The findings showed positive correlation of the Principal leadership behaviors with age, qualification, management training, number of years served as principal, administrative experience, subject department head experience, number of years served as Assistant Principal and Vice Principal, being a counselor, and number of students in the school. Gender, and in-service training, showed more of negative correlation. The location of the school showed negative correlation with all the 18 Principal leadership behaviors.

The above finding indicated that as age, qualification, management training, number of years as Principal, administrative experience, subject department head experience, number of years as Assistant Principal and Vice Principal, being a counselor, and number of students in the school increases the 18 Principal leadership behaviors are more explicitly shown by the Principals. The negative correlation coefficients of gender with 12 principal leadership responsibilities/ practices indicates that female Principal tend to show more of the Principal leadership behaviors than male Principals. In the same way the yield of negative correlation coefficients of in-service training with 11 principal leadership responsibilities/ practices indicates that in-service training have not much effect on the Principal leadership behaviors. The schools in the survey are located in either urban or semi urban place. The yield of negative correlation coefficients of location of the school with all the 18 responsibilities/practices computed for the location of schools indicated that if school is located in the urban area the Principal demonstrated more leadership behaviors and if school is away from the humdrums of the urban area Principal show less of the leadership behaviors. Thus location of the school too contributes to leadership behavior of the Principals; the location of the school makes a vast difference.

One interesting finding is teaching experience has positive significant influence on Principal leadership behaviors which are mostly connected to instructions in the classroom. It showed positive significant correlation with protection of instructional time from interruptions, having frequent contact with students, advocating for the school with parents, and regularly visiting all the classes to find out how students are doing in all the subjects.

It is worth mentioning here that Assistant Principal-ship showed positive correlation with all the 18 Principal leadership behaviors revealing that if the Principal had served as assistant principal for longer duration, he /she would demonstrate leadership behaviors to a greater extent as a Principal. The administrative experience too showed positive correlation with 17 of the Principal leadership behaviors this implies that administrative experience will definitely help in showing leadership responsibilities and practices by the Principals in the schools.

Table 10(a)

s/n	Principal Leadership Responsibilities/practices	Common dimensions				
		Age	Gender (M)	Qualification	In-service training	Mgt training
1.	Culture responsibility	0.09	-0.06	0.15	-0.29	0.2
2.	Curriculum, instructions & assessment responsibility	-0.04	-0.66	-0.3	0.16	0.2
3.	Ideals/beliefs responsibility	0.7	-0.12	0.38	-0.16	-0.2
4.	Protection of instructional time from interruptions	0.23	-0.61	-0.23	-0.04	0.14
5.	Establishing concrete goals for the general functioning of the school	0.41	-0.09	0.38	-0.41	-0.17
6.	Being knowledgeable about instructional practices	0.73	-0.12	0.49	-0.15	0.1
7.	Provision of conceptual guidance for teachers regarding effective classroom practices	0.4	-0.09	0.45	-0.03	-0.1
8.	Maintenance of high visibility around the school	0.22	0.12	0.34	-0.19	0.24
9.	Having frequent contact with students	0.52	0.12	0.45	0.14	0.14
10.	Advocating for the school in the community	-0.04	0.18	0.08	0.14	0.54
11.	Advocating for the school with parents	0.54	-0.12	0.41	-0.17	-0.17
12.	Ensuring that the central office is aware of the school's accomplishments	0.08	-0.4	0.08	-0.45	-0.1
13.	Remaining aware of personal needs of teachers	0.03	0.03	-0.08	0.03	0.37
14.	Maintaining personal relationship with teachers	-0.22	0.33	0.23	0.04	0.51
15.	Portraying a positive attitude about the ability of staff to accomplish substantial things	0.04	0.27	0.26	-0.11	0.48
16.	Regularly visiting all the classes to find out how students are doing in all the subjects	0.49	-0.09	0.19	0.33	0.41
17.	Ensuring the maintenance of formal record of class work, homework, class test etc. and availability of it to parents & authority	0.27	-0.12	0.34	-0.25	-0.1
18.	Being directive or non-directive as the situation warrants	-0.21	-0.12	0.08	-0.14	0.34

Table 10(b)

s/n	Principal Leadership Responsibilities/practices	Common Dimensions				
		Principal-ship	Teaching experience	Administrative Experience	Dept. head experience	Asst. Principal-ship
1.	Culture responsibility	-0.21	-0.1	0.31	0.34	0.28
2.	Curriculum, instructions & assessment responsibility	0.1	-0.14	-0.02	-0.03	0.19
3.	Ideals/beliefs responsibility	0.27	0.6	0.59	0.26	0.47
4.	Protection of instructional time from interruptions	0.33	0.52	0.45	-0.09	0.45
5.	Establishing concrete goals for the general functioning of the school	0.12	0.11	0.4	0.37	0.15
6.	Being knowledgeable about instructional practices	0.26	0.6	0.25	0.26	0.48
7.	Provision of conceptual guidance for teachers regarding effective classroom practices	0.38	0.19	0.47	0.03	0.09
8.	Maintenance of high visibility around the school	-0.14	0.01	0.21	0.44	0.36
9.	Having frequent contact with students	0.35	0.39	0.46	0.6	0.44
10.	Advocating for the school in the community	-0.29	-0.02	0.11	0.32	0.33
11.	Advocating for the school with parents	0.25	0.36	0.36	0.15	0.32
12.	Ensuring that the central office is aware of the school's accomplishments	0.09	-0.05	0.26	-0.12	0.09
13.	Remaining aware of personal needs of teachers	-0.48	-0.11	0.25	0.42	0.31
14.	Maintaining personal relationship with teachers	-0.32	-0.4	-0.02	0.31	0.14
15.	Portraying a positive attitude about the ability of staff to accomplish substantial things	-0.34	-0.07	0.14	0.32	0.33
16.	Regularly visiting all the classes to find out how students are doing in all the subjects	0.2	0.48	0.58	0.62	0.64
17.	Ensuring the maintenance of formal record of class work, homework, class test etc. and availability of it to parents & authority	0.03	-0.09	0.25	0.14	0.08
18.	Being directive or non-directive as the situation warrants	-0.09	-0.35	0.08	0.02	0.09

Table 10(c)

s/n	Principal Leadership Responsibilities/practices	Common Dimensions			
		Counselor-ship	Vice Principal-ship	No. of students	Location (away)
1.	Culture responsibility	0	0.13	0.34	-0.58
2.	Curriculum, instructions & assessment responsibility	0.5	0.41	-0.15	-0.39
3.	Ideals/beliefs responsibility	0.3	0.04	0.53	-0.46
4.	Protection of instructional time from interruptions	0.27	0.52	0.3	-0.43
5.	Establishes concrete goals for the general functioning of the school	0.22	-0.17	0.45	-0.49
6.	Knowledgeable about instructional practices	0.29	0.05	0.56	-0.55
7.	Provision of conceptual guidance for teachers regarding effective classroom practices	0.28	0.21	-0.34	-0.55
8.	Maintenance of high visibility around the school	-0.02	0.09	0.38	-0.36
9.	Has frequent contact with students	0.15	0.24	0.23	0
10.	Advocate for the school in the community	-0.12	0.23	-0.15	-0.39
11.	Advocate for the school with parents	0.37	-0.02	0.23	-0.42
12.	Ensure that the central office is aware of the school's accomplishments	0.16	0.18	0.31	-0.56
13.	Remains aware of personal needs of teachers	-0.04	0.12	0.15	-0.68
14.	Maintains personal relationship with teachers	-0.36	0.35	-0.11	-0.16
15.	Portrays a positive attitude about the ability of staff to accomplish substantial things	-0.35	0.29	0.30	-0.46
16.	Regularly visits all the classes to find out how students are doing in all the subjects	0.26	0.45	0.08	-0.42
17.	Ensures the maintenance of formal record of class work, homework, class test etc. and availability of it to parents & authority	0.27	-0.03	0.04	-0.62
18.	Can be directive or non-directive as the situation warrants	-0.13	0.48	-0.08	-0.40

Answering research question 4

(Is the learning Gain same for the students in all the schools?)

Learning gain is an indicator of how much the school has made a difference in the students' learning. Negative gain indicates that the students rather than learning more have declined in the performance in that subject and positive correlation indicates that the students have performed better than in the previous level. In answering this question the ratings of the teachers on Principal Leadership behaviors is used. Analysis of the 12 responsibilities and 30 Practices on student learning gain is shown as under in table 9(a), 9(b) and 9(c):

Table 9(a)

s/n	Principal responsibilities/practices	R of teachers' ratings on students' learning gain in their subjects											
		Eng	Dzo	Hist	Geo	Eco	Bmt	Com	Acc	Phy	Che	Bio	Mat
1.	Culture responsibility (5)	-0.45	-0.38	0.01	-0.29	0.4	0.31	0.2	0.03	-0.45	-0.52	-0.69	-0.59
2.	Curriculum responsibility (5)	-0.37	-0.14	-0.62	-0.72	0.1	0.16	0.34	0.45	-0.46	-0.18	0.12	-0.29
3.	Focus responsibility (3)	-0.86	-0.55	-0.25	-0.42	-0.06	-0.06	-0.37	0.37	0.04	0.12	-0.31	-0.31
4.	Visibility responsibility (4)	-0.36	-0.31	0.02	-0.31	0.45	0.29	0.27	-0.13	-0.34	-0.52	-0.78	-0.51
5.	Communication responsibility (4)	-0.18	-0.29	-0.06	-0.35	0.44	0.32	0.01	-0.16	0.09	-0.09	-0.07	-0.11
6.	Input responsibility (4)	-0.22	-0.14	0.07	-0.04	0.33	0.34	-0.13	-0.1	0.21	0	-0.07	-0.21
7.	Affirmation responsibility (4)	-0.39	-0.42	0.18	-0.01	0.31	0.26	-0.07	0.1	-0.21	-0.29	-0.54	-0.36
8.	Change agent responsibility (2)	-0.72	-0.63	-0.09	-0.4	0.09	-0.07	-0.31	0.45	-0.57	-0.5	-0.64	-0.57
9.	Optimizer responsibility (4)	-0.56	-0.65	0.05	-0.1	0.23	0.16	-0.27	0.35	-0.25	-0.18	-0.38	-0.22
10.	Ideals/beliefs responsibility(3)	-0.59	-0.34	-0.21	-0.27	-0.16	-0.13	-0.22	0.17	0.14	0.21	-0.32	-0.25
11.	Situational awareness responsibility (4)	-0.42	-0.41	-0.18	-0.42	0.26	0.16	0.13	0.03	-0.04	-0.18	-0.5	-0.43
12.	Intellectual stimulation responsibility (5)	-0.35	-0.36	-0.34	-0.63	0.39	0.33	-0.05	0.15	-0.07	-0.07	0.14	0.02
13.	Provision and enforcement of clear structure, rules and procedure for students	-0.45	-0.35	-0.61	-0.45	-0.58	-0.56	0.01	0.68	-0.46	-0.32	-0.11	-0.71
14.	Provision and enforcement of clear structure, rules, and procedures for staff (7)	-0.18	0.22	0.19	0.17	0.35	-0.26	-0.47	-0.29	0.52	0.52	0.48	-0.37
15.	Establishing routine regarding the running of the school that staff understand and follow (10)	0.07	0.28	0.45	0.29	0.08	0.16	-0.24	-0.56	0.69	0.81	0.45	0.19
16.	Protection of instructional time from interruptions (6)	-0.35	0.03	-0.49	-0.54	-0.16	-0.07	0.32	0.23	0.4	0.32	0.34	-0.52

17.	Protection of teachers from distractions	-0.21	-0.14	-0.06	0.1	-0.17	-0.13	-0.05	0	-0.19	-0.41	-0.27	-0.72
18.	ensure teachers have necessary materials & equipment (6)	-0.56	-0.7	-0.49	-0.55	-0.04	0.03	-0.25	0.67	0.06	0.27	0.27	0.13
19.	Ensuring necessary staff development opportunities that directly enhance their teaching	-0.32	-0.54	-0.46	-0.32	-0.09	-0.15	-0.33	0.26	0.36	0.07	0.02	-0.16

Table 9(b)

s/n	Principal responsibilities/practices	R of teachers' ratings on students' learning gain in their subjects											
		Eng	Dzo	Hist	Geo	Eco	Bmt	Com	Acc	Phy	Che	Bio	Mat
20.	Involving in helping teachers design curricular activities	-0.32	-0.34	-0.13	-0.18	-0.09	-0.11	-0.09	-0.11	0.06	0.06	-0.36	-0.47
21.	Involving in addressing instructional issues in the classrooms with teachers	-0.2	-0.4	-0.48	-0.38	-0.13	-0.15	0.31	0.37	-0.74	-0.59	-0.37	-0.37
22.	Involving in addressing assessment issues with teachers	-0.54	-0.78	-0.38	-0.62	-0.1	-0.19	-0.32	0.62	0.14	0.22	-0.04	-0.19
23.	Recognizing individuals who excel	-0.77	-0.53	-0.59	-0.82	0.16	0.08	0.08	0.44	0	0	-0.34	-0.36
24.	Use performance versus seniority as the primary criterion for reward & advancement	-0.35	-0.26	-0.43	-0.47	-0.13	-0.1	0.15	0.49	-0.68	-0.39	-0.04	-0.21
25.	Use hard work & results as the basis for reward & recognition	-0.69	-0.22	-0.57	-0.58	-0.21	-0.13	0.21	0.46	-0.09	-0.09	-0.42	-0.73
26.	assuring the school is in compliance with Education Department (6)	-0.09	-0.19	0.16	-0.2	0.21	0.02	-0.18	-0.13	0.32	0.17	0.09	-0.24
27.	Advocating on behalf of the school in the community	-0.24	-0.38	-0.46	-0.76	0.2	-0.12	0.27	0.08	-0.29	-0.72	-0.56	-0.69
28.	Advocating for the school with parents	-0.58	-0.72	-0.29	-0.54	-0.12	-0.27	-0.09	0.52	-0.23	-0.16	-0.47	-0.52
29.	Ensuring that the central office is aware	-0.39	-0.47	-0.1	-0.29	0.14	0.18	0.09	0.39	-0.37	-0.26	-0.17	-0.49

30.	of the school's accomplishments Remaining aware of personal needs of teachers	-0.49	-0.26	-0.5	-0.59	0.12	0.07	0.02	-0.13	0.02	-0.27	-0.44	-0.51
31.	maintains personal relationships with teachers (7)	0.18	-0.11	0.39	0.11	0.82	0.69	0.29	-0.37	-0.19	-0.45	-0.36	0.14
32.	is informed about significant personal issues within the lives of staff members (9)	0.06	0.07	0.3	0.02	0.62	0.62	0.35	-0.09	0.12	0.04	-0.04	0

Table 9(c)

s/n	Principal responsibilities/practices	R of teachers' ratings on students' learning gain in their subjects											
		Eng	Dzo	Hist	Geo	Eco	Bmt	Com	Acc	Phy	Che	Bio	Mat
33.	Acknowledges significant events in the lives of staff members	-0.48	-0.56	-0.31	-0.46	0.2	0.19	-0.14	0.39	-0.29	-0.07	0.19	0
34.	Monitors the effectiveness of curriculum, instruction, and assessment	-0.13	-0.21	-0.15	-0.08	-0.22	-0.17	-0.47	-0.13	-0.14	0.14	0.29	0.21
35.	I always carry out regular observation of classroom teaching of all the teachers	-0.36	-0.22	-0.62	-0.83	0.03	-0.02	0.39	0.55	-0.32	-0.18	0.11	-0.36
36.	I regularly visit all the classes to find out how students are doing in all the subjects	-0.51	-0.12	-0.30	-0.52	0.22	0.16	0.2	-0.13	0.49	0.34	-0.22	-0.05
37.	I don't have to check the coverage of syllabuses as my teachers are very sincere and hard working	-0.39	-0.04	-0.18	-0.18	-0.09	0	0.23	0.47	-0.71	-0.36	-0.21	-0.11
38.	ensures formal record of class work, home work, class test etc and availability	-0.59	-0.82	-0.27	-0.50	0.06	-0.02	-0.19	0.59	-0.38	-0.31	-0.52	-0.32

	of it to parents												
39.	is comfortable with major changes with how things are done	-0.61	-0.28	-0.18	-0.42	0.26	0.22	0.12	0.19	-0.71	-0.43	-0.64	-0.04
40.	encourages people to express opinions contrary to those with authority	-0.14	-0.42	0.27	-0.14	0.63	0.45	0.03	0.12	-0.36	-0.36	-0.29	-0.05
41.	adapts leadership style to the needs of specific situations	-0.19	-0.22	0.14	0.23	0.53	0.43	0.21	-0.03	-0.23	0.34	-0.45	-0.47
42.	can be directive or non- directive as the situation warrants (6)	-0.01	-0.27	0.12	-0.13	0.62	0.60	0.25	0.09	-0.25	-0.25	0.04	-0.13

Looking at the analyses of Principal Leadership behaviors on students' learning gain in their subjects we can see there are mainly 8 Principal leadership practices which shows positive correlation with 6 or more subjects in learning gain. If we look at subject wise, there are 4 subjects benefited the most if Principals exercise the responsibilities and practices identified by Tim Waters and et al. the subjects are: Economics, Business Mathematics, Commerce and Accountancy. All the 12 Principal Leadership responsibilities showed at least 2 to 5 positive correlations with student learning gain of different subjects.

Answering Research question 5

(Does school make a difference in student performance?)

Effective School Research in the West proved that school does make difference in the performance of the students.

In the United States in the mid 90's, James Coleman and his colleagues concluded student's family background as the main reason for student success in school. Coleman's findings proposed that children from poor families and homes, lacking the prime conditions or values to support education, could not learn, regardless of what the school did. This finding evoked reactions, Ronald Edmonds, the then Director of the Center for Urban Studies at Harvard University, responded vigorously. Edmonds and others refused to accept Coleman's report as conclusive, although they acknowledged that family background does indeed make a difference. They set out to find effective schools (*schools that were successful in educating all students regardless of their social economic status or family background*). The common characteristics among these effective schools were identified and found that these schools had strong instructional leadership, a strong sense of mission, demonstrated effective instructional behaviors, held high expectations for all students, practiced frequent monitoring of student achievement and operated in a safe and orderly manner and thereby proved that schools can and do make a difference (James Coleman and et al. 1966; in Dr. Lawrence W. Lezotte, p1. 2006). Dr. Lawrence W. Lezotte (2006) wrote that these attributes eventually were called as the correlates of effective schools (p1). This body of correlated information is now referred to as Effective Schools Research. Thus, Effective School Research emerged in response to Coleman's controversial report (Association for Effective Schools, 1996). Furthermore, Lezotte maintained that "*the extent to which the correlates are in place in a school has a dramatic positive effect on student achievement*" (p4).

The learning gain of the students in each subject for the 11 schools is given below:

School Learning gain in subjects

	Eng	Dzo	Hist	Geo	Eco	Bmt	Com	Acc	Phy	Che	Bio	Mat
1.	18.6	18.9	-7.9	24	-30.8	-17.9	-14.3	-26.3	9.5	20.9	6.8	11.4
2.	14.3	-0.8	-2	22.2	-0.7	-12.3			-8.2	-13.3	-9.7	-10.1
3.	15.5	20.3	-9	18.5	-8.4	-15.4	19.3	21.7	-1.7	0.11	0	-13.1
4.	10.8	-0.8	-15.5	15.9	-9.8	-25	1.7	-18.3	8.5	2.6	-7.1	-14.4
5.	9	13.2	2.3	20	3.4	-1.6	1.2	-25.8				
6.	3.3	-7.5			-10.2	-16	-11.4	-3.6	-0.3	7.2	6	-3.1
7.	11.4	4.2			-7.7	-15.2	4.3	-22.1	-0.8	0.4	-17.8	0.8
8.	8.1	-0.8	-30.4	15.4	-8.4	-8.5	5	-10.4				
9.	13.8	-4.7	-15.7	10.1	1.8	-2.2	11.7	-24.3				
10.	3.3	-11	-25.2	7.3	-9.1	-18.5	-1.4	-5.3				
11.	19.6	12.5	23.9	23.5	19.3	3.1			4.8	6.6	6.3	20.5

It is interesting to see that the literature research is true in our Bhutanese context too; the 11 schools differed from each other in their Learning Gain. Some schools showed better gain in learning than the others and some schools showed more of negative learning gain. As shown in the table, the learning gain varies very much across subjects and across schools. Among the

schools in the survey, school 11 has performed the best having positive learning gain for all the subjects.

Conclusions

The conclusions for the research questions are already drawn as we discussed on each one. In brief let's have an overview of the findings.

Of the 53 Principal Leadership responsibilities/practices, 36 Principal Leadership responsibilities/practices are found to be prevailing visibly; there were 14 Leadership responsibilities/practices which the Principals and teachers could not agree upon as visible or not visible. And the other 3 Principal leadership practices do not exist in those 11 schools.

The subjects which showed positive correlation with majority of the Principal Leadership responsibilities/practices are Commerce, Accountancy and Mathematics. Subjects which showed at least positive correlation with 7 or more Principal Leadership responsibilities/practices are Biology, Chemistry, Physics, Business mathematics and Economics. The other subjects English, Dzongkha, History and Geography showed positive correlation with a few of the Principal Leadership responsibilities/practices, these Arts subjects had shown negative correlation with almost all Principal Leadership responsibilities/practices.

Age, qualification, management training, Administrative experience, Department Head experience, Vice Principal-ship, no. of students, Counselor-ship, Principal-ship, teaching experience are all positively correlated with majority of the Principal Leadership Responsibilities/practices. This indicates that as the above common dimensions increases the existence of the principal leadership responsibilities/practices too increases. Among the common dimensions Assistant Principal-ship showed positive correlation with all the 18 Principal Leadership Responsibilities/practices and location of the school has shown negative correlation with 17 Principal Leadership Responsibilities/practices. The gender responsibilities/practices indicated that female Principals show more of Leadership Responsibilities/practices than male Principals.

The correlation findings of teachers' ratings of Principal Leadership behaviors on students' learning gain in their subjects showed positive correlation of 3 or more with the subjects.

And the findings on whether school makes a difference in students' performance showed it does. On an average we believe that the majority of population of any school is composed of average students, all the schools should have made more or less equal impact on the performance of the students' learning gain but it did not, this finding shows Principals differ in their leadership behaviors and they impact the students differently.

Discussion

There are several points to be discussed based on the study in order to give our view on the findings:

The first and foremost one is the yield of negative correlation of Principal leadership behaviors with many subjects. The research showed contradictive result of the Principal leadership behaviors on different subjects. With some subjects it showed positive correlation and with some it showed negative. And the meta-analysis of Tim Waters and et al. showed positive relationship of the Principal leadership behaviors on students' achievement. But the question here is I used meta-analysis as my assumptions in carrying out this research and we do not know whether the findings are based on few subjects or all the subjects taught in the school. Normally in research,

researchers carry out findings based on few subjects that could be the reason for the yield of positive and negative correlation in my research contradicting to the findings in the theory. But Tim Waters and Sally Grabb (2005) have their own say based on the McREL leadership framework. The research indicated that *“as much as a leader has positive impact on student achievement, it can have negative or worse impact on student achievement”*. It might have so happened in the Bhutanese context too. This could be due to the rapid change that is been happening in the education system of our country. We may have tried to inculcate the practices of the west which are supposed to have better impact on student achievement but without much of the infrastructure, knowledge and skills or it could be that the leaders could not lead the change effectively or first-order change might have been viewed as second-order change by the teachers teaching the subjects which showed negative impact. Or the negative relationship could be due to the sole responsibilities of the Principals; their main responsibility is management and it has mostly indirect effect on the student performance and more over we all know it is the teachers who have the upper hand in making a difference in the achievement of the students in their learning. I also have come across the difference in the entrustment of responsibilities to school heads in the western education system from Bhutanese system for instance, Principals handling the recruitment of staff of his/her school and the designing of curriculum too is carried out in the school level. In Bhutan staffing is done entirely by the Department and designing of curriculum too happens at national level. Principals' influence on his/her teachers seems to be very less; he/she does not have much responsibility which directly affect the teachers. This could be the reason for the contradictory results. Still it remains a questionable finding and I hope we can carry out more research in future on this study. It is worth mentioning here that besides the meta-analysis I used to base my research on, there are some studies conducted which contradicted the effect of principal leadership on student achievement (Bob Witziers & et al. in Jane Clark Lindle's Educational Administration, 2003).

Finding also indicated the lack of practice of intellectual stimulation responsibility in the Bhutanese context but analysis confirmed positive impact on student performance in those subjects which showed significant positive correlation with many of the Principal leadership responsibilities and practices.

Recommendations

Based on the research I have carried out following suggestions are recommended:

1. The research showed several Principal leadership responsibilities and practices having positive correlation with student performance in their subjects. If Principals tend to practice those, students will perform better in their learning.
2. The study too indicated positive correlation between common dimensions and Principal leadership behaviors. While appointing or selecting Principals it would be more beneficial if the Department of School Education take it into consideration.
3. The intellectual stimulation responsibility is lacking as per the responses gathered from the Principals and teachers of the 11 schools. It is a need to keep the teachers updated on current issues and knowledge of educational findings and to move on with the world. I would like to recommend the intellectual stimulation responsibility for all the Principals across the country.
4. The provoking negative correlations of the findings need to be reconsidered. I recommend future researchers to carry out more research on school leadership in Bhutan.
5. The negative impact of Principal leadership on student performance can also be an insightful thinking for the Principals. May be *differential impact* might be taking place. It is always better to move with first-order change or if second-order change seems to be taking place, more emotional, psychological, knowledge and skills based support needs to be rendered to the

teachers. This would imply to the support division (EMSSD) too to render every possible help in bringing about changes in the schools. I too would like to recommend Principals to be Instructional leaders than just managers in the school.

6. The teachers are the main persons who influence the performance of the students and Principals are supposed to be influential on the teachers' performance. In order for this to take effect, more of direct control of teachers by the Principals such as recruitment and giving more weighting on the evaluation carried out by Principals for promotion of teachers can be considered.
7. Reflecting back on the survey I carried out in Bhutan, I must share the difficulty in collecting data from the schools. I had planned to include 18 higher secondary schools but could not do so due to the lack of adequate data provided by the schools. I think many of the Bhutanese schools lack data keeping in the schools and this would hinder research in education if further step is not taken. With advancement of the education system in future we hope to have researchers carrying out more research and to do so Bhutanese schools need to maintained proper records.

My final words to the entire Educators and Principals are;

"If you don't like the harvest you are getting, change the seeds you are sowing"

References

- Alan W. Block (1983). *Effective schools: A summary of research*. Virginia: Educational Research Services, Inc.
- Archambault, S. (2000). *Spearman Rho*. Psychology Department, Wellesley College. <http://www.wellesley.edu/Psychology/Psych205/spearman.html>
- Bass, B. M. ed. (1981). *Stogdill's Handbook of Leadership*. New York: The free press.
- Brewster, C. (2005). *Leadership practices of successful principals*. Portland, Oregon: Northwest Regional Educational Laboratory.
- Chell, J. (2006). *Introducing Principals to the Role of Instructional Leadership A summary of a master's project*. SSTA Research Centre Report #95-14: 73 pages. www.ssta.sk.ca/research/leadership/95-14.htm
- Cozby, P. C. (2004). *Methods in Behavioral Research*. New York: McGraw-Hill Companies, Inc.
- Creemers, B., Peters, T. & Reynolds, D. (Eds.) (1989). *School Effectiveness and school Improvement*. Rockland: Swets & Zeitlinger Inc.
- Hanson, E. M. (2003). *Educational Administration and organizational behavior, fifth edition*. United States of America: Pearson Education, Inc,
- Levine, D. U. & Lezotte, L. W. (1990). *Unusually Effective Schools. A review and analysis of research and practice*. Wisconsin: The National Center for Effective Schools Research & Development.

Lindle, J. C. (ed.), (2003). *Educational administration Quarterly*, vol. 39, The university council for educational administration in cooperation with the University of Kentucky: Corwin Press, Inc.

Lezotte, L. W. (2006). *Revolutionary and Evolutionary: The Effective Schools Movement*. www.effectiveschools.com

Marzano, R. J., Waters, T. & McNulty, B. A. (2005). *School Leadership That Works: From Research To Results*. Chapter 1. Mid-continent Research for Education and Learning (McREL).

Population and Housing Census of Bhutan (2005). www.bhutancensus.gov.bt

Reyes, A. (2004). *Instructional leadership in a post Brown era: A story of principals in high-poverty and one-race schools*. UCEA presentation. Kansas city, Missouri. <http://coe.ksu.edu/ucea/04ucea28.pdf>

Reynolds, D. & Teddlie, C. (2000). *An introduction to school effectiveness research*. In: Teddlie, C. & Reynolds, D. the international handbook of school effectiveness research. London: Falmer Press, p3-4.

Reynolds, D., & et al. (2002). *World class schools- International perspectives on school effectiveness*. London: Routledge Falmer.

Sammons, P., Mortimore, P. & Hillman, J. (1994). *Key characteristics of effective schools*. London: Institute of Education

Scheerens, J. & Bosker, R. (1997). *The foundations of Educational Effectiveness*. Great Britain: Elsevier Science Ltd.

Scheerens, J. (1992). *Effective schooling- Research, Theory and practice*. London: Dotesios Ltd,

Setting the course for learning by all (1996). Association for Effective Schools, Inc. <http://www.mes.org/esr.html>

Spain, C. R., Drummond, H. D., & Goodlad, J. I. (1956). *Educational Leadership and the elementary school principal*. New York: Rinehart & company, Inc.,

Taylor, D. L & Angelle, P. S. (2000). *High Reliability Organizations and Transformational Leadership as Lenses for Examining a school Improvement Effort*. Paper presented at the Annual Meeting of the Southwest Educational Research Association, Dallas, TX. (ERIC Accession No. TM 031 751).

Waters, T. & Grabb, S. (2005). *Distinguishing the essentials from the important: using research to strengthen the standards for administrator preparation and licensure programs*. National association of states broads of education. New York: Wallace foundation.

Waters, T., Marzano, R. J. & McNulty, B. (2004). *McREL's Balanced Leadership Framework: Developing the science of Educational leadership*.

23rd Education Policy Guidelines & Instructions (2004). Royal Government of Bhutan: Policy and Planning Division, Ministry of Education.

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

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.

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 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.

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

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-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.

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

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.

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

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).

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:

- 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.

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

⁹ Ibid

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.
- 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.

¹⁰ Ibid

¹¹ Ibid

- 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 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

¹² Ibid

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.

¹³ Ibid

- 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.
- 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.

¹⁴ Ibid

- 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.
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	Collaborating with	Activities acknowledge and bring together all community

- 6 the 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: Merrill.
- 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?* Vandervilt 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
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 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

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 when angry, Most of the time I stay with boys, I fight with my parents and friends, When I talk and make mistake,

chosen as the captain, I like my intelligence
 I am considered the best from my family
 Everybody likes me
 I have many friends

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

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

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

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 implication 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. *Análise Psicológica*, 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.

360⁰ Teacher Performance Appraisal: An opportunity towards quality education

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If the **quality of education** at our school level is not good, what else can we do?

Abstract

The **quality of education** being provided to our children is one of the most challenging issues concerned to each and every stakeholder in our education system. The significance and urgency of appropriate teacher guidance and appraisal system in our schools in the country is clear from this directives by the EMSSD, Ministry of Education, *'Quality of education is presently a national concern and one of the reasons for not being able to enhance the quality of education is our inability to provide more effective leadership, guidance, monitoring and **evaluation** over the schools particularly in academic areas.* (Source: EMSSD (01)/DSE/MOE/ 2006/September 8, 2006.)'

- 1) If the **quality of education** at our school level is not good what else can we do?
- 2) How can we provide the best **quality of education** for our children?
- 3) How do we empower schools so that we can provide better guidance, monitoring and support to enhance the academic quality /teaching learning in the schools?
- 4) What are the practical and effective methods for the improvement of in-service teachers in our schools?

With the rapid promising changes in the field of education around the world, the better researched educational practices which are innovative, creative, productive and precious to the system are inevitable. The prime role of a teacher in the classroom in educating our children by facilitating and translating our vision and mission for the **quality education** in the most precise and desirable approach, is realistic. *'The effect of*

the teacher on student achievement has been shown to be greater than effects due to class size, school, and student socio-economic status (Sanders & Horn, 1998)'.

Unquestionably teachers are the most influential human resources besides our kids, in our schools in favor of quality teaching and learning to take place in the classrooms. According to C.M. Clark, 1995, ".....the **quality of education** is mediated by who the teacher is and what the teacher does. Teachers have the potential for enhancing the **quality of education** by bringing life to curriculum and inspiring students to curiosity and self-directed learning. And the teachers can also degrade the quality of education through error, laziness, cruelty or incompetence. **For better or worse, teachers determine the quality of education"**

Nevertheless, we must not overlook the other crucial dynamics like school leadership quality, curriculum materials, learners' interest and aptitude, parental guidance and support and most importantly learning atmosphere necessary to enhance the **quality of education** for our children at the grassroots level.

The Schools can try to promote the quality of teaching learning by considering and supporting how the teaching learning occurs in the classrooms using suitable teacher performance appraisal system. Interestingly, the best method of Teachers Performance Appraisal is one of the thorny issues in any education system. However, when carefully carried out with multi-prong approach, it can be helpful and productive for the advancement of the quality of teaching learning for our children at the school level. Nevertheless, at the moment there is a call for an ideal Teachers performance appraisal system in our schools.

Therefore, to embark upon this educational concern of our schools, this paper formulates an attempt to share and explore the opportunities being experimented by the Mothithang HSS which could be practical to the needs of many schools in the country. It stems from the approach widely practiced in several countries, for the effective performance evaluation of employees as the 360⁰ performance appraisal. It is

basically data ambitious appraisal system which provides better mechanism for the performance evaluation of teachers.

Despite its highly fruitful and helpful nature; it is also a challenging approach of teacher appraisal method to carry out as it demands abundant trials, support of the school leaders and interests of the teachers in addition to the time factor.

Nonetheless, it intends to supplement and harmonize the Performance evaluation under PCS designed by the Royal Civil Service Commission and Education Monitoring and Support Services Division's School Level Monitoring and Support Services Tools for the **teacher friendly approach of performance evaluation.**

This approach which is being experimented in Mothithang HSS is more of suggestive potential teacher appraisal approach rather than a best approach for teacher appraisal technique. However, the majority of teachers says, "It's a good approach" and benefits the school for the improvements of teaching learning which would consequently help to improve the **quality of education** for our children.

Introduction

On the occasion of World Teachers Day, our Education Minister Lyonpo Thakur Singh Poudyel, October 5, 2008, Bhutan Times, call the teachers in his message, '*Give Us Your Best, Dear Country*', ".....*The fate of the nation is rooted in the quality of its education. And **the quality of education can only be as good as its teachers.***" Teaching is a dynamic and skillful enterprise which demands a careful, balanced and intricate blending of the entire educational ingredients conducive for the healthy growth and development of our children into educated, useful and productive citizens.

As a teacher we have the splendid task to endeavor for the finest route to accomplish the best of the best from our teaching performance for the students' need of **quality education**. In the inspirational words of Professor of Education Madeline Hunter, University of California, "*Teaching is both a science and an art. The science is based on*

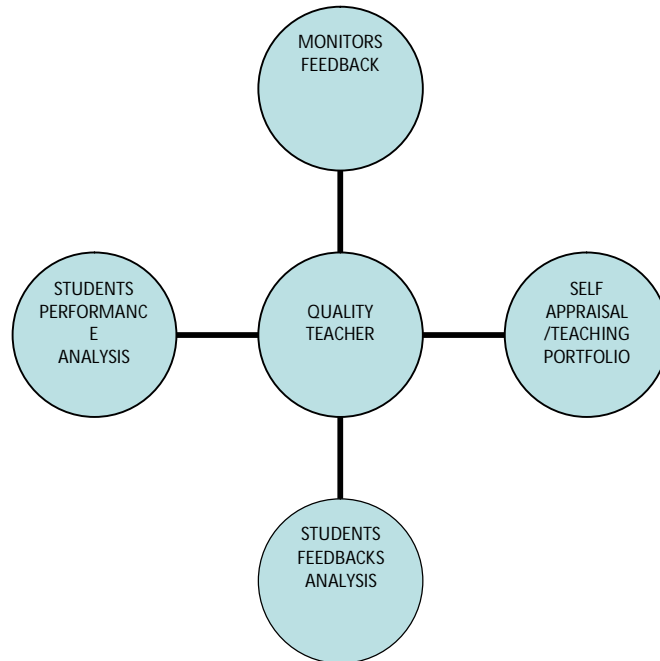
psychological research that identifies cause –effect relationships between teaching and learning. The art is how those relationships are implemented in successful and artistic teaching. **Teaching excellence is not a genetically endowed power but a result of rigorous study and inspired performance."**

Now looking deeper within as laid down by Chris Kyriacou, 'I think the task of teaching is rather like the act one sometimes sees on a stage where a performer has **to spin plates on top of several canes simultaneously.** To do this successfully requires the performer to set new plates spinning while occasionally returning to those plates that have slowed down and are near to falling off, for a booster spin.'

In pursuit of improvement of the quality of teaching learning at Motithang HSS, in recent years, we have been fortunate to try out several school based in-service programmes, SLMSS monitoring tools, Performance review and evaluation forms in additions to the students feed back system which is gaining momentum in our move toward the improvement of the **quality of teaching learning** in the school. In 2008, the school has been lucky to plan, design, discuss and try out the **360⁰ teacher performance appraisal** in the school. **It is mainly initiated to fulfill the needs of a reliable, constructive and teacher friendly method of performance appraisal of teachers in the school.** Most of these tools and findings are incorporated in this paper.

1. What is 360 degree Teacher Performance Appraisal?

According to Ward (1997) it is '*the systemic collection and feedback of performance data on an individual or group derived from a number of the stakeholders on their performance.*' It is an ongoing appraisal of Teachers' work in the school by the stakeholders for their continuous professional growth and development at the work place. It includes students' feedbacks, self appraisal, students' performance analysis; Monitors feedbacks to synthesize and evaluate our teaching performance level at the work place.



Model of
360⁰ Teacher Performance Appraisal

Initially while launching the 360⁰ Teacher performance Appraisal, the school conducted series of workshops, to clarify its modality and the mechanisms to the teachers along with the discussions focused on various aspects of feedbacks, weightage and the forms to be used. Many teachers raised their eye brows as it is a new strategy and teachers also questioned about the validity and incompetence of students to provide reliable feedbacks to teachers on their teaching competence. Some teachers also questioned on the use of students' performance analysis as it is assumed to lead more of bad repercussions rather than improvement of our teaching. However, teachers were encouraged to at least give a try to carry out the trial and analyse the findings on this new method rather than immediately making the assumptions and continuing with the same fashion and style of work performance evaluation.

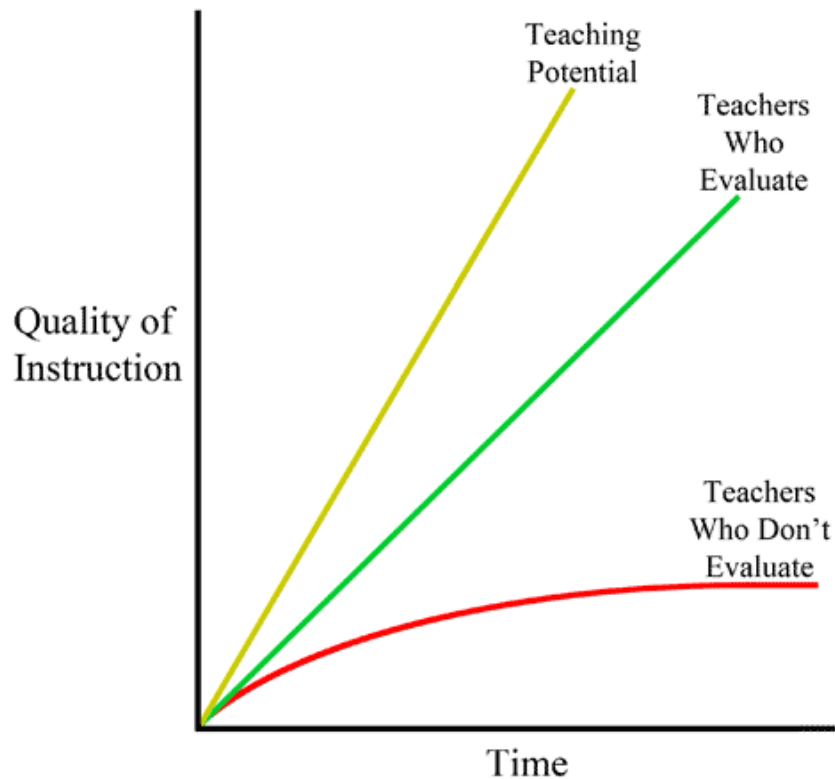
2. Importance of 360⁰ Teacher Performance Appraisal

According to the 6th Education Annual Resolution, 2003, '*the monitoring and support services system is to be the channel for all HRD*'. In recent years the schools has been trying out the MIR tools designed by the EMSSD and more importantly Performance Review and Evaluation forms under PCS for the improvement of our works at the school level. However, considering the sophistication and the value of teacher factor in a school system the 360⁰ teacher appraisal appears to be more objective and teachers' friendly approach for the performance evaluation and professional development endeavors.

Why do we need to carry out appraisal of our teaching? It is highly complex task to carry out evaluation of our teaching using the best available methods and resources. However, ample opportunities exist in the schools to experiment and investigate good practices of performance appraisal strategies to strive for the **quality education** in our schools. '*Because other measures of **teacher quality** have had little to no effect on student achievement or ratings of teachers' classroom teaching, measuring teacher performance provides a promising and practical solution. Measures of teacher performance must be both comprehensive enough to capture the essence of good teaching, and also provide for student achievement accountability metrics the public can readily understand.*' (John Schacter)

According to *L.D. Fink, (1999) Evaluating Your Own Teaching*, his finding tell us that, the teachers who evaluate his/her teaching regularly benefit much more to improve their quality of teaching in the classrooms than the teacher who donot evaluate his/her teaching regularly, which is evident and illustrated in his graphical diagram below.

The Effect of Evaluation on Teaching



Fink's (1999) diagram

While interpreting this graph you may like to ask some of these questions:

- (A) What are your opinions about this graph?
- (B) How do you usually evaluate your teaching?
- (C) What evidences do you feel provides strong support of your teaching achievements?
- (D) What are your tastes of your teaching evaluation?
- (E) Which approach of teaching evaluation do you prefer?
- (F) How can we improve our teaching achievements/ evaluation?

*The need to improve the **quality of teaching** in schools is a source of public debate in many countries throughout the world. In attempting to do this, some governments have introduced new forms of initial teacher training, the regular appraisal of established teachers, list of teacher competencies and statement about what should be taught and how. (Chris Kyriacou, 2001)*

3. What are the advantages of 360^o Teacher performance Appraisal?

At the school level new changes and approach makes healthier sense as we get the better taste of it and discover its helpfulness. People usually carry out things which are either in fashion or that they believe will make difference in their performance output in the work place. Some of the possible advantages while trying out this approach could be as follows:

1. It provides reliable feedbacks from the students for the advantage of both the students as well as teacher for the enhancement of the **quality of teaching** and learning in the classrooms.
2. It influences self-reflection on our present classroom practices and encourage us to improve our teaching strategies.
3. It facilitates teachers to focus on the need of the school and the students.
4. It helps teachers to advance their knowledge and the skills required for the excellence in teaching and other skills required for the **school improvements**.
5. It encourages culture of openness to interact with our colleagues about our strengths and opportunities for the **improvements of our teaching**.
6. It offers reasonable data for making decision about professional development needs of teachers and also about the students learning needs and expectations.
7. It can be used as a reasonable method of performance evaluation strategy in a school having more teachers as it encompasses **multiple sources of data**.
8. It demands **less paper works** form the School Heads, monitors and the teachers thereby saving precious time for teaching learning.
9. It provides better opportunity for the teachers to clarify their contributions made in teaching as well as for the improvement of school. As it is a **teacher friendly approach** of performance appraisal.
10. It is more **practical / objective approach** as it uses information data from stake holders and the students' results.
11. It **can be regularly modified and adapted** with to the changing need of the school.

12. It provides an excellent opportunity for the school level educational research works suitable for the in-service professional development prospects.

As pointed out earlier, teachers need sufficient time and support to be aware of and try out the new educational practices in teaching career as because innovative changes always confronts our customary and comfortable way of teaching styles. It involves lots of courage and practice to cultivate and nurture this approach in our schools due to its open nature of feedback system particularly from the students, which many teachers find as a worrisome undertaking. There is a fear of being over criticized by the students and also the apprehension of losing teachers' authority over the students. Nevertheless, Dr. Timothy Sharp, in his book *The Happiness Handbook* suggests us that,..."recognizing your weakness and employing or enlisting help in those areas is not a weakness and in fact should be seen as a strength."

Nonetheless once we try out and analyze our findings from this appraisal like the students' feedbacks, we get more of fresh constructive insights inside our teaching effort. So much so that we can discover our source of motivation and joy in teaching profession which we persistently try to find elsewhere.

Despite the inherent limitations in each variety of feedback system our finding revealed that the tools tried out provides reasonable evidences and supporting data for our performance appraisal purpose and satisfactions.

STRATEGY 1. EVALUATION OF OUR TEACHING THROUGH STUDENTS FEEDBACK

Students' feedback on our teaching performance is one of the most powerful tools for shaping our teaching styles but it should be taken positively and it must be used constructively to improve the quality of our teaching.

How does a teacher feel about his/her work when a student writes a feedback like this?

1. *'I always look forward to attend his /her classes?'*
2. *'S/he is the power of our class.'*
3. *'You are one of the worst teachers I have ever encountered in my student life.'*
4. *'As soon as she/he enters the classroom, I start praying to god to end his/her lesson fast.'*

It is obvious that students can also be partial and biased having limitations and drawbacks in passing their feedbacks to teaching of a teacher but the general patterns of their feedback is more informative to improve our teaching performance. **The use of students' feedback to evaluate our teaching performance is one of the most interesting methods of teaching evaluation that any teacher should try out as frequently as possible.** It breeds lots of unexpected details about our ways of teaching. Practically, it is one of the best approaches used for our teaching evaluation. As students are the beneficiaries of our teaching; they are in the best persons to assess our teaching. *'Recent research indicates that students learn more from teachers they rate highly, so one would expect that anticipated grades would correlate well with the ratings.'* (Source: Evaluation of teaching, teaching at Carolina, January 30, 2001 Written and designed by the staff of the Center for Teaching and Learning.)

Instruction for the student: - Write your **honest opinion** with explanations regarding the teaching of the teacher.

Name of the Teacher:

Subject:

Class & Sec.:

1. Does the teacher come in the class well prepared to teach the lessons?
2. Does the teacher teach the lesson in an orderly manner by relating with your subject knowledge using relevant illustrations, examples and applications of the subject?
3. Does the teacher ask challenging questions and use humors/activities to make the lessons interesting?
4. Does the teacher encourage students to ask questions and clarify their doubts and views during the lesson?
5. Does the teacher frequently check whether the students are participating in the

- lesson and have understood the lesson being taught?
6. Does the teacher provide enough resource material to learn the lesson besides the school text book?
 7. Does the teacher demand and maintain a good classroom learning discipline during the lesson?
 8. Does the teacher encourage you to study and help you to solve your questions and learning difficulties in the subject?
 9. Is the teacher punctual and show interest in teaching his/her subject?
 10. Is the teacher honest and judicious in evaluating your learning progress in his/her subject?
 11. Do you feel comfortable and like learning the subject during his /her lessons?
 12. In which area/s of teaching do you think the teacher needs improvement in his/her teaching?
 13. Write your overall impression about the teaching of this teacher.
 14. Write down any excellent quality of teacher you have noticed.

Research shows that this form should not be directly used by the teacher themselves to get the realistic feedbacks from the students. However teachers can very well try it out to obtain any teaching learning related data at their convenience. It can also help a teacher to improve rapport with the learners and to develop trust between them. The basic advantages of this data collection indicate that it is most useful if we carefully reflect and analyse the students feedbacks positively and constructively. The students' comments should be interpreted as the teacher's strengths and the opportunities to improve our teaching rather than to retaliate or take revenge to the students. *'Students are in a better position than anyone else to judge certain aspects of teaching, such as how clear, interesting, respectful, and fair a course instructor is, and they're the only ones who can say how an instructor has influenced their attitude toward the course subject, their motivation to learn it, and their self-confidence.* For these and other reasons, student ratings should be considered an essential component of faculty teaching performance evaluation'. **(Source: HOW TO EVALUATE TEACHING RICHARD M. FELDER, REBECCA BRENT North Carolina State University, Raleigh, NC 27695)**

It is also a faster method of data collection to compare our impact of teaching among the different sections of learners. It gives immediate insights into the needs of the learners in the school. It can be used by the principal, monitor or the teacher concerned. The general pattern of students' responses are influenced by several factors like the effectiveness of our teaching, our work habits, expectations from students, our way of dealing with them, work attitudes and so on.

The reliability and validity of this approach for our teaching evaluation could be assessed from the following research work, *"Research for the past 15 years on student perceptions of teaching show that students consistently select eight factors that are important to them in rating teaching effectiveness. Students tend to remain consistent in their judgments of instructors not only from term to term, but also from year to year. Student ratings of teaching effectiveness are strongly correlated with their ratings of how much they learned in a course but only moderately correlated with how much they say they liked the instructor. Finally, student evaluations correlate highly with ratings given by faculty peers and teaching consultants."* (2001) Kulik, J.A.

STRATEGY 2. TEACHERS' FEEDBACK FORM

This form supports teachers to clarify their work contribution made to the school during the time of their performance evaluation, otherwise which may be overlooked by the Monitors. It encourages teachers to explore their opinion about belief, ideas on emerging trends in teaching - learning and help them to tryout and analyse the appraisal forms to improve their teaching.

Teachers' Feedback Form

Name of the Teacher:

1. Describe your **Teaching Philosophy**/viewpoints/beliefs related to your teaching job in the school. What are your views about **effective teaching** and **effective learning** in the school?

2. **Analyze and comment** on your students' performance (subject wise and class wise) in your subject/s. How are you working to improve their academic performance?
3. What are some of your encouraging/challenging **findings from your students' feedbacks**? How could we use it to enhance students' academic performance? Suggest some specific improvements in the questionnaires of the students' feedback form.
4. Describe your **self initiatives** and **professional works** related to your performance and performance improvement (professional enhancement) in your teaching job.
5. Explain your present **work performance concerns** in your teaching responsibilities according to your job specifications during this year in the school.
6. Describe what and how you have **contributed** for the improvement of the school welfare/discipline / health and hygiene/ academic /ECA progress of the students in the school?
7. Write down your suggestions for the **improvement of 360 degree teacher appraisal** in the school.
8. Write down your suggestions for the improvement of the school?

Some teachers find it difficult exercise to document their performance contributions and achievements in the work place and others do not complain about this form. It is matter of time and practice that make us better teacher to use this form. The practice of using this form also try to orient us to familiarise our job specifications and teaching responsibilities as often we tend to polarize ourselves towards only the particular work we prefer which may create imbalance in our work performance output. This form could be better redesigned and modified to suit the needs of the schools and the teachers concerned. It can also be adapted to the Teachers Portfolio which is helpful for the teachers and other users. *The introduction of teacher appraisal in schools is in part*

recognition of the importance of the need for teachers to spend more time reflecting upon and evaluating their own teaching, and an attempt to encourage teachers to do so more effectively as a regular feature of their classroom practice (Barber et al., 1995).

STRATEGY 3. MONITORS' FEEDBACK FORM

A: INSTRUCTIONAL DUTIES

5) Students work assessment:

-Students are given relevant assignments judiciously without overburdening them.

-Regularly evaluated with feedback showing strengths and weakness.

6) Regular class tests/portfolio research conducted and evaluated based on specific criteria and marks judiciously awarded. Evident from CA records and students note books.

7) Adequate subject notes researched and developed which is made available for students.

8) Teacher has good knowledge of the subject matter that they teach.

-Teacher keeps himself/herself up-to-date with the subject contents and teaching strategies evident from the students' feedbacks and performance.

1 2 3 4

1) Teacher demonstrates evidences of using curriculum and policy documents regularly (E.g. Syllabus and changes, if any).

2) Teacher prepares and uses suitable Lesson plans in the classrooms with constant modifications.(Year, Block, Term)
Specific Lesson Objectives and appropriate activities.

3)Teacher demonstrates adequate evidences of lesson Preparation before the lessons (Evident from the use of appropriate reference books, students feedbacks, extra Teaching learning materials prepared and used- including notes)

4) Effective teaching:

(Evidences from students feedbacks, students performance, use of variety of teaching methods for different topics and subjects, new creative methods are tried out and modified to suit the context)

9) Teacher demonstrates that s/he is committed to the success of the Learners.

10) Teacher constantly demonstrates his/her interests and initiatives for own professional growth and development in the work place by using students' feedbacks, research, students' performance analysis, interactions, self reflections and monitors feedbacks.

Average score (Total/ 10)

B. CLASSROOM MANAGEMENT

1 2 3 4

1. Teacher is through with school disciplinary procedures.

2. Teacher is highly positive about the achievements of his/her students

3. Teacher ensures and manages disciplinary issues well within the classroom promptly using positive disciplining approach rather than using punishments/expulsion of learners from the classroom.

4. Teacher demonstrates extra help and cares for the academic welfare of every student in his/ her class.

5. The classroom rules and regulations are consistently and fairly applied to every student.

-Teacher demonstrates impartiality and is unbiased while dealing with the student behavior.

6. Teacher treats all the students with respects and demands good

Discipline from them.

7. Teacher adapts the curriculum to the learners' needs.
8. Classroom has display of learners' achievements.
9. Discipline procedures are focused on specific learner behavior.
10. Teacher is confident in their ability and understanding of child friendly school.
-Teacher regularly expresses confidence in learners' ability to succeed.

Average score (Total/10)

C: STUDENT SUPPORT SERVICES

1 2 3 4

- 1)Teacher take Care of students personality-
- Evident from the appearance of students' dresses, hair and health.
- 2) Teacher maintains Records of student's behavior, attendance, contribution and also their strengths and weakness properly in the students' files.
- 3) Teacher provides remedial help to slow learners and additional help to fast learners.
- 4) Teacher work / support the protection of students form any form of discrimination /bullying / harassments /abuse.

Average score(total/4)

D: ASSESSMENT

- 1) Question Paper – well planned, topics are identified as **1 2 3 4** important from exam view.
- 2) Blue prints prepared and educational objectives are balanced

for all round development.

3) Assessment criteria set and used for CW, HW, research work, portfolios and Project work.

4) Subject Question Bank available and maintained well.

5) Records of Examination Results analyzed and are reviewed with follow up action implemented.

Average score(total/5)

E: CO-CURRICULAR ACTIVITIES

1) Teacher demonstrates interests and evidences of responsibility taken up. **1 2 3 4**

3) Teacher demonstrates evidences of helping and assisting others in carrying out co- curricular activities or areas of interest.

Average Score(Total/2)

F: TOTAL SCHOOL EFFECTIVENESS.

1) Teacher takes initiatives and contributes to administrative and managerial duties/ responsibilities of the school willingly. **1 2 3 4**

2) Teacher possesses strong interpersonal relations, team responsibility, sense of belongingness, cooperates with others and help others.

3) Teacher has confidence and knowledge about his/her job and donot waste time during the instructional hours in the classrooms.

4) Learners believes that teacher care them personally

5)Teacher set and model high standard of work and behaviors

6) Teacher demonstrates extra work initiatives for the

improvement of the school by taking up assigned responsibilities.

7) Teacher shows respect for learners at all times.

8) Teacher's attendance is high and is conscious of his/her duties.

9) Teacher has good communication skills.

10) Teacher shows initiatives and is interested to carry out the school works and improvement of the learners.

Average score(Total/10)

Final Score(total of 6 areas of appraisal/6)

(SOURCE: EMSSD, Education Division, MOE,)

This form is an assembly of **MIR tools** and the new **School Support Tools forms** designed by the EMSSD which is helpful for the monitors. It also tries to incorporate some of the core competency used for our performance review and evaluation. Monitors prefer this form because of its objective nature. It could also be used by the teacher themselves to appraise their performance level which can be helpful for the monitors to make decision for the teachers performance rating exercise. Most importantly this form tries to orient and familiarize teachers to their job responsibilities.

STRATEGY 4. Students Performance Analysis

The first exercise the school carried out after the midterm examination was to carry out survey among the students for the diagnosis of their learning difficulties and concerns. The following questions were given to students to answer before the teacher parent conference:

1. Explain your concerns related to your study and learning difficulties in the school.
2. What support do you expect from the school to improve your study at the school?
3. Explain your problems related to your self study / learning at home.
4. What support do you expect from your parents to improve your study at home?

The class teachers found this exercise helpful to provide guidance and academic advice to their individual students. The students' response data becomes icebreaker to carryout the discussions with their parents related to their academic performance progress during the parent teacher conference. The records of test data and the examination record to an extent provide the opportunity for the parent and teachers to reflect upon the effectiveness of their support in learning by the student. *"Learning is an emotionally high-risk activity and failure is often extremely painful. Prolonged experience of failure or deprecating remarks by the teacher about pupils' low attainment can have devastating consequences for pupils' self-esteem. As a result, quite naturally, such pupils' are likely to withdraw from making further efforts as a means of protecting themselves from further pain. (Chris Kyriacou, 1998)*

The analysis of students test and examination scores in a fashion of vertically spiral is another important interest area for the teachers. Horizontal analysis provides several interesting finding in a class as well as in different sections of the same grade level. The segregated pass percentage for distinction, first division, second division, third division and unsuccessful candidates' data provide the teachers, parents and students with lots of information regarding what needs to be done for their performance improvement. *'More than two decades of research findings are unequivocal about the connection between teacher quality and student learning' (Source: Teacher quality and student achievement research review –November1, 2005, The Center for Public Education.mht).* Fortunately or unfortunately, at present, quality of the schools in Bhutan is judged by the Board Examination performance of their students. It may not be a sound exercise but the reality boils down to the purpose of good learning at least form the students and public point of view is to accomplish success in learning achievements. *"Many reformers argue for using standardized assessments to measure student learning and, thus, teacher effectiveness. To be sure, tests have limitations as measures of student learning: they are not explicitly designed to measure teacher quality, test scores have margins of error, and some tests do not align to curriculum standards.... Thus, the best*

way to measure teacher effectiveness is to measure the amount of growth a student makes over time, demonstrated on several assessments. (Braun 2005; Gore 2007; Elmore 2002 Harris 2007; Gordon et al. 2006)".

On the other hand students test scores and examination results provides us with quit an accurate information regarding our ways of teaching, teaching adjustments required for the students learning needs, correlation between our educational objectives and the test administered. *'A highly effective teacher, therefore, is one whose students show the most gains from one year to the next. By using this approach, researchers are able to isolate the effect of the teacher from other factors related to student performance.'* Source: *Teacher quality and student achievement research review –November1, 2005, The Center for Public Education.mht)* A lot of scope and researches wait for us to substantiate the validity and reliability of students test performance as an effective factor for our teaching effectiveness. However its tentative use in the 360 degree teacher appraisal also calls for lots of controversies from the teachers.

'Research is clear that what a teacher does in the classroom is a far greater predictor of student success than anything else, and students who consistently get effective teachers benefit exponentially (Gordon et al. 2006)'. And interestingly we consider such a debate on reliability and validity of test score as a measure of a teacher effectiveness as an educational and productive interactions essential at the school level. It may be heartening to note that, "many instructors have changed their approach to teaching after seeing how their students failed to understand seemingly obvious ideas." (Source: How people learn: Brain, Mind, Experience and School - Bransford, Brown and Cocking, 1999)

Conclusion

The 360⁰ Teacher performance appraisal is one of the emerging hotspot for much needed educational researches and practices in our system, thirsty for inputs from our academic community.'If properly done, **appraisal** can be a very effective intervention in motivating teachers in the schools to improve their performance in the teaching and facilitating of students' learning. Secondly, during the **appraisal** process, teachers gain more knowledge and skills which ultimately motivate them to enhance their performance in their day to day duties in the schools. Thirdly, the **appraisal** process plays a crucial role in moulding the behaviour and attitudes of teachers so that they effectively perform their daily duties in the schools.' (Source: Motivating the Motivators with Developmental **Teacher Appraisal**, Pedzani Perci Monyatsi, *Faculty of Education at the University of Botswana, Botswana.*)

It is a difficult assignment to design and use the best method to improve the performance of our teachers, but it is not impossible. If we strive for the improvement and encouragement of our teaching force to achieve our goal for the better **quality of education**, we need to constantly seek, design and experiment better methods such as 360⁰ Teacher appraisal Methods, which could certainly facilitate our schools to foster the quality of teaching and learning to some status. With the introduction of 360 degree performance appraisal our monitors' number increased from 9 to 21 facilitating better appraisal opportunity among the teachers. Hitches and hiccups are always in our life as we are feeling beings; when we are accountable for the quality of education what we need to do is to always try out better approaches conducive for the welfare of our teachers. **At its best, it might boost up the morale of majority of our teachers and inspire them further to struggle for the improved quality of teaching learning in the schools.**

Improving students learning is as significant as the improving our ways of teaching. *'In order to improve high school teaching, educators and policymakers must first invest in solid, objective ways to measure a teacher's effectiveness.....With robust, multiple measures of teacher effectiveness, complemented by targeted professional development, high-quality evaluations, and smart accountability, educators and policymakers can indeed use effectiveness measures to improve the quality of high school teaching'.* (Source: *Measuring and improving the effectiveness of high school teachers, Alliance for excellent education, March 2008, TeacherEffectiveness.pdf*)

Not to forget the field reality of our schools, *'changing just one aspect of schooling will not lead to powerful student learning. All the pieces have to come together in a mutually reinforcing way.'*(Source: *The Learning Classroom: Theory into practice, Session 13, Developed by Linda Darling-Hammond, Suzanne Orcutt, and Daisy Martin, Stanford University School of Education,2003*)

Finally, 360⁰ Teacher Appraisal may not be most appropriate teaching improvement approach for our schools but it is an interesting blueprint of my passionate quest for better teacher appraisal method in the teaching profession. It can be designed to suit the need of our schools. The simplest and the best chapters of our teaching career always prevail in the schools and in particular in the classrooms; among the teachers and the learners. *'If your teaching is to retain the sharpness, freshness and cutting edge that characterizes the most effective teaching, it is crucial that your skills are never allowed to rest for too long on the back burner (Chris Kyriacou)'.*

Whether we can fish out better-quality insights in the pasture of what we have with us is a fresh question for us.

- 1) Is 360⁰ Teacher Performance Appraisal more of problem rather than solution for our quality education pursuits?
- 2) How can we encourage and sustain the motivation for the excellence in teaching among our teachers?

3) Are there better approaches available to enhance the performance of our teachers?

4) Will teachers be happy with the 360⁰ Teacher appraisal Method?

“Finally the challenges and development in which schools are involved make teaching a very exciting profession. Many of these changes reflect a continuing attempt to make the educational benefits to pupils of learning experiences as meaningful, relevant and worthwhile as possible. (Chris Kyriacou, Effective teaching in Schools, p. 164, 1997)”

‘Happiness is like a kiss.

You must share it to enjoy it.’ Bernard Meltzer

Acknowledgements

I am grateful to our School Principal Ms. Karma Zangmo for her constant guidance and support as well as encouraging me to tryout this approach in the school. All the Motithang School teachers and the students have been inspiring source in this mission and most importantly the sensation of this collaboration. Their help in trying out the different feedback forms for the improvement of teaching learning in the school were meaningful. I am also thankful to the Ministry of Education, EMSSD, RCSC and RMA for giving me permission to use their performance related documents and forms and in particular providing this opportunity to trying out 360⁰ Teacher Performance Appraisal in Motithang Higher Secondary School.

Bibliography

1. Teacher Performance-Based Accountability: Why, What and How by John Schacter Milken, Family Foundation 1250 Fourth Street Santa Monica, CA 90401-1353.
2. Performance Management: A strategic and Integrated Approach to achieve success- Michael Armstrong and Angela Baron, Jaico Publishing House, Mumbai-400001.
3. Guidelines for Evaluating Teaching.pdf

4. Teacher quality and student achievement research review ,Center for Public Education.mht , November1, 2005,
5. Effective Teaching in Schools: Theory and Practice- Cris Kyriacou, Second edition, 2001 Nelson Thornes, UK.
6. Essential Teaching skills- Chris Kyriacou, 2005, Nelson and thrones, London.
7. A passion for teaching- Christopher Day, RoutledgeFalmer, 2004, London.
8. MIR Tools, EMSSD, Education Division, Thimphu.
9. Bhutanese School Management Guidelines and Instructions, Ministry of Education, 2005.
10. The Program Evaluation Standards: How to Assess Evaluation of Educational Programs, 2nd edition, 1994 James R. Sandars, Chair, Sage Publications, California.
11. School Self Assessment: Improving our schools: The tools, EMSSD, Ministry of Education(draft)
12. Strategies for Effective teaching- Allan C. Ornstein, 1990, Harper & Row Publishers, New York.
13. The Educator's Professional Growth Plan: A Process for Developing Staff and Improving Instruction-Jodi Peine, 2008, 2nd edition, Corwin Press, Thousand Oaks, California.
14. Educational Research-Contemporary Issues and Practical Approaches- Jerry Wellington, Continuum, UK.
15. Top 10 Characteristics of a Quality school by Melissa Kelly, About.com
16. Job Descriptions teachers.pdf, RCSE,RGOB, Thimphu
17. Educational Research in Practice: Making Sense of Methodology Edited by Joanna Swann and John Pratt, First South Asian Edition 2007, Viva Books Private Ltd. New Delhi-110002.
18. The Learning Classroom: Theory into Practice, Stanford University, School of Education,2003
19. The Happiness Handbook-Dr Timothy J Sharp, 2007, Macmillan India Ltd. New Delhi.
20. How people learn: Brain, Mind, Experience and School – John D. Bransford, Ann L. Brown and Rodney R. Cocking, editors, Committee on Developments in the

Science of Learning, Commission on Behavioral and Social Sciences and Education, National Research Council, National Academy Press, Washington, D. C. 1999

21. Teachers and Schooling: Making a difference- Debra Hayes, Martin Mills, Pam Christie & Bob Lingard 4th South Asian edition 2007, Allen & Unwin, Australia.
22. Unlocking Creativity in the Workplace- Stephen R. Grossman, Bruce E. Rodgers and Beverly R. Moore, Jaico Publishing House, Mumbai.
23. Be creative: Essential steps to revitalize your work and life- Guy Claxton and Bill Lucas.
24. The Art of Happiness: A handbook for living -Howard Cutler and HH Dalai Lama.

Teachers' Motivation...What causes teachers to Leave? (A study of motivation level in Bhutanese teaching system)

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Abstract

This study is an attempt to study the motivation level in the Bhutanese teaching system. The study focuses on the satisfaction level of the Bhutanese teachers with respect to their age, qualification and place of work. The study encompasses eight of the many factors of motivation. It was found out that most of the teachers who were dissatisfied are in the age group of 20-29 years having a qualification of bachelors Degree and teachers living in the urban areas.

Background

Modern comprehensive education in Bhutan started with the development process in the 1960s. Prior to this era, education in Bhutan wholly depended on the Buddhist scholars, both from within and outside. However, as the country embarked on planned development process, the need for teachers increased. This led to the recruitment of Christian Jesuits. And to meet the demand of teachers from within, a Teacher Training Institute (TTI) was established in Samtse in 1968 under the direct command of the Third King. There were 40 boys to begin with but, unfortunately, only 38 completed the course.

Although teachers played a pivotal role in the development of the education system and that of the country, the young age and lack of good leadership have led to non-practice of the principles involved in being professional. (Jagar Dorji, 2007)

TTI was training primary school teachers, but it was not able to keep up with the demand of teachers required in the field. Even when candidates were enrolled with minimum requirements, there were fewer applicants, so the shortage of teachers continued to stay in the system.

In July 1975 the Teacher Training Center and Demonstration School (TTC-DS) was established in Paro. This center was to specialize in preparing teachers for the lower primary level. With a demonstration school inside the campus, teacher trainees were able to gain first-hand experiences in teaching skills and classroom management.

Teachers from the Guru Training system still continued to teach the primary level, but younger teachers from TTI and TTC were now joining this cadre, year after year, on completion of the courses. About the mid 1970s, a few Bhutanese undergraduates from university colleges in India also joined teaching, but, for the most part, it was the Indian counterparts who taught at secondary level. The 1980s saw an increase in the number of Bhutanese teachers in secondary schools.

Teaching has rarely been a popular job among young people in Bhutan. Except for a handful of those with a genuine interest in the noble service, the majority of the teacher candidates were drawn in more by circumstance than by interest. The Department needed more teachers than there were candidates available then.

In 1983 the TTI at Samtse was upgraded to the National Institute of Education (NIE) headed by a Director and started offering a Bachelor of Education degree.

Before 1987, it was generally thought that teaching was a mediocre job and a last choice for job seekers. This mind-set seriously discouraged those with capabilities from joining the teaching cadre. After His Majesty the King commanded a change in this outlook, contentment was visible among teachers, as they saw some meaning in their profession. (Jagar Dorji, 2007).

The exploration of teachers' motivation would provide an opportunity to develop a holistic understanding of interplay between teachers' remuneration needs, professional and pedagogic support needs. It is hoped that this will lead ultimately to a better understanding of what and how appropriate incentives and support ensures effective teachers performance. This research would not only enable us to know the motivation level in the teaching profession today but also broaden our understanding about what makes teachers teach.

Literature Review

In all education systems, the performance of teachers is one of the most important factors determining school effectiveness and learning outcomes. But teachers influence is even greater in Bhutan as they are the major learning resource here. Teachers are the central actors in education, facilitator of learning, bringers of knowledge, brokers of relationships between pupils and the societies in which they live. They play a pivotal role in enabling societies to realize their educational aspirations.

Teachers' interaction with learners is the axis on which educational quality turns and it is quality of education which will increasingly preoccupy policy-makers in the future. If school effectiveness can be regarded as being the "value added" to an individual by their school experience, it must be acknowledged that this value is added mainly by their interaction with teachers.

From all these perspectives then, there needs to be a renewed need to understand the relationship between factors affecting teacher morale, motivation and performance.

Motivation is the willingness to do something and is conditioned by this action's ability to satisfy some need for the individual. A need here means some internal state that makes certain outcomes appear attractive. (David A, Decenzo, 1997). It is concerned with the "why" of human behavior, with what it is that makes people do things. For

Benard Burlinson and Gary A. Steiner, motivation is "all those inner striving conditions described as wishes, desires, drives, etc....It is an inner state that activates or moves."

Motivation is defined as "some kind of internal drive which pushes someone to do things in order to achieve something" (Harmer, 2001:51). As stated by Brown (1994:152), it is a term used to define the success or the failure of any complex task.

Motivation is thought to be responsible for "why people decide to do something, how long they are willing to sustain the activity and how hard they are going to pursue it" (Dörnyei, 2001a:8).

Ryan and Deci (2000a:54) state that "to be motivated means to be moved to do something". Unlike unmotivated people who have lost impetus and inspiration to act, motivated people are energized and activated to the end of a task. "Interest, curiosity, or a desire to achieve" (Williams and Burden, 1997:111) are the key factors that compose motivated people.

Though there are many theories of motivation, Johnson (1986:55) states only three theories of motivation and productivity that teacher motivation is based on. They are elucidated below.

Expectancy theory: It is probable for a person to struggle for work if there is an expected reward such a bonus or a promotion that is worth working. Expectancy Approach recognizes the importance of needs and their satisfaction but considers the contingency aspects relevant to particular people in a particular situation. This theory argues that the strengths of a tendency to act in a certain way depends on the strength of an expectation that the act will be followed by a given outcome and on the attractiveness of the outcome to the individual.

Equity theory: Unfair treatment for their efforts and achievements makes individuals displeased. According to the Equity theory of Motivation, individuals compare the outcomes they receive within and outside the organization. Such comparisons are made based on the outcome-input ratio. If one person gets higher outcome-input ratio than another person, there is inequity amongst the two individuals. Here, according to the theory, the first person experiences "felt positive inequity" and the other "felt negative inequity." Individuals take various actions to restore sense of equity.

Job enrichment theory: The more varied and challenging their work is, the more productive employees become.

Problem Statement

It is possible that no other profession in Bhutan has been subjected to as much scrutiny, debate and discussion as the teaching profession. In July 1998 teachers in schools

received gift for their work. The incentive of 30% and 45% of their salary was raised for those teachers in the schools and tertiary institutions respectively. In terms of financial benefits it has certainly improved the living conditions of teachers. This would have enabled the teachers to give teaching the highest priority. However, the scheme lasted only till the end of 2004. There was a 45% salary revision for the civil servants but there same there has not been so for the teachers. This has led to “frustration, dissatisfaction, low morale and motivation and discontentment” among the teachers. (KUENSEL, June 29, 2007). Teachers, therefore, started to leave the profession. This led to debate and discussions.

Though the number of university graduates is increasing year by year which adds to the employment situation in the country, there is a high tendency for them not to opt for teaching. Out of 105 slots in the Post Graduate Certificate in Education, only 65 seats were filled in 2005. The same trend followed in 2006 also where only 6.17% of the university graduates opted to join the teaching profession. Out of 90 seats available, only 48 of them joined the same. There were 777 university graduates in 2006.

The teacher turnover rate has also created interest in us to see why they tend to resign for some other profession. In an informal meeting with the education ministry we found out 11% of the present Bhutanese teachers willing to leave the profession given the chance. (Ministry of Education, 2007)

Research objectives

This research aims to look into the following factors:

1. Does motivation vary for different age groups?
2. Does motivation vary among different levels of qualification
3. Does the place of work (urban and rural) play any role in motivating teachers?

Methodology

Primary data was collected with the help of a comprehensive questionnaire.

Information about the respondent such as their age, qualification and their workstation (urban or rural) were gathered through the questionnaire. This enabled us to compare between respondents and study whether motivation varied among different age groups, qualification levels and the place of work/work station.

Age was divided into three major groups of 20-29, 30-39 and 40 and above and questionnaires were administered proportionately among these age groups.

Qualification was divided into four groups of Under Matriculation, Higher Secondary, Bachelors, and Masters and above. Under matriculation means those who have qualification of class ten below from within country or abroad. Those who have studied

up to class twelve through distant learning and Continuing Education Program are clubbed into Higher Secondary. Bachelors Degree means those who have enrolled into universities to pursue specific studies such as, BA, B.Com, B.Sc, B.Ed etc. Masters and above is an academic degree higher than a Bachelor's Degree such as, M. Ed., M. Com., M. Phil. Etc.

The place of work was divided into urban and rural. The ministry of education has already classified the schools into six categories of "urban, semi-urban, semi-rural, rural, very rural and difficult". However, for our study, we have clubbed urban and semi-urban into URBAN and rural, semi-rural, very rural and difficult areas into RURAL.

For our study, urban means those places which are connected with roads. Those schools which are more than an hour walk from the road head is considered as rural.

The questionnaire also gathered information regarding motivating factors for the teachers. Specifically, the study sought to describe the importance of the following eight motivating factors: (a) increase in pay, (b) training opportunities (within country and abroad), (c) school's leadership and decision making structure, (d) opportunity to participate in workshops and seminars, (e) opportunities to participate in decision making process that effects teachers, (f) good physical working facilities, (g) prestige and (h) opportunities for further studies and skill-up gradation.

Of the total 4504 Bhutanese teachers (General Statistics, 2007), 914 teachers were Under Matriculate, 1668 Higher Secondary, 1852 Bachelors and 50 Masters and above. The sample size of the research is 200 which is divided proportionately into the categories mentioned above.

Teachers' (national) qualification & type/level of school. March, 2007						
Qualifications	Number of teachers					Total
	CPS	PS	LSS	MSS	HSS	
Masters and above	0	0	10	18	22	50
Bachelors Degree	230	171	637	502	332	1872
Higher Secondary	508	414	543	201	2	1668
under matriculation	155	160	311	185	103	914
Total	893	745	1501	906	459	4504

Source: General statistics, 2007

The data from the survey were then tabulated and analyzed using SPSS. Descriptive statistical measures and basic mathematical measures such as percentages are used.

At least fifty teachers each, calculated proportionately, are covered from four dzongkhags of Thimphu, Bumthang, Sarpang and Mongar.

Limitations

Out of 18,582 civil servants (RCSC, June 2007), 24.24% constitute Bhutanese teacher up to higher secondary school. Thus, the research time period of two months was felt to be too short to carry out the research efficiently and effectively to cover all the teachers.

Due to time constraint, we did not cover teachers of all the schools and institutions. We have concentrated our study only to the teachers of Primary, Lower Secondary, Middle Secondary and higher secondary schools. Teachers of the private schools in the country are also excluded from our study.

Research Findings overview

This research is based on supposition, and the feed back from teachers that levels of teacher's motivation has a significant impact on their performance. It was also assumed that teacher performance was one of the major factors influencing education quality. In all countries, there are teachers, for whom teaching is an interest, who have intrinsic high levels of commitment to the teaching profession. There are also who have never wanted to be teachers and have no commitment to the job. These teachers are those who were made teacher by the pressure of unemployment trend and forced by certain circumstances. The majority lies in between this two. They wish to remain in teaching profession and want to do a good job. However, their motivation level and performance is critically influenced by the situation that supports and enables them. We set out to explore this belief and develop our understanding of factors affecting teacher motivation in Bhutan.

It was clear that the position of teachers in Bhutan is not the worst, in comparison to teachers in other countries. Teachers in Bhutan enjoy both stature and importance in the society. Unlike in other countries, their profession is guaranteed till they resign. There is no different in the pay scale between teachers and other civil servants like in other countries.

Amongst the group interviewed for this research, there was a very strong desire for opportunities for professional development. Naturally, teachers had aspirations to upgrade their qualifications, either through distance learning or attending a college course. This desire can be attributed to the fact that an improved qualification is a prerequisite for progress up the career ladder. Training, be it in country or abroad, is cited more frequently than other factors both as a positive "motivator" when teachers had access to it and as a source of demoralization when it was unavailable.

In Bhutan, concerns about workload were cited as very important influences on teacher motivation. In fact, this was the most important factor influencing motivation. Bhutanese teachers are burdened with heavy workload due to increased enrollment. Other demands on time stemmed from their responsibilities in the school which were

both complex and onerous. This problem was compounded by teacher shortages where teachers were compelled to cover vacancies in subject areas other than their's. However, this was found to be a major factor mainly in rural areas.

About 75% of the teachers interviewed felt that lack of allowances and entitlements as de-motivating factor. Teachers expressed dissatisfaction with the "dry salary" without any fringe benefits.

About 28.5% of the respondents are willing to join other professions given a chance. The main reasons cited were less opportunity for trainings and self-up gradation, heavy work load, unfavorable working condition (common office), no perks, dry salary, monotonous job and strict code of conduct.

Research findings as per the objectives

Objective 1: whether motivation vary among different age groups

Table 3 Age group and satisfaction level with the factors of motivation

Factors of motivation	Age Groups		
	20-29 (n=78) yrs.	30-39 (n=82) yrs.	40 yrs. & above (n=40)
Satisfaction with monthly Pay	54	64	33
	69.20%	78.00%	82.50%
Satisfaction with superior's capabilities, competencies and efficiency	70	78	38
	89.70%	95.10%	95.00%
Satisfaction with opportunity for self up-gradation & further studies	27	43	24
	34.62%	52.44%	60.00%
Satisfaction with opportunity to participate in meetings and decision making process	70	76	37
	89.70%	92.70%	92.50%
satisfaction level with the facilities	54	68	36
	69.20%	82.90%	90.00%
plan to stay on in teaching profession (Yes)	46	63	34
	59.00%	76.80%	85.00%

Analysis of the motivating factors with respect to age groups gives us the following conclusions:

The findings suggest that most of the older teachers are satisfied with most of the motivating factors than the young teachers. That means older teachers are motivated to teach than their younger counterparts.

a) Pay

The table clearly shows that of the 78 teachers interviewed in the age group of 20-29 years, about 69.2% of them are satisfied with pay. But the satisfaction level with pay in the age group of 30-39 and 40 and above is quite high with 78% and 82.50% respectively. Older teachers are sort of resigned and agreed to the fact that they cannot go further than this. Given their qualification and background, they are satisfied and happy with what they earn.

b) Superiors' capabilities and leadership

89.70% of the younger teachers with 20-29 years are satisfied with their superior's capabilities and leadership. More than 95% of the teachers above 30 years are satisfied with it.

c) Self up-gradation and further studies

Only 34.62% of teachers between 20-29 yrs of age respondents said they get opportunity for self up-gradation & further studies where as the older teachers' responses are satisfactory with 52.44% and 60% respectively. This is because most of the teachers in the age group of 30 and above have a lower qualification level of Under Matriculate. With the introduction of Distance Education Learning Programme in Bhutan, most of these teachers availed the opportunity.

d) Meetings and decision making process

Compared to the older teachers, younger ones are not satisfied with the opportunity to participate in the meetings and make decision. As most of the important posts and responsibilities are held by older teachers, younger ones do not have much say in the decision making process.

e) Facilities

The satisfaction level, of young teachers, with the facilities is also much lower than that of older teachers. With the development, younger ones have more exposure and want to enjoy facilities that suit their needs.

f) Opportunity for workshop and seminars

Age Group		opportunity for workshop and seminars				Total
		Once a Year	Once in two years	Once in five Years	Never	
20-29 years	Count	7	11	18	42	78.00
	%	8.97	14.10	23.08	53.85	100.00
30-39 years	Count	11	16	35	20	82.00
	%	13.41	19.51	42.68	24.39	100.00
40 years and above	Count	5	7	16	12	40
	%	12.50	17.50	40.00	30.00	100.00
	Count	29	34	69	68	200
	%	14.50	17.00	34.50	34.00	100.00

The table above shows the opportunity for workshop and seminars against the age group of the respondents. 34% of the respondents said that they have never attended any of the workshop and seminars. About 14.5% of the respondent got the opportunity once a year, 17% once in two years and about 34.4% once in five years. The greater percentage of teachers who did not get this opportunity is in the age group of 20-29 years. About 54% of them have not got the opportunity.

g) Opportunity for trainings abroad

The following table depicts the opportunity for trainings abroad with respect to age group.

Age Group		opportunity for trainings abroad			Total
		Once in two years	Once in five years	Never	
20-29 years	Count	0	1	77	78
	%	0.00	1.28	98.72	100.00
30-39 years	Count	2	4	76	82
	%	2.44	4.88	92.68	100.00
40 years and above	Count	0	0	40	40
	%	0.00	0.00	100.00	100.00
	Count	2	5	193	200
	%	1.00	2.50	96.50	100.00

As shown clearly from the table above, more than 95% of the respondents have never got an opportunity for trainings abroad. No one from the age group of 40 years and above has got the opportunity.

h) Opportunity for trainings in-country

		opportunity for training in-country				Total
Age Group		Once a Year	Once in two years	Once in five Years	Never	
20-29 years	Count	6	4	10	58	78
	%	7.69	5.13	12.82	74.36	100.00
30-39 years	Count	11	6	31	34	82
	%	13.41	7.32	37.80	41.46	100.00
40 years and above	Count	5	1	11	23	40
	%	12.50	2.50	27.50	57.50	100.00
	Count	22	11	52	115	200
	%	11.00	5.50	26.00	57.50	100.00

For in-country trainings 74.36% of the respondents in the age group of 20-29 years have never attended any in-country trainings. More than 57% of teachers in the age group of 40 and above and about 41% of teachers in 30-39 have never got this opportunity.

From the discussion above, it is clear that teachers in the age group are more dissatisfied than teachers in other age groups. It is obvious that more than 60% (Annexure 1) of the respondents who wish to leave the teaching profession are in the age group of 20-29 years.

Objective 2: whether motivation varies among different qualification levels

The research found out that most of the teachers who have Bachelors Degree are not satisfied with their job. It is clear from the table below that more than 40% of the teachers with Bachelors are willing to leave the profession, given a chance.

Table 4 Qualification and level of satisfaction with the factors of motivation

		Qualification levels			
Factors of motivation		Under matriculate (n=47)	High school (n=61)	Bachelors (n=79)	Masters and above (n=13)
Satisfaction with monthly Pay		38	46	57	9
		80.85%	75.40%	72.20%	69.23%
Satisfaction with superior's capabilities, competencies and efficiency		44	57	72	13
		93.62%	93.40%	91.10%	100.00%

Satisfaction with opportunity for self up-gradation & further studies	20	41	29	4
	42.55%	67.21%	36.71%	30.77%
Satisfaction with opportunity to participate in meetings and decision making process	45	59	67	1
	95.745%	96.70%	84.80%	92.30%
Satisfaction level with the facilities	40	53	53	12
	85.11%	86.90%	67.10%	92.30%
plan to stay on in teaching profession(Yes)	40	49	44	10
	85.11%	80.30%	55.70%	76.90%

The above table depicts the aggregate situation of motivation and satisfaction level in the schools with regard to qualification as found out from the study.

a) Pay

Majority of teachers who are dissatisfied with pay are from qualification level of Bachelors and above. About 72%(Bachelors) and 69.23%(masters and above) of the respondents are satisfied with the monthly pay compared to 75% to 80% with the case of other lower qualifications of Under Matriculate and High School respectively. Teachers with qualification above Masters tend to compare their monetary benefits with their friends in other professions. They see their friends enjoy better and more monetary benefits from tours and travel. But the teachers with lower qualifications are happy as they don't have better opportunities outside teaching.

b) Superiors' capabilities and leadership

Most of the teachers are satisfied with superiors' capability and effectiveness. However, school management and the role of Principals in particular was a crucial area of concern to some teachers. It is found that dissatisfaction with school management and school head teachers was predominant amongst the teachers with Bachelors Degree (with more than 9% dissatisfied.)

Q: "What is the role of the head teacher in motivation?"

A: 'He de motivates. He gives no guidance or encouragement...there is no respect for the head" Teacher, Bumthang.

It appears from the remarks made by teachers that simple steps taken on the part of head teacher could make a big difference to the morale of staff in schools.

c) Self up-gradation and further studies

The opportunity for self up-gradation and further studies seem to vary between qualification levels. 67.21% of the teachers with high school level are satisfied as against 45.55% (under matriculate), 36.71% (Bachelors) and 30.77% (masters and above). Teachers with lower qualifications get opportunity to upgrade themselves through in-country Distance Education Learning programme. There is inadequate opportunity for teachers with Bachelors and Masters to upgrade their qualification.

d) Meetings and decision making process

Most of the teachers with Bachelors degree are dissatisfied with opportunity to participate in meetings and decision making processes. More than 90% of the teachers with other qualifications are satisfied with this factor against 85% of teachers with Bachelors Degree.

e) Facilities

The level of dissatisfaction of teachers with Bachelors degree is lower than other teachers with other qualifications. About 67.10% of teachers with Bachelors degree are satisfied with the facilities as against 85.11% (Under Matriculate), 86.90% (High school) and 92.30% (Masters and above). Teachers in this qualification level seem to compare facilities in schools, such as computers, internet, office etc. with other jobs.

f) Opportunity for workshops and seminars]

According to the table given below, it can be said that opportunity for workshops and seminars were

Qualification Level		Opportunity for workshop and seminars				Total
		Once a Year	Once in two years	Once in five Years	Never	
Under Matriculate	Count	7	12	15	13	47
	%	14.89	25.53	31.91	27.66	100
Higher secondary	Count	6	9	26	20	61
	%	9.84	14.75	42.62	32.79	100
Bachelors	Count	12	11	25	31	79
	%	15.19	13.92	31.65	39.24	100

Masters and above	Count	4	2	3	4	13
	%	30.77	15.38	23.08	30.77	100
	Count	29	34	69	68	200
	%	14.50	17.00	34.50	34.00	100

g) Opportunity for trainings abroad

As said earlier, opportunity for trainings abroad is so negligible with more than 96% of the respondents who haven't got chance for the opportunity. About 2.5% of the respondents with a qualification of Bachelors have got the opportunity once in a year and about 41% of the respondents with Masters and above have got this opportunity once in five years.

Qualification Level		Opportunity for trainings abroad			Total
		Once in two years	Once in five Years	Never	
Under Matriculate	Count	0	0	47	47
	%	0.00	0.00	100.00	100.00
Higher secondary	Count	0	1	60	61
	%	0.00	1.64	98.36	100.00
Bachelors	Count	2	0	77	79
	%	2.53	0.00	97.47	100.00
Masters and above	Count	0	4	9	13
	%	0.00	30.77	69.23	100.00
	Count	2	5	193	200
	%	1.00	2.50	96.50	100.00

h) Opportunity for in-country trainings

For the opportunity for in-country trainings, more teachers with Bachelors Degree and Under Matriculate have never got an opportunity. More than 62% of them did not get the opportunity.

Qualification Level		Opportunity for training (in-country)				Total
		Once a Year	Once in two years	Once in five Years	Never	
Under Matriculate	Count	5	1	10	31	47
	%	10.64	2.12	21.28	65.96	100
Higher secondary	Count	6	4	21	30	61
	%	9.84	6.55	34.43	49.18	100
Bachelors	Count	7	5	18	49	79
	%	8.86	6.33	22.78	62.03	100
Masters and	Count	4	1	3	5	13

above	%	30.77	7.69	23.08	38.46	100
	Count	22	11	52	115	200
	%	11	5.5	26	57.5	100

From the above analysis, it is concluded that most of the teachers with Bachelors Degree are dissatisfied with their profession and they are de-motivated to teach.

Objective 3: whether motivation vary between urban and rural

Table 5 Place of work and level of satisfaction with the factors of motivation

Factors of motivation	Place of work	
	Urban (n=114)	Rural (n=86)
Satisfaction with monthly Pay	85	66
	74.60%	76.70%
Satisfaction with superior's capabilities, competencies and efficiency	107	79
	93.90%	91.90%
Satisfaction with opportunity for self up-gradation & further studies	56	38
	49.12%	44.19%
Satisfaction with opportunity to participate in meetings and decision making process	101	82
	88.60%	95.30%
satisfaction level with the facilities	95	63
	83.30%	73.30%
plan to stay on in teaching profession (Yes)	75	68
	65.80%	79.10%

The analysis of factors of motivation and place of work shows the following findings.

a. Pay

More than 76% of the rural teachers are satisfied with the monthly salary as against 74.6% of the urban teachers. This is due to rise in living standard in the urban areas. Accommodations in the rural areas are cheaper than urban. There are not many avenues for spending in the rural areas as in the case of urban areas.

b. Superior's capabilities and leadership

Leadership is very important in establishing school level support systems and supervisory practices that can secure professional commitment from teacher. More than 93% of the urban respondents and 91.90% of rural respondents are happy with their superiors' competencies and efficiencies. This means that there are no much differences in the leadership between the two. The meager difference was due to the authoritative leadership by the rural head teachers, as cited by some teachers.

c. Self up-gradation and further studies

Opportunity for self up-gradation and further studies is an inevitable endeavor for every one. But it is found out that this opportunity is inadequate in the teaching profession. Most of the teachers are dissatisfied with it. 49.12% of the urban respondents are satisfied with the opportunity to up-grade themselves. The satisfaction percentage of rural teachers is lower than that, at 44.19%.

d. Meetings and decision making process

Rural teachers are more advantageous than their urban friends as they get to participate in the meetings and decision making processes more frequently. As shown in the figure below, 95.30% of the rural respondents are satisfied with this and about 88.60% of the urban are satisfied, which is comparatively lower than the former.

e. Facilities

Urban schools have better facilities than the rural schools. The satisfaction level of the respondents testifies this point. 83.30% of the teachers in urban areas are satisfied with the facilities. But more than 25% of the teachers in rural areas are dissatisfied with it. There are many facilities available in the urban areas which motivate teachers to work hard but the same facilities lacked in rural areas. "Inaccessibility" to the remote areas is the most important factor in providing "better facilities like computers and other equipment."

f. Opportunity for workshops and seminars

As shown in the table below, there is no much difference with the opportunity of for workshops and seminars between the places of work. About 14% the respondents from each of the workstations (urban and rural) got it once a year. For once in two years, more than 18% of the urban teachers and 15% of the rural teachers said that they got it once in two years. However, the majority of the respondents expressed that they get once in five years. About 32% of the urban respondent and 37% of the rural respondents said they didn't get opportunity to attend workshops and seminars.

		opportunity for workshop and seminars				Total	
Work Station		Once a Year	Once in two years	Once in five Years	Never		
urban	Count	17	21	40	36	114	
	%	14.91	18.42	35.09	31.58	100.00	
rural	Count	12	13	29	32	86	
	%	13.95	15.12	33.72	37.21	100.00	
		Count	29	34	69	68	200
		%	14.50	17.00	34.50	34.00	100.00

g. Opportunity for trainings abroad

As depicted in the table below, only one teacher each from 144 urban teachers and 86 rural teachers said he got opportunity for trainings abroad, once in two year. A little more than 2% of the respondents from these workplaces said they got it once in five years. More than 96% of the respondents, though, have not yet got an opportunity for trainings abroad.

		opportunity for trainings abroad			Total	
Work Station		Once in two years	Once in five Years	Never		
urban	Count	1	3	110	114	
	%	0.88	2.63	96.49	100.00	
rural	Count	1	2	83	86	
	%	1.16	2.33	96.51	100.00	
		Count	2	5	193	200
		%	1.00	2.50	96.50	100.00

h. Opportunity for in-country trainings

It seems that the Ministry of Education and others conduct in-country trainings every year. But the focus seems to be for the teachers in the urban areas. Following table shows that 12.2% of urban respondents said they get opportunity once a year against 9.3% of rural respondents saying the same. More than 57% of the respondents from both the workplaces said they have never had a chance for in-country trainings.

		opportunity for training (in-country)				Total
Work Station		Once a Year	Once in two years	Once in five Years	Never	
urban	Count	14	8	27	65	114
	%	12.28	7.02	23.68	57.02	100.00

	Count	8	3	25	50	86
rural	%	9.30	3.49	29.07	58.14	100.00
	Count	22	11	52	115	200
	%	11.00	5.50	26.00	57.50	100.00

There is no major difference in motivation level between urban and rural school teachers. However, it is clear from the table above, that more teachers from urban areas were willing to leave the profession. This may be due to their dissatisfaction with the “dry salary”. With the rise in living standard, particularly in urban areas, need for money becomes more essential. Therefore, teachers of urban schools with higher qualifications wanted to switch over to other professions where better remunerations are granted.

Recommendations

The following recommendations may be taken into consideration to retain teach and motivate teachers.

Teachers must be given opportunities to reflect on their professional practice through short in-service trainings and workshops. It is found that professional development opportunities, from short in-service training courses to longer upgrading courses, are in short supply. Though specific courses were available to teachers aimed at upgrading their qualifications (for example from class 10 to 12 level) through schools and distant learning, it was available to limited numbers of teachers. In-service trainings and workshops need to be conducted frequently where new teaching methodologies and other aspects can be learnt.

Workloads should be rationalized to enable teachers to concentrate on the core business of teaching. The research found out heavy workload as one of the demotivating factors in teaching profession. They not only teach for a long duration but also used as “Jack of All Trades- a security, counselor, policemen, dormitory managers, choreographer and so on”. The focus is always taken away from the key business of teaching.

Allowances such as housing, teaching, difficulty and others have to be given to the teachers. It is found from the research that teachers do not have other source of income like in other profession.

Well-structured classrooms and residential blocks in the rural areas need to be focused. In most of the rural schools we visited, it was seen that class rooms and residential blocks lacked basic amenities.

Recommendations for further research

While we tried to encompass the most important factors of motivation, certain factors could be taken into consideration. The study could have been more comprehensive if factors such as pupils' performance in the class, promotion prospects, timely transfers and all.

The study could have been more interesting if Focus Group Discussions were held with the teachers and personnel from Ministry of Education. This would have given another angle to research.

Further study could be done on why the younger generations, especially the graduates, don't join teaching profession. This could help widening the horizon of understanding about why young people feel teaching as the last option

More mathematical tools such as T-test, F-test, Correlation, regression etc could have been employed to make it more empirical.

Conclusion

School teachers aged between 20-29 years are dissatisfied with teaching profession. Dissatisfaction with the profession is also prominent among teachers with Bachelors Degree. Most of the teachers working in the urban areas are dissatisfied. Thus, these school teachers are willing to leave the teaching profession given other opportunities.

Out of 200 teachers, 57 are willing to join other professions. Of these 56.14% are from 20-29 age groups. In the qualification level, 61.40% of them are teachers with Bachelors Degree. 68.42% of the teachers willing to leave teaching are working in urban areas. (Please refer annexure 1 On page 26)

Lack of motivation may cause teachers to be inefficient and ineffective. Unreasonable demands of administrators, discouraging team spirit, neglecting rewards, financial problems are the factors related to de-motivation. It should not be forgotten that every teacher is not motivated entirely by the same demands and needs. Job satisfaction of each employee is different from the other. Without having basic motivation, lack of success is inevitable. If there are not any factors motivating teachers, the productivity will decrease dramatically.

Decrease in teachers' productivity may ruin generations. Teachers have a huge responsibility in Nation Building. His Majesty the 4th King of Bhutan has time and again emphasized that the "future of the nation lies in the hands of today's youth" and the quality of this future generation depends on the quality of education that they receive. It is important to keep teachers motivated enough to be able to deliver quality teaching.

With the change in the system of governance in our country, qualification criteria and educational requirements have been specifically spelled. Therefore this also requires that quality education be delivered to be able to produce responsible, clean and honest politicians.

Students also spend most of their time with the teachers compared to parents. With the change in living styles parents spend even lesser time with their children these days. The role of teachers therefore is even greater.

Students often identify teachers as their role models. Therefore it is important that the teachers are amply motivated to be able to encourage their students and be true idols.

“A teacher who is a happy teacher will teach well, and a happy school is a good school.”
Teacher, Mongar

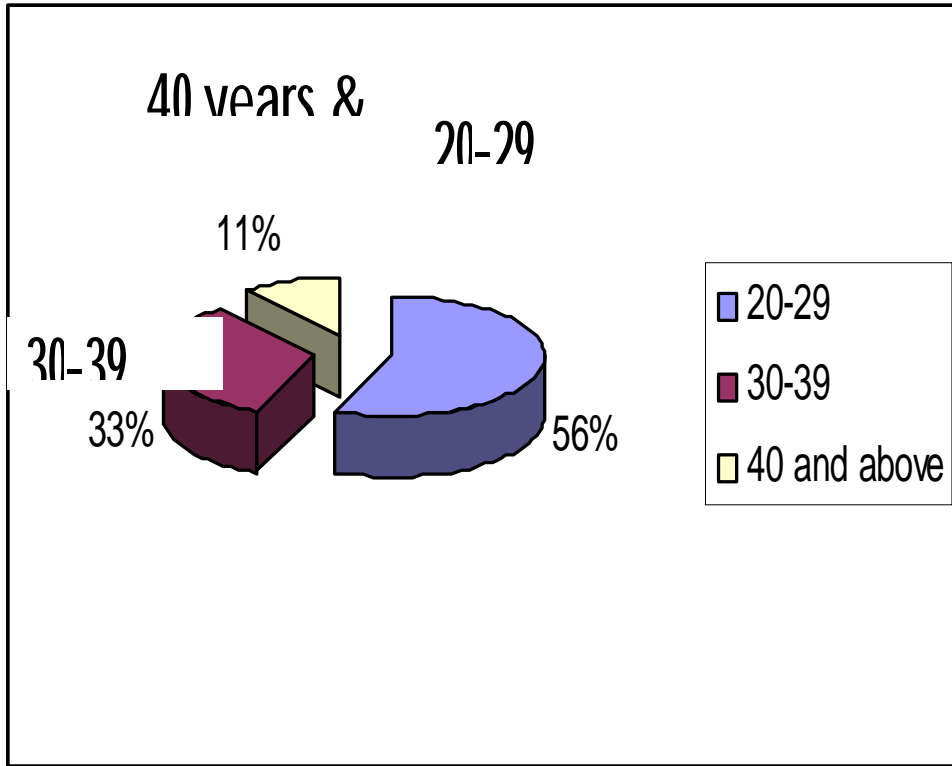
List of Acronyms and abbreviations

B.Com	Bachelors of Commerce
B.Ed.	Bachelors in Education
CPS	Community Primary School
GHSS	Gelephu Higher Secondary School
HS	Higher Secondary
HSS	Higher Secondary School
LSS	Lower Secondary School
MSS	Middle Secondary School
NFFDP	National Feed and Fodder Development Programme
NIE	National Institute of Education
RCSC	Royal Civil Service Commission
RNR-RC	Renewable Natural Resources Research Center
TTC	Teacher Training College
TTI	Teacher Training Institute
UM	Under Matriculate
ZLTs	Zhungkha Language Teachers

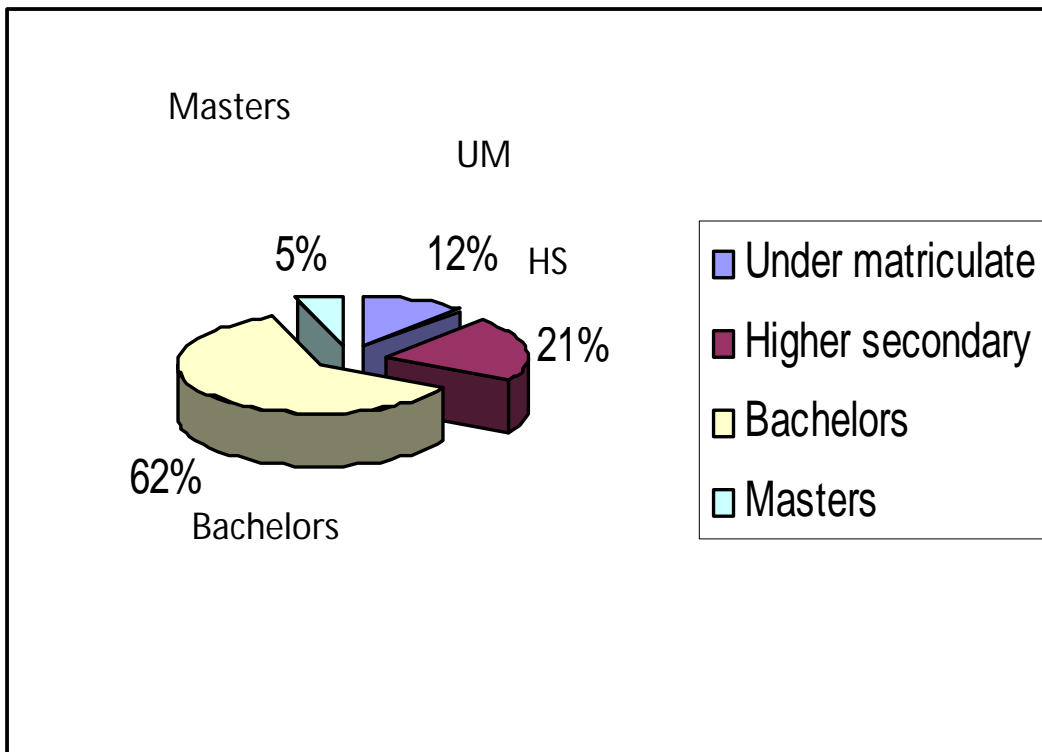
Annexure 1

Percentage of teachers who wish to leave teaching profession

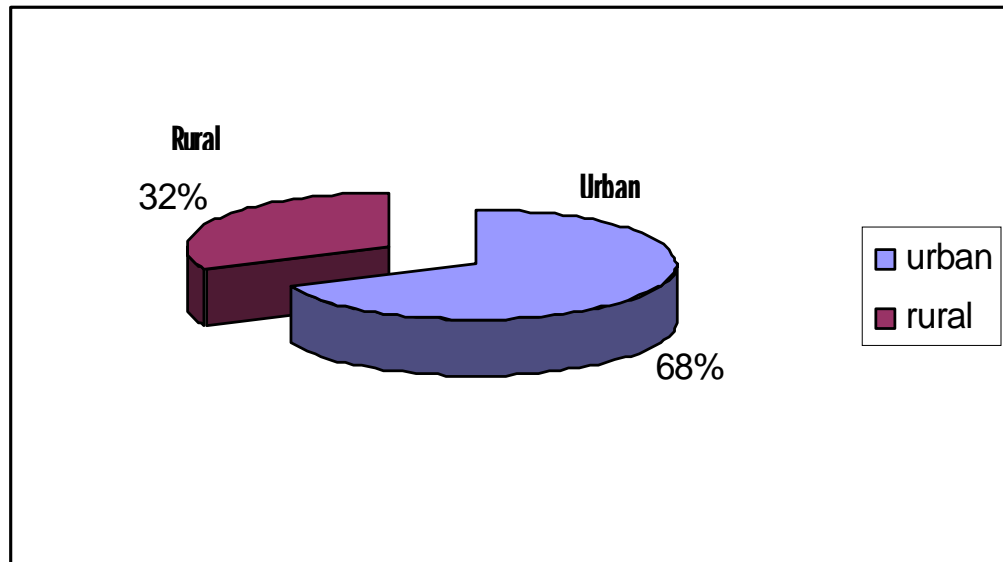
Age group and percentage of teachers willing to leave teaching profession



Qualification level and percentage of teachers willing to leave teaching profession



Place of work and percentage of teachers willing to leave teaching profession



Reference

Chhetri, I. (2002). Research paper on motivational practices in the Bhutanese workplace. RIM

Decenzo, D.A. & Robins, S.P. (1997). *Personnal/human resource management*. New Delhi: Printes-Hall of India Private Limited

Dessler, G. (1998). *Human resource management*. New Delhi: Printes-Hall of India Private Limited

Dorji, J. (n.d.). *Quality of Education in Bhutan*

Dorji, P. & Norbu, N.P. (2006). *Is there a common dissatisfaction among the residents of changjiji housing complex?* RIM, Thimphu

General Statistics. (2007). Thimphu: Bhutan, Ministry of Education

Glueck, I. (1983). *Foundation of personnel/human resource management*. Plano, Texas: Business Publications, Inc.

Teachers need motivation (2007). Retrieved August 14, 2007 from <http://www.kuenselonline.com>

BHUTANESE PRIMARY AND MIDDLE YEAR STUDENT'S CONCEPTION OF EQUIVALENT FRACTIONS THEY HAVE AT THEIR DISPOSAL

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Abstract

The aim of this study was to find out Bhutanese students' concepts of fractions particularly how they view the ideas of equivalent fractions and what models of fractions they exhibit to explain the idea of equivalent fractions. 495 students (112 class four, 141 class six, 136 class eight and 106 class 10) of lower and middle secondary schools from three districts of Bhutan, Samtse, Chhukha and Thimphu were involved in a short written test initially, followed by interview involving 3 students each of different ability groups from these different classes. The study found that most of the students were not familiar in describing fractions correctly. The study also found that most of the students were familiar with geometric area models particularly circles. They were able to explain equivalent fractions when presented in geometric area models but had difficulties with symbolic fractions.

Keywords

Partitioning, equivalence, discrete model, linear model, geometric model, area model, additive reasoning, multiplicative reasoning

Introduction

This paper presents Bhutanese primary and middle year student's conception of equivalent fractions and models of fractions they have at their disposal. In Bhutanese classroom mathematics has been a challenging subject for both teachers and students for the past decade. The performance of the students has been deteriorating every year in all the classes from primary schools to high schools every year as evident from the test results of schools and Bhutan Board of Examinations. As a mathematics teacher I have often come across most of the students in middle schools having difficulty with learning fractions. This poor performance has resulted in an adverse affect in subsequent classes and in other areas of mathematics – algebra, probability, trigonometry and measurement, thus students perform poorly in mathematics as a whole.

Owing to increasing concern of poor learning in mathematics, in particular fractions which is considered as a gateway to other topics in mathematics and also other subjects I felt the need to know why learning fractions has been a difficult area for Bhutanese students as in other parts of the world. Studies (Reys, Lindquist, Lambdin,

Smith & Suydam, 2001; Hatfield, Edwards, Bitter, & Morrow, 2005) states that a firm understanding of equivalence is needed before children start working with operations of fractions. Therefore this study on Bhutanese student's conceptions of equivalent fractions has become imperative to investigate how students view the idea of equivalence.

Literature Review

It has been stated (Izard 1993: 6) that because of their importance and difficulty, fractions are conventionally introduced to children in kindergarten and occupy a prominent place in school curricula from second grade. Despite learning fractions repeatedly throughout middle elementary grades many studies in different parts of the world found that learning fractions has been a major hurdle for students in the middle elementary grades and beyond.

In Bhutanese schools equivalent fractions are formally introduced in upper primary classes though students come across fraction concepts of 'halves' and 'quarters' in lower primary classes. In early lower classes, children learn concepts by describing halves from everyday contexts, for example dividing an apple into half. In later lower classes they learn in two different ways (equal parts of a whole and equal parts of a collection of objects) through describing and modeling for halves as well as quarters.

When children reach upper primary they learn modeling, comparing and representing fractions with denominators 2, 4 and 8, as well as with denominators of 5, 10 and 100. At this stage they learn finding equivalence between halves, quarters and eighths using pictorial representations. In later upper primary classes children learn modeling, comparing and representing fractions with denominators 2,3,4,5,6,8,10,12, and 100. They also learn finding equivalence between thirds, sixths and twelfths using pictorial representations. Operations like addition and subtraction of simple fractions are introduced at this stage and also multiplication of simple fractions by whole numbers. Reaching upper primary classes children learn operations with all fractions and also learn finding equivalence fractions with all fractions.

In early classes students become comfortable with the concept of whole numbers, their comparison and operations. When students encounter fractions, they are presented with a different set of numbers. There is no next number with fractions as with whole numbers. But students have misconceptions of applying their whole number conceptual framework to fractions, considering fraction as two whole numbers.

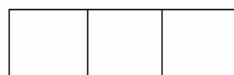
One of the common difficulties students encounter is when comparing or ordering fractions. Students are heavily influenced by the techniques of comparing both numerator and denominator as whole numbers to compare fractions. Similar influences have led to misconceptions in doing equivalent fractions. Therefore it is apparent that before students move to operations of fractions they should have a clear understanding

of equivalent fractions themselves. Equivalent fractions have been a major hurdle for students in the middle elementary grades and beyond (Carpenter et al 1980 and Moss & Case 1999 cited in Saxe et al. 2005: 137).

Many studies across different parts of the world have addressed that learning fractions have long been a stumbling block for many students. Studies (Saxe et al. 2005 and Bezuk & Cramer 1989) found out that though students finish middle years of schooling, they still have problems with concepts of fractions. Many studies have confirmed that learning fraction concepts is a complex task that students find difficult. Further studies (Treffers cited in Streefland 1991:6) stated that fractions, a key-topic is simply too difficult for many children. It has also been stated that fractions cause considerable problems in mathematics education (Streefland 1991). Reys et al. (2001) state that examining the concepts associated with fractions is complex. However, two rather simple but powerful ideas – partitioning and equivalence concepts, can help tie many of the ideas together (Kieren 1980 cited in Reys et al.2001: 238).

The Principle and Standards for School Mathematics (NCTM 2000 cited in Reys et al. 2001: 238) have stressed that the children should be given the opportunity to develop concepts as well as number sense with fractions. Studies (Wearne and Kouba 2000 cited in Reys et al. 2001: 239) revealed that concepts and models underlying fractions are not well developed by Grade 4 and although older students can relate fractions to pictorial models, they do not realize that these models can be helpful in solving problems.

Research (Behr et al cited in Constance 1994: 2) in America assessed Grade 4 children's flexibility of regarding a part of a whole as an unpartitioned region and as a partitioned region. When the children were asked to show $\frac{2}{3}$ of shape such as the following two:

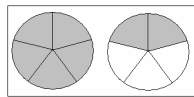


It was found that everyone gave a correct response to the first rectangle but 25% gave incorrect response to the second one. A similar study by March & Emdash (2000) found that 90% of Grade 6 students could shade a geometric model, which was already equally portioned into four parts, but only 50% could shade 1/5 of the model when it was portioned equally into ten parts.

Another study by Danyan (cited in Constance 1994: 6) into whether Alabama children of fifth or sixth Grade thought that a half made by cutting a rectangle vertically had the same area as a half made by cutting the same rectangle diagonally found that

children had conflict between operational thought and figurative evaluation. Though their operational knowledge made them think areas were equal, but their figurative evaluation led them to think that triangular half was more.

A study by Kerslake (1986: 25) found that the only model of fraction that was widely used by students was that of the geometric area model such as circles. Millsaps & Reed (1998) argued that using a circle as a model is very unhelpful. It is further stated that using such diagrams led themselves to wide misinterpretation and hence misconceptions. Similar results were found by Kerslake (1986: 88) where students had a misconception in representing 'part of a whole' diagrams. For example when students were asked to represent shaded parts for the diagram below, some students represented the fraction $7/5$ and others said $7/10$.



Kerslake (1980: 88) also found out that during discussion for different models such as area models (geometric shapes such as circle and rectangles whose whole is divided into equal parts and have the same area), discrete models (collection of objects such as counters and blocks) and linear models (any unit of length portioned into fractional parts with each part being equal in length such as number lines, strings and paper strips) of the fraction of $3/4$ and $3/5$, students rejected the latter two. It was also stated students gave reasons that there was no whole to be divided up for discrete models and ratio models. In another study by Newstead & Murray (1998) with Grade 4 and Grade 6 South African students, it was found that most students represented fraction $3/4$ using geometric shaded area models and very few students used $3/4$ used discrete models such as collection of objects.

Many studies (Kerslake 1986; Geoffrey et al 2005; Millsaps & Reed 1998; Smith III 2002) argued that students need experience with all of the ways in which fractions can be interpreted. It was also found that students begin to construct a deeper understanding of fractions when they are represented in a variety of ways and when there are explicit linkages to everyday life and familiar situations involving the use of fractions (Millsaps & Reed 1998: online).

Reys et al. (2001: 244) states that before children move to operations with fractions, they need a firm understanding of equivalence. The sequence of learning fractions, which begins with portioning, and gradually introducing the words, symbols and models provides a strong background for further development of fractions and operations with fractions. He further states that the problems about equivalent fractions are central to understanding fractions and being able to operate (add, subtract, multiply and divide) with them. Hatfield, et al. (2003:291) also states that some educators believe that equivalence plays a key role in understanding of fractions that all work with the operations should be delayed until after Grade 4.

A study (Kerslake 1986) found that though children were well able to recognize instances of equivalence when presented in geometric form, there was some confusion that $\frac{2}{3}$ and $\frac{10}{15}$ were equivalent fractions. They think that multiplication by 5 had made $\frac{10}{15}$ bigger than $\frac{2}{3}$. Other experiments also showed that $\frac{2}{6}$ is not the same thing as $\frac{1}{3}$ for many of fourth graders. Another study (Newstead & Murray 1980) found that some of Grade 4 and Grade 6 South African students had been exposed to a procedure for generating equivalent fractions, but with little understanding of the purpose for the procedure or the reasoning behind it.

Behr et al. (1984 cited in Porteous) found that a common error in finding a fraction equivalent to a fraction was additive reasoning. For example, students when asked to solve $\frac{3}{4} = \frac{?}{12}$, students often looked for a number when added with 4 to give 12, the number being 8 and then add the same number to the numerator ($3 + 8$), thus concluding the equivalent fraction as $\frac{11}{12}$. These results confirm that children use the language of fractions without really understanding them (Porteous). Kerslake's (1986) study also confirms that even if students were successful in test items about equivalence, there was lack of understanding of fractions as such.

The interest in this study grew out from the previous studies (Reys et al. 2001, Streefland 1991, Hatfield et al. 2003, Constance 1994, Millsaps & Reed 1998 and Smith III 2002) which laid importance in equivalent fractions and different models of representing fractions as central to understanding of fractions and operations of fractions for elementary students. Many studies have found that students only model of fractions were geometric model particularly circles and there was confusion and difficulties with other models such as discrete models and linear models. It was also found that students were able to recognize equivalent fractions in geometric forms but had difficulties with symbolic fractions. There were also misconceptions in finding equivalent fractions or comparing equivalent fractions where students regarded denominator and numerator separately as whole numbers.

Keeping these views in my mind and the findings of studies in different parts of world, this study aims to find out students' concepts of fractions, particularly equivalent fractions focusing on the following questions:

1. How do students view the idea of equivalent fractions?
2. What models of fractions students' exhibit to explain idea of equivalent fractions?

Methodology

Participants

495 students from four different classes (112 class four, 141 class six, 136 class eight and 106 class 10) in Samtse, Chhukha and Thimphu participated in the same paper-and-pencil test. Three students each from these different grades were selected for individual interview after completing the paper-and-pencil test. The selection of these students were done by consulting the respective mathematics teachers to ensure that there was range of ability groups; high, average and low ability groups, from each of these grades to participate in the interview.

Design

A survey research approach was used for conducting of this large-scale study. Students undertook short paper-and-pencil test that included open-ended questions and some multiple-choice questions (See Appendix 1). Interview questions were built upon students' response to questions from their paper-and-pencil tests and some additional questions (See Appendix 2) were solicited to further confirm their understanding. The interview questions as far as possible were open-ended providing the respondents with freedom in answering. Visual aids such as illustrations, fractional charts and models were used to improve clarity and appeal in order to increase respondent motivation to participate effectively.

Procedures

Students undertook paper-and-pencil tests in their respective classes during their mathematics periods for 30 minutes. Selected students were interviewed individually after paper-and-pencil test. The participants were interviewed during their routine class in a room provided by the school in the presence of their mathematics teacher. The interview sessions took approximately 20 minutes for each individual and were audio taped with prior permission from the people concerned.

The interview was semi-structured since some questions were specifically constructed and some follow-up questions were dependent on how the students responded. During the interview the children responded orally and by writing down their responses to questions. The interview as far as possible was kept informal. Moreover regular reinforcements and clarifications were made in order to provide an atmosphere conducive for the student to participate and gain maximum information.

Data Collected and Analysis

A. Paper-pencil-test

The paper-pencil-test comprises six questions (Kerlake 1986) related to the aspects of models of fractions and equivalent fractions. The test for each group was conducted for twenty minutes.

Results of paper-pencil-test

1. Choose and tick the correct ways of saying fraction $2/5$ from the following sentences.

- (a) Two fifths
- (b) Two over five
- (c) Two by five
- (d) Two upon five
- (e) None of the above

The results of saying fraction $2/5$ from the five choices for question 1 are given in Table A1:

Table A1(in %)

Items	Class 10(n=106)		Class 8(n=136)		Class 6(n=141)		Class 4(n=112)	
	Chosen	Not Chosen	Chosen	Not Chosen	Chosen	Not Chosen	Chosen	Not Chosen
Two fifths	35	65	38	62	10	90	24	76
Two over five	34	66	43	57	55	45	12.5	87.5
Two by five	41.5	58.5	45	55	14	86	54	46
Two upon five	2.8	97.2	20	80	5	95	19	81
None of the above	2.8	97.2	7	93	1	99	12	88

The results show that 26.75 % of students in the study were familiar with 'two - fifths'. 36.13 % of students in the study preferred 'two over five' being very popular in classes 6 and 8 but less popular in class 10 and least in class 4.

Similarly 38.63 % of students chose 'two by five' with most students in class 8, and least in class 6. 'Two upon five', was the least (14.5%) opted of all the options in the study though some students preferred not to choose any.

Some students of classes 8 and 10 who accepted 'two fifths' described in their explanation that they were taught by their teachers in their earlier classes. A student of class 6 stated that he heard it from his teacher. Some of their written statements are:

'This is the way I was taught when I was learning fractions in primary school'-
(Class 10 student)

'I know it because I was taught that way and also I read the top number first and the bottom number next.'- (Class 8 student)

'I hear my teacher using two fifth in math class' – (Class 6 student)

Most of the students who accepted 'two over five' and 'two by five' described that their teachers taught them and some considered the literal meaning of the sentences and the symbols:

'My math teacher taught me that two by five is also two over five.'- (Class 8 student)

'Because there is a two over a five.'- (Class 6 student)

'Teacher taught two by five because two on top and five bottom and divide.'- (Grade 4 student)

'Two over five' and 'two by five' are the main mode of instruction to describe $\frac{2}{5}$ for most students as shown in the Table A1.

2. Which of these pictures would help you know what the fraction $\frac{2}{5}$ is?

Explain your answer.



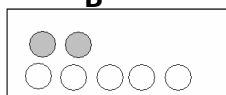
A



B



C



D

The percentage of students who chose each picture is shown in Table A2.

Table A2 (in %)

Items	Class 10(n=106)		Class 8(n=136)		Class 6(n=141)		Class 4(n=112)	
	Chosen	Not Chosen	Chosen	Not Chosen	Chosen	Not Chosen	Chosen	Not Chosen
Picture A	53	47	68	32	40	60	62	38
Picture B	20	80	42	58	28	72	67	33
Picture C	41	59	54	46	36	64	56	44
Picture D	15	85	15	85	12	88	15	85

The geometric area model A and C were accepted by most of the children in all the classes. Model A has been accepted more than the others in all the four classes followed by model C. The least selected of all the models by all the students were the set model D. Some of the justifications by the students for choosing A are:

'A because from 5 parts only two parts are shaded.' - (Class 10 student)

'A because taught to us by our teacher from class 2.' – (Class 8 student)

'A – Picture would help us to know that fraction $\frac{2}{5}$ is over five, two fraction is shaded into two and other three is not shaded.' – (Class 6 student)

Most of the students who opted B did not write their justifications though some did with vague descriptions. Some of the justifications by the students for opting B are:

'It is because the picture is divided into five parts and two of the parts are shaded.' - (Class 8 student)

'It is second one or B because there are five circles but only two are shaped – it is called $\frac{2}{5}$.' – (Class 8 student)

Though most students opted C there were very few who responded with their justifications. The justifications are:

'Because in the whole there is 5 box and two shaded that is why it is $\frac{2}{5}$.' - (Class 4 student)

'The picture of C would help me to know what the fraction $\frac{2}{5}$ is. Why is because it is in order form where as in section D though only two parts are shaded if we count all the parts it becomes 7 and we will misunderstood the particular lesson.' - (Class 8 student)

The justifications of students who accepted D are:

'Picture D help me to know that the fraction $\frac{2}{5}$ is because two part is shaded and below five is not shaded, just to differentiate to tell that is two divided by 5 ($\frac{2}{5}$).' – Class 10 Student)

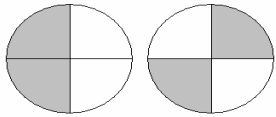
'D because 2 apple, it is distributed among 5 people, so in the diagram that 2 shaded part is divided by 5 unshaded part.'- (Class 8 student)

'D because two is shaded with black color over five and two is over the five.' – (Class 6 student)

Picture A was more familiar with most students followed by Picture C, which are representations of geometric area model.

3. Are the following fraction models equal? Explain your answer.

A.



B



Most students considered equality in A and B though some did not. There were some students who considered the shaded part as $\frac{1}{2}$ considering the partition into equal areas. Some of their reasons are:

'I think following fraction models are equal because where ever we shaded that are the equal part.' (Class 8 student)

'Yes, the fractions are equal because both the circles are divided into 6 part and 3 are shaded.' (Class 10 student)

'Yes, because there are shaded into half part of two equal diagram.' (Class 6 student)

The reasons some students who considered it unequal are:

'No, they are not equal because one is shaded in the left side and one is shaded in the both the side.' (Class 8 student)

'No, they are not equal because one is shaded in the left side and one is shaded with all the sides but they have space between the shaded part.' (Class 8 student)

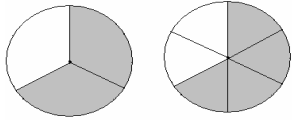
'No, because one side is shade together and other side are not shade together.' (Class 6 student)

4. Represent fractions $\frac{2}{3}$ and $\frac{4}{6}$ with the help of diagrams.

Almost all the students were able to represent the given fractions with diagrams. Geometric area models such as circles and rectangles were drawn for representation.

The most common representation was circles. Some students represented with area models of triangles.

5. There are two equal circles shown below. What fractions of circles are shaded? Are the shaded parts equal? Explain your answer?



Most of students could represent shaded parts in fractions but a few could explain correct relationship in comparing the circles. Some explained equivalence by simplification and some by area (visual spatial representation). Not a single student from class 4 explained the correct relationship though they could represent the shaded parts in symbol. The results are shown in table A3.

Table A3

	Class 10	Class 8	Class 6	Class 4
Could represent and explain correct relationship 0%	35.5%	22.3%	22.3%	15.6%
Could represent but could not explain correctly 73.7%	53.2%	68.3%	68.3%	54.3%
Could not represent correctly 26.3%	11.3%	9.4%	9.4%	30.1%

The students of class 10 who could explain correct relation of equivalence are described below:

'2 and 4 parts respectively. Shaded parts are equal. Since they are two equal circles. 1st circle has fraction 2/3 and 2nd circle has fraction 4/6 i.e. $2/3 = 4/6$,

$$\frac{4}{6} = \frac{2}{3}$$

if we cut 4/6 it is $\frac{4}{6} = 2/3$ hence proved.' - (Class 10 student)

'They are equal because if we divide 4/6 we get 2/3.'

The incorrect responses of class 10 students are:

'Shaded parts are not equal because the formation of angle will not be equal.'

'The shaded parts are not equal because in 1st circle there are two shaded portion and in 2nd circle there are four shaded portion.'

'No this shaded parts are not equal. Both circle are equal but they are divided differently, some have more area and some have less parts of area.'

Some correct responses of Class 8 students are:

'Yes they are equal because 2/3 is the simplified version of 4/6. e.g. $\frac{4}{6} = \frac{2}{3}$.'

'The shaded parts are equal because if we convert 4/6 by dividing it by 2 the answer will come 2/3.'

'Yes, because the size of shaded parts are equal.'

The incorrect responses are described below:

'The shaded part are not equal because 'A' is 2/3 and 'B' is 4/6. So A is smaller than B.'

'The shaded parts are not equal because in one fraction 2 parts are shaded from 3 parts and in other 4 parts are shaded from 6 parts.'

'The shaded parts are not equal because it has different size.'

Some of class 6 correct responses are:

'Yes, the shaded parts are equal because first one is not divided in many parts and second one is divided in many part but they are of equal size.'

'When we compare these two fractions we see that they are equivalent fractions.'

The incorrect responses are:

'The shaded parts are not equal because the first parts have shaded bigger and the second parts have shaded smaller.'

'No, the shaded parts are not equal because the number of fraction is not equal.'

'No, the shaded part is not equal because in first diagram there is only two parts shaded and another diagram there is four part shaded.'

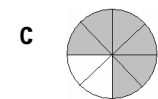
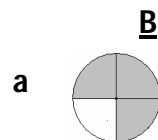
6. A. Match the following for the shaded parts:

A
1. $\frac{6}{8}$

2. $\frac{2}{8}$

3. $\frac{1}{4}$

4. $\frac{3}{4}$



Most of the children have correctly matched items in column A with items in column B for Question 6. It can be seen that students find it easier to relate fractions with models. The results are shown in Table A6:

Table A4

	Class 10	Class 8	Class 6	Class 4
Could match all items correctly 87.5%	98.1%	94.1%		97.1%
Could match some items correctly 8.9%	0.95%	3.7%		2.9%
Could not match any items correctly 3.6%	0.95%	2.2%		0%

B. Which fraction is bigger $\frac{1}{4}$ or $\frac{5}{20}$? Why do you think it is bigger or it is equal?
Most of the students in Class 10 brought the relation of equivalence but most of the students in other classes had misconceptions of either $\frac{5}{20}$ is bigger or $\frac{1}{4}$ is bigger. The reason given by students for same fraction was based on the use of simplification, multiplication and division, ratio and common factors. A single student in class four expressed the fractions equivalent but had no appropriate explanation. The results are shown in Table A7.

Table A5 (in %)

	Class 10	Class 8	Class 6	Class 4
Could bring equivalence relation 1	52	13	8	
$\frac{1}{4}$ is bigger than $\frac{5}{20}$ 69	12	55		65
$\frac{5}{20}$ is bigger than $\frac{1}{4}$	27	23	15	10
No response	9	9	12	20

The responses for relating equivalence in the two fractions are:

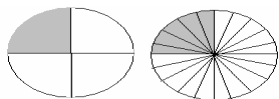
'Both are equal because one thing is shared among 4 people. In the ratio $\frac{5}{20}$, it is like 1 thing sharing to 4 people because when we cancel $\frac{5}{20}$ we get $\frac{1}{4}$. All the same.' (Class10 student)

'I think $\frac{1}{4}$ is equal to $\frac{5}{20}$ because $\frac{5}{20} = \frac{1}{4}$. It also means $\frac{1}{4}$.

$$\frac{5}{20} = \frac{1}{4}$$

'If simplified both are equal because for e.g. A person gets $\frac{5}{20}$ part of a cake then it is equal to $\frac{1}{4}$ because the amount he gets is the same.' (Class10 student)

The same student had also drawn the following diagram:



'Both the fraction are equal because, on reducing the 2nd fraction into its lowest term, it also comes same as that of first fraction. Since the final fraction is $\frac{1}{4}$, both are equal.' (Class10 student)

'They are equal. $\frac{1}{4} = \frac{5}{20}$ because if we convert $\frac{5}{20}$ into its simplest form it will become $\frac{1}{4}$.' (Class 8 student)

'They are equal $\frac{1}{4}$ is the multiple of $\frac{5}{20}$ when we multiply with 5 and they are equivalent to each other.' (Class 8 student)

'The fractions $\frac{1}{4}$, $\frac{5}{20}$ is equal. If we simplify $\frac{5}{20}$ it becomes $\frac{1}{4}$.' (Class 8 student)

'It is equal because e.g. $\frac{1}{4}$ or $\frac{5-1}{20-4} = \frac{1}{4}$.' (Class 6 student)

'It is equal because we will get equal part when we shade the fraction.' (Class 6 student)

Some students who did not bring the equivalence relation for given fractions had the understating that $\frac{3}{6}$ is bigger because of the separate numbers being three times bigger or the numbers being bigger and some compared in terms of area of parts.

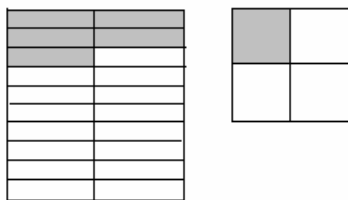
' $\frac{5}{20}$ is Bigger than $\frac{1}{4}$ because is we represent into diagram and see than $\frac{5}{20}$ will be bigger.' (Class10 student)

' $\frac{5}{20}$ is bigger because out of 20 divided parts only 5 is shaded and 15 parts is left unshaded'. (Class10 student)

'Fraction $\frac{5}{20}$ is bigger because both the numerator and denominator is bigger then the fraction $\frac{1}{4}$.' (Class10 student)

'No it is not equal $\frac{5}{20}$ is the bigger because 20 part in the box and it shaded only 5 from 20. And why is another less than $\frac{5}{20}$ because in a box there is only four parts and only shaded 1 from four. So that why $\frac{5}{20}$ is bigger.' (Class 8 student)

The same student had also drawn the following diagram:

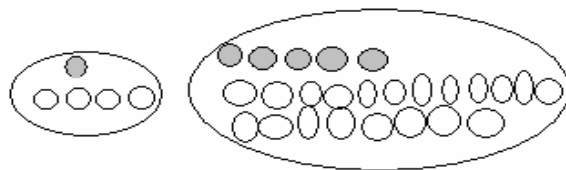


' $\frac{5}{20}$ is bigger because denomenter and nomorator bigger number than $\frac{1}{4}$ that's way $\frac{5}{20}$ is bigger.' (Class 8 student)

' $\frac{5}{20}$ is bigger because it's is number are bigger then the other ine.' (Class 8 student)

' $\frac{5}{20}$ is bigger because $\frac{5}{20}$ has many boxes and $\frac{1}{4}$ has less boxes.' (Class 6 student)

This particular student had drawn the following diagram:



'5/20 is bigger I think that it is bigger because the 5/20 is bigger number then 1/4.' (Class 6 student)

'I think 5/20 is bigger because the 5 is bigger than 1 and 20 is bigger than 4.' (Class 6 student)

Most students who stated 1/4 is greater than 5/20 had no appropriate explanation though some had the feeling that less quantity shared among less recipients gets bigger share than more quantity shared amongst more recipients so 1/4 is bigger than 5/20.

'1/4 is bigger because 1/4 means 1 apple divided into 4 parts, 5/20 means 5 apple divided into 20 parts.' (Class 10 student)

'1/4 is bigger because when we cut one whole apple we get four parts but when we cut one whole apple to 5/20 we get 20 small pices.' (Class 6 Student)

'The $\frac{1}{2}$ is bigger than the $\frac{3}{6}$ because there is only 2 parts in $\frac{1}{2}$ but in $\frac{3}{6}$ there are six parts so there is 6 more parts to cover than just 2.'- (Class 6 student)

' $\frac{1}{2}$ is larger than $\frac{3}{6}$ because half a circle is larger than sixths.'- (Class 4 student)

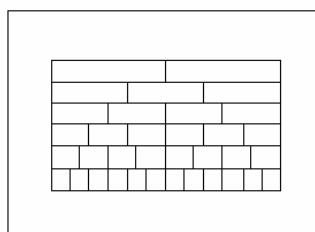
It has been found that most of students expressed $\frac{2}{5}$ as 'two over five' or 'two by five'.

The most common models of representing a fraction were seen to be area models mainly circles. Most students could write correct fractions for area models when illustrated but there were some confusion when comparing equivalent fractions. Most students in classes 8, 6, and 4 found it difficult to explain equivalence. Fractions dealt in this paper-pencil-test were most with denominators of 2, 4, 6, 8 and 20.

B. Interview conducted for 33 students (three from each class)

The interview questions (Kerslake 1986) were built on their responses provided in the paper-pencil-test and some additional questions were presented as placards to further confirm their understanding. The interviews took about 20 to 30 minutes and were tape recorded. There were four additional questions that attempted to learn students' concepts of equivalent fractions. These were:

1. Have you come across this picture somewhere? What does it tell you?



3. Pick up some fractions that are equivalent in this collection?

	$\frac{3}{4}$		$\frac{12}{16}$	
$\frac{2}{9}$				
	$\frac{6}{8}$		$\frac{2}{6}$	
$\frac{3}{9}$	$\frac{1}{3}$	$\frac{1}{2}$	$\frac{3}{10}$	
				$\frac{5}{10}$

3. Can you fill in for the question marks as shown

$\frac{3}{4} = \frac{?}{12}$	$\frac{9}{12} = \frac{12}{?}$
$\frac{5}{3} = \frac{15}{?}$	$\frac{14}{16} = \frac{?}{24}$

4. Can you try this addition of fractions?

<p>a. $\frac{2}{3} + \frac{3}{4}$</p> <p>b. $\frac{1}{2} + \frac{1}{2}$</p> <p>c. $\frac{3}{4} + \frac{1}{4}$</p>
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Results of Interviews

Extracts from the transcripts made during the interviews are used in the following descriptions of results. The students are given initials such as A, B, C...

The following questions (Kerslake 1986) were asked of the students to further confirm their understanding of models of fractions they had at their disposal though it was confirmed in paper-pencil-test.

1. How would you explain to your friends what a fraction is?

For this particular question the response by the students varied with most students referring to 'numerators and denominators', few 'part of a whole', and some 'one number over another'. The number of responses for each of these references is shown in Table B1.

Table B1

<i>Reference of model</i>	Class 10(9)	Class 8(9)	Class 6(6)	Class 4(9)
Part of a whole	2		0	1
Numerators and denominators	4		5	2
One number over another	3	4	2	1
Don't know or, couldn't say	0	0	1	5

There were two students in class 10, B and F who explained fractions as partitions though they could not relate the idea of part of a whole unless prompted. A

particular student J from class 6 could describe fraction as part of a whole with the idea of circles. Though some students could relate fractions with examples like circles, roti (Indian bread) and apple they were not aware of relating part of a whole with these examples.

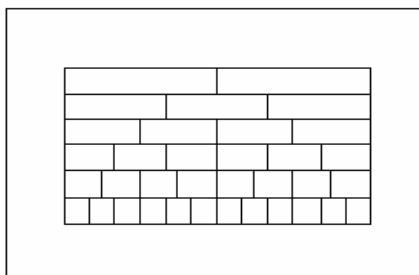
- B 'I see fractions as a partition. Uh.... Is it part of something?' (Class 10 student)
- F 'I think fraction is something like a partitioning. Yes uh.... it is from something I take away some part. (Class 10 student)
- J 'I understand fraction as a something whole in round shape uh...a circle and I divide into parts.' (Class 6 student)
- L 'Fraction is a circle with some parts shaded.' (Class 6 student)
- M 'Fraction to me I think of round roti (Indian bread) divided into many parts.' (Class 6 student)

Most of the students described fractions in terms of numerators and denominators and one number over other. Some of their responses are:

- A 'I think fraction is something like having numerators and denominators.' (Class 10 student)
- K 'Is it fractions means numbers with numerator at top and denominator at bottom.' (Class 8 student)
- C 'If there is one number on top and another in bottom then I think it is fraction.' (Class 6 student)
- P 'I think fractions uh.... it is have one number over another for example 2 by 5.' (Class 4 student)

It can be seen that many students described fraction as numerators and denominators and one number over another, with some students giving instructions for a procedure – relating common experiences such as dividing a circle or an orange and very few students just stating the phrase 'part of a whole'. The response 'numerators and denominators' and 'one number over another' might suggest that the student recognized the way fractions are written. However some of their responses do not give evidence to indicate they understand what they described.

2. Have you come across this picture somewhere? What does it tell you?



There were only two students of class 6 who agreed seeing the picture when their teachers displayed it on the charts. Most of the students discussed by comparing the parts unless prompted.

Some of their responses are:

J 'I saw from my teacher in a chart when I was in lower class. Uh... Yes it is divided into many parts and if I compare one out of two from here um... and two out of four from here. Yes they are equal.' (Class 6 student)

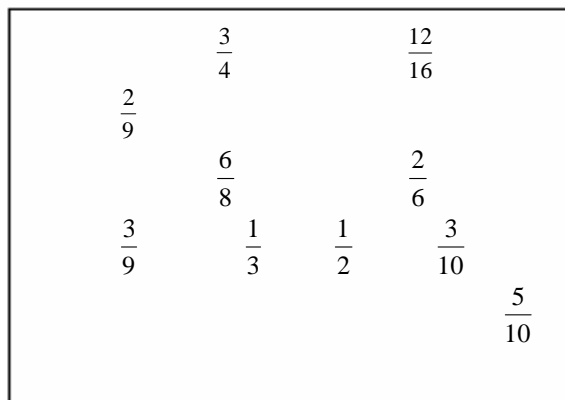
L 'I remember seeing it on wall when I was in Class 4. By looking at it I can tell that it is divided into many parts. This part is one part from two parts and uh... this is four parts from um... one, two, three, foureight, from eight parts sir. Are they equal uh... yes they are equal.' (Class 6 student)

There were some students who described it as bricks arranged on top of each other. Otherwise most of the students did not remember seeing the fraction chart. This might suggest that studying fraction charts in lower classes or subsequent classes were missing or not considered important. Some of their responses were:

H 'Um...it looks like bricks arranged on top each other.' (Class 10 student)

F 'No, sir I have not seen it before but it looks like bricks on top of each other.' (Class 10 student)

3. Pick up some fractions that are equivalent in this collection?



Seven of nine Class 10, six Class 8 and three Class 6 picked up set of equivalent fractions. They based their understanding with either multiplying or dividing both sides with the same number. Some of their responses are:

B 'Half is equivalent to five tenths because if I cancel five tenths then I get half. Again three ninths is equal to one thirds as I can multiply with 3 both numerator and denominator and I get three ninths.' (Class 10 student)

- F 'Um...I think 12 over 16 is equivalent to 3 over 4 because if I divide 12 over 16 by 4 both sides then it will come 3 over 4.' (Class 10 student)
- K 'One over three and three over nine is equivalent because um... if one third is multiplied 3 times it is come three ninths.' (Class 8 student)
- J 'One third is equivalent to three ninths as I can see that if I divide three ninths both numerator and denominator by three it becomes one third.' (Class 6 student)

None of the class 4 students could pick up fractions that were equivalent though they tried to guess some numbers. This suggests that either the students did not have many opportunities in computing equivalent fractions or they have not started learning the concept.

4. Can you fill in for the question marks as shown?

$\frac{3}{4} = \frac{?}{12}$	$\frac{9}{12} = \frac{12}{?}$
$\frac{5}{3} = \frac{15}{?}$	$\frac{14}{16} = \frac{?}{24}$

Most of the students from classes 10, 8 and 6 could complete the easier parts such as $\frac{3}{4} = \frac{?}{12}$ and $\frac{5}{3} = \frac{15}{?}$ but none could complete the rest. The reasons were all based on the rule of multiplying and dividing and they could not explain why they were doing it. Not a single student from Class 4 could complete any of these questions though they tried to guess. Some of their explanations are:

- F 'Here this will be 9 because if we divide nine twelfth by 3 then we get this that is three fourth and in the second one the denominator will be 9'. (Class 10 student)
- B 'Um... I got 9 here because I can see that if I multiply three fourth with 3 on both sides it is coming nine over twelve similarly here five into three is fifteen and below three into three is nine.' (Class 10 student)
- K 'This will be nine by twelve because if I multiply three by four both sides by three then I get nine by twelve.' (Class 8 student)
- J 'Three fourths will be equal to nine twelfths because if I multiply both sides by three then this becomes nine twelfths.' (Class 6 student)

5. Can you try this addition of fractions?

a.	$\frac{2}{3} + \frac{3}{4}$
b.	$\frac{1}{2} + \frac{1}{2}$
c.	$\frac{3}{4} + \frac{1}{4}$

Students of classes 10, 8 and 6 could solve all the problems correctly though few students had a misconception of adding numerators and denominators. None of the Class four students could solve a single problem correctly but had misconceptions of adding numerators and denominators

The result confirms that most of the students interpret fraction $\frac{a}{b}$ as a way fractions are written i.e. 'two over five' and 'two by five'. Most of the students were not aware of fraction charts being taught in the classroom. It was found that Classes 10, 8 and 6 students could recognize equivalent fractions of simple fractions such as $\frac{1}{3}$ and $\frac{3}{9}$ where as Class 4 students could not when they were asked to pick up set of equivalent fractions from a collection. Students of Classes 10, 8, and 6 could bring the idea of equivalent fractions when asked to add fractions but none of Class 4 students could solve correctly any of the questions given.

Discussions on findings

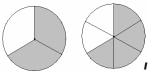
There were few students who could correctly describe $\frac{2}{5}$ as 'two fifths' and most of the students in the lower classes preferred describing 'two over five' the literal meaning and 'two by five' a misconception.

The only model of a fraction that is familiar to all the students participating in this study was the geometric area model - 'part of a whole' particularly the circle though there were some with rectangles and triangles. This result of students using geometric area model as the only model to describe fractions in this study has been supported by many other studies.

Kerslake (1986) found that all the children accepted the geometric models when they were asked to choose models of fractions for $\frac{3}{4}$ from a range of models, which consisted of geometric models, discrete models and linear models.

Silver (1981 in Kerslake 1986) also found that most of the children he studied had circles as their only model of fractions. Similarly Cramer & Henry (2002) in their experiments found that the predominant model used by the children were fraction circles. These findings may reflect that teachers use more geometric area models as the only manipulative, limiting other manipulative such as discrete models and linear models during instructions on fractions. Reys et al. (2001: 239) also describes that most fraction work has been based on the part-whole meaning with area models, often with little development of the other models.

It was evident that most students found it easy to represent geometric area

models with symbols such as $1/3$ and $4/6$ for , but it was apparent that there was some misunderstanding when it came to comparing of equivalent fractions with such area models. Moreover coming across comparison of symbols they feel that $3/6$ is bigger than $1/2$ because $3/6$ is three times bigger than $1/2$ as it is multiplied three times.

Similar results were found by Kerslake (1986) who stated that though students were able to recognize instances of equivalent fractions when presented in geometric form, there was some conflict between the awareness that, for example, $2/3$ and $10/15$ were the 'same', and the feeling that $10/15$ was bigger than $2/3$ because $10/15$ was 5 times bigger than $2/3$. A study by Larson (1980 in Constance 1994) also indicated that for seventh graders $2/6$ was not the same as $1/3$.

On the other hand most students in lower classes used addition of numerator and to denominator to itself to find equivalent fractions, for example a Class 6 student stated that $3/4$ is equal to $11/12$ because 3 adds 8 to give 11 and the same 8 when added to 4 gives 12. Similar study by Behr et al. (1984 in Porteous) found that students common error in finding equivalent fractions were students involved in additive rather than multiplicative reasoning. For example, students stated that $1/3$ was equivalent to $4/6$ because 1 added to 3 gave 4 and 3 added to same 3 added with numerator gave 6.

Conclusion

Fractions have been one of the most important foundational topics in mathematics, yet many studies have found fractions as the most difficult topic for the middle and junior high school students. Fractions though repeated in subsequent grades have still been difficult for students even in high schools. Many studies have stated that concept of equivalent fraction is central to understanding of fraction and its operation and before students advance to operations of fractions students should have a clear understanding of the concepts of fractions.

The only models students were familiar with in this study the geometric area models particularly circular objects. When students were exposed to discrete models there was some confusion. It may indicate that during instructions the students were limited to geometric area models. Such models can mislead a student's interpretation in learning

fractions as indicated in the study. Providing many kinds of representations can help students with this problem, as long as teachers help students to connect their understanding of concepts to different situations (Millsaps & Reed 2000). It is therefore important for teachers to bring real world examples of different representations of models for students, an expectation of NCTM.

Students were able to interpret equivalent fractions when presented in geometric area models but had difficulties with symbolic fractions. A common error in finding an equivalent fraction involved more of additive reasoning than multiplication. These results confirm the suspicion that children can use fractions without fully understanding their nature and Kerslake's study also indicates evidence of student's lack of understanding of fractions, even if students succeeded in the paper-pencil-test and interview about equivalence.

Implications

The study revealed that clarification for describing a fraction correctly needs to be considered across the classes. Most students described $\frac{2}{5}$ as 'two over five' and 'two by five'. It also revealed that more attention needs to be given to basic ideas of equivalent fractions. The only model the students in this study were familiar with was geometric area models such as circles and rectangles to illustrate equivalent fractions. It is suggested that the use of other models such as linear models in addition to geometric area model would broaden the idea of equivalent fractions making it more meaningful.

The study also revealed that student limited the idea of fraction to 'part of a whole' model of a fraction. The children linked the idea of fraction with a picture of a shaded part of a model such as circle or a rectangle, which limits their views of fractions. Shapes are not fractions; they merely illustrate them (Kerslake 1986: 96). Limiting fractions to geometric area models may lead to misinterpretation in learning fractions (Campos et al. in Porteous).

Recommendations

The study found that students had diverse phrases in describing fractions. It is important that students are made aware of describing a fraction correctly. The study also found that students' only model of representing fractions were area models which limited the idea of fractions as 'part of a whole'. It is recommended that students are provided with other models such as discrete models and linear models, which would further make learning of fractions more meaningful. It is found that students begin to construct a deeper understanding of fractions when they are represented in a variety of ways linking to everyday life and familiar situations involving the use of fractions.

It is also important that much attention is needed in teaching basic ideas of equivalent fractions to students. Having students talk and write about how they create or

recognize equivalent fractions and how the idea of equivalent fractions is used in solving various problems can strengthen their understanding and provide valuable information to teachers. Students should be given more time to understand equivalent fractions before moving to operations of fractions.

References

Babbie, Earl. *The Practice of Social Research*. London: Wadsworth Publishing Co., 2004.

Bezuk, Nadine, and Cramer, Kathleen. "Teaching about fractions: what, when and how?" In *New Directions for Elementary School Mathematics, 1989 Yearbook*, edited by Trafton, P. & Shettle, A. 156-167. Reston, Virginia: National Council of Teachers of Mathematics, 1989.

Constance, K. "Equivalent fractions: an explanation of their difficulty and educational implications." Paper presented at a National Council for Teachers of Mathematics Research Pre – session, Indianapolis, 1994.

Cramer, K., and Henry, A. "The development of students' knowledge of fractions and ratios." In *Making Sense of Fractions, Ratios, and Proportions, 2002 Yearbook*, by Litwiller, B. and Bright, G. 3-17. Reston, Virginia: National Council of Teachers of Mathematics, 2002.

Hatfield, M.M., Edwards, T.N., Bitter, G.G. and Morrow, J. *Mathematics methods for elementary and middle school teachers*. 5th edn. New York: John Wiley & Sons, Inc., 2005.

Izard, J. 1993, "Instructional influences on content area explanation and" In *Understanding Equivalent Fractions, Journal of Science and Mathematics Education in Southeast Asia*, by R.P. Hunting, no.7, 26 – 33. (6 July 2006), <http://www.cse.ucla.edu/CRESST/Reports/TECH403.pdf>.

Janet, M.S. "Results of using writing tasks to enhance fourth grade children's acquisition of fraction knowledge." Paper presented at the Annual Meeting of the Mid-Western Educational Research Association, Chicago: 1998.

Kerslake, D., *Fractions: children's strategies and errors – a report of the strategies and errors in secondary mathematics project*, Windsor: Nfer-Nelson, 1986.

March and Emdash, "Lovely fractions with two mixed-ability year 7 groups" *Curriculum Development Assignment*, Blessed Thomas Holford Rc High School. 2000 http://s13a.math.aca.mmu.ac.uk/Student_Writings/CDAE/AlisonWomersley.html (accessed 18th October 2006).

Mathematics Teacher's Manual for Class II, Thimphu: CAPSS, Education Division 2000.

Mathematics Teacher's Manual for Class III, Thimphu: CAPSS, Education Division 2000.

Millsaps, G.M., and Reed, M.K. "Curricula for teaching about fractions." *ERIC Digest*. 2000.<http://www.ericdigests.org/2000-2/fractions.html>.(accessed 18th October 2006).

Newstead, K & Oliver, A., "Addressing students' conceptions of common fractions" In *Proceedings of the Twenty-third International Conference for the Psychology of Mathematics Education*, by O. Zaslavsky (ed.) no. 3, 329-337. Haifa, Israel: 1999

Niekerk, T., Newstead, K., Murray, H. and Oliver, A., "Success and obstacles in the development of grade 6 learners' conceptions of fractions." Paper presented at the 5th Annual Congress of the Association for Mathematics Education of South Africa, Port Elizabeth: 1999

Porteous, N. "Teaching fractions to a year 7 top set." http://www.s13a.math.aca.mmu.ac.uk/Student_Writings/CDAE?Nigel_Porteous.html . (accessed 18th October 2006).

Reys, R.E., Lindquist, M.M., Lambdin, D.V., Smith, N.L. and Suydam, M.N., *Helping Children Learn Mathematics*. 6th edn, New York: John Wiley and Sons Inc., 2001

Singleton, R.A. and Straits, B.C. *Approaches to Social Research*, 4th edn. Oxford New York: University Press, 2005.

Saxe, G.B., Taylor, E.V., McIntosh, C. & Gearhart, M. "Representing fractions with standard notation: A developmental analysis." *Journal for Research in Mathematics Education*. 36(2005): 137-157.

Smith III, J.P. 'The development of students' knowledge of fractions and ratios', In., *Making Sense of Fractions, Ratios, and Proportions, 2002 Yearbook*, by Litwiller, B. & Bright, G. 3-17. Reston, Virginia: National Council of Teachers of Mathematics, 2002.

Streefland, L. *Fractions in realistic mathematics education – a paradigm of developmental research*, Netherlands: Kluwer Academic Publishers, 1991.

Trochim, W.M., "The research methods knowledge base" (2nd Edn.), 2000, <http://trochim.human.cornell.edu/kb/index.htm> (accessed on 17th August 2006)

Vance, J.H. "Understanding equivalence: A number by any other name." *School Science and Mathematics*. 92 (1992): 263-266.

Zevenbergen, R., Dole, S. and Wright, R.J. *Teaching Mathematics in Primary Schools*. NSW: Allen & Unwin,. 2004.

APPENDIX 1: TEST

Instructions:

- A. Your participation is voluntary.
- B. Use pencil to write your answers.
- C. Write your answers in the space provided.
- D. Ask for help if you are not clear with the questions.

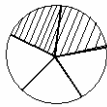
1. From the following sentences which are the correct ways to tell what a fraction $\frac{2}{5}$ is?

Explain your answer.

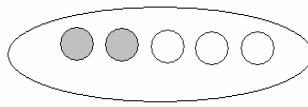
- a) Two fifths
- b) Two over five
- c) Two by five
- d) Two upon five
- e) None of the above

2. Which of these pictures would help you know what the fraction $\frac{2}{5}$ is?

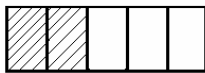
Explain your answer.



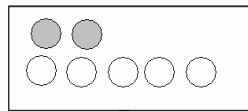
A



B



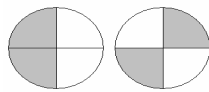
C



D

3. Are the following fraction models equal? Explain your answer.

A.



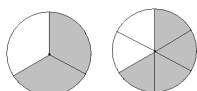
B.



4. a. Draw a model to represent $\frac{1}{2}$ and $\frac{3}{6}$.

b. What could you tell by comparing your models?

5. What fractions of circles are shaded in the following diagrams? Compare and explain your answer.

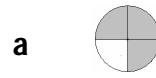


6. A. Match the following for the shaded parts:

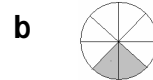
A

B

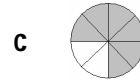
1. $\frac{6}{8}$



2. $\frac{2}{8}$



3. $\frac{1}{4}$



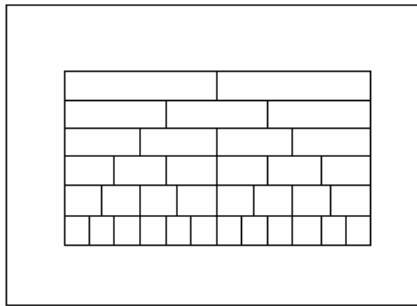
4. $\frac{3}{4}$



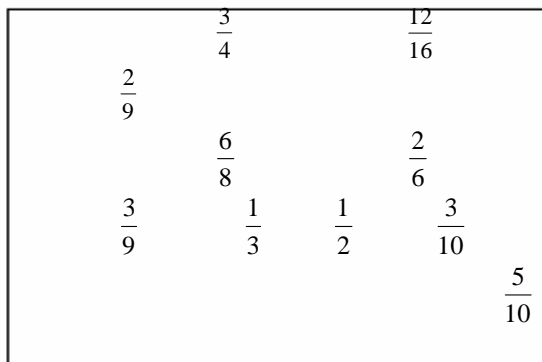
B. Which fraction is bigger $\frac{1}{4}$ or $\frac{5}{20}$? Why do you think it is bigger or it is equal?

APPENDIX 2: INTERVIEW QUESTIONS

1. Have you come across this picture somewhere? What does it tell you?



2. Pick up some fractions that are equivalent in this collection?



3. Can you fill in for the question marks as shown?

$\frac{3}{4} = \frac{?}{12}$	$\frac{9}{12} = \frac{12}{?}$
$\frac{5}{3} = \frac{15}{?}$	$\frac{14}{16} = \frac{?}{24}$

4. Can you try this addition of fractions?

a.	$\frac{2}{3} + \frac{3}{4}$
b.	$\frac{1}{2} + \frac{1}{2}$
c.	$\frac{3}{4} + \frac{1}{4}$

THE QUALITY OF EDUCATION IN BHUTAN

Reality and Opportunities

Royal Education Council
Thimphu

Executive summary

This study provides a set of findings that address key questions related to the quality of outcomes and learning processes prevalent across schools in Bhutan, draws insights from those findings about why gaps continues to persist and provides recommendations about bridging those gaps.

Based on our extensive field-study in schools we found the following cross-cutting patterns in children's learning, classroom practices, school processes and the education support system. The overall trend indicates that there is a big gap between the current and the desired state in the quality of outcomes and processes.

Many students are performing below expectations of their grade level on both basic and advanced academic skills and lack basic communication and analytical skills

- The overall level of performance of most students is at a low level, just above passing grades.
- Many students do not possess the minimum expected competencies in core subjects at their grade level
- Majority of students are unable to understand core concepts and apply knowledge to real life situations across grades and subjects
- There is variance in the outcomes between schools in Bhutan. Students in private schools tend to perform higher and students in community primary schools tend to perform lower
- Graduates lack basic analytical and communication skills and the attitudes needed as entry-level professional

Teacher-led chalk-and-talk, lack of proper instructional resources and lack of real measurement of learning is observed in most classrooms

- Teaching consists mostly of one-way 'talk' by the teacher to convey text book content without being able to get students to comprehend and demonstrate their learning. Teachers do not use effective classroom management techniques to engage the students meaningfully
- While children overcome many hurdles to attend school and are concerned about their own learning, they do not actively participate with learning in class.

- While new curriculum materials are well designed, the vast majority of content actually used inside most schools is not able to promote inquiry and application. Lesson planning leaves much to be desired in terms of design
- Assessment in the classroom does not close the loop between what is taught and what students learn. While many assessment formats exist and tests are conducted, they lack variety and do not provide actionable feedback to students and teachers
- Many classrooms lack the essential infrastructure, design and resources to ensure a comfortable and engaging environment for students and teachers

Schools lack quality processes for developing teachers' capacity, the autonomy and resources to initiate academic improvement and the essential physical infrastructure to support learning.

- While teachers display openness and willingness to learn, their content knowledge and pedagogical capability needs great improvement. Teachers seek opportunities to improve their on-the-job skills and use of essential resources
- Principal's personal initiative is the reason why many schools perform despite steep challenges. However, principals lack the autonomy, resources and skills to influence classroom instruction in the whole school
- While many good procedures exist to plan and monitor the school's academic programs and resources, there seems to be a gap in implementation. Accountability towards student performance and teaching quality is not visible
- Schools miss essential infrastructure for learning and lack the financial resources to invest. However better utilization of existing resources can lead to a better learning environment
- The connections between the school and home are weak. Schools and Parents have many unmet expectations of each other. Lack of adequate communication from the school about students' progress and a casual involvement of parents with children's learning is cause for concern.

The supporting systems for schools need a great degree of strengthening in the areas of teacher preparation, curriculum standards and resources and the incentives for quality

- Low academic and professional standards for entry into teaching are the major constraint in the system being able to move to a higher level of performance. Insufficient leadership training programs is a gap in the preparation system for school leaders.
- Lack of a comprehensive set of curriculum goals, standards and enabling processes does not provide a coherent educational program recommendation for schools

- Without supporting learning resources, stakeholder communication and orientation training, implementation in schools suffers.
- All stakeholders are beginning to demand change in the education system. However, the aspiration levels and awareness of working alternatives is low. The policy environment constrains innovation and initiative.

We also discovered that there is also evidence that better outcomes, quality practices and innovative initiatives exist in small islands of excellence within Bhutan. Private schools in the study and some government schools demonstrate better student performance, greater instructional leadership by the principal and visibly better teaching practices in the classroom. Curriculum reforms in English and Mathematics demonstrate thoughtful design, international standards and focus on quality learning. All stakeholders are beginning to demand better quality through raising student attainment, teacher's professional development and better support to schools. Analyzing the findings we were able to derive some insights and implication of the findings that can form the basis of actions going forward. The mechanical teaching-learning process deployed in the classroom most directly limits student learning by lowering students involvement and promoting learning by rote.

There are three critical reasons exist as to why ineffective classroom practices persist across schools

- Under-prepared teachers
- Lack of appropriate curriculum resources
- Poor instructional leadership and in-service training

Past attempts at reforming the system have failed because of

- Lack of clear and shared goals and objectives for the system
- Command, control and compliance mindsets
- Paucity of resources and implementation support

Effective school conditions can be created inside Bhutan by paying attention to three critical levers of change which represents a positive cycle of change

- Putting in place capable school heads who invest disproportionate energy in academic improvement
- Developing teachers who are passionate and able to engage each child effectively in class
- Giving schools greater autonomy and getting everyone accountable for student learning

We recommend that Bhutan needs a comprehensive reform effort to bridge the gap between the current set of challenges facing its school system and the lofty aspirations

it holds. While this gap is indeed wide, we have reason to believe that it can be bridged; through a thoughtfully designed and carefully implemented reform effort. If executed as part of a comprehensive reform package, these reforms can achieve impact at the system level. The six key initiatives that can form a systemic reform strategy are

1. **Clarifying goals and raising performance standards for schools** - through shared national education goals, learning standards and quality teaching processes.
2. **Attracting the best talent into teaching** – recruiting the most capable candidates into teaching and preparing them for effective classroom practice
3. **Giving teachers the skills and tools to raise the quality of classroom instruction** – through continuous professional development and structured teacher-learning resources
4. **Developing Principals to become Instructional Leaders** – through leadership training, professional support and instructional improvement processes
5. **Enabling the capacity of schools to focus on learning and teaching** – through policies to promote autonomy, accountability, infrastructure and incentives
6. **Maintain relentless focus on implementation** – demonstrate real changes in school, manage change and build institutional capacity to execute reforms

In summary, we believe that these recommendations are only as good as the actions that follow. We hope that this report will end the debate on many issues and stir stakeholders to take action.

རིག་གཞུང་སློབ་ཉེན་ལྷ་པན་པའི་ཐབས་ལམ།

འཇུག་ལཱ་སྐྱོམ་གྱི་ལམ་སྟོན།

ཕྱི་ལོ་ལཱ་སྐྱོམ་ལམ་སྟོན་པ།

ནང་དོན་དཀར་ཆེན།



ཞིབ་འཇུག་གི་བཅུན་དོན།



ངོ་སྟོན།



མཁོ་ཚུལ་དང་ཐབས་ཤེས།



གྲུབ་འབྲས་དང་གྲོས་བཟུམ།



སློབ་གྲྭ་དང་བཤད་གྲྭ་ལག་གི་རིག་གཞུང་ཚོས་ཚན།



སློབ་གྲྭ་ལག་དང་བཤད་གྲྭ་ལག་ནང་ལག་ལུ་འབྲེལ་བའི་ཕྱི་ལོ་ལཱ་སྐྱོམ་ཤེས།



སློབ་གྲྭ་ལག་དང་བཤད་གྲྭ་ལག་ནང་སློབ་ཉེན་ལྷ་པན་ཚན།



སློབ་ཉེན་ལྷ་པན་ལྷ་པན་གྱི་ལམ་སྟོན།



གྲོས་བཟུམ་བཅུན་ལྷ་པན།



ལྷ་པན་ལྷ་པན།



བཀའ་དྲིན་ལམ་སྟོན།



ལྷ་པན་ལྷ་པན།

གོང་གི་དྲི་བ་དེ་ཚུ་ གང་ལུ་ དེ་གི་ཞིབ་འཚོལ་འདི་གིས་གདོང་ལུ་འབད་དེ་ ང་པཅེས་ཀྱིས་ཁུངས་དང་པཅེས་པའི་སྒོ་ལས་ དེ་གི་གཞུང་སྲོལ་ལྟོ་
འབད་ནི་དྲན་ལུ་འོས་འབབ་ཡོད་པའི་ཟབས་ཤེས་ཚུ་ གཅི་རང་འདུག་ག་ཤེས་ཚུ་གས་ནི་དང་ དེ་ལས་འགན་འཛིན་ཅན་ཚུ་གིས་ ཤེས་ཡོན་ལྷན་ཚད་གི་
གནས་ཚད་གོང་འཕེལ་གྱི་ཕྱག་ལུ་གནང་པའི་སྐབས་ལུ་ རྒྱགས་ལམ་འབྲམས་དགོ་པ་གཅི་རང་ཡོད་ག་གི་དྲན་གསལ་ཚུ་ཡང་འབད་ཚུ་གས་པའི་རེ་བ་
སྐྱོམ་ཡོད་ཟེར་ལུ་ནི་ཡིན།

ང་ལྟོ་དུ།

ང་པཅེས་ཀྱིས་ རྣམ་ཚུན་འདི་བཟུམ་ཅིག་ལམ་ དེ་གི་གཞུང་སྲོལ་ལྟོ་གི་ཟབས་ལམ་ཟེར་བའི་ཞིབ་འཚོལ་འདི་བཟུམ་
ཅིག་འབད་དེ་ ཚུལ་མཐུན་གྱི་དེ་གི་གཞུང་སྲོལ་ལྟོ་གི་ཟབས་ལམ་ཅིག་ བརྟེན་མ་ཚུ་གས་པ་ཅིན་ ང་པཅེས་སྲོལ་གྱ་
ལག་ནང་ལུ་ དེ་གི་གཞུང་གི་སྲོལ་ལྟོ་ཚུ་ འབད་ནི་འདི་དོན་ལུ་ རྒྱ་དང་ འབྲུང་གི་གྲོང་རྒྱུ་ཚུ་ སྐྱོམ་འབད་རང་
ཡོགས་ནི་དང་ བྱེ་མའི་ནང་ཚུ་བྱུགས་དོ་བཟུམ་འབད་ རྒྱལ་འབྲས་ལུ་གས་ཤོམ་ཅིག་འབྲུན་ཚུ་གས་པར་ལུ་ལག་འོང་ནི་

ཡིན་མས།

གོང་གི་རྒྱ་མཚན་ཚུ་ལུ་ ལེ་མས་ཀྱིས་མ་བཟོན་པར་ རྒྱ་ལུ་གས་ཚུ་དང་གིས་ ཟེར་དགུ་ལྷག་ཅམ་ཅིག་གི་
ནང་འཁོད་ནང་ དེ་གི་གཞུང་སྲོལ་ལྟོ་གི་ཟབས་ལམ་ཟེར་བའི་དོན་ཚན་གྲུ་གས་ཞིབ་འཚོལ་ཅིག་འབད་མི་འདི་ ལུ་གས་
ཤོམ་འབད་མཐུག་བལྟ་ལྟེ་ ན་རེས་ རྒྱལ་འབྲས་སྐྱུན་ལུ་ཚུ་ མཁས་ཚུ་གས་ཀྱི་སྐྱག་ལུ་ ལྷན་ལུ་འབད་ནི་འོ་སྐབས་

ཐོབ་ཚུ་གས་ཅི་ཟེར་ལུ་ནི་ཡིན།

དེ་གི་ཞིབ་འཚོལ་འདི་ དེ་གི་གཞུང་སྲོལ་ལྟོ་འབད་དོ་ཡོད་པའི་སྲོལ་གྱ་ལག་དང་ དེ་ལས་དེ་གི་གཞུང་གཙོ་ཆེ་མ་
འབད་སྲོལ་ལྟོ་འབད་སའི་བཤུན་གྱ་ལག་དུག་དང་གཅིག་ལམ་ འབྲེལ་བ་འབྲམས་ལྟེ་ དྲི་ཤོག་བཀང་ཐོག་
དང་ དྲི་བ་དྲིས་ལུ་ དེ་ལས་དངོས་ལུ་ཉ་རྟོག་ཚུ་འབད་ཐོག་ལས་ ཞིབ་འཚོལ་འབད་ཡི། འདི་དྲན་ལུ་
གནས་ཚུལ་གང་མང་བལྟ་ལུ་འབད་ཚུ་གས་ནི་འདི་དོན་ལུ་ གྲངས་མང་གི་ཟབས་ཤེས་དང་ ཚུལ་མཐུན་གྱི་གོ་རྟོགས་
འབད་ཚུ་གས་ནི་འདི་དོན་ལུ་ ཁུངས་བཅུན་གྱི་ཟབས་ཤེས་ཚུ་ལུ་ལུ་འབྲམས་ལྟེ་ དེ་ཚུ་ལུ་ ཚུལ་མཐུན་གྱི་དབྱེད་ཕྱད་
དང་ག་བལྟ་ས་ག་དེ་མང་མང་འབད་དེ་ ཞིབ་འཚོལ་གྱི་རྒྱལ་འབྲས་སྐྱུན་ལུ་འདི་ ཡན་ཐོགས་ཅན་ཅིག་དང་ རྒྱལ་

འབྲས་ཅན་ཅིག་ལུ་ འབྲུན་ཚུ་གས་ཅི་ཟེར་ལུ་ནི་ཡིན།

རྒྱལ་འབྲས་སྐྱུན་ལུ་འདི་གིས་ བཤུན་གྱ་ལག་དང་དེ་གི་གཞུང་སྲོལ་ལྟོ་འབད་དེ་ འོས་འབབ་ཆེ་བའི་ཟབས་ཤེས་
དང་ དེ་ཚུ་ལུ་ལུ་འབྲམས་དོ་ཡོད་པའི་ཟབས་ལམ་ཚུ་ལུ་འབྲུན་པཅོས་ཀྱི་སྐོས་འཆར་བྱིན་ཚུ་གས་པའི་ལམ་ སྲོལ་

ལྷ་ལག་ནང་ རིག་གཞུང་སློབ་འཁོར་འབད་མི་ཚུ་ལཱ་ ཚུལ་མཐུན་གྱི་སློབ་འཁོར་འབད་ནི་ནང་ལཱ་ གོ་ས་འཆར་ལམ་འཁོར་
 ཚུ་ལ་གསལ་ལཱ་འབད་བྱིན་ཚུ་གསལ་ དེ་ལས་ རིག་གཞུང་སློབ་འཁོར་གྱི་ཤེས་ཡོན་ལྷན་ཚད་གོང་འཕེལ་གྱི་དོན་ལཱ་ ཡུག་ལཱ་
 གནང་མི་འཁྲུག་འཛིན་ཅན་ཚུ་ལཱ་ཡང་ བྱ་བུ་ལས་འབད་དོན་གྱི་འབྲེལ་བཟུང་ལཱ་ ཡན་ཐོགས་འབྱུང་ཚུ་གསལ་པའི་སེམ་ཡོད་
 ཟེམ་ལཱ་ནི་ཡིན།

མཁོ་ཚུལ་དང་ ཐབས་ཤེས།

- ཞིབ་འཚོལ་གྱི་ཐབས་ཤེས་གཅིག་པོ་ **ཁྱེད་ལཱ་འཁོར་དང་ ཁྱེད་ལཱ་འཁོར་གྱི་མཚན་དང་** ལག་ལུ་ལྟེ་འབྲེལ་ཅི། དེ་ཡང་ཁྱེད་ལཱ་འཁོར་གྱི་
 ཐབས་ཤེས་ལག་ལུ་ལྟེ་འབྲེལ་དགོ་མི་འདི་ གནས་ཚུལ་ངོ་མ་བཟུ་ལུ་ལྟེ་འབྲེལ་ཚུ་གསལ་ནི་དང་། ཁྱེད་ལཱ་འཁོར་གྱི་ཐབས་ཤེས་ ལག་
 ལུ་ལྟེ་འབྲེལ་དགོ་མི་འདི་ ག་བཟུ་དང་ དེ་ལྟེ་དཔྱད་ཚུལ་མཐུན་འབྲེལ་ཚུ་གསལ་ནི་གོ་དོན་ལཱ་ཡིན།
- སློབ་གྲྭ་ཆེ་བ་ལག་དུག་གི་སློབ་དཔོན་ ལལ་གཅིག་དེ་ཅིག་དང་ སློབ་ཡུག་ལཱ་ལོ་ བརྒྱ་དང་ཉི་ཤུ་དེ་ཅིག་ལཱ་ དེ་ཤོག་བཀང་ཐོག་
 དང་ དེ་ལས་འོས་འབབ་ཡོད་པའི་དུས་དཔྱད་ཚུ་འབད་ཐོག་ལས་ ཞིབ་འཚོལ་འབད་ཡི།
- བཤད་གྲྭ་ལག་ལ་གི་མཁན་པོ་ བརྒྱ་དང་ བཤད་གྲྭ་བཟུ་མི་དགེ་སློང་ དུག་ཅེ་དེ་ཅིག་ལཱ་ དེ་ཤོག་བཀང་ཐོག་དང་ དེ་ལས་འོས་
 འབབ་ཡོད་པའི་དུས་དཔྱད་ཚུ་འབད་ཐོག་ལས་ ཞིབ་འཚོལ་འབད་ཡི།
- སློབ་འཁོར་ངོ་མ་འབད་བའི་སྐབས་ལཱ་ སློབ་འཁོར་ནང་ཉུ་རྩེ་གཞུག་འབད་དེ་ ཟེམ་ཐོ་བཀོད་ཐོག་ལས་ ཞིབ་འཚོལ་གྱི་གནས་ཚུལ་དེ་
 དཔྱད་འབད་ནི་ནང་ལག་ལུ་ལྟེ་འབྲེལ་ཅི།

གྲུབ་འབྲས་དང་གོ་ས་བཟུ་

གྲུབ་འབྲས་དང་གོ་ས་བཟུ་འདི་ནང་ལཱ་ སློབ་གྲྭ་ལག་དང་ བཤད་གྲྭ་ལག་ཚུ་ནང་ལཱ་ རིག་གཞུང་དང་འབྲེལ་བའི་ཚུལ་ཚུ་ངོ་མ་སློབ་འཁོར་
 འབད་དོ་ཡོད་པའི་ཐོ་བཀོད་དང་ དེ་ཚུ་སློབ་འཁོར་འབད་ནི་ལཱ་ ཐབས་ཤེས་ཚུ་གཅི་རང་ལག་ལུ་ལྟེ་འབྲེལ་དོ་ག་ དེ་ལས་ ཚུལ་ཚུ་དེ་ཚུ་སློབ་འཁོར་འབད་ནི་
 ལཱ་ རུས་ཚུ་དག་དེ་སེམ་ལག་ལུ་ལྟེ་འབྲེལ་དོ་ག་ དེ་ལས་ སློབ་འཁོར་ལཱ་བརྟེན་པའི་གྲུབ་འབྲས་ཚུ་གཅི་རང་ཐུང་ཉེ་ཡོད་ག་ཚུ་ ག་ས་ལཱ་ དེ་ལྟེ་དཔྱད་ཚུལ་
 མཐུན་འབད་དེ་ གྲུབ་འབྲས་གྱི་བཅུད་དོན་ཚུ་ལ་གསལ་ལཱ་འབད་ ཟེམ་ཐོ་སོ་སོ་ནང་འབད་བཀོད་དེ་ཡོད་པའི་ལས་ ཞིབ་འཚོལ་པ་རང་གི་ལ་ཐུག་ལས་
 གནས་ཚུལ་ཚུ་གོ་ས་ལཱ་ ཚུལ་ཚུ་མཐུན་གྱི་དེ་ལྟེ་དཔྱད་ཚུལ་འབད་དེ་ གྲུབ་འཁོར་གྱི་ལམ་འཁོར་གོ་ས་འཆར་ཚུ་ཡང་ ལ་གསལ་ལཱ་འབད་འོག་ལཱ་བཀོད་དེ་ཡོད།

སྲིབ་གྲུ་ལག་ནང་ བཤད་གྲུ་ལག་ནང་ སྲིབ་ཕྱོད་རྣམས་ཚོ་།
 (ཚོས་ཚན་གཅིག་ལུ་ བྱེ་མ་གཅིག་གི་དབང་ཕུ་བཟང་ཉེ།)

ལས་ཤིམ་ལག་ལོ་ལོ།

- ཅ་བ་སྲོམ་འཇིན་འབད་ནི་ལུ་
- རྒྱགས་བཀལ་ནི་ལུ་
- ཚོས་བྱུན་ལུ་ནི་ལུ་
- སྲོམ་སྲུང་འབད་ནི་ལུ་
- ཅོད་པ་རྒྱུ་ལུ་
- དཔེ་བཟོད་རྒྱུ་ལུ་
- འགྲུལ་པ་ཉལ་ནི་ལུ་

བཤད་གྲུ་ལག་ལུ།

རྣམས་ཚོ་བཤམ།

- རྒྱཚོད་ ༢།
- རྒྱཚོད་ ༥།
- རྒྱཚོད་ ༡ དང་ཕྱེད།
- རྒྱཚོད་ ༡ དང་ཕྱེད།
- རྒྱཚོད་ ༡ དང་ཕྱེད།
- རྒྱཚོད་ ༢།
- རྒྱཚོད་ ༣།

དུན་གསོ།

- དྲི་པ་རྒྱཚོད་ ༥ ལས་ ༧ རྒྱུ།
- རྒྱཚོད་ ༧ ལས་ཕྱེད་དང་བརྒྱུ་རྒྱུ།
- ཕྱེད་དང་ ༩ ལས་ ཕྱེད་དང་ ༡༠ རྒྱུ།
- རྒྱཚོད་ ༡ ལས་ ཕྱེད་དང་ ༢ རྒྱུ།
- ༢ ལས་ ༣ དང་ཕྱེད་རྒྱུ།
- ༤ ལས་ ༤ རྒྱུ།
- ༤ ལས་ ༡༠ རྒྱུ།

བྱེ་མ་གཅིག་ལུ་ རྒྱཚོད་ཡོངས་བཟོ་མཁུ།

རྒྱཚོད་ ༡༢།

ཡིགས་རྒྱགས་ཉལ་ནི་ལུ་

སྐར་མ་ ༡༠།

སྲིབ་ཕྱོད་གྲི་བྱུན་ཚན་གཅིག་ནང་།

སྲིབ་གྲུ་ལག་ལུ།

སྲོང་ལཱ་འབད་ནི་ལུ་

སྐར་མ་ ༤༠།

ལྷིམ་ལཱ་འབད་ནི་ལུ་

རྒྱཚོད་ ༡།

དྲི་བ་སྲོད་དེ་ ལྷིམ་ནང་ལྷོད་པ་ད་ འབད་
 བརྒྱུལ་པ་ཡིན།

དམིགས་གསལ་བྱུན་ཚོན།

སྐར་མ་ ༣༠།

བདུན་ཕྲག་གཅིག་ནང་ དམིགས་གསལ་བྱུན་
 ཚན་སེ་སེ་ཡོད་མི་ནང་།

རྒྱཚོད་ཡོངས་བཟོ་མཁུ།

རྒྱཚོད་ ༢ དང་ སྐར་མ་ ༢༠

།

སྲོབ་ལྟོན་ལྟ་བུ་བརྟེན་པའི་གྲུབ་འབྲས།

བཤད་གྲུ།

རིག་གནས།

ངག་སྒྲིག།
ལུ་མ་ཅུ་པ།
རྩལ་གྱི་འཕུག་པ།
སྐྱུ་ལྔ་ལུ་འཕྲུ་བར་པ།
མངོན་བརྗོད།

ཡི་གུ་འབྲི་ལྷག་འབད་ནི་ཚུ་ལྟ་ དཀའ་ངལ་མེད་པར་འབད་ཚུགས་པའི་ཁར་ རེ་རེ་གཏེ་སྲིམ་
གཏེ་སྲིམ་ཚུ་ལཱ་མཐུན་གྱི་སྲོབ་ལྟོན་ཚུ་ཡང་འབད་ཚུགས་ཟེེ་ མཁུ་པོ་དང་ སྲོབ་ལྷག་
ཁོང་རང་གིས་ བཤད་པ་ཡིན་མས།

གཞུང་།

ཀུ་རི་ཀུ།
བཤེས་སྤྲིངས།
སྲོད་འཕུག་
རྒྱལ་སྐབས་ལག་ལཱ།
ཕྱི་ནང་གྲུབ་མཐུན།
ལམ་མཚན་སྲི་ཚུ་འཕྲེང་བ།
དབུ་མ་འཕུག་པ།

ཡང་སྐབས་གྱི་སྐོར་ལུས་ ལེགས་ཤོམ་འབད་ཤེས་ཚུགས་པའི་ཁར་ རེ་རེ་གཏེ་སྲིམ་
ཉམས་ལཱ་དང་ ལོ་ལོ་གཞིག་གིས་ བཤད་རྒྱུ་ཡང་འབད་ཚུགས་ ཟེེེ་བཤད་པ་ཡིན་
མས།

སྲོབ་གྲུ།

རིག་གནས།

ལེགས་བཤད་སྐད་བུ་དམ་པ།
སྐྱུ་ལྔ་ལུ་འཕྲུ་བར་པ།
ཕྱིང་ལའི་བརྟེན་གཞུང་།
མངོན་བརྗོད།

རེ་རེ་གཏེ་སྲིམ་གྱི་འབྲི་ལྷག་ཚུ་ ཚུ་ལཱ་མཐུན་འབད་འབད་ཚུགས་ཅུང་ སྲོབ་ལྟོན་འབད་ཚུགས་མི་
ཚོན་ཚུགས་པར་ ལཱ་ལག་འདུག་ཟེེེ་སྲོབ་དཔོན་ཚུ་གིས་བཤད་པ་མས། མ་གཞི་སྲོབ་ལྷག་
གཞན་དང་ལྷན་པད་ འབྲི་ལྷག་གི་སྐོར་ལུས་ རིག་གཞུང་ཚོས་ཚུ་ལཱ་མཐུན་ལྷག་ཟེེེ་བཤད་པ་
ཡིན་མས།

གཞུང་།

རྒྱལ་སྐབས་ལག་ལཱ།
བཤེས་སྤྲིངས།
སྲོད་འཕུག་

རེ་རེ་གཏེ་སྲིམ་ལཱ་ ཀུན་སྲོང་འཕྲུའ་བཅོས་འབད་ཚུགས་པས།
ཉམས་ལཱ་དང་ བཤད་རྒྱུ་འབད་ཚུགས་མི་གཞིག་ཡང་ ཅོས་འཛིན་འབད་མ་ཚུགས་ཟེེེ་
བཤད་པ་ཡིན་མས།

ཞིབ་འཚོལ་གྱི་གྲུབ་འབྲས་ལུ་བརྟེན་པའི་རྒྱབ་སྐྱོན་གྱི་གྲོས་འཆར་ལམ་བྱོན།

བཤད་གྲུ་ལག་ལུ།

- རིག་གསར་གྱི་ཐབས་ལམ་ཡན་ཐོག་ལེན་ཚུ་ཡང་། རང་ལུ་གས་གྱི་ཐབས་ཤེས་དང་གཅིག་ཁར་། རྣམ་འབྲེལ་འབད་དགོཔ་དུ་མ་གྱ་རེ་འདུག་ཟེ་ལུ་ཞི་ཡི་ནི། འདི་གི་དོན་ལུ་ བཤད་གྲུ་ནང་སློབ་བྱོན་འབད་མི་ཚུ་ལུ་ ལཱ་རིག་སྐྱོང་བཟུམ་ལག་ལཱ་འབྲེལ་འབྲེལ་ཞི།
 - ཅ་བ་སློབ་འཚོན་འདི་འོས་འབབ་དང་བཟུན་ ལག་ལཱ་འབྲེལ་བཟུག་དགོཔ། དུས་ཚོད་འཕྲོ་བཟུག་མི་གཏང་ཞི་ཡི་དོན་ལུ།
- ལས་འགལ་ལུ་སློབ་དེ་ འབད་བཟུག་དགོཔ། འདི་གིས་ སློབ་ཡུག་གི་ཤེས་ཡོན་ཡར་རྒྱས་ལུ་ ཡན་ཐོག་སློབ་འབྲུང་ཚུ་གས་ཞི་དང་། ཞིབ་འཚོལ་གྱི་རིག་ཅུ་ལུ་ སྐྱང་བཟུན་ཚུ་གས་ཞི།

སློབ་གྲུ་ལག་ཚུ་ནང་།

- ✓ རིག་གཞུང་སློབ་བྱོན་ནང་། དུས་ཚོད་ལུང་མ་འབད་བྱིན་ཞི་ཡི་དོན་ལས་ དུས་ཚོད་བསྐྱར་ ཞིབ་འབད་དེ་ ལམ་བྱོན་གཏང་དགོཔ།
- ✓ ཅ་གཞུང་བསྐྱར་ཞིབ་འབད་ཐོག་ལས་ ཡན་ཐོག་ལེན་དང་འོས་འབབ་ཡོད་པའི་ཚོས་ ཚན་གཞི་བཟུགས་འབད་དགོཔ།
- ✓ ཚོས་གྱི་ཆེ་བ་ལུ་བཅི་ལུང་འབད་ཤེས་དགོཔ། ཚོས་གྱི་བྱིན་སྲབས་འབྲུག་པའི་ཡན་པ་ ལུ་དགོངས་ཏེ་ སློབ་དཔོན་དང་སློབ་ཡུག་གཉིས་ཆ་རའི་ལ་བཟུག་ལས་ བཅི་མཐོང་དང་ཆེ་བ་གཞིར་བཞག་ལུ་ སློབ་བྱོན་འབད་དགོཔ་འདུག།
- ✓ རང་ལུ་གས་གྱི་ཐབས་ཤེས་ འོས་འབབ་ཅན་ སྐྱོང་སྐྱུངས་དང་། ཅོད་པ་ཚུ་ཡང་། རིག་ གསར་གྱི་ཐབས་ཤེས་དང་གཅིག་ཁར་འབྲེལ་འབད་དེ་ ལག་ལཱ་འབྲེལ་བཟུག་དགོཔ་འདུག།
- ✓ འོས་འབབ་ཡོད་པའི་རྒྱབ་སྐྱོན་གྱི་དཔེ་ཆ་ལུང་མ་འབད་མཁོ་སྐྱབ་འབད་དེ་ འདི་ལུ་ དཔེ་ ཏུ་འབད་བཟུངས་གྱི་ལམ་བྱོན་ཚུ་ཡང་བྱིན་དགོཔ།
- ✓ རིག་གཞུང་གི་ཚོས་ཚན་སློབ་བྱོན་འབད་ཞི་ནང་འོས་འབབ་ཡོད་པའི་སློབ་དཔོན་ལུང་མ་ འབད་བསྐྱོས་བཞག་གཏང་དགོཔ།



ཚོས་སྐད་ལུ་སྤྱད་པ་ཚུན་ཟབས་ཀྱི་གཞི་འགུམ་ཚོས་ཚན་གཅིག་ཡང་། གཞི་བཟུགས་
 འབད་དགོ་པ་འདུག། འདི་བཟུམ་ཅིག་མེད་པ་ཅིན་ཅུ་རྩེ་དང་འགྲེལ་པ་ཚུ་ག་དམ་ཅིག་རང་ཉལ་ཅུང་། ཡུ་ལོ་ཚུ་གིས་ གོ་བ་ལཱ་ལྟེ་ལུ་ དཀའ་ངལ་སློམ་
 རང་འདུག།



རིག་གཞུང་སློབ་ཉེན་འབད་མིའི་སློབ་དཔོན་ཚུ་ལུ་ གཅིག་མཚུངས་འབད་སློབ་ཉེན་
 འབད་ཚུ་གས་ཀྱི་འདི་དོན་ལས་ ནང་དོན་དང་། ཟབས་ལམ་གཉིས་ཆ་རའི་ནང་། གོ་མས་འདྲིས་སློང་བདུན་ཅིག་གི་དགོ་པ་ལག་ཆེ་བས་ཟེར་ལུ་ནི་ཡིན།

བཀྲིན་དག་འཚུངས།

- ཤེས་རིག་མཚོ་རིམ་སློབ་གྲུ་འཛིན་སློང་གི་ཡུག་ལུ་གནང་མི་ཚུ་ལུ་ དུས་ཚིན་གྱི་བདེ་ལོ་བཟུང་མི་དང་། བདག་སློང་གི་གྲོགས་རམ་གནང་།
 མི་ལུ་ བཀྲིན་ཉལ་པར་དུ་ཆེ་བཟེར་ལུ་ནི།
- ལུངས་བཟུན་ཞིབ་འཚོལ་ནང་ལུ་ བཅའ་མར་གཉེན་གསལ་གནང་མི་དང་། གྲངས་མང་གི་གནས་ཚུ་ལུ་བལྟ་ལཱ་ལྟེ་དང་གྲོགས་རམ་མཛུན་གནང་མི་
 ཚུ་ག་རུ་ཡང་། ཚུན་ཆད་མེད་པའི་བཀྲིན་དག་འཚུངས་ཡོད་ཟེར་ལུ་ནི་ཡིན།

རྒྱལ་ཁྲུག་ལྟེ་ལུ།

- སློབ་འཇུག་འགྲེལ་པ། རྩོམ་མེད་ཀྱིས་མཛུན་པ།
- བཤེས་པ་ལྟེ་ལུ་འགྲེལ་པ།
- མངོན་བརྗོད་འགྲེལ་པ།
- ལུགས་བཤད་ལྟེ་ལུ་འགྲེལ་པ།
- རྒྱལ་སྤྱོད་ལུ་འགྲེལ་པ།
- རྩལ་སྤྱོད་ལུ་འགྲེལ་པ།
- ལྷན་ལུ་འགྲེལ་པ། མོད་མཁའ་ལས་མཛུན་པ།
- བཤད་གྲུ་ལག་གི་སློབ་ཉེན་རེའུ་མིག་གི་ཐོ་ཡིག་
- སློབ་གྲུ་ལག་གི་སློབ་ཉེན་རེའུ་མིག་གི་ཐོ་ཡིག་
- ཀླན་སློང་ཀླན་སློང་གི་གནམ་ལུ་ལུ་ སློབ་ཉེན་ཀླན་དཔལ་གྱི་འགྲེལ་པ།
- དྲི་བ་དྲིས་ལུ་འབད་ཡོད་པའི་མི་ངོ་མ་ཚུ་གིས་ སྤམ་པའི་ཚིག་དོན།

བཅའ་མཐུན་གྱི་ཤུགས་མི་ཚུ་གིས་བཀའ་ཉུ་ཡོད་པའི་ཕྱི་ཤོག་

References

Comprehensive class room management motivating and managing students. (1993). Borton: Allgn and Bacon.

Ster, J. B. & Ellis, G. (n.d.). *The pry. English teachers' guide inside the pry. class room.*

NIE, Samtse (1996). *Hand book for teaching practice.*

Teaching in the pry. classes (1987). London: Oxford University Press.

TTC, Paro & Zuric (1991). *Teaching skill hand book.* .

NIE, Samtse & TTC, Paro. (1996). *Pry. teachers' certificate course hand book.*

SCoE, Samtse & PCoE, Paro (2007). *Teaching skill hand book.*

ཤེས་རིག་སྤྱི་ཚོགས་ཚད་ཡེང་རྒྱུ་གྱི་དོན་ལུ་
 རྫོང་ཁའི་ཐོག་ལུ་ ལུང་འདེན་དང་རྒྱབ་རྟེན་འབད་བཅའ་ས།
 (ཞིབ་འཚོལ་དང་བསམ་འཚམ་)

འབྲི་མི་ རིན་ཆེན་རྒྱལ་མཚོ།
 སྤྱི་ཚོགས་རིག་མཐོ་རིམ་སློབ་གྲྭ་

དོ་སློབ།

དང་བཅས་པའི་རྒྱལ་ཁབ་ནང་ལུ་ རྣམ་པ་ལངས་རྒྱུ་གྱི་བཟུམ་པ་རིན་པོ་ཆེ་འདི་ ཧེ་མ་ལུས་པ་དཔེ་ཏེ་ འབྲི་ལྷན་གྱི་སྤྱད་བཤུགས་ཀྱི་ཡོད་ཅུང་
 འཛམ་གྲིང་རྒྱལ་སྤྱི་འཕེལ་ལུ་གསལ་དང་བཟུམ་པའི་ཤེས་རིག་གི་ལམ་སོལ་འདི་ སྤྱི་ལོ་ ༡༩༩༡ ལས་ཚུར་མ་གཏོགས་འགོ་བཙུགས་མ་
 ཚུགས་པས། དེ་ལས་ཚུར་ ཤེས་རིག་གི་སྤྱི་ཚོགས་ཚད་ཡེང་རྒྱུ་འཛམ་གྲིང་ལུ་གསལ་དང་ཡོད་པའི་ནང་ལས་ རྒྱལ་ཡོངས་སྐད་
 ཡིག་ཚུ་ལའ་འདི་ འཛམ་གྲིང་ནང་གི་སྐད་ཡིག་ཚུ་སྤྱི་ལས་ ཡིག་ཐོག་འབྲི་ཏེ་འགོ་བཙུགས་པའི་སྐད་ཡིག་གཞན་ཤོས་ཅིག་འབད་བཅིམ་
 ཡིན་ཅུང་ ཡར་རྒྱས་ཟུམ་ཚུར་བའི་སྐད་ཡིག་གཞན་དང་འདྲ་མཉམ་འབད་ས་ བོད་འཕེལ་འགྲོ་བའི་བསྐྱེད་ཡོད་པ་ཡིན།

ཡིན་ཅུང་ འབྲུག་མི་མང་ཤོས་ཅིག་གིས་ས་ རྫོང་ཁའི་ཐོག་ལུ་ དཔེ་དེ་དང་འབྲི་ཚོམ་གྱི་རིགས་ ག་ཅི་རང་བྲིས་ཏེ་འབད་ཅུང་ རྒྱབ་རྟེན་
 དང་རྒྱབ་རྟེན་གྱི་ཐོ་ ལ་གསལ་ལུ་འབད་བཀོད་སོལ་མེད་པས་ གཞན་གྱིས་བྲིས་མི་ཚུ་ཡང་ རང་གིས་བྲིས་བྲིས་བཟུམ་འབད་ ལག་ལེན་འབྲེལ་
 དོ་ཡོད་པ་ཡིན། ལུ་ལྷན་གསལ་ རྒྱབ་རྟེན་གྱི་ཐོ་བཀོད་དེ་འབད་ཅུང་ རང་སོལ་བྲིས་རིག་དང་བཟུམ་ཏེ་ སོ་སོ་འབད་བཀོད་དོ་ཡོད་པ་ལས་ ག་ཅིག་
 མཚུངས་འབད་བཀོད་སོལ་མི་འདུག།

རྒྱུ་མཚན་དེ་ལས་བརྟེན་ དཔེ་དེ་དང་འབྲི་ཚོམ་གྱི་རིགས་འབྲི་ཏེ་ལུ་སྤོ་བའོ་ཡོད་མི་དང་ སྤོ་བའོ་ལུ་འབད་མི་ན་གཞན་ཚུ་གིས་ དཔེ་དེ་དང་
 འབྲི་ཚོམ་གྱི་རིགས་ག་ཅི་རང་བྲིས་ཏེ་འབད་ཅུང་ རྒྱལ་མཐུན་གྱི་རྒྱབ་རྟེན་/ལུང་འདེན་བཀོད་ཀྱི་དང་ རྒྱབ་རྟེན་གྱི་ཐོ་བཀོད་ཟངས་ཚུ་ཡང་
 ག་ཅིག་མཚུངས་འབད་འོང་གི་འདི་དོན་ལུ་ རྒྱབ་རྟེན་འབད་བཅའ་གྱི་ལག་དེབ་འདི་ བསམ་འཚམ་འབད་བྲིས་བྲིས་ཡིན།

ཀྱམ་རྩེ་འབད་ཐངས་འདི་ རང་ལུགས་ཀྱི་ཀྱམ་རྩེ་འབད་ཐངས་ལཱ་གཞི་བཞག་ཉེ་ དེ་གུ་ ཀྱམ་ལྱིའི་ཀྱམ་རྩེ་འབད་ཐངས་ཀྱི་ཐབས་
ཤེས་ཚུ་ལ་སྐོང་བཀལ་ཉེ་ རྩོགས་སྒྲིགས་འབད་འབད་མ་ཡིན་མཁུ་ལས་ ང་བཅའ་རའི་ཡོང་ལའི་ལུས་ཚད་འདི་ ཉེ་མ་ལས་ཉུག་པ་འབད་
ཡམ་པ་ཀྱི་ཚུགས་པའི་ཤེས་ཡིན། དེ་འབད་མཁུ་ལས་ རྣམ་དུའོད་ཀྱི་སྐོར་དང་འདྲ་པའི་མཁུ་པ་ཚུ་གིས་ མི་དམངས་ལཱ་དམ་གཏང་གི་
དོན་ལཱ་དང་ ཡོང་ལའི་ལུས་ཚད་ཡམ་པ་བཟོ་གི་ལཱ་དམིགས་ཉེ་ ལེགས་བཅོས་ཀྱི་བསམ་འཆར་ཚུ་ སྤྲོ་གསལ་མེད་པར་གསལ་གནང་ཟེ་
གསོལ་འདེབས་བྱ་གི་ཡིན།

ཀྱམ་རྩེ་འབད་ཐངས་།

དུས་ཤུམ་ར་འབད་ཅུང་ རང་གིས་ འབྲི་ཚོམ་ ཡིག་བྲིས་ དམེ་དམེ་ ག་ཅི་ར་བྲིས་ཉེ་འབད་ཅུང་ གཞན་གྱི་ཐབས་ཤེས་ཚུ་
ལག་ལེན་
འབབ་ཉེ་རང་གིས་ བྲིས་བྲིས་བཟུམ་འབད་བཀོད་གི་འདི་ འོས་འབབ་འདྲ་ཉེ་ཉེ་ཅིག་མེད་མཚན་ ལྷིམས་འགལ་གྱི་ལཱ་
ཅིག་
ཡིན་མཁུ་ལས་ དེ་ཚུ་གི་སྐོར་ཡངས་ཐབས་ཀྱི་དོན་ལཱ་ ཀྱམ་རྩེ་འབད་དགོཔ་འདི་ ལག་ཆེ་ཤོས་ཅིག་ཡིན་ཟེ་བྱ་གི་ཡིན།

ཀྱམ་རྩེ་གི་ཤོད་ཀྱི།

ང་བཅའ་ར་ཚུ་གིས་ ངག་ཐོག་ལཱ་དང་ ཡི་གུའི་ཐོག་ལཱ་ག་ཅི་ར་བཀོད་དེ་འབད་ཅུང་ གཞན་དོན་དང་འབྲེལ་བ་ཡོད་པའི་མཁུ་པ་ཚུ་གིས་
གསལ་མིའི་ཚིག་རྟེན་ ཚིགས་བཅད་ བཟོན་ཚིག་དང་དོན་མཚམས་ཚུ་ རང་གིས་ལུང་འདྲེ་འབད་ ལག་ལེན་འབབ་པ་ཅིན་དེ་ལཱ་ ཀྱམ་རྩེ་
ཟེ་སྤྲོ་བ་ཡིན།

ཡིན་ཅུང་ དེ་གི་མཚན་གྲུ་ ཤོག་ལེ་བའི་སྐོར་གི་ནང་ ལ་གསལ་ལ་འབད་ ཡིན་ཅི་མེད་ཅི་ཚོ་བཀོད་འབད་དགོ་ཡིན།

ཚོ་བཀོད་འབད་བའི་སྐོར་གི་ ག་ཚོ་དང་ དམེ་ཆའི་མཚན་དང་ ཡང་ན་ ཡུམ་པ་པོའི་མཚན་ཀྱང་མ་ཅིག་བཀོད་ནི་མེད་པར་ ཚོ་བཀོད་
འབད་

བའི་སྐོར་གི་སྐོར་ལ་ཚུ་ཚང་ཚོ་བཀོད་ནི་དོན་ལཱ་ དང་པར་ རྩོམ་པ་པོའི་མིང་ དེ་ལས་ དམེ་བསྐྱུ་ལོ་ དེའི་ལུ་མར་ དམེ་ཆའི་
མཚན་ དེ་ལས་ དམེ་བསྐྱུ་འབད་མི་དང་ དམེ་བསྐྱུ་འབད་ས་ཚུ་ ལ་གསལ་ལ་འབད་བཀོད་དགོ། ལེ་ཚུ་དང་ཤོག་གྲུ་ཚུ་ དམེ་
བསྐྱུ་འབད་སའི་སྐོར་གི་ལུ་མར་བཀོད་དགོ་ཡིན།

དེ་སྐོར་འབད་དགོ་མི་དེ་ཡང་ དེ་ནང་བྲིས་མི་ཚུ་ རང་ལྟོ་བས་གྲིས་མེད་པར་ གཞན་གྱི་དམེ་དཔེ་དང་དམེ་ཆུ་ནང་ལས་ བཀོད་བཀོད་པ་ཡིན་
པའི་ཚུ་མཚན་གསལ་ཉོག་ཉོག་འབད་ལྟོ་དེ་དང་ གཞན་གྱི་དམེ་བཀྱའ་འབད་བའི་ལྟོ་ཚུ་ཡང་ས་ཐབས་གྱི་དོན་ལཱ་ ཉུག་པར་ལུ་རང་གིས་བྲིས་
མིའི་འབྲི་ཚོམ་ ཡང་ན་ དམེ་དཔེ་འདི་ གཞན་གྱིས་ཆ་གནས་བཞག་ནི་དང་ ལྷངས་བཅོན་ནིའི་དོན་ལཱ་ དེའི་ལར་ ཚོ་བཀོད་འབད་ཐངས་
གྲི་ལམ་ལུ་གསལ་གཅིག་མཚུངས་འབད་བཞག་ནིའི་དོན་ལཱ་ཡང་ཡིན་མ་ལས་ ལིག་རིགས་ལ་སོགས་པའི་འབྲི་ཚོམ་ནང་ལཱ་ ལུང་འདྲེ་གྱི་
དོན་

ལཱ་ ལྷངས་ལྷངས་འོད་པའི་ཚོ་ཚུ་ ལ་གསལ་ལ་འབད་བཀོད་དགོ་པའི་ གཞན་ཡིན། དེའི་བཤད་པ་ལ་ལ་ལོག་ལཱ་བཀོད་དེ་ཡོད།

● རྩོམ་པ་པོའི་མིང་།

རྩོམ་པ་པོའི་མིང་བཀོད་པའི་སྐོར་ ལྷུ་སྤྱིའི་ལམ་ལུ་གསལ་བཟུམ་ མིང་མགོ་འཇུག་སློག་ཉེ་ རྟོན་ལུ་དབང་ལྷུག་ ཟེའེ་བ་
ཅིན་ དབང་ལྷུག་རྟོན་ལུ་ ཟེའེ་བཀོད་ནི་མི་འོང། ང་བཅའ་རའི་ལམ་ལུ་གསལ་ནང་ལཱ་ མིང་མགོ་འཇུག་སློག་སློལ་མེད་པ་ལས་
མིང་ག་ཡིན་མ་ལུ་ ཚང་མ་འབད་འབྲི་དགོ།

ཡང་ཅིན་ མིང་བསྐྱུ་ཉེ་འབྲི་ཅུང་ བརྟམ། དམེའེ་ན་ རྟོན་ལུ་དབང་ལྷུག་ལཱ་ རྟོན་དབང་ཟེའེ་འབྲི་ཅུང་ ང་བཅའ་གྲི་ལམ་ལུ་གསལ་
ནང་ལཱ་ དེ་བཟུམ་གྱི་འབྲི་སློལ་ཡོད།

● **གནམ་ལོ་/སྤྱི་ལོ་**

དཔེ་དེབ་ དཔེ་བསྐྱུན་འབད་བའི་གནམ་ལོ་འདི་ རང་ལུགས་འབྲུག་པའི་གནམ་ལོ་དང་ ཡུལ་གཞུང་འབྲུག་དགོན་དགོ
དེ་འབད་ལྷན་དུ་ ལྷན་ཤུན་ཉལ་བཅུགས་མི་དགོ

● **དཔེ་ཆའི་མཚན།**

དཔེ་ཆའི་མཚན་ལཱ་གསལ་ལཱ་འབད་བའི་དགོན་དགོ དེ་འབད་ལྷན་དུ་ ཡིག་གཞུགས་མ་འདྲུ་ལྷན་འབད་འབྲི་ནི་ དཔེ་བསྐྱུན་ ཡིག་གཞུགས་
གཞུགས་ནི་ ཡིག་གཞུགས་ ཉན་ཐོ་ལྷན་འབད་བའི་མི་འོང་།

● **དཔེ་བསྐྱུན་འབད་མིའི་མིང།**

དཔེ་བསྐྱུན་འབད་མིའི་མིང་ ལཱ་གསལ་ལཱ་འབད་བའི་དགོན་དགོ

● **དཔེ་བསྐྱུན་འབད་སའི་ས་གནས།**

དཔེ་བསྐྱུན་ག་ཉེ་ལཱ་འབད་ཡིག་ ས་གནས་ཀྱི་མིང་ཚུ་བཞེད་དགོ་པ་ཨིན་ཅུང་ རྒྱལ་ཁབ་ཀྱི་མིང་བཞེད་མིན་དགོ

● **ལེའུ་ཚན་/ཤོག་གངས།**

ལེའུ་ཚན་གཞུང་ཆེད་དང་བསྐྱུན་ དཔེ་དེབ་ཀྱི་ལེའུ་ཚན་/ ཤོག་གངས་ཚུ་ཡང་ལཱ་གསལ་ལཱ་འབད་བའི་དགོན་དགོ་པ་ཨིན།

● **གོ་རིམ།**

ཚོ་བཞེད་འབད་བའི་སྐབས་ ལེའུ་གིས་ ལག་ཆེ་ཆེ་ཚུང་གི་གོ་རིམ་འབད་བའི་པ་ཨིན་ཅུང་ ལཱ་ལུགས་གཅིག་མཚུངས་
འབད་འོང་ནིའི་དོན་ལུ་ རྩོམ་པ་པོའི་མིང་གི་ ཀུན་གསལ་ཀྱི་གོ་རིམ་དང་འཁྲིལ་བཞེད་དགོ་པ་ཨིན།

དམ་གཤིས།

ཐོ་བཀོད་འབད་བའི་སྐབས་ གྲུ་ལ་གཅིག་ནང་མ་ཤོང་པར་ གྲུ་ལ་ཡབ་པའི་སྐབས་ནང་ན་ ལ་སྟོང་དུ་མ་གྲུ་ཅིག་ བཞག་ཏུ་ འབྲི་
དགོ་པ་ཨིན།

ལུང་འབྲེན་བཀོད་ཐངས་དང་ ཐོ་བཀོད་འབད་ཐངས་གྱི་དབུ།

༡ ཚུ་མ་པ་པོ་གཉིས་ཨིན་པ་ཅིན།

༧ ལུང་འབྲེན་བཀོད་ཐངས།

ཚུ་མ་པ་པོ་མཚན་དང་ ཤོག་གྲངས་ཚུ་ག་སུ་འབད་བཀོད་དགོ།

ཞི་བཟུམ་ ཤོག་གྲངས་ ༤༥ པའི་ནང་ལས་.....

ཁ་ རྒྱ་རྩེ་གྱི་ཐོ་བཀོད་འབད་ཐངས།

ཞི་བཟུམ། ༢༠༠༢ ལྷོ་ལྷུག་ཙ་ལ། ཟེམ་ཡུ། ཀེ་ཨེམ་གྱི་པར་བསྐྱུན་ལང་།

༢ ཚུ་མ་པ་པོ་ གཉིས་ཨིན་པ་ཅིན།

༧ ལུང་འབྲེན་བཀོད་ཐངས།

ཚུ་མ་པ་པོ་གཉིས་ཚུ་མཚན་དང་བཀོད་དགོ།

ཀུན་ལེགས་རྒྱལ་མཚན་དང་འུ་ཚུ་མཚན་གཉིས་ཀྱིས་ ཤོག་གྲངས་ ༡༧ པའི་ནང་.....

ཁ་ རྒྱ་རྩེ་གྱི་ཐོ་བཀོད་འབད་ཐངས།

ཀུན་ལེགས་རྒྱལ་མཚན་དང་འུ་ཚུ་མཚན། ༢༠༠༤ མཚོ་རིམ་སློབ་གྲྭ་དགོངས་དོན་བཀོད་རིམ། ལམ་རོ། ཞེས་

རིག་མཚོ་རིམ་སློབ་གྲྭ།

3

ཚུམ་པ་པོ་ གསུམ་ལས་ལྷག་སྟེ་ཡོད་པ་ཅིན།

༡ ལུང་འདྲེ་ནང་ལུ།

ཚུམ་པ་པོ་ག་རའི་མིང་ལ་གསལ་ལ་འབད་འབྲི་མི་དགོ་ མིང་དང་པ་ག་ཡོད་མི་འདི་བྲིས་ཞིན་མ་ལས་ ཚེགས་ཚུ་ཟེར་
གཞན་ཚུ་དེ་ནང་བསྐྱབ་མེད་ཚུ་ལ་འབད་བཞེད་པ་ཡིན།

བཀྲ་ཤིས་དབང་ཕྱག་དང་ཚེགས་ཚུ་གིས་ ཤོག་གུངས་ ༥༤ པ་ནང་ལོ།

ཁ རྒྱལ་རྩེ་མོ་བཞེད་པ་ནང་ལུ།

མིང་དང་པ་ག་ཡོད་པ་མི་འདི་བྲིས་ཞིན་མ་ལས་ མིང་གཞན་ཚུ་ ཚེགས་ཚུ་གིས་ཟེར་ བཅུན་བསྐྱབ་ཉེ་འབྲི་དགོ་པ་
ཡིན། དཔེ་དེ་ནི།

བཀྲ་ཤིས་དབང་ཕྱག་དང་ཚེགས་། ༢༠༠༩ འབྲུག་གི་འོ་འབྲུང་སེམས་ཅན། ཟེམ་ཕུ།
ངོ་མོ་དཔེ་བསྐྱབ་ལང།

༤

ལྷན་ཁག་ ལས་ཁུངས་དང་ལས་སྡེ་གིས་ ཚུམ་འབྲི་འབད་ཡོད་པའི་དཔེ་དེབ་ཚུ་ རྒྱལ་རྩེ་མོ་འབད་བཅས།

༡ ལུང་འདྲེ་ནང་ལུ། ལས་སྡེ་གི་མིང་ལང་ཅིན་ དཔེ་དེབ་ཀྱི་མིང་འབྲི་དགོ་པ་ཡིན།

ཚུང་ལཱ་གོང་འཕེལ་ལྷན་ཚོགས་ཀྱིས་ ཤོག་གུངས་ ༤༩ པའི་ནང་ལུ།

གཞུང་འབྲེལ་དུས་ཚེད་ལ་གསོའི་ནམ་བཤད་ ཤོག་གུངས་ ༤༩ པའི་ནང་།

ཁ རྒྱལ་རྩེ་མོ་བཞེད་པ་ནང་ལུ།

ཕྱིང་ལ་གོང་ལ་ཡེལ་ལྟན་ཚིགས། ༡༩༩༩ གཞུང་འབྲེལ་དུས་ཚཱེ་དལ་གསེའི་ནུམ་བཤད། ཐིམ་ཕུ།
 ཕྱིང་ལ་གོང་ལ་ཡེལ་ལྟན་ཚིགས།

༥ ཚུམ་པ་པོའི་མཚན་བཀོད་དེ་མེད་མི་ཚུ་ སྐབ་རྟེན་འབད་བཅའ་ས།

༧ ལུང་འདྲེན་ནང་ལུ་ གཞན་དང་ཅོག་འབཅད།

ཚོས་རྒྱལ་གཡུ་ལྷ་སལ་པའི་ནུམ་ཐམ་ ཤོག་གུངས་ ༤༢ པའི་ནང་ལོ།

ཁ རྒྱལ་རྟེན་ཐོ་བཀོད་ནང་ལུ།

ཚོམ་པ་པོའི་མཚན་མ་འབྲི་བམ་ དཔེ་ཚའི་མཚན་དང་ དཔེ་བསྐྱུན་ལོ་ དཔེ་བསྐྱུན་འབད་མི་ དཔེ་བསྐྱུན་འབད་ས་ཚུ་
 ལ་གསལ་ལ་འབྲི་དགོ་

ཚོས་རྒྱལ་གཡུ་ལྷ་སལ་པའི་ནུམ་ཐམ་ ཐིམ་ཕུ། འབྲུག་འདྲེན་འཛེ་ཚེད་ལང།

༦ ཚུམ་པ་པོ་ག་ཡིན་ན་མ་ཤེས་པའི་ལམ་ དཔེ་ཚའི་མཚན་ཡང་མ་ཤེས་པམ་ སྐབ་རྟེན་འབད་བཅའ་ས།

ཚོམ་པ་པོ་ག་ཡིན་ན་མ་ཤེས་པའི་ལམ་ དཔེ་ཚའི་མཚན་ཡང་མ་ཤེས་པ་ཅིན་ རྒྱལ་རྟེན་འབད་དེ་ ལུང་འདྲེན་འབད་བཀོད་ནི་
 མི་འོང། ལག་ཚུ་ལུང་འདྲེན་འདྲི་ ཡིན་ཅི་མིན་ཅི་ ལག་ལཱ་འབཅའ་དགོ་པ་ཅིན་ ལོག་ལུ་བཀོད་མི་ཚུ་ལག་ལཱ་འབཅའ་དགོ་པ་
 ཡིན།

༧ ལུང་འདྲེན་གྱི་ནང་ལུ།

- ལུང་ལས།
- ཇི་སྐད་དུ།
- མདོ་ལས།
- ལེགས་བཤད་ལས།
- དམ་པ་འགས།

ལོན་པེ་ ལ་སོགས་པ།

ཁ རྒྱལ་རྩེ་གྱི་ཐོ་བཞེད་ནང་ལ།

དཔེ་ཆ་ལི་མཚན་དང་ཕོ་མ་པ་པོ་ ག་ཡིན་ན་ མ་ཤེས་པ་ཅིན་ ལྷང་འདྲེན་དང་རྒྱལ་རྩེ་གྱི་ནང་བཅུགས་ནི་མི་འོང་།

པ གསར་ཤོག་ཚུ་ རྒྱལ་རྩེ་འབད་ཐངས།

གསར་ཤོག་ཚུ་ནང་ལས་ཡང་ རྒྱལ་རྩེ་དང་ལྷང་འདྲེན་ཚུ་ ལག་ལཱ་ལཱ་འཐབ་ཡིན་པ་ཅིན་ གསར་ཤོག་གི་མིང་དང་ འཛུལ་རིམ་ གནས་ཚུལ་བཞེད་མི་ཚུ་ ལ་གསལ་ལ་འབྲི་དགོ་པ་ཡིན།

ཀ ལྷང་འདྲེན་ནང་ལ། དཔེ་ཆ་གཞན་ཚུ་དང་ཅོག་ས་འཐད་པ་འབད་བཞེད་དགོ།

རིག་འཛིན་དབང་ཕུག་གིས་ ཤོག་གྲངས་ ༣ པའི་ནང་ལྷང་འདྲེན་ ཡང་ཅིན་

ཀྱུན་གསལ་ ཤོག་གྲངས་ ༣ པའི་ནང་ལྷང་འདྲེན་

ཁ རྒྱལ་རྩེ་ཐོ་བཞེད་ནང་ལ། གསར་ཤོག་གི་མིང་དང་ ཚེས་གྲངས་ འཛུལ་རིམ་ གནས་ཚུལ་བཞེད་མི་ཚུ་ ལ་གསལ་ འབྲི་དགོ་པ་ཡིན།

རིག་འཛིན་དབང་ཕུག་ ༢༠༠༤ འགྲན་ཟུང་དང་བྲལ་བའི་སྐབས་མགོན་མཚན་གྱི་ཟུང་། པའི་

'སྤྱི་ཚེས་ ༤ གྱི་ཀྱུན་གསལ་རིམ་ཡང་ ༢༣ པའི་ཡང་ ༤༤ པ་ ཤོག་གྲངས་ ༣ པ།

༤ རྒྱལ་རྩེ་ཐོ་བཞེད་ནང་ལས་རྒྱལ་རྩེ་འབད་ཐངས།

རྒྱལ་རྩེ་ཐོ་བཞེད་ནང་ལས་ རྒྱལ་རྩེ་དང་ལྷང་འདྲེན་ཚུ་ ལག་ལཱ་ལཱ་འཐབ་ཡིན་པ་ཅིན་ རྒྱལ་རྩེ་གྱི་མིང་དང་ འཛུལ་རིམ་ འབྲི་མི་ ཚུ་ལ་གསལ་ལ་འབྲི་དགོ་པ་ཡིན།

ཀ ལུང་འདྲེན་ནང་ལུ་གཞན་དང་ཚོག་འཐད་པ་འབད་ ཨོམ་འབྲི་པའི་དང་ དམེ་ཆའི་ཤོག་གྲངས་བཀོད་དགོ

རོ་བོ་སྐ་སྐ་ལི་གིས་ ཤོག་གྲངས་ ༡༠-༡༤ འི་ནང་ལོ་

འཛིགས་མེད་ཚོས་རྒྱལ་གྲིས་ ཤོག་གྲངས་ ༤-༡༢ པའི་ནང་ལོ་

ཁ རྒྱལ་རྩེན་ཚོ་བཀོད་ནང་ལུ་ འབྲི་མི་ རྒྱལ་དེ་བ་ཀྱི་མིང་ འཛོན་རིམ་ཚུ་ ལམ་གསལ་འབྲི་དགོ་པ་ཡིན།

རོ་བོ་སྐ་སྐ་ལི། ༢༠༠༤ འབྲུག་གི་བཟོ་རིག་བཅུ་གསུམ་གྱི་སྟོན། མཁའ་འགྲུལ་ལས་འཛིན་གྱི་

རྒྱལ་དེ་བ་ བཟོ་ཤིས་བཟོ་ལེགས། འཛོན་རིམ་ ༡༢ ནང་ ཤོག་གྲངས་ ༡༠-༡༤།

འཛིགས་མེད་ཚོས་རྒྱལ་ ༡༩༤༩ ཡོན་ཏན་རྒྱུང་བར་བསྐྱུལ་བའི་ཆགས་ཀྱི། སེམས་རྩྭ་གསལ་ལ་ནང་པའི་

རིག་གཞུང་སློབ་གྲྲའི་རྒྱལ་དེ་བ་ གསང་བཟུང་གཞན་ཚུ་མེ་ཡོང་། ཤོག་གྲངས་ ༤-༡༢

བཅུ་གསུམ་གྱི་

རྒྱལ་དེ་བ་དང་ གསང་ཤོག་ཚུ་ནང་ལུ་ ཨོམ་འབྲི་པའི་མིང་བཀོད་དེ་མེད་པ་ཅིན་ དེའི་ཚབ་ལུ་ རྒྱལ་དེ་བ་དང་ གསང་ཤོག་གི་
མིང་ ཡང་ཅིན་ དོན་ཚན་བཀོད་དགོ།

༩ དཔེ་བསྐྱུག་མ་འབད་བའི་རིགས་ཚུ་ནང་ལས་ཡང་ རྒྱལ་རྩེན་འབད་ཐངས།

དམེ་བསྐྱུག་མ་འབད་བའི་རིགས་ཚུ་ནང་ལས་ཡང་ རྒྱལ་རྩེན་འབད་ལུ་འཐད་པ་འཐད་དགོ་པ་ཅིན་ དམེ་དེ་བ་ ཡང་ན་
དོན་ཚན་ ཨོམ་པ་པའི་མིང་ ལམ་གསལ་བཀོད་དེ་ ཟེན་བྲིས་ཟེར་བཀོད་དགོ།

ཀ ལུང་འདྲེན་ནང་ལུ།

བསམ་གཏུན་མཐར་ཕྱིན་གྱིས་ རྒྱལ་གསུམ་གྱི་རྣམ་གཞན་ནང་ལུ་

ཁ རོ་བོ་ཤོག་འབད་ཐངས།

བསམ་གཏུན་མཐར་ཕྱིན། ༢༠༠༧ རྒྱལ་གསུམ་རྣམ་གཞན་གསལ་བའི་མེ་ཡོང་། ཟེན་བྲིས། ལམ་རོ།

ཤེས་རིག་མཚོ་རིམ་སློབ་གྲྭ།

༩ གཞན་གྱིས་རྒྱབ་རྐྱེན་འབད་ཡོད་མི་ལུང་འབྲེན་ཚུ་ རང་གིས་ རྒྱབ་རྐྱེན་འབད་བཅས།
ཚོམ་པ་པོ་གཞན་ཅིག་གིས་ དཔེ་དེ་ཅིག་ནང་ལུ་ རྒྱབ་རྐྱེན་ལུང་འབྲེན་བཀོད་དེ་ཡོད་པ་ཅིན་ རང་གིས་ ལུང་འབྲེན་དེ་ རྒྱབ་
རྐྱེན་འབད་དགོ་པ་ཅིན་ རྩོད་ཀྱིས་ མཐོང་མིའི་དཔེ་དེ་ལཱ་ལྷན་ལུ་འབད་ནི་མ་གཏོགས་ ལུང་འབྲེན་གྱི་དཔེ་དེ་ལཱ་ལྷན་ལུ་
འབད་ནི་མི་འོང།

༧ ལུང་འབྲེན་ནང་ལུ།

གསང་བཅུག་དོན་ཅིག་གིས་ ཤོག་གུངས་ ༣༡ པའི་ནང་ མཁས་འཇུག་ལས་ལུང་འབྲེན་བཀོད་མིའི་ནང་”

ཁ རྩོད་བཀོད་ནང་ལུ།

གསང་བཅུག་དོན་ཅིག་གིས་ ༡༩༩༤ མིག་ཡིད་ནུབ་འཕེལ་བྱེད་ལེགས་བཤད་གཏེར་གྱི་ཐུམ་བཟང་།
ཤིང་གྲ། བོད་ཡོངས་མི་རིགས་དཔེ་བསྐྱུན་ཁང་།

༡༠ གསལ་བཤད་གྱི་ཚིག་དོན་དང་ སློབ་སྦྱོར་པའི་སྐབས་ཀྱི་ཚིག་ཚུ་ རྒྱབ་རྐྱེན་འབད་བཀོད་བཅས།
གསལ་བཤད་གྱི་ཚིག་དོན་དང་ སློབ་སྦྱོར་པའི་སྐབས་ ཐོག་འཕྲིན་ལ་སོགས་པའི་ཡིག་རིགས་ཀྱི་ཚིག་ཚུ་ རྒྱབ་རྐྱེན་འབད་བཀོད་
དགོ་པ་འབྲེན་པ་ཅིན་ ཚོམ་གུངས་དང་ མི་དེ་གི་མིང་ཚུ་ལ་གསལ་ལུ་འབྲི་དགོ་ དེ་འབད་ཅན་དུ་ རྒྱབ་རྐྱེན་གྱི་ཚོན་ལུ་མི་དགོ་
དཔེ་ན་

བཅུན་རྒྱལ་སློབ་པོ་མཁས་འཇུག་དབང་ཕྱུག་མཚོག་གིས་ ལྷོ་ཚོམ་ ༢༢/༠༩/༠༤ ལུ་ སུ་པོ་ཤེས་རིག་མཚོ་རིམ་སློབ་གྲྭ་
ནང་ གནང་བའི་གསུང་བཤད་ནང་” ཡང་ཅིན་

ལྷོ་ཚོམ་ ༢༥/༠༩/༠༤ ལུ་ དོན་ཅིག་གིས་ སློབ་སྦྱོར་པའི་སྐབས་ ཟེར་བཀོད་དགོ་པ་ཡིན།

ཐུབ་རྟེན་ཐོན་པ་ གཞི་རྟེན་ཐོན་པ་ལྟར་པར་

- ༡ ཐུབ་རྟེན་ (reference)
- ༢ གཞི་རྟེན་ (Bibliography)

མཚུགས་བསྟུན།

ང་ལ་བཅས་སའི་རྒྱལ་ཡོངས་སྐད་ཡིག་འདི་ ཡིག་ཐོག་ལུ་འབྲི་བའི་སྐབས་ཀྱི་སྤུས་ཚད་ཡང་དྲག་བཟོ་དགོ་པ་ཅིན་ ལུང་འདྲེན་དང་ཐུབ་རྟེན་ཚུ་
ཚུལ་བཞིན་འབད་དགོ་པའི་ཁར་ ཅོམ་འབྲི་མ་ཚུ་མཉམ་གྱིས་གཅིག་མཚུངས་འབད་ ལག་ལཱ་འབྲེན་འབྲེན་དགོ་པ་འདི་གལ་ཅན་ཅིག་ཡིན་པས།

དེ་ཉེ་ཚུན་ཚེད་ སང་གི་ཤེས་བྱའི་ནམ་དཔྱད་ཚུང་བའི་བློ་མིག་གིས་ རྒྱལ་ཡོངས་སྐད་ཡིག་ནང་ལུ་ ལུང་འདྲེན་དང་ཐུབ་རྟེན་འབད་བཅས་ཀྱི་
ལམ་ལོན་ལ་གསལ་ཅིག་མ་མཐོང་མ་ལས་རྟེན་ ལོན་བྱོན་རྒྱལ་བ་གོང་མའི་བསྐྱེད་བཅོས་ཚུ་དང་ དེང་སང་རྒྱལ་སྤྱིའི་ལམ་ལུགས་ཚུ་ལུ་གཞི་
བཞག་ཉེ་ ལུང་འདྲེན་དང་ཐུབ་རྟེན་འབད་བཅས་ཀྱི་ལམ་ལོན་འདི་ བསམ་འཚར་བཟུམ་ཅིག་འབད་བཀོད་བཀོད་པ་ཡིན། ཡིན་ཏུང་ དེ་
ནང་ ལུང་འདྲེན་དང་ཐུབ་རྟེན་འབད་བཅས་ཀྱི་སྐོར་ལས་ གན་ཚུངས་འབད་མ་ཚུན་པ་ལས་ རྒྱལ་མའི་ལུགས་བཅོས་དང་བསྐྱེད་བཅོས་ཀྱི་
དོན་ལུ་བཞག་ཡོད་པ་ལས་ ཅོམ་འབྲི་དང་ཞིབ་འཚོལ་ལུ་ དྲུངས་འདོད་ཆེ་བའི་མཁའ་པ་ལས་ ཡན་ཐོགས་ཅན་གྱི་བསྐྱེད་བཟུ་ཐོབ་ཚུགས་
པའི་སེམས་བསྐྱེད་དེ་བཞག་བཞག་པ་ཡིན།

མཚུགས་ ང་ལ་བཅས་སའི་རྒྱལ་ཡུལ་ནང་ སྤྱིར་རྒྱལ་ཡོངས་ཡོངས་ཀྱི་སྐད་ཡིག་ ཉེ་མ་བས་ཉུག་པ་འབད་གོང་འཕེལ་འགྱུ་ནི་དང་ཉུག་པར་
ལུ་ ཐུབ་རྟེན་འབད་བཅས་ཀྱི་ལམ་ལོན་བསམ་འཚར་འདི་གིས་ ཤེས་བྱའི་ཡོན་ཏུན་ལུ་བཅོལ་བྱུགས་བསྐྱེད་མི་ན་གཞོན་ཚུ་དང་ ཅོམ་འབྲི་འི་
ལུ་ལུ་ སྤོ་བ་བསྐྱེད་མི་མཁའ་པ་ཚུ་ལུ་ ཡན་ཐོགས་སློམ་འབད་ས་ འཇུང་བའི་ལོན་ལམ་ལུ་ནི་ཡིན།

Recommendations from the Seminar

1. CERD to initiate creation of network of educational researchers and institute for regular seminar and workshops to study and resolve national educational issues immediately.
2. Participation of key people in the future seminars including officials from MoE, RUB, Principals, EMOs, DEOs, teachers and parents to encourage effective ways to address the issues in education.
3. MoE to provide a subject based teacher requirement projection for 5 years to the CoEs to reduce the mismatch between demand and supply of teachers in future
4. Using and capitalizing indigenous Knowledge of field teachers/researchers to improve the quality of education
5. Develop a system for adequate and timely supply of resources including teaching learning materials (create a budget head) to schools
6. Strong mechanism of regular review and revision of curriculum based on the research studies
7. Reduction in class size
8. Follow Teacher deployment policy/equitable distribution of teachers
9. Institute the working committee to address the issues related to quality of education and urgent need to carry out research/survey to confirm that the quality has decline and Develop benchmarks based on research data
10. study the mismatch between the curriculum and examination
11. Updated examination system based on the change in the curriculum
12. Legitimize the involvement of Parents/train teachers
13. Institute teacher award
14. Coordination between stakeholders need to be improved
15. Share the recommendations of this seminar during AEC
16. Institute the In-service professional development division to address the needs of effective Professional development of teachers.
17. Standardizing the enrolment of student teachers to CoEs/entrance examination
18. Institute teaching incentives
19. Uplift the teacher morale through service recognition
20. Protection of instructional time/ less disturbance from other school activities/regularize extra curricular activities
21. Urgent need to develop Strategies to retain teachers in the profession.
22. Additional Support for rural teachers

23. Introduce teaching license for teacher graduates
24. Recognition of recommendations provided by the heads of the schools for prospective heads
25. Introduction of kindergarten classes in primary schools
26. Open and fair competition for any in-service scholarship nominations and other appointments based on the performance ratings rather than mere marks to improve teacher motivation, transparency and efficiency in the system.