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## Formative assessment practices in Bhutanese secondary schools and its impact on Quality of Education

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**FORMATIVE ASSESSMENT PRACTICES IN  
BHUTANESE SECONDARY SCHOOLS AND  
ITS IMPACT ON QUALITY OF EDUCATION**

**BY  
KARMA UTHA**

DISSERTATION SUBMITTED 2015



**AALBORG UNIVERSITY**  
DENMARK



**Formative Assessment practices in Bhutanese Secondary  
Schools and its impact on Quality of Education**

**By**

**Karma Utha**



**AALBORG UNIVERSITY**  
DENMARK

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## SUMMARY

The study aims to investigate how formative assessment relates to the students' learning. It specifically aims to find those features of formative assessment that are important for learning in Bhutanese secondary classes. Towards achieving these goals, a case study approach with multiple methods, including classroom observation of teaching practice and interviews with various stakeholders, is applied. The empirical study is about seven higher and middle secondary schools in both rural and urban areas.

John Dewey's theory of experience and education is used as the primary theoretical framework, and a literature study on Lev Vygotsky's concept of the zone of proximal development and on various forms of formative assessment is also applied for the theoretical understanding and interpretation of the empirical materials.

The examination of the notions and practices of formative assessment in secondary schools in Bhutan reveals a widespread misunderstanding of the concepts of 'formative assessment', 'peer assessment' and 'self-assessment'. In addition, student-centered teaching and learning, which must be regarded as a precondition for effective formative assessment, is misunderstood by many teachers and tends to be turned into the opposite. However, as reported in other Asian countries, the practice of reciprocal peer learning and peer teaching are much more favored by students and teachers in the case study schools than teacher-centred learning.

The study results in a number of recommended amendments of the formative assessment practices in Bhutanese secondary schools. In addition, a revision of the modules concerning formative assessment practices in the teacher education colleges in Bhutan is suggested.

# RESUMÉ

Afhandlingen er en undersøgelse af, hvordan formativ evaluering er forbundet med elevers læring. Specielt er det formålet at finde de aspekter af formativ evaluering, der er vigtige for læringen i bhutanesiske skoler på 9.-12. klassetrin. For at opnå disse mål benyttes en case study tilgang med multiple metoder, herunder klasserumsobservation af undervisningspraksis samt interview med forskellige interessenter. Det empiriske studie drejer sig om syv skoler i både by- og landområder.

John Deweys teori om erfaring og uddannelse anvendes som den primære teoretiske ramme. I grundlaget for den teoretiske forståelse og fortolkning af det empiriske material indgår desuden et litteraturstudie angående Lev Vygotskys begreb om zonen for proximal udvikling og vedrørende forskellige former for formativ evaluering.

Undersøgelsen af opfattelserne af og praktikkerne omkring formativ evaluering på de højere klassetrin i bhutanesiske skoler afslører en udbredt misforståelse af begreberne 'formativ evaluering', 'gensidig evaluering' og 'selvevaluering'. Elevcentreret undervisning og læring, der må betragtes som en forudsætning for effektiv formativ evaluering, misforstås også af mange lærere og tenderer til at blive vendt om til sin modsætning. Som det er beskrevet i andre asiatiske lande, viser anvendelsen af gensidig elevlæring og elevundervisning sig imidlertid at være meget mere eftertragtet blandt eleverne og lærerne i case studiets skoler end lærercentreret læring.

Studiet fører til en række anbefalede forbedringer af praktikkerne for formativ evaluering i bhutanesiske skoler. Desuden foreslås en revision af modulerne angående formativ evaluering på læreruddannelserne i Bhutan.

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My special thanks go to my husband, daughter, and son for ever being supportive in my endeavor and bearing with my long absences from home.



## **DEDICATION**

I dedicate this study to my late parents who were sources of my inspiration. Though they were uneducated, they believed in the power of education and sacrificed all comforts to give me and my siblings a proper education. We are what we are today because of them. Thank you dear Apa and Ama.

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## LIST OF ABBREVIATIONS

|           |                                 |
|-----------|---------------------------------|
| B. Ed     | Bachelor of Education           |
| CA        | Continuous Assessment           |
| CFA       | Continuous Formative Assessment |
| CSA       | Continuous Summative Assessment |
| CW        | Classwork                       |
| FA        | Formative Assessment            |
| GNH       | Gross National Happiness        |
| HOD       | Head of Department              |
| HSS       | Higher Secondary School         |
| HW        | Homework                        |
| MSS       | Middle Secondary School         |
| PCE       | Paro College of Education       |
| PW        | Project work                    |
| SA        | Summative Assessment            |
| SCE       | Samtse College of Education     |
| VP        | Vice Principal                  |
| ZPD/ZOPED | Zone of Proximal Development    |

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# **PART I: THE RESEARCH APPROACH**

## **CHAPTER 1: INTRODUCTION**

### **1.1 Research problem**

The dissertation is a study on the formative assessment practices in Bhutanese Middle Secondary and Higher Secondary Schools (Classes IX – XII) and its impact on quality of education.

The principal question for this study is:

To discover how practices of formative assessment relate to the nature of students' learning.

More specifically, the research study attempts:

To determine the features of formative assessment that presumably are most important for learning in the context of Bhutanese secondary schools.

The word “presumably” is included because the dissertation is not about comparing any precise importance for learning of strictly defined features of formative assessment. In contrast, the endeavor is to sharpen through theoretical and empirical clarification the conceptual understanding of formative assessment and its importance for learning.

### **1.2 Practical background**

In the following, I will make a presentation of the background for my Ph.D. research work where focus is on formative assessment practices in Bhutanese Secondary Schools and its impact on quality of education. But what do we mean by formative assessment and which kind of problems might be solved by practicing formative assessment that improve students' learning processes and their capabilities for further education and work.



## 1.2.1 The idea of formative assessment

Paul Black and Dylan Wiliam have made great contribution in the field of formative assessment and its positive impact on learning. They define assessment broadly to include all activities that teachers and students undertake to get information that can be used diagnostically to alter teaching and learning. According to them, teaching and learning processes are incomplete without the assessment component. Teachers teach what they think are the best lessons but whether the students have learnt as a result of that teaching is a question (Black & Wiliam, 1998b). Wiliam (2011) has explained that teacher's job is neither to transmit knowledge, nor to facilitate learning. It is to engineer effective learning environments for the students and the only way for this to happen is through assessment. Assessment helps to determine the effectiveness of the teaching as well as learning process. It is considered as the integral part of teaching and learning as it serves various purposes like motivating students, enhancing teaching and learning, and providing feedback to students on their strength and weaknesses (cf. Zou, 2008). It has been said that the primary purpose of assessment is to increase student's learning and development rather than simply grade and rank performance. George and Cowan pointed out:

...what and how assessment is carried out has a profound influence, for better or worse, on learning and is a major factor that can encourage either surface or deep learning. (1999, p. 98)

Basically, assessment in school consists of summative assessment and formative assessment which are also referred to as assessment of learning and assessment for learning respectively (Organization for Economic Co-operation and Development [OECD], 2005; Higgins, Grant, Thompson and Montarzino, 2010). Summative assessments are used to measure what students have learnt at the end of a unit, to promote students, to ensure they have met the required standards on the way to earning certification for school completion or to enter certain occupations, or as a method for selecting students for entry into further education (OECD, 2005). As summative assessment usually happens at the end of teaching and learning process, it is more evaluative in nature than diagnostic which may not be helpful in terms of improving students' learning. The information derived from summative assessment on students' learning comes quite late and loses its effectiveness. For example, the result of end of the year examination, if it is below the pass percentage it doesn't help the student to act on it immediately. She/he would have already lost a year. So, summative assessment is product oriented.

Contrary, formative assessment is process oriented. It is an ongoing process taking place at every stage of learning and is designed to monitor the students' progress during the learning process. It is not a separate activity happening after a phase of teaching but is interwoven in the teaching and learning process (Perrenoud, 1998). As has been pointed out by Sadler, it is

...concerned with how judgments about the quality of student responses can be used to shape and improve the student's competence by short-circuiting the randomness and inefficiency of trial-and-error learning. (Sadler, 1989, p.120)

It consists of all those activities undertaken by teachers, and/or by their students, which provide information to be used as feedback to activities in which they are engaged (Black & Wiliam, 1998a; Pinchok & Brandt, 2009).

Formative assessment can take a variety of forms. It can be written or verbal, formal or informal and can be delivered by the teachers, peers, outside collaborators or one self. It may or may not contribute to final mark (Higgins et al, 2010). Any form of assessment from performance-based to multiple-choice items can be used in formative assessment practice. They also can include journals, portfolios, scrapbook, checklists, rubrics, written papers, etc. It can range from a five-second assessment to a scoring guide reviewed periodically by students and teachers while producing a product (Pinchok & Brandt, 2009).

## 1.2.2 Education practice in Bhutan

Education practices in Bhutan started in the form of monastic education but when exactly the monastic education started is not sure though it is associated with Guru Padma Sambhava, an omniscient saint and a teacher who visited Bhutan in the 8<sup>th</sup> century AD. The education practice was said to be through informal relationships between the master and the disciples. The formal monastic education started in the 17<sup>th</sup> century AD at Chari in Thimphu by Zhabdrung Ngawang Namgyel<sup>1</sup> (Dorji, 2005). As monastic education gained prominence, each family sent a son to the monastery to become a monk. According to Dorje (1990), every Bhutanese family dedicated at least one of its sons to the monastery. It used to be usually the firstborn or the favorite son.

The monastic education comprises of learning of the alphabet, spelling, and reading and then proceeds to the memorization of ritual and other relevant text with the names and praises of

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<sup>1</sup> Zhabdrung Ngawang Namgyel was the one who brought about the complete unification of Bhutan and he was the founder of Drukpa sect.

the lama saints. After that they are engaged in learning fine arts like sacred dances and the playing of monastic musical instruments such as the trumpet, the drum, etc. Other subjects like grammar and literary science (called ‘rigney’ in Dzongkha<sup>2</sup>) are offered as optional subjects and they are geared towards those interested in pursuing higher Buddhist philosophical studies (ibid). The better performing students were sent to continue their studies in the different monastic colleges in and around Lhasa in Tibet (now part of China). Learned Lamas returned to their monasteries where they taught others who helped to spread monastic education (Rinchen, 2000). After gaining proficiency in Buddhist studies, a monk is required to undergo a minimum of three years meditation practice in one of the meditational centres (Dorje, 1990). At present, different Buddhist Colleges are set up across the country and subjects like English and Mathematics have been introduced. To check the quality of monastic education, a Board of Examination has also been instituted (ibid).

Faith and devotion to the teacher and the texts play an important role in monastic education and hence, the authority of the text and the teacher is never questioned (Phuntsho, 2000). This in turn has led to monastic education to be teacher centered and rote learning prevails.

Modern education came to Bhutan only in the early 1960s. In the initial stage it was looked upon with reluctance and suspicion by many Bhutanese people as it was in contrast with monastic education in terms of purpose, content, approach and method (ibid). Over the years, it gained acceptance by the Bhutanese people as it brought about lots of changes in the teaching and learning process and development across the country. It further gained popularity at the national level with opening of more schools, colleges and institutions. However, it doesn’t mean that the monastic education came to an end. Both the education systems progressed distinctly in their own domains though the preference is for modern education as it is found to bring about human development and improve the living conditions of people (ibid).

The modern education consists of various subjects like Humanities, Sciences, English, etc. During the early onset of modern education, very few Bhutanese teachers were involved in teaching. The majority of the teachers were from India. The curriculums were mostly borrowed from India and teaching was in Hindi, the national language of India. The result is

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<sup>2</sup> Dzongkha is the national language of Bhutan

that we find many Bhutanese senior people well versed in reading, writing and speaking Hindi. This is evident in an interview excerpt conducted by Giri and Willert with three veterans who during the time of interviews were still actively serving in teaching or holding managerial posts in Bhutanese education sector:

When I started Primary school I initially had one teacher of Bhutanese background, and one Hindi speaking teacher of Indian background. The Bhutanese teacher taught me reading and writing in Choeky, i.e. the language of monasteries. The Indian teacher taught me reading and writing in Hindi. Our textbooks were in Hindi. For this reason, even today as a grown-up person, I still use Hindi when I'm doing multiplication in my head. (Giri & Willert, 2014, p. 2)

Besides reading and writing in Hindi, there were other impacts of borrowed curriculum. In the book titled 'Himalayan Kingdom Bhutan: Tradition, Transition and Transformation', Sinha points out how the Bhutanese students lacked knowledge about their own country:

Consequently, for example, class three students in Bhutan learned about India, England and other, but they hardly knew the contours, geography and events of history of their own country. (Sinha, 2001, p. 195)

Being a very small country, the need to communicate with the rest of the world was earnestly felt by the third King Jigme Wangchuk. He decided to go in for English medium schools in Bhutan sometime in 1962. The late Canadian Jesuit, Father William Mackey was invited by the Royal Government of Bhutan to help set up English medium schools in Bhutan (ibid).

Though much progress has taken place in the modern education system, like in the monastic education, teacher's authority is still respected and everything given in the textbook is followed without question. Our Bhutanese culture emphasizes 'respect of elders'. Here, it doesn't mean that such culture mayn't exist in the rest of the world but in the Bhutanese context, it plays a major influence in the classroom culture. In the classroom, a teacher is always looked upon as someone whose knowledge cannot be questioned. He or she is supposed to have an answer for every question. As such the respect placed on a teacher is huge. This is evident from the way a teacher is treated in the class. When the teacher walks into the class, every student stand up to wish him a good morning or afternoon according to the time of the day and similarly when the teacher leaves the classroom, students stand up to thank him or her. In the class, students maintain silence when the teacher is teaching and nobody would dare to intervene or make direct eye contact as pointed out by Roder in her PhD dissertation, (2012). There is no written law saying that this is how things should be practiced in the class but it just exists and has been there since the start of the education

system in Bhutan. Keller and Utha has also pointed out in their study on ‘Pedagogical discourses in Bhutanese upper secondary school’ that though the term modern has been used to designate the education system, the teaching approach followed is to a great extent still teacher centered and emphasis is on acquisition of the knowledge given in the textbook (Keller & Utha, 2014). Maybe the influence has passed on from the practice in monastic education where faith and devotion is bestowed to the teachers and the religious texts and the teacher’s authority prevails without question.

There is no solid definition of quality of education in Bhutan. Dorji in his book ‘Quality of Education in Bhutan: The story of growth and change in the Bhutanese education system’, has explained what constitutes quality of education as follows:

Today we consider that, as they (the students) leave the school, our young adults should possess adequate knowledge of science and technology, of culture and faith, of values and traditions and of ethics and good living. Apart from these, we expect our young adults to have adequate skills to be able to deal with the day to day challenges at their work places, to be gainfully employed and to think critically and morally for the benefit of self and society. We then might say that these constitute quality of education in Bhutan. (Dorji, 2005, p. 180)

He has further listed good teachers, school conditions, management and leadership and adequate learning materials available as necessary for creating and enriching learning environment. Though there are lots of talks going on about decline of quality of education as mentioned in section 1.1, there is hardly any large scale studies conducted in this regard. In 2009, iDiscoveri Education<sup>3</sup> and the Royal Education Council in Bhutan have carried out a study on the quality of school education in Bhutan and have listed four quality criteria:

- Students learning and achievement
- Classroom practices
- School effectiveness
- Education system

Based on these four quality criteria, their major finding is that the students learning outcomes are below the minimum expectation of their grade levels. The reason for the poor learning outcomes are found to be many out of which some are due to mechanical teaching process; deficient instructional resources; inadequate measurements of learning; lack of the essential infrastructure, design and resources to ensure a comfortable and engaging environment for

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<sup>3</sup> iDiscoveri Education is a centre for education and enterprise in Gurgaon, India

students and teachers; and no clear link between the stated national socio-economic goals and the goals of the education system.

The geographical location of the country and the economic status of the parents though not directly mentioned in their findings do impact quality of education. It is a common knowledge that many of the students in Bhutan come from poor family background and are expected to help their parents after schools which would leave them with less time to study at home. Students in schools located in rural areas have to travel long distance on foot to reach school. Some of the rural areas do not have electrification. Though the government tries its best to allocate equal budget and facilities to all schools, the geographical location hinders most of the schools from receiving facilities like teaching and learning materials on time.

### **1.2.3 Education system in Bhutan**

After the onset of modern education, the education system comprised of a two year pre-primary followed by a six year primary education, four year secondary education and two year junior college (Class XI & XII) called “Pre University”. Only a few selected would be eligible for graduate level education for which they were sent to colleges and universities in the neighboring countries. The curricula and the textbooks used in the English medium schools in India were borrowed and used. The curriculum content was all in Indian context except for Dzongkha.

Bhutan has made so much progress in the education system over the last years. The number of schools, number of enrollment in schools and number of trained teachers have increased. Most of the curriculum has also been changed to Bhutanese context. At present, primary education covers the preprimary class (PP) and grades I to VI; secondary education comprises two years (grades VII and VIII) of lower secondary school, two years of middle secondary (grades IX and X), and two years of higher secondary education (grades XI and XII). However, there are some higher secondary and middle secondary schools that would be having classes right from PP onwards. Upon successful completion of higher secondary education, students have more option to pursue their tertiary education within Bhutan as well as abroad. The education is free. Even the unsuccessful students in the exams are allowed to repeat the grade level for free. In the tertiary level, if the students have not scored the required marks to progress to next higher level, then depending upon the marks scored, students have

three options: re sit with progression, repeat without stipend (living allowance) and seek admission outside Bhutan.

### **School statistics**

As per the Educational Statistics (2012) of Bhutan, statistics of Middle Secondary Schools (MSS), Higher Secondary Schools (HSS), number of students and number of teachers including private schools are as reflected:

**Table 1. School statistics**

| <b>Type of school</b>    | <b>No. of schools</b> | <b>No. of students</b> | <b>No. of teachers</b> |
|--------------------------|-----------------------|------------------------|------------------------|
| Middle Secondary Schools | 59                    | 39963                  | 1174                   |
| Higher secondary Schools | 48                    | 32702                  | 1548                   |
| <b>Total</b>             | 107                   | 72665                  | 3322                   |

Annual Education statistics-2012

### **Class size**

According to Ehrenberg, Brewer, Gamoran and Willms (2001), class size refers to the actual number of students taught by a teacher at a particular time. As per the National Education Association (NEA) policy brief, the optimal class size is fifteen for regular programs of teaching especially for lower grades and it should be smaller for programs for students with exceptional needs (2008). Only, few classrooms in Bhutanese school where the population is sparse meet this guideline. Budget constraint, shortage of teachers, and classroom space are some of the reasons for not having class of this size. Maximum of the schools have class sizes above the optimal requirement stated by National Education Association. In some schools, class size is even not in accordance to the classroom space. Students would be sitting in long rows of desk and benches and teacher movement is restricted to only the front row. This kind of sitting arrangement is practiced to accommodate more number of students in the class. There are number of studies that indicate the negative impact of large class size on teachers in terms of increasing stress and teacher burn-out (cf. Blatchford & Martin, 1998). Though such studies were not conducted in Bhutanese schools, there are many teachers voicing their heavy workload. Table 2 shows the class size per location per school:

**Table 2: Class size per location per school**

| Type of school   | Urban | Semi-urban | Semi-remote | Remote | Very-remote | Difficult <sup>4</sup> | Average |
|------------------|-------|------------|-------------|--------|-------------|------------------------|---------|
| Middle Secondary | 24    | 39         | 21          | 19     | 16          | 37                     | 23      |
| Higher Secondary | 28    | 30         | 35          | 14     | 17          | 0                      | 29      |

Adapted from Annual Education statistics-2012

The point that has to be noted in Table 2 is that a school may be identified as urban but within two urban schools there would be lots of discrepancies. For example Samtse HSS and Phuntsholing MSS are both considered as urban schools. Samtse HSS (located in Samtse dzongkhag) would have around 25 students in a class whereas Phuntsholing MSS (located in Chukha dzongkhag) would have more than 40 students. The reason being that though both Samtse and Phuntsholing are located on the Indo-Bhutan boarder, Phuntsholing has more number of accesses to other parts of Bhutan than Samtse. In addition, major industries are located in Phuntsholing. In fact, it is the second largest city in Bhutan and is considered the economic capital and the gate way of Bhutan. Hence, Phuntsholing has more population than Samtse.

### **Student-teacher ratio**

The student-teacher ratio (STR) measures the number of students per teacher. It would reflect a teacher’s workload and the availability of his or her services to students. Table 3 shows the student teacher ratio in schools by location:

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<sup>4</sup>Difficulty in terms of access to road, electricity, weather conditions etc.



**Table 3: Student-teacher ratio in schools by location in 2012**

| Type of school   | Urban | Semi-urban | Semi-remote | Remote | Very-remote | Difficult | Average |
|------------------|-------|------------|-------------|--------|-------------|-----------|---------|
| Middle Secondary | 26    | 28         | 22          | 23     | 19          | 37        | 23      |
| Higher Secondary | 12    | 24         | 22          | 23     | 13          | 0         | 29      |

Adapted from Annual Education statistics-2012

One has to be mindful that the figures reflected in the Table 3 could be misleading. When we talk of MSS or HSS, these schools do not exist independently in most cases. Typically, both MSS and HSS schools would have classes right from PP to X or PP to XII respectively as mentioned already. A teacher in MSS would be teaching classes other than IX and X and likewise a teacher in HSS would be teaching classes beside XI and XII. So, the teacher pupil ratio would be far greater than the one reflected in Table 3. For example, Gedu HSS has classes right from PP to XII and the teachers are involved in teaching lower classes as well though they are designated as higher secondary teachers.

### **School location**

The Royal Government of Bhutan has undertaken lots of initiatives to increase access to school for all children. To ensure provision of primary education, initiative like: setting up schools within less than one hour walking distance from the communities, and increasing the number of community primary schools and extended classroom, and primary schools are under process (RGoB, 2009). The same applies to secondary level students. However, there are thousands of students in Bhutan who still walk to school every day due to various reasons and it has a negative implication on their learning. Some would be walking at least six hours a day (Nidup, 2013).

### **1.2.4 Assessment practice in Bhutanese schools**

There existed a practice of written examination with the introduction of modern education, the outcome of which was used to promote a student to next higher grade. However, each school had its own way of doing it. Over time, some kind of uniformity in the school

assessment of students for promotion evolved. But the practice was completely summative and factual (Maxwell, Rinchen, & Cooksey, 2010) in the form of midterm and annual examination. Later in the early 1980's these two forms of examination was replaced by mid-term exam, trial exam and annual exam which was again changed back to mid-term and annual examination.

During late 1980s, assessments were classified and followed up to class VI as follows:

*Ongoing evaluation:* This was to assess the progress of the students through regular evaluation, mostly observing behavior, social and academic skills, and thus be formative in each subject/topic. The weighting given was 30%.

*Mid-year evaluations:* This included both oral and written tests with an overall weighting of 30%.

*End-of-year evaluations:* It also included both oral and written tests with questions covering all the topics. The weighting given was 40%. (Maxwell et al., 2010)

From 1996 onwards, the term continuous assessment was synonymously used for ongoing assessment (Rinchen, 2000). A uniform assessment practice was introduced up to grade VIII with 50% continuous assessment and 50% external examination for classes PP to VI and 20% internal continuous assessment and 80% external examination for classes VII to VIII (MoHE, 1995). This was further extended and as of now, the assessment practice followed is as reflected in Table 4.

**Table 4: Assessment practice and weighting**

| Class            | Continuous Assessment |                 | Summative assessment |   |
|------------------|-----------------------|-----------------|----------------------|---|
|                  | Weighting (%)         | Responsibility  | Weighting (%)        | Responsibility                                      |
| Primary          | 50                    | Subject teacher | 50                   | Subject teacher                                     |
| Lower Secondary  | 20                    | Subject teacher | 80                   | Subject teacher                                     |
| Middle Secondary | 20                    | Subject teacher | 80                   | Subject teacher for IX and BSCEA <sup>5</sup> for X |
| Higher Secondary | 0                     | Not applicable  | 100                  | Subject teacher for XI and BCSEA for XII            |

From Table 4, it is clear that lots of emphasis is being placed on summative assessment especially in higher secondary classes. However, continuous assessment at this level also takes place through questioning, class test, homework, classwork, project work, etc. Grades are (not for all) awarded though it does not add to the final summative assessment grade. For class XII Science classes, out of the 100% summative assessment, 20% is allotted to science practical assessment that is carried out by Bhutan Council for School Examination and Assessment (BCSEA). An external examiner appointed by BCSEA and representing BCSEA is responsible for the conduction and marking of the practical exam.

#### 1.2.4.1 Concept of continuous assessment (CA)

Until Bhutan's sixth Five-Year Plan (1987-1992), the curriculum for the primary education was largely based on the Indian system. In 1986, the New Approach to Primary Education (NAPE) was introduced. Its approach was child centered incorporating history, values and the

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<sup>5</sup>Bhutan Council for School Examination and Assessment. Initially it was called as Bhutan Board of Examination Division (BBED).

environment of the Bhutanese people. Around the same time, CA was introduced as mentioned by Rinchen in his doctoral thesis:

Continuous assessment, commonly referred to as “on going evaluation” in the English Curriculum in primary schools in Bhutan, was introduced as a new system of assessment in English language at the same time as the introduction of the New Approach to primary Education (NAPE) in 1986 (2000, p. 1).

Curriculum reforms in English, Dzongkha and Mathematics which was implemented in Bhutan’s ninth Five-Year Plan (2002-2007) have incorporated CA as a part of teaching and learning program. CA is now incorporated in all the subjects.

The introduction of CA was to be one of the corrective measures to curb for high dropout and failure rates thereby reducing wastage of government budget in the form of grade repetition. It was to be developed as an effective school level monitoring and feedback mechanism to help teachers to achieve the curriculum goals. It was to be formative in nature in enhancing learning (Rinchen, 2000; Deki, 2008; REC, 2012).

For grade PP to V, the information on how to carry out CA is given in the teachers’ manual for each subject. For grade VI to X, CA was supposed to focus on classwork, homework and project work. However, the teachers had no guidelines to follow. From 1994 to 1998, Curriculum and Professional Support Division developed a teachers’ guide on CA for grade VI to X to be used in all schools (CAPSD, 1999).

According to this guide, the CA should:

- ✓ be continuous throughout the year
- ✓ provide individual children with verbal and written feedback on the academic progress in each subject area
- ✓ aim for mastery learning
- ✓ provide the teacher with feedback for the improvement of teaching
- ✓ provide the curriculum developers with feedback for further improvement of the curriculum

The guide states that the purposes of CA are to:

- ✓ enhance the teaching and learning processes
- ✓ encourage child centered learning
- ✓ reduce school dropouts and grade repetition

- ✓ promote professional accountability of teachers
- ✓ discourage examination-oriented education system
- ✓ promote social and personal values through a more informal evaluation system

Though each subject committee has come up with its own explanation of the term CA, each one has included most of the components listed above. For example, as per the syllabi of class IV to VI:

Continuous assessment involves the process of gathering information about student knowledge, understanding, skills, attitudes and values before, during and after each chapter or unit. This information is used to make judgments about the level of student achievement; identify future learning needs of the students; and report student progress. (CAPSD, 2008, p. 47)

Gathering information, making judgment about level of student's achievement, identifying learning needs, and reporting progress are all sub part of purpose of CA. For grade XI –XII, there is no mention of CA. From my personal experience as a mother of high school going child, and also experience during the field data collection, CA is being carried out in the form of classwork, homework, class test and project work. Teachers, students and principals also mentioned during the field data collection that they carry out CA without giving grades. In some cases, grades are given but are not added to final summative evaluation.

#### *1.2.4.2 Continuous Formative Assessment*

The term CA got bifurcated to continuous formative assessment (CFA) and continuous summative assessment (CSA). Though the term CFA is more frequently used than CSA, CSA dominated in the actual practice in the form of unit test, block test, viva voce etc. (CAPSD, 2006). The formal requirement of CFA is on academic achievement but the emphasis seemed more on issues like neatness, effort and meeting submission deadlines.

Around 2005 onwards, a major curriculum reform started taking place in all the subjects with Department of Curriculum, Research and Development (DCRD)<sup>6</sup> taking a lead role. The terms CFA, CSA and summative assessment (SA) were distinguished with different techniques and tools to be used under each one as shown in Table 5:

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<sup>6</sup> CAPSD was a division but became department later and the name changed to DCRD

**Table 5: Assessment matrix**

| <b>ASSESSMENT MATRIX</b>   |   |  |  |
|----------------------------|---|--|--|
| <b>Types of assessment</b> | <b>CFA</b>  | <b>CSA</b>   | <b>SA</b>  |
| Definition                 | It is a continuous process of assessing student’s problems and learning needs; provide feedbacks and to identify the needs for the remedial measures to improve student’s learning. It also enables teachers to understand what teaching methods and materials work best. | It is a continuous process of grading student’s performances and achievements. Based on their performance, teachers provide feedbacks for improvement. It also enables teachers to understand what teaching methods and materials work best. | Assesses student’s cumulative performances and achievements at the end of each term. |
| Techniques                 | Quiz & debate, self & peer assessment, homework, class presentation, class work, immediate interaction with students, experiments, exhibition, observation of student’s conduct, group work, field trip, excursion  | Homework, chapter end test, project work, journal & scrapbook, observation of student’s conduct guided by scientific and social values   | Term examination and paper pencil test   |
| Assessment tools           | Question answer, checklist and anecdotal records  | Rubrics, chapter end test, rating scale  | Test blue print and paper pencil test  |
| Weightings                 | Nil   | 50% ( 25% before mid-term and 25% after mid-term) <sup>7</sup>   | 50% (20% for mid-term exam and 30% for annual exam)                                  |

Adapted from Teachers’ Manual: Class IV-VI Science, 2013, RGOB

Table 5 indicates that the information from CFA is to be used for enhancing teaching and learning process and not for grading. CAPSD (2011) stated that teachers may decide to take appropriate actions as to whether to move with the next lesson or to conduct remedial lessons

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<sup>7</sup>The weighting is further sub divided into components.

on the topics covered-based on the information indicated through the formative assessment. However, this initiative applies to grade VIII and below only and is not present for higher classes till date.

### 1.3 Research Context

Quality of education has a direct link with the assessment practices we follow. Teachers need to know how effective their teaching is and their other roles in school towards providing wholesome education. Therefore, unless the school engages themselves in a process of formative assessment, it will be difficult to assess their performance.

In the Bhutanese school system, formative assessment is officially explained as an ongoing assessment designed to make students' thinking visible to both teachers and students. However, when it came to the practice of formative assessment called as CFA in Bhutan, it remained a challenging task for the teachers as they are left to their own discretion, and to make use of their own creativity and ingenuity in carrying it out. There is no proper information sharing and teachers are not trained to undertake such assessment. As a result there is no real assessment taking place (Wangchuk, 2000).

After the inception of CFA, it was felt by everyone concerned in the Ministry of Education that it was not implemented properly and Bhutan Board of Examination Division (BBED)<sup>8</sup> undertook a project to review CFA from 1998-2003. Some of the findings of the project based on survey questionnaire are

- i. Concept of CFA was not clear to implementers.
- ii. Implementers were not sure about when CFA should exactly happen in the teaching and learning process.
- iii. CFA has not changed the teachers' practices in the classroom.
- iv. They had no examples to cite and implementers' perceived that CFA have brought a negative impact on learning.

The CFA's weighting decreases as grade level increases as indicated by Table 4 and Table 5. Assessment focus in higher classes is mostly summative, in the form of year end examination.

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<sup>8</sup> Now changed to BCSEA

In Bhutan, though everybody says that the purpose of education is students' learning, *examination culture* is predominant. This to a large extent is due to a hard competition for the most attractive jobs. For example, high stake assessment like Bhutan Civil Service Examination (BCSE) is conducted nationwide every year for the University degree holders to select the best people to serve in the civil service. The best people here refer to people who can score the highest in such examination. The number of selected candidates is decreasing every year due to decrease in availability of jobs. But the number of people sitting for such examination is increasing as civil service offers better working condition and job security which is often found lacking in the private sectors. For example, for the year 2014, there were 3254 graduates who sat for the preliminary BCSE out of which only 1238 were selected to sit for the main BCSE. From the 1238 university graduates, only about 35% will be selected for civil service (Pokhrel, 2014). This percentage selection is reported to be less by 68 graduates compared to 2013 (Pokhrel, 2014). The rest 65% of the graduates as well as 2016 graduates who couldn't make it through the preliminary examination have to seek jobs on their own in the private sector.

Similarly, at the school level, there is board exam for class X and XII students called as Bhutan Certificate of Secondary Education (BCSE) examination and Bhutan Higher Secondary Education Certificate (BHSEC) examination respectively, where all the students studying in class X and XII in Bhutan have to sit for the said examination. The result of these examinations determines whether a student can progress to next higher level. For example, as per the Kuensel report, only 40% of the students who has sat for 2013 BHSEC-XII examination could progress to higher study in Bhutan. Out of the remaining 60% students, only about 1000 students were expected to study on their own expenses as most of the parents wouldn't be in a good financial position to support their children's education. This leaves about 3753 students which exclude the 1292 students who have failed the examination, to enter the job market which already has about 6817 job seekers excluding the University graduates (Pelden, 2014). The example cited is only for class XII students. Similar case exists for class X students.

This presents a grim reality for a country of only around seven hundred thousand populations where job opportunities are becoming scarcer and the number of job seekers is on the increase. The handful of private sectors cannot absorb all the job seekers. Hence, there exists



a constant struggle between learning to learn and learning in order to get a good job. The *examination culture* results in competition amongst the students. The competition is not a healthy one as priority is not on learning but getting the highest marks. The teachers are also helpless in such situation. On one hand they have the students' learning to consider and on the other hand, they have to think of students' achievement in terms of marks. As the achievement of marks overrules the learning, teachers land up organizing their teaching in a way that prepares students for examination. The teaching then is centered on what is given in the textbooks and the type of questions usually asked in the board exams. Hence, the emphasis on rote learning prevails.

Similar conditions are reported in other Asian countries (Kennedy, Fok, Yu and Chan, 2007; Zhan & Wan, 2010). Zhan and Wan in their study in Mainland China has reported that when examination is given priority, emphasis is on unified learning objectives for all students and doesn't take into account the individual differences in terms of learning ability and learning style (2010).

This kind of practices may undermine quality of education. In order to get high percentage, a student might resolve to memorizing the content rather than understanding. The school will also encourage such kind of learning as the reputation of the school is at stake. If the results are good comparatively, then the school and the teachers are in good standing in the eyes of the public and authorities. This will lead to having a highly qualified Bhutanese citizen in terms of percentage of marks only and lack in understanding the content knowledge.

## **1.4 Significance of the research**

Decline of quality of education is an issue coming up frequently in Bhutan. The issue became more prominent after the detrimental Call Centre interview where only 27.6% of the 163 high school students as well as university graduates who applied were found competent enough for the job (Wangdi, 2006). In the same year, it was further deliberated in the 86<sup>th</sup> National Assembly, where it was noted that the standard of education in Bhutan is deteriorating. Now, the question is: what is really happening in our education system? In particular, we may ask how well teaching and learning in the schools are supported through assessment practices.

In the Bhutanese schools, the most visible assessment practice is summative assessment in the form of mid-term examination, annual examination, unit test, class test etc., though

formative assessment does take place. It seems as if too much emphasis is placed on summative assessment and that rote learning is prevalent. There exists a practice of continuous assessment, but whether it serves formative purposes or summative purposes is more obscure. The present dissertation contributes to remedy this situation by indicating how formative assessment should be conceived in relation to the quality of education, or more precisely: the quality of teaching and learning.

Based on the research findings, informed decisions can be made on formative assessment practices, curriculum changes, improvements in teaching methods and resources. Some appropriate intervention strategies may be proposed to improve the teaching-learning environment. This study may be useful for the overall improvement of formative assessment practices in the country with far reaching consequences in producing skilled and literate workforce.

## **1.5 Association of Ph.D. project with the collective project**

This research study is a part of the Danish-Royal University of Bhutan collaborative research project on *Quality of school education in the perspective of gross national happiness and assessment practices in Bhutan* which includes a Ph.D. study leading to a Ph.D. award for one of the Bhutanese collaborators. The overall project aims to investigate quality of education and how it is related to assessment practices and happiness. The Ph.D. study in particular focuses on *formative assessment practices in Bhutanese secondary schools and its impact on quality of education*.

The joint research project constitute of qualitative case study followed by quantitative survey approach. The case study includes seven schools selected on rural-urban setting. The Ph.D. study includes only qualitative component with a particular focus on two schools out of the seven as case study.

During the researcher's study visit to Aalborg University from April to June, 2012, literature study on formative assessment and quality of education was carried out, the outcome of which was presented during a methodological seminar in June, 2012 at Aalborg University attended by research partners from Bhutan as well as Aalborg University. The methodological seminar was followed by one week workshop in September, 2012 in Samtse,

Bhutan where the case study preparation was undertaken. It was agreed that the empirical material to be collected in each case will consist of

- Classroom observation of teaching and learning
- Semi-structured interviews with various stakeholders like teachers, parents, principals and education officials
- Focus group interviews with students
- Action research with teachers
- A description of the school setting
- General context description

The preliminary data analysis on formative assessment pointed to a need for more information. Also, the action research process undertaken with the teachers seemed like an extension of the semi-structured interviews. After lots of interchange between Soren Willert (research co-partner from Aalborg University who happened to be in Bhutan during that time) and the Ph.D. student, and in consultation with the Ph.D. supervisor, additional field data collection at the two schools, Yoeseitse MSS and Gedu HSS was carried out.

The field data collections and transcribing were undertaken jointly within the Bhutanese research groups as well as solely by the Ph.D. student as indicated in Table 6:

**Table 6: Work responsibility**

| School                    | Data collection                                   | Transcribing                                      | School setting description | General context description | Preliminary data analysis   | Interviews with education officials and transcribing |
|---------------------------|---|---|----------------------------|-----------------------------|---|--|
| Samtse HSS, Samtse        | Jointly   | Jointly   | Ph.D. student              | Ph.D. student               | Carried out in three subgroups consisting of both the Danish as well as Bhutanese researcher. | Ph.D. student  |
| Yoeseitse MSS, Samtse     | Ph.D. student                                     | Ph.D. student                                     | Ph.D. student              |                             |   |  |
| Pejorling HSS, Samtse     | Bhutanese research group other than Ph.D. student | Bhutanese research group other than Ph.D. student | Jointly                    |                             |   |  |
| Phuntsholing MSS, Chhukha | Bhutanese research group other than Ph.D. student | Bhutanese research group other than Ph.D. student | Jointly                    |                             |   |  |
| Gedu HSS, Chhukha         | Ph.D. student                                     | Ph.D. student                                     | Ph.D. student              |                             |   |  |
| Zhemgang HSS, Zhemgang    | Bhutanese research group other than Ph.D. student | Bhutanese research group other than Ph.D. student | Jointly                    |                             |   |  |
| Drugyegang HSS, Dagana    | Bhutanese research group other than Ph.D. student | Bhutanese research group other than Ph.D. student | Jointly                    |                             |   |  |

During the study visit to Aalborg University (8 months), courses equivalent to 30 ECTS were undertaken and completed successfully. The courses undertaken are attached as Appendix 1.

## 1.6 Work process

This subtopic briefly describes the challenges faced by the researcher in undertaking this study. These challenges are broadly divided into four groups: *Cultural difference, subject back ground, English language and data collection.*

*Cultural difference:* The researcher's experience of studying in Canada for two years and another two years in India has helped in being mentally prepared for the study visit (to Aalborg University) to cope with the cultural shock in terms of life style, food habits and addressing each other faced by many international students going to a different country. In addition, the longest study visit was for five months only. Hence cultural difference in terms of life style was not acutely faced. However, the other challenges as pointed out by Dimitrov (1973) in 'Western guide to mentoring graduate students across cultures' like speaking directly to the supervisor, critiquing somebody's work and waiting for the supervisor to tell you what to do still remained. The two years stay in Canada wasn't enough to move beyond these cultural habits with which the researcher was brought up in Bhutan. The two years stay in India has in fact enhanced the habit. The researcher always felt hesitant to take initiative to do things in regards to the Ph.D. study which the supervisor has not recommended though the supervisor never discouraged such move. As a result, the researcher often waits for the supervisor's direction to proceed with the work. Another problem faced is on critiquing somebody's work. The scant knowledge in research related work most of the time made the researcher to feel self-conscious and anxious in regards to critiquing other's work. However, the supervisor seemed to have understood these cultural differences early on and support was always extended.

*Subject background:* The researcher comes from a pure science background whereas the Ph.D. research is a part of social science. In the pure science, the focus of the study is on the natural laws of science and doesn't depend on the subjective understanding of human existence. The basis of this kind of science is usually on experimental data obtained through experiment or laboratory testing. The social science on the other hand is the study of social phenomena revolving around behavior of humans. Data collections are often through

observations and interviews. Hence, the challenge faced in this study is on having to move beyond the researcher's comfort zone.

*Language:* The medium of education in Bhutan is in English except for Dzongkha, which is the national language. However, writing in English is a challenge to most Bhutanese as the mother tongue and the dialect is not a written language. Hence, in the process of writing, often direct translation from local dialect to English takes place. As a consequence the writing becomes difficult to understand especially for the non-Bhutanese readers. This challenge was time and again encountered during this study.

*Data Collection:* During the field data collection, the researcher was often looked upon as somebody sent by the higher authority to carry on the role of school inspector and also the researcher's professional background as teacher educator didn't make the matter easier. Maybe due to these reasons, the teachers seemed uncomfortable during the classroom observation and during the interviews some of the teachers and principals were not forthcoming with their views though repeated explanation was made on the purpose of this study. In case of interviews with parents, some of the parents were not educated and hence interviews had to be conducted in local dialect. In the local dialect in Bhutan, terms like formative assessment, peer assessment, self-assessment, continuous assessment etc., are not well defined and it was difficult to communicate to the parents such terms. Some of the parents seemed reluctant to give their opinions during the interviews.

## **1.7 Organization of the dissertation**

Chapter two outlines the literature review on formative assessment with particular focus on Black et al's four forms of formative assessment. It also discusses the primary theory on which this study is based. Chapter 3 gives the justification for the research methodology under practice and the theory on which the analysis of data is based. Chapter 4 deliberates on the design process and implementation of the design. Chapter 5 is on data analysis. Chapter 6 discusses the empirical findings with respect to design and implementation. Chapter 7 discusses the solidarity of the findings focusing on validity and reliability. Chapter 8 discusses the empirical result with reference to literature study and theoretical framework. Chapter 9 gives the conclusions arrived at and the recommendation.

# CHAPTER 2: THEORETICAL FRAMEWORK

## 2.1 Introduction

This chapter gives an overview of the theoretical literature about formative assessment and some crucial concepts of the student's learning that should be the result of its practice. The chapter is divided into three parts: The first part is a general study of literature on the dominant theoretical comprehension of formative assessment. The second part covers Vygotsky's concept of zone of proximal development and how scaffolding helps in moving learning forward. The third part discusses Dewey's theory on experience and education as a basis for effective formative assessment. Each of these parts contributes to the theoretical framework of the dissertation in very different ways.

The first part examines the concept of formative assessment and gives a broad view of what it is about. The principal international theories of formative assessment point to the various forms of what is comprehended as formative assessment and the notion of learning associated with this kind of assessment. The zone of proximal development is used as a concept to associate the practice of formative assessment directly with the teaching-learning processes, as a joint field or 'hinge' between the two. It clarifies the pedagogical topic that the formative assessment is oriented toward and that the combined teaching-learning is based upon: the zone where the teacher can currently promote the student's learning. Finally, Dewey's theory of experience and education appears to be compatible with Vygotsky's concept and its application as 'scaffolding', but goes more into depth with the understanding of learning. His theory of learning as closely cohering with the student's experience and active participation is used as the basic and primary theoretical framework for this study.

## 2.2 Formative Assessment

Student's motivation is crucial for learning to take place in any educational setting. In a class, there would be some students who pay more attention, want to learn more and are eager to ask questions. Contrary, there would be some students who are very quiet, inattentive and look as if they want the teaching and learning session to end. In the second case, instead of trying to find out what the problem could be, we usually assume that the problem lies in the

individual student (Nolen, 2011). Whichever type the students are identified as, learning for them is not based on what is taught but how things are taught. According to Wiliam,

(t)he greatest impact on learning is the daily lived experiences of students in classrooms, and that is determined much more by how teachers teach than by what they teach. (2011, p. 13)

Research findings shows that formative assessment has a positive impact on students' learning by increasing their motivation (Black & Wiliam, 1998a).

The concept of formative evaluation described as the evaluation of ongoing and malleable educational programs was introduced by Scriven in 1967. In 1969, Bloom transferred the term evaluation to assessment. Later in 1971, Bloom, Hastings and Maddaus formally introduced the idea that assessment need not be used solely to make summative evaluations of student performance, arguing that teachers should include episodes of formative assessment following phases of teaching (Allal & Lopez, 2005).

In the traditional education system, the term assessment was usually associated with assessment carried out by the teacher of the student's work or behavior. It was seen as teachers' responsibility. Now, in the modern education system with changing times, various forms of assessment are taking place whereby students are equally (if not more) engaged in the process of assessment that foster a deep approach to learning rather than surface learning. Black et al has identified four forms of formative assessment practices: feedback, peer and self-assessment, questioning, and formative use of summative tests (2003). The focus of this study is mainly on the first three forms.

### **2.2.1 Questioning**

In a classroom, question and answer is a dialogue taking place between a teacher and his or her students. It requires an active involvement of students in their own learning. Research study indicates that questioning is second only to lecturing in popularity as a teaching method and that classroom teachers spend anywhere from thirty five to fifty percent of their instructional time conducting questioning sessions (Cotton, 1988). It is an area of formative assessment which can result in relatively rapid, positive changes in the classroom (Clarke, 2005).

In classroom settings, teacher questions are defined as instructional hints that convey to students the content elements to be learned and directions for what they are to do and how



they are to do it. The content of a teacher's question depends on many things: the intended function of the question, the teachers understanding of the subject matter, and also the content of a question is related to its context (Carlsen, 1991). A teacher would have lots of influences on students' learning through questioning. Some of the influences are: *the type of questions asked; wait-time; teacher's response to students answer; and frequent call on high achievers.*

According to Black & Wiliam (1998a), *the type of questions* asked by the teachers is mostly closed ones, where only one answer is acceptable. Under such circumstances, the closed questions are usually recall questions. Some of the reasons cited by the teachers are: syllabus coverage, easier to ask recall questions, curriculum driven schools, tradition (where teachers are used to this kind of practice), lack of knowledge and easier to assess (cf. Walsh & Sattes, 2005). If the purpose of questioning is to uncover misconceptions, plan future instructions and cater to students' mixed abilities, then Black and Wiliam suggests that greater planning for good questions is a must (1998a).

Closed questions are also found to lead to a decrease in the *wait-time* given by the teachers to students. Rowe has found that teachers leave slightly less than one second before commenting on the students answer or if the answer is not forthcoming, asking someone else to answer it (1972; 1986). This doesn't give the students enough time to think of an answer and might lead to students' poor participation during the question-answer dialogue. A consequence of such short wait-time is that factual questions predominates (Black, Harrison, Lee, Marshal and Wiliam, 2004). The question-answer dialogue then becomes "a ritual; one in which all connive and thoughtful involvement suffers" (Black & Wiliam, 1998b, p. 8).

24 teachers involved in the study on the questioning approach by Black et al agreed that their practice of giving less than one second as wait-time during questioning made them compromise by asking simple and closed questions which called for a recall rather than thinking in answering by the students. These teachers then increased the wait-time in their classroom practice by: asking open questions that made the students think, and asking students to discuss in pairs or in small groups before responding to the question. Over the time, they found that students' participation in the discussion increased and the length of the answer also increased. In addition, teachers came to know their students and the gap in their students' knowledge and understanding, which in turn helped them to make their next move

in the teaching and learning process (Black, Harrison, Lee, Marshal and Wiliam, 2003). Similar findings are reported by Rowe (1972; 1986).

Discussion in pairs or groups gives the students the opportunity to reach for an answer collectively. It provides an opportunity for students to rectify their mistakes and build on each other's ideas. However, such effective discussion will depend on the wait-time as Rowe has stated:

Circumstantial evidence leads to the inference that conversation in which students build on each other's ideas cannot develop in classrooms operated on a fast wait time schedule. (1972, p. 5)

At the end, the most important thing is that any dialogue should lead to thoughtful reflection in which all pupils can be encouraged to take part, for only then can the formative process start to work (Black & Wiliam, 1998b, 2005; Looney & Wiliam, 2005).

Formative interaction in classrooms not only involves having good questions and wait-time but also the way in *which the teacher handles the students' responses*. Sometimes, a teacher would, quite unconsciously, respond in a way that discourages learning. This is found to happen mostly when a teacher is looking for a particular answer and is not able to deal with the unexpected answer students might come up with (Black & Wiliam, 1998b). A teacher's response has to cater to further thinking and learning (more on this under the subheading 'Feedback', section 2.2.4).

Also, a teacher might *frequently call on the better performing students* to answer the questions (Walsh & Sattes, 2005). Some of the teachers cite that such practice takes place when there is time constraint. Most of the times when the weaker students are asked to answer, if the answer is not forthcoming or if they give a wrong answer, then a teacher has to rephrase, prompt or redirect the question. This results in more time being spent. Some of the teachers added that they lack the patience to go through that process of rephrasing, prompting and redirecting the question. They added that when they ask better performing students to answer the question, it makes their job easy. This kind of a practice is to be an additional advantage to the high achievers whereas it has a negative influence on the low achievers. The low achievers become accustomed to low expectations making them lose interest in the learning (ibid).

Research findings indicate that students ask only about 5% of the questions in both elementary and secondary classrooms. They are reluctant to ask question for fear of embarrassment or they come to understand that it is the teacher who always asks the questions or there is time constraint or it is a teacher driven class (ibid).

### **2.2.2 Self-Assessment**

Boud refers to self-assessment as “the involvement of students in identifying standards and/or criteria to apply to their work, and making judgments about the extent to which they have met these criteria or standards” (1991, p.5). Here there are two important elements of self-assessment: identifying the criteria to be used and finding out to what extent the criteria has been met. In the school practice, the self-assessment process is often misconstrued with self-marking. If the students are not involved in establishing the criteria and make judgments of their work based on the model/key answers or standard rating scale provided, students are not involved in self-assessment. They are involved in self-marking (Falchikov & Boud, 1989) that encompasses rating themselves based on the teachers’ preset criteria.

In the traditional education system, because the assessment was always seen as teachers’ job, students wait for teachers to point out what needs to be done. This practice make our students dependent on outside force to tell them their strength and weaknesses and how to improve learning. Self-assessment involves students in thinking about the quality of their own work rather than waiting for a peer or a teacher to point it out. Candy, Crebert and O’Leary in their study on developing lifelong learning through undergraduate education reported that

... if students are to be encouraged to be lifelong learners, they must be weaned away from any tendency towards over-reliance on the opinions of others. Ultimately, in real world contexts, they must be able to judge or evaluate the adequacy, completeness or appropriateness of their own learning, so whatever assessment practices are used must be comprehensible to the learners so that they can be internalized as criteria for critical self-evaluation (1994, p. 150).

So, self-assessment in a way serves to make our students independent thinkers. They set their own targets, work towards meeting that target and in the process, tend to learn more leading to greater self-regulation (Andrade & Valtcheva, 2009). This practice has greater benefits in their professional life in later years.

For students to be an effective self-assessor, skills to undertake self-assessment has to be developed and opportunities to practice the skill has to be given (Falchikov & Boud, 1989).

For the development of self-assessment skills, the first and most difficult task is to get students to think of their work in terms of a set of goals. Students can achieve the learning goal only if they understand that goal and can assess what needs to be done to reach it (Sadler, 1989; Black & Wiliam, 2001). Students should learn to define their own projects, to assess their learning progress and assess whether they have reached their goals in these projects. Secondly, use of rubrics is recommended (Andrade & Valcheva, 2009; Andrade, n.d.; Bingham, Holbrook & Meyers, 2010). It is defined in this way:

A rubric is a scoring tool that lists the criteria for a piece of work, or “what counts”...; it also articulates gradation of quality for each criterion, from excellent to poor. (Andrade, n.d., p.1)

It is supposed to help students to become better judge of the quality of their own work by being able to better spot and solve problems.

In 1989, Falchikov and Boud analyzed studies of self-assessment on student rating and the rating of students by the teacher from 1932 to 1988 and reported that better performing students tend to be realistic and under-rate their performance whereas weaker students tend to overestimate their performance and over-rate themselves compared to tutor rating (see also Sluijsmans, Dochy & Moerkerke, 1999). However, the ability of students to rate their own work more accurately was found to be improving over time and the teacher’s feedback on the self-assessment process helped. It is found that over time students’ self-rating highly correlated with teacher rating (Pope, 2005). Nevertheless, Falchikov and Boud has pointed out that even in the absence of significant agreement on the ratings between student and teacher, self-assessment provides invaluable feedback to the students about their own learning as well as educational and professional standard (1989).

Various research reports positive impact of the use of self-assessment on students’ learning. Students engaging in self-assessment tend to: score high on tests; be more responsible for one’s own learning; show increased understanding of problem solving; and be more reflective in one’s own learning (Sluijsmans et al, 1999). However, students also have to be trained to carry out self-assessment. For the assessment process to have positive effect on their learning, they have to learn and understand their role in the assessment process (Falchikov & Boud, 1989).

### 2.2.3 Peer Assessment

Peer assessment involves students going through each other's work and assessing it against some pre-agreed criteria. It further involves them in a critically supportive dialogue encouraging positive social interaction through student-student interaction and student-teacher interaction. It gives the teachers opportunity to support the changing needs of the students. According to Topping,

(p)eer assessment is an arrangement for learners to consider and specify the level, value, or quality of a product or performance of other equal-status learners. (2009, p. 20)

The term product refers to students' written work in the form of classwork, homework, portfolios, project work or assignments and also presentation, test, and skilled behavior (ibid). Equal status learners in this context is understood as students from same grade level with same or slight difference in ability.

Peer assessment may take summative or formative role. When peer assessment is used purely for grading/certification purpose, it functions as summative assessment. On the other hand if it is used formatively for generating feedback on each other's work to help find the strength and weaknesses and remedial actions to be taken and also the indirect feedback a student get by assessing another's work, it functions as formative assessment. The formative nature of peer assessment process involves activities like peer feedback and peer learning (Wen and Tsai, 2006). In peer feedback, the feedback process is the same as the one taking place in a teaching-learning context. The only difference is that it is taking place between the students instead of teacher to student.

Peer learning, according to Boud, Cohen and Sampson,

*...refers to the use of teaching and learning strategies in which students learn with and from each other without the immediate intervention of a teacher.* (1999, p. 413, italics in original)

Peer learning that takes place amongst students can be of two kinds: reciprocal peer learning and peer teaching (ibid). Reciprocal peer learning occurs between same ability students whereby each act as both teacher and learner. Peer teaching is practiced by teachers by forming a kind of social grouping in between low achiever and high achiever students whereby the high achiever student takes on a limited role of teacher and low achiever takes on the student role. The high achiever students may be from the same class or those in later years. The peer learning serves as an important source of timely feedback to all the participants. It can take place spontaneously when a teacher is found to be unapproachable,

when the students are hesitant to voice their problems to the teacher in front of many other students, or when some students are having difficulty in understanding the concept being taught.

Whether peer assessment is taking place in the form of peer learning or peer teaching, the logic behind formative peer assessment is that it helps students to give or receive feedback faster from peers which help them to improve their learning. However, peer feedback compared to feedback from teacher in terms of quality is a much discussed issue though it's "greater immediacy, frequency and volume" is found to counterbalance (Topping, 1998, p. 255). This quality issue was taken up as a case study by Looney and Wiliam in 2005 in some British schools where they noted two concerns with peer assessment. One is that the students have to be really well trained to do this (cf. Clarke, 2005). The other is that students have to understand the nature of the error when they are marking. In addition, many students needed guidance about how to behave in groups like listening to each other, taking turns, and offering affirmation together with constructive criticism about one another's work (Black et al, 2003; Black & Wiliam, 2005).

Topping (1998) has summarized some additional factors necessary for quality implementation of peer assessment like: monitoring by the teacher during the process of peer assessment, especially if the participants are inexperienced; need to clarify expectations, objectives and acceptability so that different stakeholders (teacher, student assessor, and student assessee) have clear and common expectation and objectives. Students could be from diverse cultural background and acceptability issues need to be taken into consideration. Research findings show that if the above mentioned issues are taken care of, students at all levels are able to make reasonably accurate judgments on peer performance (Falchikov & Boud, 1989; Topping, 1998; Boud & Falchikov, 2007).

From students' point, peer assessment is a valuable learning experience: students may accept freely, from one another, criticisms of their work which they would not take seriously if made by the teacher; the interchange will be in a language that students themselves would naturally use. Furthermore, students learn by taking the roles of teachers and examiners of others; and students would be more motivated to put in extra effort knowing that it will be peer assessed and that they will also have to assess somebody's work (Sadler, 1998; Black et al, 2003; Black & Wiliam, 2005; Clarke, 2005; Topping, 2009). All this in turn leads to making

students responsible for their own learning as well as learning of others. They develop the capacity to be an assessor of learning which equip them with the capability of making decisions in the uncertain and unpredictable circumstances which would be required in their work place in near future (Topping, 2009; Boud & Falchikov, 2006).

For the teacher, peer assessment serves to free them from the task of assessing each and every student and instead concentrate on the process of peer assessment taking place. Also, it helps to free teachers' in situations like large class size where quantity of work to be assessed is huge and it becomes difficult to maintain the quality and quantity of feedback to be given to students (Race, 2001).

Looney and Wiliam found from their case study that peer assessment takes more time and teachers (especially science teacher) would rather prefer to spend time on content delivery (2005). Several research findings also agree to the peer assessment taking more time (cf. Kennedy, 2006; Sluijsmans et al, 1999). However, it was found that time spent was more only in the initial stage of practicing peer assessment (Topping, 1998). The other gains - like more time spent on task and practice, greater sense of accountability, cost effectiveness in terms of teacher having to assess large number of students directly, students remembering more and having a deeper understanding - overshadow the time spent (Topping, 1998; Topping, 2005; Clarke, 2005). Peer assessment also helps self-assessment as students involved in making judgment of others' work, gain insight into their own performance (Bostock, 2001).

#### **2.2.4 Feedback**

The teaching-learning cycle in the classroom is incomplete without feedback. Feedback plays a major role in enhancing the learning process and is an important component of formative assessment. Feedback in a teaching-learning situation is the information from the teacher to a learner on the correctness and how to further improve on any piece of work a learner has been working on. It may be in the form of oral or written comment and for it to be effective the teacher involved must have a sound content knowledge. In addition, the teacher should also be familiar with the skills involved in giving feedback and most importantly have knowledge about the person receiving the feedback.

The teacher uses the feedback to find out how students are learning and use these findings to make necessary changes in one's instructional design. Students on the other hand use the feedback to understand where one is standing at present and what needs to be done to reach the next higher level. This can be explained in the following way:

Feedback is information about the gap between the actual level and the reference level of a system parameter which is used to alter the gap in some way. (Ramaprasad, 1983, p.4)

His idea is supported by Sadler:

...the learner has to (a) possess a concept of the standard (or goal, or reference level) being aimed for, (b) compare the actual (or current) level of performance with the standard, and (c) engage in appropriate action which leads to some closure of the gap. (Sadler, 1989, p.121)

If the corrective action labeled as 'appropriate action' by Sadler is not undertaken by the learner, then the feedback doesn't serve its purpose. Sadler has further explained that any feedback not designed and intended to close the instructional gap does not meet the formative assessment definition of feedback (ibid).

According to Kulhavy (1977), feedback is given on two cases: correct answer or incorrect answer. Feedback following a correct answer tells the learner that his interpretation of the subject matter is adequate and feedback following an incorrect answer helps the learner to remove the error and substitute with correct answer. In the second case, feedback acts as a correcting agent and "probably had the greatest positive effect" (ibid, p. 229). Also, feedback as correcting agent is effective only when the mistake is from faulty interpretation and not from a complete lack of understanding of the material (Kulhavy, 1977; Hattie & Timperley, 2007). Research also says that feedback focus only on the qualities of student's work and not on comparison with other students (Black & Wiliam, 2001; Black & Wiliam, 1998b). When the feedback is specific to the task involved and not comparison, students concentrate on improving their work by having a clear understanding of the feedback.

Providing and receiving corrective feedback in the classroom depends on the classroom environment as it plays a decisive role in students' classroom participation in learning. It requires a high proficiency on both the giver and the receiver. If the students feel that their self-esteem is at stake, they refrain from participating in the class. This leads to students responding to a question in the class only when they are very sure that their response is correct. Here the classroom culture stresses on 'getting things right all the time' (Brookhart, 2008). This in turn leads to students responding to only those questions for which they have



already learnt the answer (Hattie & Timperley, 2007; Black & Wiliam, 1998b). Students at Forres Academy stated that feedback especially negative feedback given to an individual student in front of an entire class was often experienced as humiliating (Sliwka & Spencer, 2005).

Research findings indicate that the effectiveness of the feedback didn't significantly depend on whether it is given orally or in the written form. What matters is the feedback must be specific to the task at hand and provide detailed information on how to improve the answer (Clarke, 2005; Shute, 2008; Kluger & DeNisi, 1996; Clarke, 2005; Black & Wiliam, 1998a). However, Brookhart (2008) recommends that feedback be made just "specific enough for students to know what to do, but not so specific that it's done for them" (p.6). In addition, Hattie and Timperley advises that feedback be not directed at the individual 'self' like "You are a great student" and "That's an intelligent response, well done" which is often found to be unrelated to the performance on the task (2007). On top of feedback being specific, students need to be given enough time to work on the feedback. At times, the teaching-learning process is very syllabus driven and teachers are more concerned with delivering the content of the curriculum to the students. In such cases, giving of feedback also risks becoming a part of a job that has to be done without giving a second of thought to what happens 'after' which is the most important part of feedback process. If the feedback is given with the intention of bringing improvement in learning, opportunities in terms of enough time have to be made available to students to work on the feedback (Clarke, 2005; Wiliam, 2011).

Research on effectiveness of feedback in the form of comment only, comment with grade, and grade only found that students' learning increased in case of feedback in the form of comments only. In the other two cases, students who got higher scores were motivated and wanted to carry on and the opposite happened to students who scored low (Clarke, 2005, Black & Wiliam, 1998b; Brookhart, 2008). In this respect, the Assessment Reform Group (ARG) recommends teachers to be aware of the impact that comments, marks and grades can have on learners' confidence and enthusiasm and should be as constructive as possible in the feedback that they give (ARG, 2002). It was found that students ignored the comment when it was accompanied with marks and that students continually getting low marks were demoralized and students getting higher marks continually tend to become complacent (Clarke, 2005; Black & Wiliam, 1998b). The positive effect of comment only was asserted by

students of Year 8 at Woodridge schools in Queensland, Australia where in an interview, they said:

...grades or marks are never given and they feel this has helped them work to their own standard and not worry about comparing themselves to other people. (OECD, 2005, p 63)

However, parents seem to be in favor of grades. For them grades determine their children's learning. If children are getting higher grades, it indicates they are learning what they are supposed to learn and vice versa. A survey of parents showed their support of grades even though they had no idea what the grades actually mean because they assume grades are the only way to find out how their children are doing in school (Black et al, 2003; Wiliam, 2011).

According to Black and Wiliam, when it comes to feedback for written work, tasks have to be justified in terms of the learning aims that they serve, and they can only work well if opportunities for pupils to communicate their evolving understanding are built into the planning. The feedback should give individual student guidance on how to improve, and each must be given opportunity and help to work at the improvement (2001). The quality of the tasks set for written homework or classwork is critical: such tasks, alongside oral questioning, had to be designed to encourage students to develop and express their understanding of the key features of what they had learnt (Black & Wiliam, 2005).

Different culture background also seems to play a role in the way in which feedback is delivered by the teacher and is received by the learner. De Luque and Sommer (2000) found different preference of feedback communication by the learners from different culture background. For example, learners from the United States preferred more individual focused self-related feedback whereas learners from Asia preferred indirect and implicit feedback and favor mostly group focused feedback (Hattie & Timperley, 2007).

Feedback is vital to formative assessment, but not all feedback is effective. A major study by Handley and colleagues emphasizing the importance of feedback concluded that feedback cannot fix everything; it is one of many educational influences and must be situated in the right context (cf. Higgins et al, 2010). The research found a wide range of feedback methods currently in use but there exist confusion about the purpose of feedback that leads to disagreement amongst both teachers and students about how to make it useful.

## 2.3 The zone of proximal development

Lev Semenovich Vygotsky was a Russian psychologist whose work focused on the social and historical contexts in the psychology of learning. One area of interest connected to this dissertation is the idea of the zone of proximal development (ZPD). The ZPD establishes an area where instruction and guidance should take place that will lead to the best learning for a student. Hence, the ZPD points to a particular way of looking at instruction and assessment practices. Various research findings also indicate that Vygotsky's ZPD which focus on student's learning needs is proving to be a useful tool in education by offering necessary guidance at different point in the ZPD (Gallimore & Tharp, 1999; Clay & Cazden, 1990; Aljaafreh & Lantolf, 1994).

For most of the twentieth century, psychologist and educators have attempted to analyze various aspects of teaching. However, Vygotsky pointed out that it is not enough to analyze only the aspects of teaching. One has to consider the relationship between learning and development in school-age children. He has categorized the understanding of it as three different situations (1978).

*The first* situation concern's the assumption that child development is independent of learning. Some researchers support the notion that a child's ability to understand and interpret the things happening around him takes place on its own and that it has nothing to do with the learning taking place in the school. Others claim that development is always a prerequisite for learning. In this case, if a child's mental functions have not matured to the extent that he is capable of learning a particular subject, then no instruction will prove useful. Development here is considered as a "precondition of learning but never the result of it". In both cases, development is not considered as happening due to learning.

*The second* holds that learning is development. In this theory, the process of learning and the process of development are inseparable.

*The third* position on learning and development attempts to overcome the differences of the first two by simply combining them. At one end of the continuum lies maturation which depends directly on the nervous system and on the other end is learning which itself is also a developmental process (Vygotsky, 1978).

These relations of learning and development remained methodologically unclear and were rejected by Vygotsky. However, his analysis of it made it clear and led to two essential features of his hypothesis. First is that the developmental processes do not coincide with learning processes. Rather, developmental process lags behind the learning process resulting in the ZPD. The second feature is that though learning is directly related to the course of child development, the two are never accomplished in equal measure or in parallel. It implies that student learning can be enhanced ahead of development and through such learning student's ZPD can be altered.

According to Vygotsky (ibid), there are at least two levels of development of mental functions in a child. The first level called "the actual level of development" can be detected by the learning tasks the child can solve individually and independently. The second one labeled as 'the potential level' can be detected by the tasks the child can solve in co-operation with the teacher or with more competent peers. Therefore, at any time the child has two levels of development of his mental, intellectual structures and functions and this distance between the two levels is termed the ZPD.

Vygotsky defines the ZPD as follows:

The distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers. (ibid, p. 86)

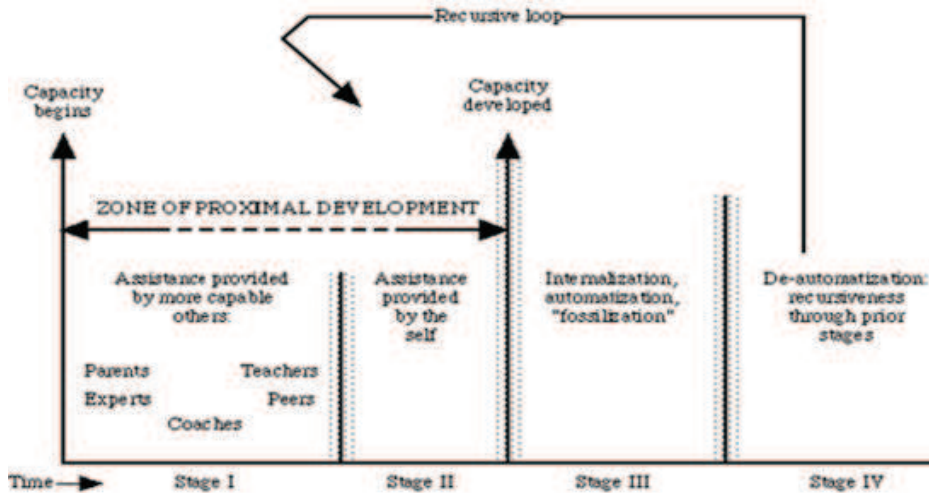
However, he adds that learning for two children of same or equal mental capability would differ even though the teacher or more capable peer would give the same guidance. For example, Aljaafreh and Lantolf pointed out:

...two individuals who achieve the same score on a given test, language or otherwise, may not both be able to make use of the help offered by a tutor (e.g., teacher or other student) to generalize their learning to novel circumstances. (1994, p. 468)

A learner who can respond to the help provided is considered to be at a more advanced developmental level as he or she is expected to show a more rapid rate of actual development.

Of particular interest to this study is the intervention through scaffolding that takes place in every learner's ZPD as the concept of Vygotsky's ZPD through scaffolding is shown to increase a learner's motivation in learning (Pratt, Kerig, Cowan, & Cowan, 1988). Wood, Bruner and Ross are the first to use the term scaffolding in reference to tutoring in their article 'The role of tutoring in problem solving' and it refers to the instructionally supportive

activities and social interactions that occur between the child and other individuals. This scaffolding process provides support to a child in the initial task performance and is gradually removed when the child is able to do on his/her own (1976). Tharp and Gallimore (1988, p.35) distinguished four stages in scaffold learning as shown below:



### Four stages in scaffold learning by Tharp and Gallimore

Stage 1: Performance is guided by more capable others

In this stage, the child has very little understanding of the task. An adult (parent, expert, teachers or more capable peer) models or offers directions and the child complies or imitates.

Stage 2: Performance is assisted by the self

Here the child is able to carry out the task with minimal assistance from others though performance is not fully developed.

Stage 3: Performance is developed, automatized and fossilized

Here the performance of the child is fully developed and assistance from others is not required.

Stage 4: De-automatization of performance leads to recursion through the ZPD

De-automatization and recursion associated with learning at another higher level occur so regularly that they constitute the fourth stage of the normal development process. For any person, at any age there will be a mix of other-regulation, self-regulation and automatized processes.

Instructional scaffolding and formative assessment in the ZPD is essentially the same thing and are strategies that the teachers use to move learning forward in the ZPD (Shepard, 2005). Effective formative assessment, then, should identify what a student might achieve in his or her ZPD and enable teachers to adapt teaching to close the gap (Sadler, 1989).

What lies in the ZPD at one stage is realized and moves to the level of actual development at a second (Au, 2007). However, the ZPD does not extend infinitely for any one learner at any given time.

Vygotsky notes that learners are restricted to limits which are determined by the state of [their] development and [their] intellectual potential. ... There always exists a definite, strictly lawful distance that determines the differential between [their] performance in independent and collaborative work. (ibid, p.285)

In this sense Vygotsky advocates that teachers and more capable peers in their instruction should always look ahead of the actual level of development. However, one should not look too far forward and teach beyond the ZPD as the instruction then will not necessarily serve development (ibid).

An important implication for teachers of Vygotsky's concept of ZPD is that the learning takes place during social interaction between adults and children, and/or between peers that leads to development for the child. This places the responsibility on the teachers as agents of development for children. The teacher should consider each student's ZPD for a given activity and then design their teaching at their upper limit of the zone with necessary support in the ZPD as the students learn with the support and guidance of teachers or peers. The assistance need to be gradually reduced and more opportunity should be given to the student to regulate their own learning. Thus, through the teacher's guidance the student should be able to complete the task that he or she would otherwise not be able to complete. Once the task is accomplished, the result is the development of a new, higher ZPD.

Another important implication of Vygotsky's ZPD is to assess children's intellectual capability formatively and provide guidance in the ZPD. This would help to find out the learning needs of the students and let teachers to design their teaching to the students grounded on actual needs rather than on the student's assumed needs based on his or her age or grade level.

## **2.4 Dewey's experiential theory of learning**

For behaviorists, learning is associated with the inputs (stimuli) and outputs (responses) and they believe that anyone could learn any behavior provided the right condition is provided. The teacher plays the central role and the students are passive learners. Cognitive theory associates learning as information-processing that is defined as the study of how information is sensed, perceived, encoded, stored and retrieved (Brown, 2004). The emphasis from a cognitivist point of view is on memory that gives the basis of all learning and performance.

In experiential learning theory, experience plays the central role which makes it different from the behaviorist and cognitivist theories. John Dewey, Kurt Lewin, and Jean Piaget are recognized as the preeminent philosophers of experiential learning theory. Their common emphasis is on development towards a life of purpose and self-direction as the organizing principle for education.

The primary theoretical framework for this research study is based on Dewey's experiential learning theory (though he does not use the term). In his view, the changing students' expectation in the classroom where students look forward to different learning experiences gives the grounding for experience based education. Dewey's philosophy of experience and education explains the difference between the traditional education and progressive education where the latter was thought to be a solution to the problems related to the first one. Dewey (1938) describes the traditional old approach of education as one of imposition of adult standards, subject content and methods on learners. Learning becomes acquisition of what is given in the textbooks or in the elders head creating a gap which is beyond the reach of the experience possessed by learners. However, he emphasizes that rejecting the old approach of education and moving to the other extreme end called "the progressive education", which places importance on freedom of the learners, may not be the solution. He states that the problem of the new and the old education approach requires one to base learning on a clear

theory of experience. According to Dewey, this leads to a need to understand what experience is and what role it plays in the teaching-learning process. The point is asserted by Boud, Cohen and Walker in the following way:

While we commonly assume that teaching leads to learning, it is the experiences which teaching helps create that prompt learning, not primarily the acts of the teacher. We have all had the experience of being exposed to countless hours of teaching which had no discernible effect on us, but from time to time we are engaged by something which the teacher says or does which touches our experience, has meaning for us and moves us on to further work. The teacher creates an event which the learner experiences and may learn from (1993b, p. 9).

To understand the concept 'experience', Dewey emphasizes that it is important to understand education as a development within, by, and for experience. However, this requires comprehension of the concept of experience:

Unless experience is so conceived that the result is a plan for deciding upon subject matter, upon methods of instruction and discipline, and upon material equipment and social organization of the school, it is wholly in the air. (Dewey, 1938, p. 28)

Using the example of a child playing with the flame, he explains that when a child merely sticks his or her finger into a flame, it is not experience. Experience is when the child moves his/her finger due to pain which the child undergoes as a consequence. In his words,

(m)ere activity does not constitute experience. It is dispersive, centrifugal, dissipating. Experience as trying involves change, but change is meaningless transition unless it is consciously connected with the return wave of consequences which flows from it. (Dewey, 1916, p. 139)

Dewey has explained the nature of experience as a connection between an active and passive element. The active element is termed "*trying*" and the passive element "*undergoing*" and to learn from experience is the interplay between the *trying* and *undergoing*. The connection of *trying* and *undergoing* measures the value of experience. He highlights that the backward and forward connection between what we do to things and what we enjoy or suffer as a consequence leads to learning from experience (ibid).

Dewey calls the relation between trying and undergoing "*reflection*" or "*thought*". He adds that experience having a meaning is not possible without *thought* as thinking not only notes the connection between trying and undergoing but discovers the detail of the connection so that the two become continuous (ibid). He explains that thinking is the method of an educative experience and list five essentials of method, also called "essentials of reflections" as follows:

First that the pupils have a genuine situation of experience-that there be a continuous activity in which he is interested for its own sake; secondly, that a genuine problem develop within



this situation as a stimulus to thought; third, that he possess the information and make the observations needed to deal with it; fourth, that suggested solutions occur to him which he shall be responsible for developing in an orderly way; fifth, that he has opportunity and occasion to test his ideas by application, to make their meaning clear and to discover for himself their validity (ibid, p. 163)

Dewey argues that “experience and education cannot be directly equated” (1938, p. 25). The general understanding is that genuine education happens due to experience but Dewey explains that all the experiences may not be equally educative. The education has to be based upon the quality of experience (Dewey, 1916; Dewey, 1938; Ahmed, 2010). The quality of any experience has two aspects; an immediate aspect of agreeableness or disagreeableness, and its influence upon later experiences (Dewey, 1938). These two aspects are important for a teacher to address. As a teacher it is our responsibility to arrange for those experiences which are agreeable to learners and which will produce desirable subsequent experiences leading to fruitful learning.

To distinguish between experiences that are educationally effective and those that are not, Dewey proposed that education be designed on the basis of a ‘Theory of Experience’ (Dewey, 1938; Ahmed, 2010) based on two guiding principles, *continuity* and *interaction*. The principle of continuity is explained as past experiences which affect the present experiences and the present experiences affecting the quality of subsequent experiences of an individual. This when applied to a classroom situation means that each student comes to the class with a different experiences and the teacher and the school as a whole have the responsibility to find out what that experience is and build further learning experiences based on capabilities and readiness of the learner. The teacher should have knowledge not only of the subject content to be taught but should also understand the learner. When preparing students for an experience, it is important to know that some students come in a state of mind that inhibits learning. The *interaction* which includes emotions, aesthetics and ethics as well as knowledge takes place between the learner and his or her social environment which could be another person or object or his immediate surroundings. The individual and his environment interacting at that time together form a situation. What a learner learns in one situation becomes a tool for effectively dealing with the situations that follow showing that *continuity* and *interaction* are not separate.

The social environment that is mentioned above, within which education takes place, is critical according to Dewey’s philosophy. Education becomes a social process when there is

interaction between the individual and the environment forming a situation. Every individual in any situation is subjected to a great deal of social control. However, Dewey argues that not all the social control indicates restriction of personal freedom. For example, pupils working in a group need to follow certain set rules like taking turn to speak, respecting others' opinion, etc. This might seem like restricting individual freedom, but these rules are required as it forms a part of group activity. Here the social control lies in the nature of work done as a social group. In any group work, individuals would be involved in carrying out a certain task and each would be contributing to the group work and take on certain responsibility that had been agreed on. In such group work, as mentioned by Dewey,

... it is not the will of any one person which establishes order but the moving spirit of the whole group. The control is social, but individuals are parts of a community, not outside of it (1938, p. 54).

The role of the teacher in such a social group is that of a facilitator:

When education is based upon experience and educative experience is seen to be a social process, the situation changes radically. The teacher loses the position of external boss or dictator but takes on that of leader of group activities (ibid, p. 59)

Another problem associated with social control is the nature of freedom which is often mistaken as freedom of movement and external activity than freedom of intelligence. Dewey states:

The only freedom that is of enduring importance is freedom of intelligence, that is to say, freedom of observation and of judgment exercised in behalf of purposes that are intrinsically worthwhile (ibid, p. 61).

He believes that one cannot separate the external activity from the internal side that consists of desire, purpose, and freedom of thought. He explains that with the freedom comes the power to set our purposes and carry out the same. Here the freedom gives you self-control in framing the purposes, and how to carry out the purposes involves your intelligence.

In the traditional approach to education, the classroom set up has fixed arrangement of desk in long rows which restricts student movement. This kind of sitting arrangement is seen as a shortcoming to student's intellectual and moral freedom. Dewey mentions the freedom of outer movement as a means and not an end (ibid) and gives three advantages associated with increase of outward freedom:

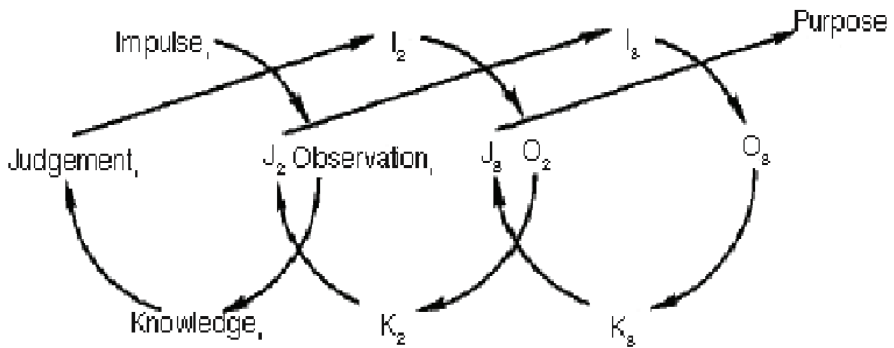
Firstly, it makes it possible for a teacher to gain knowledge of his or her learner. Making the students to be silent and accept whatever the teacher tells prevents them from disclosing their

true nature. They may act to be attentive to the teaching. Secondly, the outward freedom is associated with the nature of the learning process. Dewey points out that complete silence in the class is not preferred as the learners then become passive learners. He adds that there should be brief intervals of silence after an activity to give time for the learners to reflect on what has been learnt or what they have gained from that particular learning experience. Thirdly, freedom of movement is also important as a means of maintaining normal physical and mental health (ibid).

Dewey further associate freedom with power to frame purposes, to judge wisely and to evaluate desires by the resulting consequences. This freedom seen as identical to social control is then explained as formation of purposes which according to him is a rather complex intellectual operation as it involves:

- (1) Observation of surrounding conditions;
- (2) Knowledge of what has happened in similar situations in the past, a knowledge obtained partly by recollection and partly from the information, advice, and warning of those who have had a wider experience; and
- (3) Judgment which puts together what is observed and what is recalled to see what they signify (1938, p. 69)

Dewey emphasizes that a genuine purpose always starts with an impulse, though impulse itself is not a purpose. Purpose according to him is an end-view which involves foresight of the consequences as a result of acting upon impulse. So, changing impulse to purpose requires observation leading to understanding the significance of observation through reflection and forming a judgment of what may be expected in the present situation. This might lead to another impulse and the whole learning process repeats at another level. This whole process is represented graphically by Kolb (1984, p.23).



Dewey's graphical model of Experiential Learning by Kolb, 1984

Dewey explains:

In an *educational* scheme, the occurrence of a desire and impulse is not the final end. It is an occasion and a demand for the formation of a plan and method of activity. Such a plan, to repeat, can be formed only by study of conditions and by securing all relevant information. (1938, p. 71)

The role of the teacher is to take advantage in forming plans and methods. Here the freedom resides in the operation of intelligent observation and judgment by which a purpose is developed. Hence the guidance given by the teacher to the exercise of the pupils' intelligence is an aid to freedom, not a restriction put upon it (ibid). However, a teacher should be aware of capacities, needs, and past experiences of learners and use it to plan for further suggestions. Grady Roberts in his interpretation of Dewey's 'Experiential learning theory' points out that the teacher must select the correct experiences of students, determine the direction in which the experience is headed and if need be alter the experience to ensure desired outcomes are reached (Roberts, 2003).

The message here is that teachers don't have influence on students past experience but can use students' past experience to present a better educational situation to provide quality education which is relevant and meaningful. A teacher by virtue of being matured compared to his students would be in a better position to evaluate the value of each experience his or her student has. It then becomes his/her duty to see in which direction an experience is heading. However, Dewey also points out that experience doesn't go on in an individual's head only. There are outside sources which also contribute to an individual's experience like an individual's back ground, the community he lives in etc. It becomes a teacher's

responsibility to understand this whole range of experiences and select those experiences that lead to learning.

Dewey's experience based theory of learning where learning has to be based on the learner's prior experience in order to make present learning effective and be applicable to future learning appears to be a sound theory. However, in the Bhutanese context, two major hurdles as perceived by the researcher, question the applicability of his theory. The first one is the *examination culture* under practice as discussed in chapter 1 under section 1.3 and the second is the *classroom culture* dominated by our Bhutanese culture and tradition as outlined in chapter 1 under section 1.2.2. These two hurdles are further taken up in chapter 8.

## 2.5 Conclusion

The literature review was presented in three parts. Part one discussed the selected literature on formative assessment. This study revealed that formative assessment practice has a positive impact on students' learning. The study has provided a clear picture of important formative assessment practice in the form of questioning, self- and peer assessment and feedback.

For effective learning, question-answer process needs to build the learner's self-confidence. This can be done by making the learners to take risks, make mistakes, and learn from the mistakes. Teachers on their part need to be skillful in handling the student's incorrect response to minimize the stress level and at the same time encourage further learning.

Self-assessment and peer assessment helps the students to assess his or her own work and that of others. This helps the students to be more responsible for their as well as peer's learning. Overtime they come to understand the assessment process that a teacher undertakes and use this knowledge to further plan the course of their learning. However, a note of caution is also adequate on the basis of the research findings on such practices. For both self- and peer assessment to have a positive impact on learning, students have to be trained to undertake such practices. Also, training alone is not sufficient. A student trained in undertaking self-assessment is not going to be proficient overnight. To be knowledgeable and skillful in this field, practice is required by the students. Teachers on their side should have patience to help develop this knowledge and skills in their students. Research findings indicate that over time students show improvement to rate their work as well as their peer's work.

The influence of feedback on learning is very powerful, yet, the impact it has can be positive as well as negative. According to Hattie and Timperley, feedback is

...most effective when it aids in building cues and information regarding erroneous hypothesis and ideas and then leads to the development of more effective and efficient strategies for processing and understanding the material (2007, p. 102).

It results in higher confidence and greater investment of effort by the learners. On the other hand, when feedback consists of praise, it is rarely found to be effective. For the feedback to be effective,

...it needs to be clear, purposeful, meaningful, and compatible with students' prior knowledge and to provide logical connections (ibid, p. 104).

Like in self- and peer assessment, providing and receiving feedback requires students and teachers to have skills in doing that.

Part two focused on a learner's developmental processes and learning as explained by Vygotsky. Here we come to understand that developmental processes do not coincide with learning processes. In fact, the developmental process is found to lag behind the learning process resulting in the ZPD. The ZPD is the distance between a learners' actual developmental level and the potential developmental level which can be achieved with some assistance from an adult or peer. Vygotsky explains that for learning to be effective, we should not plan learning in the developmental level that a learner has already reached as it doesn't lead to a new stage of developmental process. Learning has to be planned to take place always ahead of a learner's actual level of development in the ZPD. In a class, all the students mayn't have the same actual level of development. Steiner and Souberman, in their afterword in 'Mind in society' state:

...many educators, recognizing that the rate of learning may vary from child to child, isolate particularly "slow learners" from their teachers as well as their peers through the use of programmed and frequently mechanized instruction (1978, p. 131).

Since Vygotsky considers learning as a social process, he emphasizes use of social interaction between teacher-student or between student and a more capable peer to help learning to take place. The use of scaffolding by teachers to move learning forward in the ZPD is also encouraged by other researchers like Wood, Bruner and Ross (1976).

Part three discusses the theory mainly underpinning this study, namely Dewey's experiential theory. His theory of experience resulted from critical discussion of two extremes of education: traditional and progressive education. The traditional education is described as

teacher centric with structured syllabus that focuses on content delivery. On the other hand progressive education is described as a free approach to education. He emphasizes that education based on a sound theory of experience results from combination of two principles - continuity and interaction. He stresses on the necessity for the teachers to understand and build on the students' past experiences to help learning to take place. However, he also admits that it is easier for the teachers dealing with the young learners in preprimary or primary schools to determine the range of past experiences and find those activities that connect with the experiences. Yet, with older learners, it becomes more difficult for the teachers:

It is harder to find out the background of the experience of individuals and harder to find out just how the subject-matters already contained in that experience shall be directed so as to lead out to larger and better organized fields (1938, p. 75).

But, he goes further to conclude:

What we want and need is education pure and simple, and we shall make surer and faster progress when we devote ourselves to finding out just what education is and what conditions have to be satisfied in order that education may be a reality and not a name or a slogan (ibid, p. 91)

## **CHAPTER 3: METHODOLOGY**

### **3.1 Introduction**

The chapter deals with the methodology followed in this research. It starts with a brief presentation of interpretive qualitative research and moves on to explain Ricoeur's theory of interpretation which is used as a methodological framework to guide this study. His theory shows the relationship between the reader and the text whereby an understanding of the text is sought by the reader. Based on the three levels of interpretation, he explains how the reader in the process of interpretation moves initially from a superficial naive understanding of the text as a whole to a deeper understanding of the whole text as consisting of parts that make up the whole.

The application of Ricoeur's three levels of interpretation in this study is also briefly described.

### **3.2 Interpretive qualitative research**

A qualitative research methodology is used in this study. It is understood by considering its characteristics given by Creswell (2003). According to him, some of the characteristics are: it takes place in a natural setting allowing the researcher to be highly involved in the actual experiences of the participants; uses multiple methods that are interactive and humanistic; it is emergent rather than tightly prefigured meaning that the data collection and even the research questions may be adjusted according to new information that surfaces; it is fundamentally interpretive meaning that the researcher makes an interpretation of the data (Creswell, 2003).

The methodological framework is grounded on Paul Ricoeur theory of interpretation which is based on hermeneutic phenomenology. This is specifically chosen in this study as it helps in interpreting and understanding the human sides of an issue understudy which is carried out through classroom observation and interviews. This understanding according to Kvale (2007) can be done by analyzing experiences of individuals or groups, by analyzing interactions and



communications in the making, by analyzing documents or similar traces of experiences and interactions. Before moving on to the theory of interpretation, it is important to understand the term hermeneutic phenomenology. For that the two terms are first explained separately.

Manen (1990) explains phenomenology as a response to how one orients to lived experience and questions the way one experiences the world. It emphasizes on the world as lived by the person and the term experience indicates the relationship humans have with the world in which they are involved. Kafle (2011) elaborates that the focus of phenomenology is on the way things appear to us through experience or in our consciousness where the phenomenological researcher aims to provide a rich description of the lived experience. Similarly, Dahlberg, Dahlberg and Nystrom add:

The phenomenological attitude to science and research involves describing the world the way it is experienced by humans; what the world is and means to humans, what it means for humans to have a world, and how humans relate to this world, to each other, to different situations - to all possible “things” of the world. (2008, p. 36)

The word hermeneutics is derived from the name Hermes, a Greek god who was responsible for interpreting messages between gods. Hermeneutics is the philosophy of understanding gained through interpretation, and it forms the basis of human science research. Henriksson and Friesen have described hermeneutics as the art and science of interpretation and also of meaning. Meaning here is explained as something that is changing continuously depending on new understanding and interpretation (Henriksson & Friesen, 2012)

Phenomenology becomes hermeneutic when its method is taken to be interpretive. The focus of hermeneutic phenomenology is toward illuminating details and seemingly trivial aspects within experience that may be taken for granted in our lives, with a goal of creating meaning and achieving a sense of understanding (Kafle, 2011).

### **3.3 Ricoeur’s theory of interpretation**

Ricoeur’s theory of interpretation has three levels, namely: naïve reading, structural analysis and critical analysis. Correspondingly, his concept of interpretation is based on simpler levels of meaning, namely explanation and most basically: understanding. He explicates these concepts in distinction from Dilthey’s comprehension of them and with a particular focus on the notion of a text.

Explanation according to Dilthey is thought to be borrowed from the natural science and applied by positivist schools in historical disciplines and interpretation is a form of understanding particular to human sciences. Ricoeur agrees with Dilthey that understanding is the basis of explanation as well as interpretation, but disagrees in his sharp separation between explanation as something distinct to natural science and interpretation as distinct to human science (Ricoeur, 1991). According to Ricoeur, explanation and interpretation are reciprocal and complementary to each other. As it can be seen in the structuralism of Lévi-Strauss, explanation is an objectification of the more naïve understanding or subjective perception. This is also a stage toward the full notion of interpretation, which integrates subjective understanding and objective explanation. In this way, interpretation is an ‘art of understanding’. It analyses how a fixed structure of signs and manifestations can be understood as ‘testimony’ of subjective meaning on different levels of individual, social and cultural context. A text is the most important form in which subjective understanding can be objectified into a material that somehow explains what is understood. Ricoeur defines text as ‘any discourse fixed by writing’ (ibid, p.106) where writing has replaced speech. He says that writing doesn’t fix the event of speaking but what is said in the process of speaking (Ricoeur, 1976a). Speech is a dialogue taking place between the speakers where the voice of one connects to the hearing of the other at a particular time, place and in a particular environment or situation, which is absent between the writer and the reader. Unlike in speech, in writing, the author becomes less distinct and the whole environment is absent. The writing gives rise to text as a transcription of a speech which acts as a documentation that is available for use by any individuals who wants to read and can read. Writing is seen as a cultural achievement where the speaker disappears and a material conveys the message (Ricoeur, 1976a). In writing, a distance is created between the author and the text, and this leads to a need for explanation and interpretation to get the meaning of the text.

For a reader the text can be *understood* more or less directly through naïve and subjective reading. But as a distinct text it also has objective meaning that can be *explained* through structural analysis. Finally, critical analysis can lead to an *interpretation*, which makes the text familiar to us by contextualizing it in our world, our culture and in relation to ourselves. So, to explicate reading as interpretation, Ricoeur uses the term “appropriation” and talks about overcoming cultural distance.

Because the text is in itself a distinct meaningful structure, the meaning of the text as understood by the reader cannot be expected to be quite the same as the meaning intended by the author. Ricoeur says that as a reader we can either *explain* the text in terms of its internal relations treating it as a worldless and authorless object or we can *interpret* the text by restoring it to a living communication. In the first case, the reader still remains uncertain about the meaning of the text, as the reader has treated the text only as a text and has not fully understood it. In the second case, which is the interpretation, meaning is given to the text by the understanding of what the text is about. That is to say how the text is oriented within a broader context of discourses and relates to the culture in which it is interpreted. He adds:

To read is, on any hypothesis, to conjoin a new discourse to the discourse of the text. This conjunction of discourses reveals, in the very constitution of the text, an original capacity for renewal that is its open character. Interpretation is the concrete outcome of conjunction and renewal. (Ricoeur, 1991, p. 118)

Ricoeur points out that the intention of interpreting the text doesn't involve understanding the intentions of the speaker or author. The intention is to understand the meaning of the text itself:

The sense of the text is not behind the text, but in front of it. It is not something hidden, but something disclosed. What has to be understood is not the initial situation of discourse, but what points towards a possible world, thanks to the non-ostensive reference of the text. Understanding has less than ever to do with the author and his situation. It seeks to grasp the world-propositions opened up by the reference of the text. To understand a text is to follow its movement from sense to reference: from what it says to what it talks about (1976a, p. 87-88).

He further adds that “to interpret is to follow the path of thought opened up by the text, to place oneself en route toward the *orient* of the text” (ibid, p. 122, *Italic in original*), meaning that we should look for objective interpretation of the text, which is considered as ‘an act of the text’ rather than only the subjective interpretation which is “an act on the text”.

### **3.4 Application of Ricoeur's theory of interpretation**

Ricoeur's explication of interpretation is relevant to this research work in various ways. The fuller understanding of a text, which comes after the more spontaneous understanding through the writing or naïve reading of it and after explanation of its objective structure and contents, takes place on different levels and in different perspectives. In one perspective, this entire dissertation is a text that is now about to be analyzed and interpreted. In another way, the Ph.D. project includes numerous particular explanations of matters that are attempted to

be lifted from naïve to critical understanding. But of most methodological importance, part I of the dissertation presents the practical and theoretical pre-understanding from which the empirical study explained and analyzed in part II set out, and part III contains the critical reflections through which the empirical material is interpreted. In that sense, the transcribed empirical data is the central text to be analyzed and explained. It is an object with its own structure, which separates the theoretical and practical pre-understanding of the research project from the ensuing critical analysis and interpretation.

As mentioned preciously, the planning, implementation and analysis of the empirical case studies were carried out jointly with the other members of the collective research project. The results of the collective project are reported in four parts (Keller, 2015; Utha, Gurung & Keller, 2015; Giri, Keller & Willert, 2015; Giri & Krogh, 2015), and the details of work distribution in carrying out classroom observation, interviews and transcription are given in chapter 1 under section 1.5.

To achieve the study's description, classroom observation of the teaching practice was undertaken followed by interviews with various stakeholders consisting of both male and female willing to participate in this study. The observation was undertaken to get a firsthand experience of what really goes on within the four walls of the classroom in terms of teaching, learning and assessment practice. This observation served as a foundation to build on in the interviews. Through the interview, the researcher listens to the interviewee's description of the experiences in teaching, learning and assessment. The interviews were recorded<sup>9</sup> using voice recorder so that the researcher could observe as well as listen and make notes to reflect on for later interpretation. Notes are taken during and after each observation along with the researcher's personal reflection. Then the interview data are transcribed, and likewise, the observation notes and transcribed data give rise to a written text.

Ricoeur's three levels of interpretation are put into practice again with the text produced from the transcriptions of the data material. In the initial phase, the written text is read time and again, not for interpretation but to grasp what the interviewee is saying. Each sentence and each paragraph received equal importance. In the second phase, the reading was undertaken with the intention of understanding the speech. The researcher focused on recurrent themes in

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<sup>9</sup> Some of the interviews are not recorded and also verbatim transcription didn't happen in all the recorded interviews. The reasons are explained in chapter 4 under section 4.4.2

relation to this research study. These themes were further studied and formulated as statements of the main findings (cf. chapter 5 for more detail). Each of these (six) statements were explained in a one page text consisting of subthemes together with a few lines of additional clarification to every subtheme. The written text was studied again to pinpoint the places in which the singular subtheme under each statement appeared. This led to an important analytical index of references for the six statements and their subthemes. It is attached as Appendix 2. The written text was further studied for any overlap or any points that may have been overlooked.

In the next phase, Ricoeur's last level of interpretation is undertaken. Here, the researcher has tried to understand the meaning of the text and then interpret the text to give new meanings to what was previously uncertain, obscure or unknown (cf. chapter 6-8).

### **3.5 Summary of theoretical and practical understanding**

The literature study on formative assessment features like questioning, self- and peer assessment, and feedback provided a clear understanding of each and how it influences teaching and learning. It also provided in depth knowledge on the process involved in carrying out each feature. Vygotsky's concept of zone of proximal development further clarified how a teacher can use the formative assessment features to close the gap between the learners' actual level of learning and potential level of learning. Then Dewey's theory of experiential learning enlightened on the need to understand learners' prior experiences to make the present learning fruitful for future application. This theoretical understanding aids in understanding and interpreting the empirical materials to answer the outlined research questions.

Ricoeur's theory of interpretation helps in pointing out the process that needs to be undertaken to arrive at a mature interpretation. It starts with oral text that is transformed to written text. The written text is used throughout the three levels of interpretation: naïve reading, structural analysis and critical analysis. In each of these levels, the theoretical understanding provided by the literature study and theoretical framework serve as a grounding to comprehend the hidden meaning in the written text and make clear something initially unclear or known something initially unknown.

# PART II: THE EMPIRICAL STUDY

## CHAPTER 4: DESIGN AND IMPLEMENTATION

### 4.1 Introduction

This chapter is divided into three sections. The first section gives a description of the selection of a case study approach for this study and the characteristics of participants and research sites. The second section deals with the development of empirical guides which was felt necessary for this study. The last section outlines the data generating process.

### 4.2 Case study research

de Vaus defines a case study as a unit of analysis where one strives to understand the unit as a whole. The unit of analysis 'maybe a person about whom we try to build an understanding that is informed by the context in which the whole case exists' (2001, p. 220). However, he explains that the case studies needn't be restricted to individuals. It can be groups of individual, places, organization, event, a decision or a timeframe.

According to Yin, the research strategies are not distinguished based on whether the study is exploratory, descriptive or explanatory. The distinction is based on three conditions:

...(a) the type of research question posed, (b) the extent of control an investigator has over actual behavioral events, and (c) the degree of focus on contemporary as opposed to historical events. (Yin, 1994, p. 4)

He further explains that the case study approach is appropriate for 'how' and 'why' questions and focuses on contemporary events. It is independent of the requirement of the investigator's control over behavioral events.

However, the case study strategies have been less preferred compared to other strategies like survey, experiment, etc. Some of the reasons cited are:

- (a) Biased views to influence the direction of findings and conclusions,
- (b) Issue of generalizability, and

(c) Takes longer time and results in huge, unreadable documents.

Yin points out that the first issue can be taken care of by the investigator by reporting all evidences neutrally. On the second issue, he explains that one need to understand that the aim of the case study is not for statistical generalizability but for analytical generalizability. Thirdly, he explains that the case study is often associated with participatory observation which takes longer time to carry out. But participatory observation is only one form of inquiry out of the many and the other forms do not take longer time.

The nature of the present research, which intends to study the lived experiences of individuals involved in a whole school set up in order to look at how practices of formative assessment relate to the students' learning, points to the case study approach as the most appropriate. In this study it is necessary to understand the parts of a case within the context of the whole. The strength of the case study which lies in its multiple approach like direct classroom observation, semi-structured interviews with various stake holders and relevant document search, are utilized in this research project.

de Vaus describes two types of case study research design: explanatory and descriptive (2001). Both these approaches outline the importance of theory in case study research. This study applies the descriptive case study approach which is explained by de Vaus as follows:

Descriptions will highlight aspects of the case. It will be more like a painting of a landscape than a photograph; it will be an interpretation rather than a mirror image. We might do this using explicit theories or pre-existing conceptual categories, or using implicit theories of what is relevant and what categories are important (2001, p. 225)

He presents two ideal types of methodological approaches under the category of descriptive case study namely: deductive and inductive ideal types. The inductive ideal type is explained as one which starts with a question and examines cases in the light of the question, whereas the deductive ideal type is a theoretical description of sets of characteristics that are expected to go together in a case. The methodological approach in this study is neither inductive nor deductive. The approach is through abduction which can be said to combine or mediate between induction and deduction (cf. Blaikie, 2010). So, the research project attempts to find and explain a possible coherence between the empirical material of the research field and the theory about it together with the researcher's own notions and understanding. In accord with Yin, the issue of (quantitative) generalizability is not a concern in this study. The study tends

to find out something analytically new, which is conceptually relevant for those (people associated with the school system) who already know about what's going on.

#### **4.2.1 Research site**

The case study includes seven schools, all at middle or higher secondary level and the subject taught is not a selective factor. The schools are dispersed geographically including rural and urban areas. However, the study doesn't attempt to make a comparative investigation of the schools. Rather, the variety of schools selected serves to gain a rich data material. The seven schools are:

Yoeseltse Middle Secondary School, Samtse  
Gedu Higher Secondary School, Chhukha  
Samtse Higher Secondary School, Samtse  
Peljorling Higher Secondary School, Samtse  
Phuntsholing Middle Secondary School, Chhukha  
Zhemgang Higher Secondary School, Zhemgang  
Drugyegang Higher Secondary School, Dagana

As mentioned earlier under section 1.5, this study places a particular focus on the first two schools. Out of the two, the first one is a rural school and the second one is an urban school. For these two schools, the entire data collection as well as transcription was carried out by the researcher. During the process of data analysis, a need was felt for additional information as discussed under section 1.5. Accordingly, the researcher made a second field visit to the same two schools one year later for further data collection.

Data collections for the next three schools were carried out jointly with the other three Bhutanese researchers. These data are also used for this study.

For the last two schools, the researcher was not involved in the entire data collection as it took place toward the end of the second year of this study and in addition, transcription was completed a few months later only. However, the data materials were read through for the purpose of this study and it was found that the data materials didn't point to significant differences from the earlier five schools' data. Hence, in the data analysis and discussion, i.e. chapter 5, 6 and 8, only a few applicable quotes are used.



## **4.2.2 Informants**

The research project's informants were selected on voluntary basis. They consisted of students, teachers, principals, parents and education officials. In each school, minimum of two teachers, eight students and a principal (or vice-principal if principals were out of station) were involved. However, the classroom observation was with a teacher and a whole class of students. Selection of the parents for interviews was based on their availability. In some schools that had classes right from PP, there is a practice of parents or guardians coming to school to reach packed lunch for the children. In such cases, voluntary parents having children studying in any of the classes from IX to XII were interviewed during the school lunch break. In case of educated parents, timing for interviews was arranged in consultation with them. Interviews with various education officials were conducted in consultation with individuals in their offices.

## **4.2.3 Time frame**

From October, 2012 to November, 2012 onwards, the field data collection were carried out and transcribing of the interview data were undertaken from December, 2012 to January 2013. Then the preliminary data analysis took place in collaboration with the Danish counterpart in Thimphu in October, 2013 in three groups. The data analysis process continued till February 2014 and a preliminary report was produced during the same time. Additional field data collections at the two schools (Yoeseltse MSS and Gedu HSS) as well as transcribing of interviews were carried out in April 2014.

The semi structured interviews with three education officers as well as transcribing of the interview materials were carried out in September 2014.

## **4.3 Empirical guide**

The need for developing empirical guides for this study is twofold. Firstly, this study is intended to get a first-hand understanding of the formative assessment practices taking place in a class through classroom observations and interviews. As such having a fixed format for classroom observation and structured interviews is judged to be insufficient. Secondly, this study is a part of a joint research project consisting of eight members. The empirical guides are not only to assist in data collection but for the mutual understanding of the researchers as

well as to make sure that all the relevant areas are covered. Hence, the empirical guides were developed jointly during the seminar held in Samtse College of Education, Bhutan in September, 2012 between the eight members. A pilot application of these guides was then carried out in Samtse HSS towards the end of the seminar to check for adequacy before the commencement of actual field data collection. The empirical guides consist of guides for the application of each type of interviews as well as classroom observation, document collection for general context description, action research and school description. All of these guides specify the particular issues through which the themes of formative assessment, quality of teaching and learning, and Happiness<sup>10</sup> (Gross National Happiness, GNH) are to be illuminated. These guides are attached as Appendices 3 to 11.

## **4.4 Data collection**

This case study used a variety of data generating tools starting from classroom observation of teaching practice to interviews with various stakeholders like teachers, students, principals, parents and education officers. These processes were carried out to get a deeper understanding of teaching, learning and assessment practices.

### **4.4.1 Observations**

According to Yin, observing

can be an invaluable way of collecting data because what you see with your own eyes and perceive with your own senses is not filtered by what others might have (self-) reported to you or what the author of some document might have seen. (2011, p. 143)

In any case study research, the evidence gathered from observation helps in providing additional information about the topic under study. The classroom observation carried out in this study helped to observe the teaching-learning processes as they happen, and record the interaction taking place between the teacher and the students and amongst the students themselves. It also provided some understanding of the social, and the instructional support extended by the teacher to students as part of formative assessment.

The observational data in addition to the above mentioned purposes were used to inform and enhance further data collection. Some specific behaviors or incidences were used as discussion topics during semi-structured interviews and focus group interviews. Classroom

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<sup>10</sup> The theme on GNH is part of the collaboration within the collective research project.

set up observations in terms of teaching aids, display on the class walls, furniture arrangement and classroom environment aided in writing the school description.

#### **4.4.2 Semi-structured interviews**

A qualitative research interview attempts to understand the world from the subject's point of view, to unfold the meaning of people's experiences, to uncover their lived world prior to scientific explanation. It provides a unique access to the lived world of the subjects, who in their own words describe their activities, experiences and opinions (Kvale, 2007)

The interview pattern followed in this study is semi-structured. It doesn't have strictly structured standard questions. However it is also not entirely non-directive. The interviewer leads the subjects towards certain themes and then it is left up to the participants to describe as precisely as possible what their experiences and feelings are, and how they act

Some of the parents interviewed were uneducated and had to be interviewed in their local language. In such cases, verbatim transcribing was not possible. However, the interviewer in the process of transcribing has tried to stick closely to what the interviewee said. Nevertheless, during the process of interview, the interviewer faced some difficulties in explaining some terminologies like formative assessment, continuous assessment etc., as these terms are not well defined in the Bhutanese local dialect.

#### **4.4.3 Focus group interviews**

The focus group interview was carried out with students in various schools to get an understanding of students' perspectives on teaching, learning and assessment. The focus group in each school consisted of equal number of male and female participants. The participants were from the classes where the classroom observation was done. Care was taken to have equal number of participants from each class to avoid a class dominating in the interview session. Apart from the application of these criteria, the choice of participants was done on voluntary basis.

Like in the semi-structured interviews, in the focus group also, structured questionnaire was not used. The principle of the interviewer leading the participants to certain themes and then leaving the participants to describe their experiences was practiced.

#### **4.4.4 Action research**

A small scale action research was carried out in each case study school with the teachers whose classes were observed. The information gathered from the classroom observation of teaching practice and semi-structured interviews with teachers were used in carrying out the action research. This action research took place to help teachers to reflect on their own formative assessment practices, identify the strong and the weak points, and to plan how they would like to bring about improvement in the formative assessment practices for further learning to take place.

#### **4.4.5 General context description**

The search for any relevant documents in Bhutan for this study was carried out early on in order to attain comprehension of the existing information. The focus was on policy guidelines, reports on annual education conference, and articles related to assessment. Several concerned offices and persons in Bhutan were contacted through telephone and where possible, visits were made personally. The process undertaken was more of a snowballing process with one person directing to another. Intensive online search was also made. Most of the related documents could be traced. However, from the 16 existing annual education conference reports, twelve were not available. A few policy guidelines and some articles were not available either. Furthermore, the guide book on assessment practices which the schools were supposed to follow was not available in the schools, though some teachers mentioned seeing it. However, a copy of it was available in the office of Education Monitoring and Support and Service Department. The list of documents and a short description of each is attached as Appendix 12.

#### **4.4.6 Description of case study schools**

The descriptions of the schools is based on the visit to the schools, interviews with the principals, teachers and students, the school handbook (some schools didn't have handbook as such but they had written visions, missions and objectives), and Bhutan Media Services statistical handbook. The school descriptions do not follow any preset format. The selections of the schools are based on the geographical location and are broadly classified as rural and urban schools as reflected in Table 7. This classification serves to give an overview of

contextual matters related to teaching, learning, and the school life in general that might be of importance to this study.

**Table 7: Urban-rural classification of each school**

| <b>Geographical area</b> | <b>Name of the schools</b>  |
|--------------------------|---|
| <b>Urban</b>             | Samtse Higher Secondary School<br>Phuntsholing Middle Secondary School<br>Gedu Higher Secondary School  |
| <b>Rural</b>             | Yoeseltse Middle Secondary School<br>Peljorling Higher Secondary School<br>Zhemgang Higher Secondary School<br>Drugyegang Higher Secondary School |

All the case study schools irrespective of their geographical location are found to be conducive to teaching and learning<sup>11</sup>. In each school, there is a practice of two to three students giving speech during morning assembly. The speeches are on values related to Gross National Happiness. The classroom walls are filled with value laden messages, anecdotes and teaching aids (in the form of writing on the chart paper). The schools have facilities like school library, science laboratories and computer laboratory. Except for Zhemgang HSS, all the other schools have internet connection though access to internet varied from one school to another. In some schools only the administration has access, while in others, teachers also had access. Nevertheless, the internet speed in general is reported<sup>12</sup> to be very slow.

The majority of the parents are found to be illiterate and from economically poor background. They are dependent on agriculture for subsistence supplemented by livestock rearing. However, most of the parents of students in Phuntsholing MSS are employed in government and private jobs, as Phuntsholing is home to the country's major industries and is the major entry point to India. It is also the main entry port for almost all the goods imported into Bhutan. But one cannot say that the economic status of all the working parents is better than the illiterate parents. Neither can it be taken for granted that students in this school receives

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<sup>11</sup> As per the observations made during field data collection

<sup>12</sup> This was reported by the administration and teachers to the researcher during field data collection

more help in terms of their learning from their parents, since most of the parents are not educated enough.

Not all of the urban schools have boarding facilities. In rural schools, two out of the four schools have boarding facilities, though some of the students don't avail the facilities out of their own choice. The majority of the students in all the rural schools live far away from the school. Owing to this, some students have to walk for 1 to 2 hours every day to school and another 1 to 2 hours back home, as transportation facilities are minimal. But in urban schools, even though most of the students live far away from the schools, there are transportation facilities available for them which are provided free of cost by their parents employer.

Usually, students are observed to bring packed lunches in all the schools, though in Gedu HSS, most of the students bring packed breakfast and lunch, because the bus transporting students from school to home have to start early in the morning due to a long distance. In some schools, some students come without their lunch. The researcher didn't dare to ask the students for the reason, because they might feel offended or embarrassed. But some of the teachers reported that most of the students come from economically poor background.

In Bhutan, children usually help their parents with domestic chores during weekends and after school hours. Besides, students in rural schools in general are expected to help their parents with farm work and cattle rearing.

In Gedu HSS, Phuntsholing MSS, Yoeseltse MSS and Peljorling HSS, the classes range from PP to XII though within the same school there is bifurcation between primary and secondary classes. But most of the teachers teaching in higher classes like IX to XII are involved in teaching lower classes also. The principals and the vice principals though counted as teaching staff do not have equal teaching workload compared to other teachers, as they are involved in administrative work. Hence, as reflected in Chapter 1, the student-teacher ratio in real situations may vary from the ratios reflected in Educational Statistics of Bhutan (2012).

In most of the schools in higher classes, only few Bhutanese teachers are found teaching science and maths classes. Expatriate teachers from India are involved in teaching these subjects. Nevertheless, in Zhemgang HSS, Bhutanese teachers are found teaching these subjects though the same teachers are observed to be inexperienced. Further, the school has more number of inexperienced teachers and the academic performance of the school in

general is reported to be poor as per the letter by the District magistrate that has been put up on the school notice board during the time of researcher's field data collection.

All the schools have compact classrooms with students' number ranging from 24 to 42. The desk and benches are arranged row wise and in some schools though they have tables and chairs, the arrangements are made row wise only. Some of the schools don't have proper lighting and fans even though the weather condition is hot and humid. Facilities like football ground, volleyball and badminton court are present in almost all the schools except for Phuntsholing MSS which didn't have a football ground.

Students in general are found to be weak in spoken English and have difficulty in expressing their ideas as observed during the field data collection.

In each school, the school administration reported some kind of disciplinary problems. However, Samtse HSS and Phuntsholing MSS reported facing problems mostly related to substance abuse, as both the schools are located near the Indian boarder and there is easy access to controlled substances like drugs.

#### **4.5 Gaining access and addressing ethical issues**

Since the research was part of collaboration between Aalborg University and the Royal University of Bhutan, this study was approved by the Royal University of Bhutan. At the school level, before visiting each school, prior permission was obtained from the Dzongkhag Education officer and the principal of the concerned school. The principal in turn arranged for classroom observation in consultation with the teachers, which was done on voluntary basis. For the focus group interviews with students, the teachers whose classes have been observed helped to arrange for the volunteer students.

Interviews with the parents were also on voluntary basis and were conducted with parents who lived nearby the schools. Interviews with the education officers were prearranged through telephonic calls.

# CHAPTER 5: DATA ANALYSIS

## 5.1 Introduction

This chapter presents the analysis of empirical material. It is divided into seven sections. The first section 5.2 presents the number of each type of data collection in each case study school. This section also explains the case and document numbering used for easy referencing.

The analysis of data material resulted in six statements presented from sections 5.3 to 5.9 which are a slightly revised version of the collective research report on formative assessment by Utha et al. (2015).

## 5.2 Data Presentation

The number of data collection for each school is as reflected in Table 8.



**Table 8: Number of classroom observations, interviews with various stakeholders, number of student participants and number of action research sessions**

| School           | No. of classroom observation | No. of interviews with individual teachers | No. of focus group interviews with teachers | No. of interviews with parents | No. of focus group interviews with parents | No. of interviews with principal | No. of focus group interviews with students | No. of students in each focus group | No. of action research sessions |
|------------------|------------------------------|--|---|--------------------------------|--|----------------------------------|---|-------------------------------------|---------------------------------|
| Yoeseltse HSS    | 5                            | 5  | 0   | 2                              | 0  | 2                                | 2   | 6+6= 12                             | 2                               |
| Gedu HSS         | 5                            | 5  | 0   | 2                              | 0  | 2                                | 2   | 8+7= 15                             | 2                               |
| Samtse HSS       | 4                            | 4  | 0   | 1                              | 0  | 1                                | 1   | 8                                   | 1                               |
| Pejorling HSS    | 2                            | 2  | 0   | 0                              | 1  | 1                                | 1   | 8                                   | 1                               |
| Phuntsholing MSS | 2                            | 0  | 1   | 1                              | 0  | 1                                | 1   | 6                                   | 1                               |
| Drungyegang HSS  | 2                            | 0  | 1   | 2                              | 0  | 1                                | 1   | 6                                   | 1                               |
| Zhengang HSS     | 2                            | 2  | 0   | 1                              | 0  | 1                                | 1   | 4                                   | 1                               |
| Total            | 22                           | 18   | 2   | 9                              | 1  | 9                                | 9   | 57                                  | 9                               |

In the Table 8, the focus group interviews with teachers in Phuntsholing MSS and Drugyegang HSS consisted of two teachers in one group and four in another respectively. Out of the four teachers in the second focus group, two teachers classroom teaching practice were not observed. These two teachers were voluntary teachers who wanted to participate in the interview only. The focus group interview with parents in Peljorling HSS consisted of three parents and in Phuntsholing MSS, there were two parents. The action research in each school was carried out with the teachers whose classroom teaching practice has been observed.

The semi structured interviews with three education officers: the district education officer, education monitoring officer and curriculum officer were conducted individually.

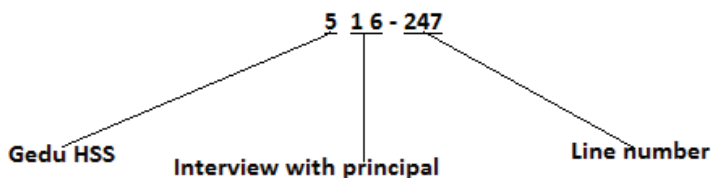
To ensure easy referencing and understanding of the presentation of data materials, each school is given a case numbering as follows

|                  |   |
|------------------|---|
| Samtse HSS       | 1 |
| Yoeseltse MSS    | 2 |
| Peljorling HSS   | 3 |
| Phuntsholing MSS | 4 |
| Gedu HSS         | 5 |
| Drugyegang HSS   | 6 |
| Zhemgang HSS     | 7 |

Since the interviews conducted with the education officials are not specific to any one school, they are labelled as case number 8.

Any quotation from a document related to one of the cases under study has five to six digits numbering like 203-12 or 516-247. The first digit denotes the case study school, the second and third digits denote the type of documents, and the numbers after that indicates the line number (in the document) of the first line quoted from.

For example in 516-247,



However, the analytical index of references attached as Appendix 2 may vary slightly in line numbering as the line numbering in it has been carried out for use by all the research members involved in the joint research project for writing of articles.

### 5.3 Data Analysis

The data analysis process started with studying the interview transcripts and classroom observation notes carefully to note any word or sentences that said anything on formative assessment practices and that seemed interesting or considered as solid findings. These similar words or sentences are further categorized into groups. These lead to forming six statements that are regarded as the most significant as well as frequent in the data material:

- The notion of formative assessment is marked by ambiguity
- Some crucial methods of formative assessment are poorly established
- Formative assessment influences the quality of learning
- Social relations and motivation are formative features of particular relevance to assessment
- The topic of ‘the formative’ is associated with the modern system of education
- Formative assessment requires time and resources that often seem to be unavailable.

The first two statements focus closely on how formative assessment is being perceived and practiced, while statements 3 and 4 are about how formative assessment relates to quality of learning and education, and the last two statements illuminate how formative assessment coheres with (i.e. influences on and is influenced by) broader institutional circumstances.

The empirical materials are further studied in depth and subthemes for each statement are developed along with an analytical index of references<sup>13</sup>. However, the subthemes and

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<sup>13</sup> This index is attached as appendix 2

analytical index of reference have been greatly modified compared to the one presented in the preliminary report II (Utha, Gurung & Keller, 2014). Some subthemes were restructured, added or omitted during the second round of analysis, which included more extensive and deeper going data material. The outcome of this whole process is as follows.

## **5.4 The notion of formative assessment is marked by ambiguity**

In the studied schools, the conceptual understanding of formative assessment appears to be obscure. Different understandings exist and some of these notions differ from theoretical concept. Furthermore, the idea of formative assessment is largely overshadowed and distorted by a general emphasis on summative assessment practices. The empirical material indicates three different ways in which the obscurity about formative assessment is remarkable:

- First, practices of summative assessment – where marks are given without any formative feedback – are often denoted as formative assessment.
- Secondly, formative assessment is conceived as nothing more than practices of continuous assessment.
- Thirdly, the formative assessment is perceived more as a managerial issue for teachers and school administration rather than a tool to directly promote the students' learning.

### **5.4.1 Mixtures of formative and summative function**

Practices of summative assessment are often prevailing where formative assessment was supposed to take place. The emphasis is on giving marks and not on the learning. The following statement by a teacher illustrates this:

First thing, to be honest not all people follow nicely. That's the great failure of formative assessment. When it finally comes to doing all people do summative only. It may not happen to everybody but it happens too many of us. (...) Here in this part of the world formative assessment means it is to do with marks. (308-124)

A similar opinion is given by another teacher:

If I understand it correctly formative and summative assessment are done together. To do formative assessment as a diagnostic tool it is difficult. We find it difficult to stress on formative assessment for the fact that most of us are not well equipped on formative assessment practices. We are more on summative than formative assessment. (406-15)

Such views are expressed by several other teachers too. In addition, a student in the focus

group makes apparent the emphasis placed on marks in his statement:

First of all in the case of English, when there is some sort of presentation or any project work to be done, after doing that madam announces how many marks each individual has get and madam will tell the marks. (507-74)

The emphasis on marks is also apparent from the importance given to weekly test which are called by various names in different schools like class test, unit test etc. However, the emphasis seems to be particularly strong in one case study school. In this school, every Monday, right after the morning assembly, i.e. first period of the class, the school has a practice of conducting a test in one particular subject. The result of this test is made public by putting up on the notice board after a week's time. In addition, the performances of all the classes are compared and the best and the worst performing classes are announced during the morning assembly. When the researcher questioned the reason behind such practice to the school administrator, the response given is:

Besides this project work, homework and so on an informal basis, teachers who are quite active, who are concerned about academic achievement of students they go on conducting such test not only on weekly basis . They conduct sometimes twice a week. But at the same time there are other group who hardly conduct such test even in a month's time, so, just to let every subject to be tested on a uniform basis. Beside this test, certain teachers who are very much concerned they keep on conducting even in between this weekly test also. The other thing is this strategy is to let the students have a focus at least in one week's time. Although children are to study the academic material but in reality they have some other focuses like today they have focus for cultural activities, tomorrow for sports , day after tomorrow for literary and that way they hardly have any focus on academic. So, at least to give a focus once in a week we have instituted this and this is also to make our children use their weekend quite properly. Otherwise they while away their time during their weekend and we are getting feedbacks from parents that this is quite useful to make their children do some studies during weekend. (516-27)

This practice is seen to be effective by the administrator and some of the students in the school. However, some students expressed that they have to study even during the weekend. According to one of the teachers, this practice initiated by the administrator is stressful for the students, and the teacher would prefer to have it in a different way:

*Do you think this weekly test is having an impact on students' learning?*

Impact I think is there but then I thought there could be another way also of doing the test. We had before block test and to my view I think that was better.

*How is this block test different from the weekly test you have now?*

We were asked to do two block test in a semester. So every subject has to do two block test within a semester. That way student was not stressed because here in this case every week students have to study even during holidays like Sundays. They have to be with the books whereas in case of block test, students can find their own time. At their own convenience they can prepare and that way I feel block test was better.

*So this weekly test is coming from the administration side or was it a suggestion from teachers' side?*

It is I think from the administration side. As we have a new principal, I think he brought this idea. (510-52)

When the administrator is asked to elaborate on how the result of this practice is used to enhance learning for weak performers, this is what he has to say:

While I am quite positive of the outcome of this weekly test, I am also aware that such students will be there in the group. But as of now it looks like we have average students everywhere and at the same time what I do is go to the class which does quite poorly and explain to them. I also keep a book on the views expressed by the high performing students on their academic life, how they do it and how they came to be toppers and so on and share. Then sometimes I also reprimand them as a group and then I go back to the subject teacher and share the same thing to them like I said this, I said that, I felt quite wild with the students of your class. This is to send an undercurrent message to the teacher if there is a better way to get across or do it in a different way so that children in the class would perform better. I don't know how far it will work but it looks like things are happening quite positively maybe out of luck or by default also. (516-59)

A teacher feels that the formative assessment concept is a borrowed concept from the west and is applicable only to certain parts of the world:

Why teachers are being misled is because the term itself is misleading. In our contest assessment means to do with the marks no. But then this terminology is being used differently in the west and we have borrowed that here and we are practicing in our contest. So that is why in our contest we don't accept that as a formative. (308-145)

The same teacher mentions that the guide book on formative assessment practice provided to the schools is found to be ambiguous as it doesn't associate formative assessment to the formative feature:

And whenever we ask a question, how is formative assessment different from summative? The answer we get is of course from the guide book itself given by the policy makers itself states formative assessment is home work, class work and project work. (308-148)

#### **5.4.2 Misconceptions of formative assessment as identical to continuous assessment**

Formative assessment is often understood as nothing more than continuous assessment, which suggests that it is frequent and irregular in distinction to summative assessment, but not that the formative aspect is important. Formally, continuous assessment relates to classwork, homework, project work, and class test. Teachers tend to associate formative assessment with continuous assessment practices, which according to them are carried out to enhance students' learning:

Formative meaning continuous assessment no (508-48)

Class-work, home work, class test and project work. All these are done to help students learn

the contents taught better. (104-23)

When the above teachers' view is communicated with the district education official, he expressed the same understanding:

Even I thought it is because like formative assessment is supposed to happen throughout the year and then we were taking like summative assessment which is normally the terminal examinations. So during midterm and annual examinations that's the summative assessment and then the other side is we have the continuous assessment which is kept through the year. And I even thought that formative assessment means it could be the continuous assessment. (801-146)

In one school, a teacher associates formative assessment in terms of giving rewards in the form of stamp mark along with comments in students work. According to this teacher, the stamp mark indicates the level of excellence a student has achieved in his or her learning:

I have made one seal and in the beginning of the year, I have informed them that if they get a seal, it means excellent work. Because they are in class 9, I want to prepare them for class 10. (102-37)

A similar practice is evident in another teacher's practice where instead of stamp mark, the said teacher uses letter grading:

We give certain portion of the section as homework and in the next lesson or after one week we collect their book and then just give grade like A+, B+ and sometime we quantify with numbers there, other time we just leave there. (106-60)

However, one teacher seems to have a correct understanding of the idea of formative assessment. He relates the formative assessment practice to feedback that leads to an individual's learning:

I feeling, like giving marks is not formative assessment that is summative. I mean, if it is formative assessment we have to give comments, they will have to pass through the comments where they have gone wrong and what are the things needs to be done. Rather than giving marks and summing up their performance teacher has to be engaged in the process. (404-118)

But, this is a rare understanding according to the empirical material. Furthermore, when formative assessment is understood simply as continuous assessment, it is sometimes regarded as a procedure that compromises the quality of education: a practice whereby weaker students are at an advantage in terms of passing the exam due to the teacher's informal evaluation. This is indicated in the following words from a school administrator:

I must accept that I am totally against this continuous assessment. Because I must train and I came from a stage where my academic assessment was rated out of 100%. And today in fact we are compromising with the quality. So, if we look at class four and five, fifty % is writing in Exam and fifty % is continuous assessment. Even if somebody gets one mark out of fifty in exam and forty in CA they need to be promoted to the next higher classes. (...) Even a poor

student can do this formative by copying from their friend. And in fact the person who copied gets more marks. So there I rely consider that as not an important one (306-116).

Thus, it is criticized as a method to promote the students to the next higher class, rather than contributing to their learning.

Apparently, the notion of formative assessment as being more or less identical to continuous assessment is commonly held by the teachers, principals and district education officials. However, the education officials who are involved in developing the curriculum and monitoring the school education seem to notice that this problematic misconception is prevalent. An education official state:

That's the confusion we still have because we always tell them that formative assessment is something that if we prove them or question them whether they understood or not, that can be a part of formative assessment but they feel that is simply a question answer technique or session. So, whenever we say formative assessment they say it's a continuous assessment. (803-42)

Another education official highlights how they try to ensure that such problems are taken care of in schools:

*So, with regard to this formative assessment practice being done in the school, when you all go to schools for the Performance Management System, do you also do classroom observation?*

Yes, we do that. We go and visit; we go through their notebooks and see how the feedback has been provided by the teachers especially in the notebook because sometimes if the students get wrong, they don't give anything. They simply cross. We encourage them to provide feedback where student has gone wrong and how to correct it. I think that's another way of formative assessment. So, we tell them. In that way we go through their lesson plans, we go through their notebooks.

*So, this is done every once in a year?*

Actually we visit twice a year, once in the beginning and once later.

*And DEOs are also supposed to do that?*

Yes, they have to do it. When we get time we tag along with them. Otherwise as a follow up of their visit, we go depending on the time that we get here. (803-114)

### **5.4.3 The managerial role of assessment**

Undoubtedly, many teachers are aware that formative assessment practice is intended to improve learning. However, when it comes to practice, the focus is more on following a format that consists of conditions or criteria like students' completing the work on time, their handwriting neatness, submission date etc. The focus is more on the managerial role than on providing feedback to improve learning. A teacher in a focus group highlights this practice:

I think we have format itself, different subject we have different format as to how we assess throughout the year. They have all these components like CW, HW, portfolio, their



attendance, their participation. All these put together becomes Formative assessment. (404-103)

The same teacher mentions that the format consists of criteria, but the criteria are not related to the feedback component:

Timely submission of their work maintaining cleanliness as and how well they translate into their own words (404-111)

Probably, most of the teachers in other schools follow a similar format, whereby the focus is in line with the above teacher's observation. Based on whether criteria are fulfilled or not, marks are accordingly awarded or deducted:

I have criteria. When I correct/evaluate CW, I have to look at the accuracy-how they have shown, completion, submission also. If I ask them to submit on 21<sup>st</sup> and if they do not bring then that marks will be deducted. And then even in CW, we include participation. So we are giving one mark extra but accuracy, other completion we are giving two. If that student is not participating in the class because that comes under CW but HW not participation. Totally based on completion, submission, accuracy, and then consistency. We have different different rating steps. (202-66)

A school administrator on the other hand feels that summative assessment is a better practice than formative assessment as the later can be unreliable. The marks allotted for homework and classwork is seen to be unfair as students are found copying from each other. This is clear from the administrator's comment:

With summative I have a positive feeling with it. People's intelligence, standard can only be judged through their writing. Even a poor student can do this formative by copying from their friend. And in fact the person who copied gets more marks. So there I really consider that as not an important one. But I as a principal consider summative or exam orientation is the best one. Child's performance should be purely based on exam. And that is my perception and it is how I feel. (306-124)

The same administrator views that conducting weekly test is a better formative assessment practice than homework and classwork. The understanding of students' learning is then based on the marks obtained by the students in the weekly test:

My perception would be what I used to practice in my previous school. We do have monthly test, we do have weekly test and at the end of every chapter. And as a teacher we don't have to wait for half yearly and annually. And those doing good we will have hope upon them and whoever is doing week we have to give extra attention to them. So in a way I think instead of awarding mark for class work and home work who just copy from somebody and giving unnecessary mark this is I find more effective. Having a weekly test and monthly test, at least we can cum to the conclusion that he or she is good and other who need attention. But I think most of the schools left this weekly test thinking it as a time consuming and all. (306-133)

The case study schools also indicate a chain of monitoring system whereby teachers have to submit their lesson plans to the head of the department, the head of the department's lesson

plan has to be submitted to the vice-principals and the vice-principals in turn have to submit their plans to the principals. This according to the school administration is done to ensure quality learning, though there is no mention on providing feedback as the data indicates:

*As you were mentioning, teachers have to maintain two major lesson plans per day. So, you as an administrator how do you monitor all this as it is happening or not?*

Yes, I have my HODs, subject departmental heads, two VPs. And first I check the lesson of VPs. VPs check the lesson of the HODs and HODs make sure they check their departments' lesson plan. As we have science department, arts department, maths etc... So departments are being cared by their HODs and HODs are being cared by their VPs and I catch VPS. And it is a chain where nobody can escape.

*How often are you monitoring this lesson? And HODs to VPs and Teachers to their HODs.*

So, every Monday, VPs lesson has to be submitted to me, and HODs lesson should be submitted to VPs and teachers lesson to their HODs. (306-102)

In one of the schools, there is a practice of having to submit students' work to the administration to check whether things are being taken care of or not by the teachers. This is reflected by an administrator's comment:

As a manager all we have been doing is ensure that they do it the number of times they are to provide feedback -writing portfolio and maintaining portfolio submit to the office through respective head of the department. We give the guidelines and help them to follow as per the guideline. We check the progress; we also have a system to check on a half yearly basis. (406-21)

## **5.5 Some crucial methods of formative assessment are poorly established**

As it was pointed out, the prevailing practical notion of formative assessment is often associated with marks rather than students' learning. However, formative assessment practices do indeed take place, though they are easily neglected due to the uncertain or ambiguous theoretical understanding. Actually, practices in accord with the theoretical notion of formative assessment are many times observable in the teaching and learning process in the classrooms. But since these practices are not clearly recognized by the teachers as formative assessment, they also stand out as poorly established. Our observations on this topic can be specified in relation to each of the themes usually associated with the theoretical concept of formative assessment: questioning, peer assessment, self-assessment, and feedback.

## 5.5.1 Questioning

Dialogue in the form of question-answer is found to be the most frequent form of formative assessment taking place in the classroom as is evident from several classroom observations like this one:

The class assessment is more of questioning and answering. (301-20)

In general, teachers also cite that assessment in the form of question-answer is the most practiced form of assessment. This is evident from the following focus group interview with teachers:

*So questioning is a normal practice for you.*

Teacher 1: Yes, because I don't see any other practice. Maybe in future but at the moment I feel this is the best.

Teacher 2: It's like sirs only. We ask questions to tell whether students have understood or not. (...)

Teacher 3: More or less same with the two sirs. Questioning is one method not only three of us here but most of the teachers will go for it ... (518-58)

Questioning as formative assessment is to find out whether the concept being taught is understood or not. However, classroom practices indicate that only few students' answers are used to decide the learning outcome of the whole class. The following observation by a teacher highlights the process followed:

To check whether that objectives are fulfilled or not usually we ask questions at the end. Sometimes we ask them to write and sometimes we ask on the spot some of the questions. If most of the students are able to understand, we take the majority and say that objectives are fulfilled. We cannot guarantee that our objectives are 100% fulfilled. (212-66)

The focus of questioning is seen to be mostly on facts and recalling what has been taught. This is obvious from the classroom observation where students are frequently found to give chorus answer:

He asked short questions in between like- are there like terms? Are these two answers matching? Are you getting me? The students were giving chorus answer all the time saying 'yes sir'. Then the teacher informed the student to do rest of question 1 as home work.

The teacher then went through the same process with question 2. (213-34)

In addition, the process of redirecting, rephrasing or giving clues to the questions to encourage students' participation is often taken as wastage of time by some of the teachers:

*Do you get enough time to do all these after your hectic schedule? Is it happening in reality?*

Teacher 1: well, ah according to the lesson plan, we have to introduce, as introduction it always happens. But then to be frank enough, the closure part is something that we are not able to do properly because as sir asked, time management is a problem here. Because, according to our plan, what we assume is that we get answers directly from the students but

what we fail to do is, we fail to consider the low achiever and the high achiever. If we are directing the questions to some of the lower achievers then it is difficult to get the correct answer, so in trying to get the correct answer, our time goes by.

(...)

Teacher 2: Redirecting and redirecting and trying to rephrase the question, redirect. In that case, some questions get revolved around so many times and that waste our time. (404-45)

In some cases, teachers' awareness of the time seems to make them ask more than one question at a time. This is obvious from the classroom observation. An example is as follows:

The teacher then wrote 3 questions on board based on the topic and before proceeding, asked the students the following questions:

What is multiplication? , Why we have to learn multiplication? , How is it important to us?

Since the three questions were all asked together, one after the other, it was confusing for the observer. The students also seemed little lost. (209-27)

As an important aspect of questioning, feedback must be practiced in the form of redirecting, prompting and giving clue. But this is found to receive insufficient attention. Lack of time is repeatedly cited as reason and the situation leads many teachers to volunteer the answers themselves, as illustrated by the following classroom observations:

Formative assessment in the form of question answering was taking place with little feedback. (203-25)

In the first half of the lesson, the teaching was more teacher centered though in the process of explanation, some questions were asked. In some cases correct answers were given and the respective students were given due reinforcement like 'very good' and 'excellent'. However, when correct answers were not given, opportunity for other students to give answer was not there. Instead the students were informed that time is very short and teacher did the explanation.

For example when the teacher asked:

i. Teacher: 'What about the other difference?'

Student gave the wrong answer

Teacher: 'Sorry that is wrong. I will explain. Time is short'.

The teacher then gave the answer.

ii. Teacher: 'Why should we make the bottom part of the hydrometer bulky?'

Students were quiet for some time and then one student gave the answer which was wrong.

Teacher: 'Ok, I will explain'.

This practice was repeated for some more questions. (509-34)

The above practice where the teachers often give the answers themselves seems to have passed on to the students as observed during the classroom observation where students in groups were having class presentation:

The floor was open for question answer session but nobody was asking any question. The presenter then asked one question to the students to which everybody was murmuring but no answer was forth coming. The presenter then explained the answer himself.

The second presenter was a girl and she presented on phylum coelenterata. (...) In between her presentation, she asked time and again whether students had any questions. In some cases she asked the question to the students and when answer was not given, she explained herself:

Presenter : Do you know what aboral means?

Students: No

Presenter explained the answer. (511-34)

In addition, there exists a kind of practice where some of the teachers tick the name of the students responding to the questions on students' attendance sheet as part of grading and to encourage student participation:

*This questioning also you are doing. Do you find this questioning important in teaching learning context?*

(...) What I do is from the textbook and even I make my own question and ask. In the front page of my lesson I paste the name list of the students and whoever gives the right answer I just tick it (against their name). I make sure students know why I am ticking. So, I will tell them that I am assessing. I tick that way.

*So when you do this way, do you find more students volunteering?*

Yes, more volunteer and more active and today if I do, the next day there will be more number of students doing.

*What about if you say I am not assessing and just ask the question?*

Nobody will volunteer. Only few. Some will be shy and then some will sit quietly. I have found out and I have come up with this strategy. (210-171)

Similar practices are expressed by most students in a focus group:

When we volunteer in the class, when teacher ask the questions if we volunteer. They write down the roll number or name and then the CA is given accordingly. (111-62)

Some teachers explain that when opportunity is given for volunteer students to answer, only the better performing students volunteer. The practice of giving opportunity to weak students all the time to answer is found to be difficult as said by a teacher:

Now here actually it is not good but what I do is I try to stop those bright people to speak faster because as and when I give question, they try to give answer and these losers, what I as a teacher think is they understood. But usually they have not understood. In the beginning I used to do that but later I found while they write home work and classwork, I found there is drastically difference between these two. Then I have stopped and say directly if you know the answer, please hold yourself when I ask question. If they are able to answer then I think yes and am done. Otherwise, then only their turn comes. But sometimes situation comes where I have to ask those bright people. Every time if you keep holding those bright people then their interest might be lost. But usually I give. (202-111)

The classroom observation indicates that questioning takes place usually after the teacher has completed the lesson input. The reason given by a teacher in the action research session for such practices is as follows:

Obviously at the end because by that time, students' might have learnt lot of concepts from the lesson that was taught. Obviously at the end it will be more effective because in the process of teaching, students' will be concentrating in many ways and because of that they

will have to take record of what is being taught, what is being written on board. Secondly they will have to think about the questions teacher has asked. So, in the process of teaching, assessment part may not have gone that well as students will be engaged but at the end teacher would have finished and they will give full time to the question and they will be able to answer. (518-97)

### 5.5.2 Peer assessment

The empirical material suggests that peer assessment to a great extent is absent. This is made obvious by the following teachers' comments:

Other classes I don't know. For me peer assessment is not there, I don't practice that. (502-73)

Peer assessment – no. (202-90)

However, when it does take place, it is usually associated with test paper correction and is mostly applied as a teacher controlled process. In such process, students are involved in correcting peer's work based on the correct answer provided by the teacher. The following comments by teachers show how peer assessment practice is carried out in their class:

When we do class test, then I try to exchange. If the paper is in this side, I give to another person. Then I write down the answer on the board and they will tick. So that's what I try to do but as such differently I don't do. (202-90)

Yes peer assessments normally I do in the class test. Right after though for the class test, I don't actually these marks would not be carried, it will not include in the final exam or from exam point of view. I take class test from their point of understanding, so after completing certain chapters, I take the classwork and I actually them to like if roll one to four, five like that way know, it will be distributed not their own, I dictate the mark. Actually the answers will be written on the board, I also give the side answers. (302-64)

Similar practices are prevalent in other case study schools too. For peer assessment to be formative, exchange of feedback amongst the peers plays an important role. However, the feedback component is observed to be missing in those cases where the teachers say they are practicing peer assessment:

As of now friends don't give feedback. They just do the correction. (512-204)

When the information on minimal practice of peer assessment by the teachers was discussed with the principal, he in turn gave an example of his practice of peer assessment, which is not very different from the one practiced by the teachers:

Actually we do practice peer as well as self-assessment. Normally we practice this in the physics lab. Doing with the projector is easy for us. We use to give a question and then make our students to solve it and let them exchange the notebook in peers. The answer will then be displayed. So, that way we used to practice. Self also we used to practice in the same way. We also practice in the classroom. But in the last class that you observed, they may not have done it. (216-157)

The practice of peer assessment is also seen to be bias when that takes place between a weak student and better performing student. Better performing students are thought to be better in judging others' work compared to weak students. A teacher in one case study explains why he doesn't practice peer assessment:

One very important reason behind why I don't do this is because I feel that peer assessment will be not fair. First of all, fairness will be not there. I think this is most striking thing that which I do not practice because student they them self not knowing much about what they are doing. So fairness will be not there in the class because if we look in the level some students are bright, some are not that, slow learner and first learner are there. So basically those who are slow learners will be not able to assess that well. So uniformity will be not there. That's why I don't practice. (502-78)

### 5.5.3 Self-assessment

Self-assessment is weakly illuminated in the investigation. Most of the teachers interviewed avoided answering to the question on self-assessment practice. This was evident in cases where the interviewer asked the question on peer assessment and self-assessment practices together in one question. For example, in one case study school:

*Are peer assessment and self-assessment happening in your classroom?*

Peer assessment – no. Sometimes test paper we give like that but not as a homework. When we do class test, then I try to exchange. If the paper is in this side, I give to another person. Then I write down the answer on the board and they will tick. So that's what I try to do but as such differently I don't do (202-89)

In another school:

*In your classroom, do you use peer assessment and self-assessment?*

Yes, I do that. Usually, our students are weak in spelling and I conduct spelling test. Then I distribute the books among themselves and I say that be honest and I don't want any malpractice and do the corrections. (102-42)

Some of the teachers did answer questions on self-assessment but the impression given is that the teachers' understanding of self-assessment is generally quite vague. Sometimes, teachers explain it as their own self-assessment:

I usually do, in some areas I feels some time students they don't seems to be learning, so whether my approach to my students is, from there I come to know that my approach, my way of teaching, maybe there is a weakness so that way I actually assess. (302-71)

Other times, they explain it as finding out whether the students have done the assigned work as per the instruction given:

Again like if the activities are very short and which can be done in few minutes time in the class then we just write the activity or give hand-outs, huh! We give certain steps in answering the questions and if they follow the steps that time we give the self-assessment. (106-73)

There are times when self-assessment practice is associated with student's correcting their own test paper based on the correct answer provided by the teacher. This is exemplified by the following teachers' comments:

*Did you try this in your classroom? If yes, how have you tried this?*

Teacher 1: Yes, like in the classes where we conduct spelling test, most of the time I conduct self-assessment, I write all the assessment on the board and I ensure that they do their own correction.

Teacher 2: I give some question and they try to answer the questions then I set the criteria. Okay, this is how we are supposed to solve the problem then for this procedure this is the mark you can award it yourself. Once they finish correcting I make them exchange with other and after the correction then I solve the problem myself on the board. And then according to that as I have already instructed them the criteria that's need to be full filled and I ask those children to see those people who have assess their own work have been sincerely or not. (404-129)

There are teachers who admit that self-assessment practice is absent in their teaching practice as they feel that like in peer assessment, it will not be a fair assessment. These same teachers were interviewed again after about a year and they still gave the same answer. However, when the interviewer briefly explained the process involved in carrying out self-assessment, one of the same teacher mentioned that he had a different understanding about it:

Self-assessment is different from what madam said to what I thought. Self-assessment I thought is related to the test we perform. (...)

This self-assessment what you talked about is on a continuous basis. It is on a long term and it needs time. But I just thought about just a test only. Give a test and let them assess their work. So, I thought that one but as per your views I don't practice. I have never thought about self-assessment that way because first of all, the time factor. It doesn't allow us. Second thing is coverage of syllabus. So, these two factors do not allow us to think about all those which require time. (510-224)

However, the same teachers were more positive and showed enthusiasm to undertake the self-assessment practice during action research:

I think it is quite possible. It would be interesting to use this method also because students will be engaged and they would be more interested to hear from their own friends rather than every time teacher teaching them. I think this is good idea. Maybe I will start with this concept of peer assessment. Even self-assessment I will try to use. By looking at time it will save teacher's time also. Students want different method of teaching and this could be one strategy to generate interest. (518-223)

They made a point that they will start practicing it with their students. However, they mentioned that they would need some professional development program to understand and carry out the processes.

**Teacher 2:** That self-assessment it seems it will work. If we have some resource persons giving us professional development on it as to how to go on about, I think it will work. (518-215)



The same teachers agreed amongst themselves to try out such practices on their own in the first phase and then come together and discuss their experiences to each other in the second phase. They also stated that they would like to communicate the information on such practices with their other colleagues in the school for greater benefit:

**Teacher 3:** I think it is very nice. We need to work more and share with our friends during professional development programme. I think these peer assessment, feedback, questioning, and self-assessment we have to read more articles regarding it and share. It will be very nice. (518-284)

Most of the students' understanding of self-assessment practice is similar to that of the teachers, as was evident in the focus group:

Sometime when teachers don't have time, they write the answer and tell us to correct ourselves. (217-300)

One of the students in the same focus group above mentions that self-assessment is possible in only some subjects where there is only one correct solution to the problem:

I thought this self-assessment practice is possible only in some subjects like maths because in this subject, there is only one particular answer to questions. But in case of some subjects, there are many answers. (217-314)

In addition, the school administrators' understanding of self-assessment is in line with that of the teachers and the students.

### **5.5.4 Feedback**

Though the basic idea of formative assessment is closely associated with notions of 'feedback', the practices of formative assessment are not efficiently aimed at useful advice.

Teachers' feedback is mostly generic in nature as readily identified from the data:

I provide comments like "good", "very good", "work hard" in their notebooks and class test. And during the class I correct the responses if it is not satisfactory. (204-24)

We say that, your write-up could be cleaner, can be better, drawing could be of this kind as expected. If it correct, we say, this is the way you need to do, continue. Excellent! Good! We can even give marks on that chit itself, later that's gets compiled up and converted to whatever percentage is has to be converted. (404-114)

Though the feedback is mostly generic in nature, the teachers agree that it enhances students' learning. According to a teacher, the feedback not only helps in improving student's learning but also help them to make changes in their own instruction:

It would help students understand and learn the content better.  
(...)

Yes, I would know whether the students have understood the concept better or not, which in turn help me simplify the information input. (204-27)

Similar views are shared by other teachers as well. As to the students, some of them prefer both comments and marks. But, there are others who express that marks don't indicate their actual level of learning:

Student 1: because from grade we don't know what teachers are trying to say.

Student 2: If they give comments we can improve. (111-77)

Most parents on their part are found to appreciate those teachers making an effort to give the feedback as a good number of teachers are found not correcting the students' work. For example, these parents obviously concur in their criticism:

Parent 1: Some they check and give remarks. But there are some who never check our children note, so as parents, we feel these teachers are either not interested or negligent on their duty.

Parent 2: Yes I have seen remarks like, your handwriting is not good, improve it, we also see spelling being corrected. it does not matter whether they give good or bad remarks, but we feel all should check our children's work if not at least in their progress report. (305-83)

In line with the parents comment, some students mention that half the teachers in their school do not correct their work:

Student 2: Some teachers are giving remarks, some are not giving. Some are simply giving tick. Some are not even correcting.

(...)

Student 1: 50 percent teachers are giving, some are not giving. (407-40)

However, teachers mention that due to time constraint, they are not able to correct every student's work and give feedback:

Teacher 2: Correcting the work that students submit becomes a daunting task. So many pages are there and every page you have to read carefully.

Teacher 1: It is quite time consuming. (508-92)

Some students mention getting negative remarks from the teachers. When probed further on this issue, they expressed disapproval for such comments:

*As one of you were same teachers give bad remarks. Does this type of remark have negative impact on you? Does it affect your learning by such type of comment?*

Student 2: No sir we like to improve.

Student 3: Yes sir, sometime I didn't feel like improving.

*How do you want your teacher to write the comment?*

Student 4: It should be in good way. Some teachers are giving in harsh way no sir. (407-48)

Similar views are expressed in other focus groups too. However, teachers have a mixed feeling about it. A teacher in a focus group expresses minimal use of it and finds giving positive remark all the time a challenge:

For me I feel that in long term, the positive thing will be working better. For short term I think we can use that but then it's a challenge also to give them always positive aspect of things. I feel that we have to practice that. For long run we have to think. It's a challenge because we have to analyze the student nicely and give them positive reinforcement. So, I practice more of that. Threat and all is very less unless the student is exceptionally bad then maybe little threatening is there. But majority is positive. (508-80)

Another teacher in the same focus group feels that besides positive comments, negative comments also leads to learning as illustrated below:

Both equally. At times the negative. Thinking that they would lose marks, they give more positive response. (508-78)

## **5.6 Formative assessment influences the quality of learning**

Formative assessment serves as a bridge between how much students understand on their own and how much more they can understand with some help from teachers and peers. It helps learning by generating feedback information that is beneficial to both the teachers and the students. The result of formative assessment is then used to adjust teaching and learning. We found three different ways in which practices of formative assessment thus promote quality learning: positive attitude to learning directed assessment, collaborative learning, and support of weak learners.

### **5.6.1 Positive attitude towards the importance of formative assessment**

The formative assessment practice in the form of classwork, homework and project work aids students to better understand the concept taught. Most of the teachers in the case study feel that when students do homework or classwork, it serves as a revision by helping the students to recollect what has been learnt:

I think it does help no sir. Even if a child HW and CW that they would be doing, the lesson they had learned before is put into writing. So, it would be if you don't know, it would be knowledge for you and if you have already known and the child writing down, it would be a revision for the child. So, I hope that I think that it does help them and then another one is conviction to the teacher that yes the children has learned- an evidence. That's what I feel. (504-83)

They tend to recollect whatever is taught. That way, it gives them more practice, more time to think about and that way their retention power increases and they will be able to do better in the test also because if such questions come in test, they will be able to do well. (510-85)

When the students are able to do well in the homework and classwork, teachers take it that learning has taken place as is apparent from a teacher's quote:

...and another one is conviction to the teacher that yes the children has learned- an evidence. That's what I feel. (504-78)

Teachers mention that feedback in the form of verbal as well as written comments is used by the students to bring improvement in their learning:

Giving feedback has improved a lot. If the handwriting of a particular student is not good, then giving feedback helps. The particular students show lots of improvement in the next work. Feedback is an indication that you get the mark. Students are more careful. I think learning takes place. (102-60)

They become little bit serious on it. They start working harder thinking that I will have to do. In that way it becomes a habit and if that kind of feeling develops in them then they naturally learn better. (212-467)

Students agree that feedback in the form of comments help them to improve their work by revising and making improvement. According to a student in a focus group,

(w)e write again. Solve it again and show it to the teacher. (207-51)

Students in other focus groups have similar opinion. Sometimes, due to time constraint, students mayn't be in a position to work on the feedback received. Nevertheless, teachers maybe convinced that students make an effort to go through the comments, as is obvious from this teacher's remark:

They do but maybe because of some other workload they may not be able to complete but I think they try. (510-340)

On the other hand, a few teachers take the initiative to see to it that students have revised their work based on the comments received:

*Do you think students go through that comments?*  
Yes and as a follow up I use to check. (512-163)

In cases where the parents are educated, they are found to take the initiative to encourage their children to work on the feedback.

### **5.6.2 Collaborative learning**

In a collaborative learning set up, learning is not seen as a competition. Rather, students are open to suggestions and work with other students. In this manner, techniques and aspects of formative assessment are implied recurrently in various informal ways. Teachers in the case study schools are time and again found to encourage learning from friends:

So I ask the students to discuss within the friends while doing. Sometimes they don't understand my teaching. They can learn from friends. Even tell them to discuss within class. (210-157)

Students may not know but I ask them to discuss or ask their friends (212-190)

Usually teachers encourage students to work in groups where slow learners and fast learners are equally distributed:

Group work and then while making group also, there are some poor students also. Pupils in the front are very bright. During group activity, I never keep them in the front. Mixing. There are poor also. (202-96)

Students on their part cite their preference to work in a group, where they are equally involved in learning:

From my point of view, I would say that, ah! teaching that we prefer is usually when teacher give us presentation, they divide us into groups and we give us in groups works we learn more. (307-8)

Another student in the same focus group mentions the need to involve student in their own learning instead of only teachers teaching:

It should involve equal involvement of both student and teachers. Not only the teachers. (307-20)

However, teachers admit that group work doesn't always lead to active participation by every group member. Some students would dominate the group discussion. A teacher believes that keeping the group size small would help to avoid such problems:

Well, one thing I do is I just believe in having more groups with fewer students/members rather than having few groups with more students. I would like to huh, I preferably go for 8 to 10 groups in a class where we have got 4 members or something. In that ways, somehow they don't feel dominated in that group and automatically they are much comfortable. Ah! Some people who are, some students who are reserved and shy they don't feel comfortable to raise voice in a large group, but then when we have just ah! Few students 4 or 5 members, they feel very comfortable and they are confident in sharing and then putting up their views. Well, I go for maximum having members ah! I mean, groups fewer members. (404-19)

The same teacher further suggested appointing a leader within the group and making them responsible for the conduct of group work:

One could be like, give the responsibility to the members or the group leader to guide the group so that if teacher is not able to be in the group or is engaged in other group, the group leader or the group member takes care of the group and then learn through that. (404-35)

Another teacher in the same focus group views the teacher's constant guidance during the group work to be another solution:

I act as guide whereas all the activities are carried out by the students, but then I have to go indifferent groups and ensure that the work that is given to them is up to the expectation of the teachers. Ensure that they are doing the proper work, there are chances that they might go wrong if we don't guide and monitor in the process. (404-28)

Yet another suggestion put forward is to give each member in a group a responsibility:

Another could be we assigned different works to different groups members, like at the most we can go for 5 members in the group and then one can be the manager, one can be the note taker, one can be the presenter. We can assign different different roles and then this role is not permanent role for the students, so whenever there is this kind of role, the role can be changed. (404-38)

### 5.6.3 Support of weak learners

Formative assessment helps in reducing the gap between the weak learners and the better performing students. This is the case whenever an identification of weak learners is followed by pedagogical measures to support their learning. According to the teachers, they try to bridge the gap by paying more attention to the work done by weak learners to encourage them and also to indirectly make them understand that they need to put extra effort, as is apparent from a teacher's report:

Basically when I give class work, I go around and go near those particular students who are weak and reinforce them and check their book. I usually check their book first so that they would think that sir is coming every time and checking their book, so they will write. (102-65)

In several case study schools, it is apparent that there are students who mayn't understand the teacher's teaching. In such cases, those students are encouraged to learn from the ones who have understood, as reported by one of the teachers:

Sometimes there are some categories of students who do not understand when teacher teaches but when friend teaches that same concept in their level, they understand. So, that is done because one good learner is kept there. I encourage that. I always tell in the class also that I understand some of you may not be understanding my way of teaching but because I am the teacher that is not the reason to stick on. You can always ask the person who has understood. I always encourage that. (214-373)

In most cases, to cater to the learning needs of a weak student, the classroom sitting arrangement is done in such a way that a better performing student is paired with a weak student. This is apparent from a teacher's remark:

When I teach them and get vague answer, I tell them to get into pairs as the class is already divided into pairs (sitting arrangement) i.e. one good and one weak and tell them to learn from each other as what one knows, other may not know. (102-49)

On the issue of disparity that might come with this kind of sitting arrangement, a teacher justified as follows:

There are advantages as well as disadvantages. Advantage is that they will learn and disadvantage is that they will be demotivated but as a teacher, I don't tell that good student will sit with weak student. I make in such a way that they do not know that one is good and other is weak. (102-55)

There is also a practice of teachers giving higher level questions to better performing students to keep them engaged so that teachers can devote their time to help the weak students. This is evident from a teacher's statement:

Huh! I do generally by two different ways la, one is like okay initially we give some problem to all, some are good students, say fast learners, they solve faster, so those who finish little bit faster, we give higher level of problems there, and in the meantime you go to weaker section, slow learners and give some hint and help them out to learn. (106-50)

Yet, in another case, slow learners are given more preference and opportunity whenever time permits:

We basically, like it depends upon time like we have very limited time. So if there is any opportunity left to cater their interest we always take care of their interest. For example, when I go to class I always make sure that the one who is slow learner is taken care and given more question to him. Meaning whenever there is opportunity. Basically it is very difficult in the situation that we teach in the class. It is very difficult to cater their needs but whenever there is opportunity to we always give preference to these people. (502-87)

In addition, almost all the case study schools have a practice of conducting remedial classes to cater to the needs of weak learners. A school administrator points out:

We conduct remedial classes in the evening to reteach the topics that students have not understood. (110-15)

The remedial classes for weak learners are found to be in practice in most other schools. However, these classes are not confined to only the weak learners. All the students can attend those classes.

## **5.7 Social relations and motivation are formative features of particular relevance to assessment**

The formative features of formative assessment are, of course, factors that actually promote the pertinent learning processes by providing better circumstances for the learning to take place. Certainly, these features must basically include social relations and motivation, which can be said to 'form an atmosphere' or 'strengthen the environment' of learning. The social relations that are important in terms of formative assessment and learning consist of peer relations amongst students and the teachers' respectful (or even friendly) relations with the students. Similarly, motivation stimulates learning, and the students' motivation increases when assessment becomes formative by relating clearly to the direction and importance of their learning. The empirical points relating to these topics were found along four lines:

Formative interaction, students' self-esteem, students' care-taking of the teaching-learning, and students' motivation for learning.

### 5.7.1 Formative interaction

For teaching and learning to be effective, the teacher and the students must communicate to each other. So, the teaching-learning process has to be student-centered, at least to the extent of allowing some degree of active student participation. In general, the teachers interviewed seemed to be quite aware of this. Actually, many of them express the importance of student-centered teaching for learning to take place. For example, a teacher explains how students benefit from a student centered class which according to him was missing during his own schools days:

*What is your view on Student Centered learning?*

I do practice and I find it very interesting because I came through teacher centered teaching which is bit difficult to understand. But student centered learning much more interactive and I must say their results are better than ours. I do practice so I don't want to have same situation like me (laughs). There, everybody is participating in student centered learning because when we distribute task, they do participate and then they come up with progress. (202-6)

However, classroom observation indicates the teaching-learning process as more teacher-centered. A typical lesson in a classroom usually involves two steps: first the teacher lectures and afterwards students will be activated in some ways. A class observation in one school is as follows:

The activities during the lesson comprised of two sections:

- ✓ Teacher providing explanation on the topic
- ✓ Students solving the problems given by the teacher, which the students were supposed to solve based on the information fed by the teacher.

The students were handpicked by the teacher to demonstrate how the problem was solved by them to the whole class. (201-17)

In another school:

The teacher teaches 'General preparation of salt'. Techniques used by the teacher are explanation and questioning. Activity is carried out but it was more of one way communication, though discussion and interactions take place, very minimal participation from student's side. Teacher modulates his voice, gives different examples to clear the concept. The time management was little poor from teacher side. Teacher taught too many concepts at a time. (601-11)

Though the classroom observation indicates that the teaching is mostly teacher-centered, when communication does take place between the teacher and students, the level of it can be found to be good. An example is this observation:



The level of interaction between the teacher and the student was good during the class presentation... (201-23)

Teachers encourage students to interact by involving them in discussion, asking questions, giving activities or asking them to do class presentation. Such practices are noted during several classroom observations:

Teacher involves the students for the discussion. Teacher state a sentences and ask students to complete the sentences to see if they could continue and complete the sentences. Teacher also reinforces to the answer provided by the students. He also provides the students with class activities. (105-12)

During the class presentation teacher would pick a student randomly to present his/her understanding of the concept, whereby the teacher would supplement the student's inputs (feedback). (103-17)

Students in a focus group cite that learning for them takes place when the teachers make them feel comfortable by sharing jokes and relating the lesson to one's experience:

*How do your teacher create environment in the classroom so that you feel like learning? Do your teachers create that environment?*

Student 1: Yes sir, they teach for a while, they stop, they say some jokes to feel free and again teach us. Our attention goes to teaching.

Student 2: They share jokes like about Albert Einstein and great person they share, so we get knowledge as well teaching sir.

Student 3: They usually relate the present topic with the reality in our life. For example in English when we do if it is a Ballad or if it is a short story. The thing that is happening in the book they would just relate with their life, weather these things have happen, how it happened, they tend to match the reality and books and it helps us. (307-137)

## **5.7.2 Self-esteem of students**

Self-esteem is our opinion of our own abilities and short comings. Students' classroom experiences determine their approach to learning, and teachers have a profound role to play in influencing the classroom experiences. In most of the class observation, like in the following instance, the students do not voluntarily ask question to teachers:

However, the students did not voluntarily ask the teacher of the problems as such. (103-47)

When this point was discussed during a students' interview, some students cite their hesitancy to participate in question and answer dialogue when they feel that a teacher would criticize them. This is evident from a student's comment:

If the students make mistakes also foolish then they use to comment on them, criticize them. I think that makes some difference. (507-49)

However, most of the students across the case study mentioned that they are hesitant to clarify their doubts from the teacher if the teacher is found to be strict and unfriendly as is obvious from the following students' comments:

But if the teacher is little strict then I feel little hesitation to go and ask questions. (407-56)

I think teachers should not be that strict with students because when teachers are so strict and when they are strictly concerned about the students and their character, students do not feel free to ask their doubts. Sometimes that doubt remains in them and then even in exam they are not able to solve that problem. I think teachers should not be that strict. (507-19)

A student mentioned how his interest in a subject lessened when he met with a strict teacher though the teacher was found to be good at teaching:

Through my experience, once I have experience a very strict teacher in mathematics, and from there on may be because strictness of the teacher I didn't have that much interest in maths though he teaches very well but due to the fear that I had inside with him I couldn't learn sir, so because of that I would say one is if teacher but not crossing the limitations, if the teacher is very frank, in the sense one way they should be strict but one way they are very frank not only very strict, there will be a very conducive learning environment.(307-33)

Teachers' on their part admit that students' self-esteem is dependent on their approach. If the teacher is associated as someone who is strict and criticizes student's effort, students don't approach the teacher to clarify their doubts or problems:

I don't know it will be relevant or not but one other important factor is that how is your image with the student? As a teacher you should have so much of respect from the student but not fear. So as the moment you enter the class, student should be approachable towards you. So I think that is really important. And the way we address the students and the words we use to the student, like sometimes we have the tendency to criticize them and that need to be improved and I guess it will help them in learning. (308-49)

Another teacher tells his own example as a student where learning was hampered due to fear. He mentions that strictness has to be avoided if learning has to take place:

... in our times our teacher used to be so harsh and beat and all and we were lacking behind in learning process due to the fear. So this type of things needs to be avoided in today's generations. Doing this students will be approachable and learning would be better (308-77).

This view by the teacher is supported by one of the school administrators. According to him, giving physical punishment is not going to lead to learning. He, in fact expresses that having an open talk with the students lead to reduction in disciplinary problems:

Now time has changed. Gone are the days to be a very strict teacher and then using punishment. It is never going to work. I am dealing with disciplinary problems in the school. I never use to scold or beat but do it through dialogue. In the assembly, I make the teachers to announce not to do it i.e. punishment but we would like to talk. So, through the talk, they used to come up with what there problem is. Daily minimum of five students I talk. It takes time like 10-15 minutes. In the beginning there used to be a good number of

students staying absent from school. Not from the first period but from second, third onwards. It used to be around 40. Now I have made it to 5 and sometimes to 2 not through beating or not through shouting but by having a dialogue, sorting out the problem. I am not a counselor, I don't know how to counsel but I used to advice what is good and bad. Be frank, be approachable. This is the best way of doing it I think even in the classroom situation (216-231).

A teacher points out that his willingness to accept students view is seen to promote learning in students:

My finding should be accepting their views. They provide some views of their own. Instead of rejecting flat away, we take in their views as well, even if it wrong. We try to rephrase that one and try to make a connection between what we are trying to obtain from them and what they are actually are giving us, rather than saying "no wrong". That simply disheartens them and they feel shy and then they don't feel like participating after that. But even if their answers are wrong, you accept them and try to relate to lesson. (404-61)

Besides teacher being strict, students mention that there are some teachers who ignore their questions and instead pay more attention to better performing student:

The teachers, particular teachers, when we repeat our questions, when say we doesn't understand, they are few teachers who doesn't repeat it (...) and many teachers are they are focusing only the one who are the toppers in the class, they care them much and one who is not intelligent or something like that are left out. (111-16)

There are particular teachers sometime due to strictness or some time they does not respond us.(111-92)

I have found few teachers sometime they are bother less of the students, some teachers are bother less of the weaker ones and some teachers, they are such teachers focus which always focus on bright students.(407-29)

This kind of approach has a negative impact on learning especially in weak learners. A student state that when a teacher pays more attention to better performing students, weak students lose their interest and do not participate in the class:

Teacher should be non-partial to all the students because if teacher is focusing more importance on us, students who is good in studies, so other students who knows the answer and teacher who doesn't like that student will not have interest to participate in class. (207-29)

Teachers comment also have an impact on students' motivation. A student mentions the impact of a negative remark on his friends though he himself feel that such comment is given by the teachers to motivate them to learn:

Some students take in other way sir, huh! Some students think that when teacher give feedback or assessment then they think that they are torturing the students and in other way, students thinks that teacher is demotivating them but instead I say that teachers are trying to motivate us and inspire us to learn more.(607-122)

Students express their unwillingness to talk about the negative comments with other students in the class:

When we get bad comments, we feel for example if he is my friend no, when we got bad comments we feel shy. (217-134)

In one school, there is a unique practice where a teacher puts all the students who have passed in the midterm exam in one group and those who have failed in another group. In the second group, students are named as Fail 1, Fail 2 etc. In the focus group interview, further elaboration on the impact of such practices on student's self-esteem is absent. However, this practice according to a student is carried out by the teacher to enhance learning by giving more attention to the weak students as is obvious from her comment:

For example in our mid-term exam some of our friends have failed and he had divided the failures and the pass students. One who have pass and one who have failed, there are divided, sir have given the failures numbers like fail number 1 and fail number 2. He always gives more attention to failures. (307-49)

### **5.7.3 Students' care-taking of the teaching-learning**

Students may take over the organization of the teaching-learning when they encounter various obstacles that might hamper their learning. These obstacles can be associated with limitations on the side of the teacher, such as time constraint, unavailability of the teacher, or the teacher seems unapproachable in terms of being strict. In such case there exist practices of getting help from the ones who have understood the concept being taught. This is evident from the following statement by the students:

If it is a very strict teacher, sometimes we are scared. So, we ask our bench mate and seat partners after the lesson whether they got or not and try to clear out from them. But if it is a teacher who is friendly and all, then we personally go to him and then ask the doubt. (507-119)

When we ask teacher, we feel little bit hesitated because there is more student and we feel hesitate. So, when we ask to our friends, they teaches us in good way and we don't have to feel hesitate because they are friends. (207-92)

I prefer to go to friends than teachers because first thing is that we can talk with our friends freely (407-59)

Preferences of learning amongst friends are due to the high level of comfort that exist between them. A student states that with friends they can argue their point which is often not possible with a teacher:

I feel uncomfortable with teacher. Friends are comfortable to us. With friends we can argue our points. We are at the same level and we tend to find their mistakes. But if it's a teacher,

even if we have some doubts in our mind, we hesitate to say those things. But with friends we can clear out any doubts and argue with them. (507-128)

Another student points out that learning amongst friends is not taking place from only one student to another. In fact, according to him, reciprocal learning takes place whereby each student teaches the other:

What we don't know, they may be knowing and they don't know, we may be knowing, so we can feel (free) to ask to them and their doubts to us. (407-60)

In addition, students are often found forming their own groups to help learning to take place:

We make a group and we share." (507-117)

Similar views are shared by students in other case study schools too. For the students, learning is more effective when the teacher places the responsibility on them by giving them group work. A student in a focus group expresses enthusiasm in carrying out group work where they are responsible for their own learning, which would also help them to perform better in exams:

(...) I don't know about the friends here but I would say when teacher give us group presentations and all, ah! Giving us the responsibility to find out, we would learn more, out there we could put our hard work. For example if the teacher just they teach us, we just listen we just forget it but in the sense when we have group works, for example if that question comes in the exam, we do remember that point very clearly because we have already discussed in our group. So I would prefer a teacher giving us more presentations and all. (307-10)

Other students in the same focus group are in agreement to the above view.

Most of the teachers recognize that students in a class have different abilities which call for using different teaching methodologies. This is made obvious by the following comments by the teachers:

How much ever the teacher is friendly, some students are introvert and for them I think it will help. They will be able to talk with their friend and tell them to teach. Usually I practice this in 9e as they are more introverts. When I teach them and get vague answer, I tell them to get into pairs as the class is already divided into pairs(sitting arrangement) i.e. one good and one weak and tell them to learn from each other as what one knows, other may not know. This way, I also motivate them. (102-47)

Actually, we expect that everybody should learn but due to their multiple abilities, some learn at once only but some takes time. So, usually after this also, after every lesson, I used to recall and then ask questions and sometimes while recapitulating, if somebody is not able to then I ask the student who knows to help their friend, teach their friends then and there because always we teaching they won't like. Sometimes I ask their friends to help them. In that way I try to fulfill the objectives. (212-39)

Most of the parents agree that effective learning takes place when the learning is amongst friends. However, a parent who had a daughter and a son studying in the same class in the same school has a different opinion when it comes to learning between siblings:

*When they have problems, do they also sit and discuss with other friends?*

Yes they do sit with other friends also. Usually they are more comfortable with other friends rather than brother and sister sitting together and solving the problem. Usually they are more comfortable with other friends rather than brother and sister sitting together and solving the problem.

*Could there be a reason why two of them are not comfortable? Could it be because one is doing better than other and there is a comparison between two of them?*

They do have that in their mind. There is comparison. Sometimes the brother gets higher marks and sometimes the sister gets the higher marks. They have this some kind of jealousy in their mind and when they sit together and try to solve the problem, one thing is one is better and the other thing is they always feel each can solve better than the other and their way of solving is right. So, that way they are not comfortable together. (515-164)

#### **5.7.4 Student's motivation for learning**

Students' motivation or engagement in learning increases when teachers use those examples that students can relate to in their lessons. This is obvious from the following class observation:

The teacher did support learning of the content taught i.e. "Public corporation" by citing relevant examples in the Bhutanese context. The examples of "public corporation" cited were "Bank of Bhutan", "Royal Insurance Corporation of Bhutan" etc. to which the students seemed to take extra interest to listen to these examples and the whole class was attentively listening to the teacher. (103-29)

Students agree that motivation for learning depends on the opportunity they get to be an active participant in the learning process. A student says:

For me, I think teachers they not-there should be many activities involving in the class not just teachers speaking and students noting. I feel teachers should prepare lesson whereby students also have something to do, not just listening. (507-23)

In addition, students express their desire to learn beyond what is given in the textbooks. This is evident from comments by students in a focus group:

Student 1: Research, when teacher give us to search in library or somewhere else, so we become most happy to search something new thing, digging out some new points like in history we should find , read more to know about past.

Student 2: like bringing more activities inside the class, giving more questions to each student, they get motivated like that sir. Like giving different question to each of the student and letting them answer one by one. (307-22)

In another focus group:

Student 1: As per me, good teaching means a teacher teaches from his heart and not only from book. (...) A teacher who not only teaches what is in the book but the teacher who tries to bring more questions that is relevant to student. ... Teacher who always teaches us in

enjoyable way and who always checks information outside from books and other books (207-13)

Teachers on their part are found to try different methods to motivate students. According to a teacher, he tries to motivate students by responding positively to students' answers:

I don't beat them or scold them but I use all this reinforcement. (...) When they give good answer, I reinforce them by letting others applause, and also use different reinforcement such as good, perfect, well done. (102-21)

From the classroom observation, most teachers are also found to listen to student's response and give positive comments:

The teacher also listened to the ideas presented by the students carefully, and then the comments were made in a positive tone. (103-32)

A mathematics teacher refers to giving class presentation as another method to encourage learning:

*In mathematics, is more to do with problem solving. Is there other approaches you follow to engage your students?*

Yes, sometime presentation, we ask them to do presentation. We give task, ask them to prepare overnight and then present in the next class, that could motivate them also and then that could engage in working. So when they start learning little bit and if they know little that could motivate then until the last part. (106-14)

Students social problems related to family background are found to hamper their learning. A teacher cites many social problems students in his school faces that have an impact on their learning:

*What do you think some of the reasons are for students not being motivated to learn in the class?*

Considering here in our school, what I find is many students are coming from far places. They are totally tired. They wake up early and come here. Sometimes they do not have breakfast also. They remain tired. And then sometimes many students come to me personally. I am not good at giving counseling. But they refer to me because I have been class teachers. Then I suggest. So this are ...some are family problems. Some others they weren't rich and others other problems. Many problems and some pupil they do not have parents. But they should have relatives. That also they do not have. So, some Rinpoche they sponsor (not clear) many students. So this has ..... and directly after class. We have many cases. They go back to their home and they are again asked to do works like fetching water, firewood, taking care of cattle. They share like this to us. We have to understand them. We should not neglect them. These are some reasons. Many are coming from far like Ghatia, Singyegoan above that channel. Singye Dara is nearly one and half an hour walk for them. For us might be three hours or so. (202-38)

Similar problems are cited in another school by a teacher:

Usually like in the school there are some students who will be having lot of problems, some may be having domestics problems, I tell them if they have some problems share with us, we are going to help you, if not we shall discuss some of these matters with the head and all

these things. So one of the ways which students they don't feel like to read, may be the reason that are associated with the domestic problems. (302-16)

Teachers are found to be concerned with such problems that their student faces. A teacher's concern about the students' wellbeing for learning to take place is evident from the following comment:

Sometimes I go near the student and ask them whether he/she is sick or whether he/she had breakfast/lunch or any personal problem he/she has. (102-17)

Besides students' well-being, most of the teacher's agree that their own wellbeing as well as approach to teaching can lead to students not being motivated to learn. A teacher gives an example on how a teacher's approach may lead to students losing interest in learning:

It is basically about us. For example, if we happen to go to class with mood off, then students become demotivated. And then the moment you go to the class very happy, energetic or so fresh that you want to teach them, I find the students motivated. Sometimes we are sick and then still then we go to the class. We cannot make ourselves hear and then we find that students are not interested. At the same time, if we sit and teach them, students are not interested. Also, if we do not correct their books or their work then they are not motivated. (102-27)

In addition, lack of teaching and learning resources and classroom setup are cited as other factors that hamper learning. Two of the teachers put it this way:

Teacher 2: some other factors could be like the classroom situation itself. The classroom size, infrastructure available in the class, teaching learning materials all these which are if they are not available if not adequate becomes major factor that governs theory learning, that guides there learning. If the classroom is too packed, congested and the teacher can't move around, can't move proper groups. However, teacher tries to and if things are not available and even if the students would be learning and teacher is interested when these materials are not around then maybe teaching is being hampered.

Teacher 3: I think availability of resources like in geography we have to do lot of research because in text it is just short and it is inadequate for teachers and then students also. We have to go to the library, we don't have books in the library, we have to access internet, so we don't have facilities, so we waste time in that. But however, we go home and then research from the internet and whatever we get, resources we try to supply to the students and then also ask students to find. One factor that dominates students is lack of resources. (404-60)

## **5.8 The topic of 'the formative' is associated with the modern system of education**

For effective learning to take place, a classroom atmosphere conducive to learning is a must and learning usually doesn't take place when fear is instilled in students. "Conducive classroom" here refers to an open and friendly relation between teachers and students. However, this approach to learning is associated to the modern system of education and is



seen as a threat to learning by most of the parents. Evidence of this general situation appear in the perspective of the following four subthemes: Parents' reserved attitude, parents' educational background, students' attitude, and long term benefits of formative assessment.

### **5.8.1 Parents reserved attitude towards formative assessment**

For formative assessment to effectively take place the teacher and the students should interact and for that the teacher has to be open, approachable and friendly. However, some parents feel that when the teacher is friendly to students, students are not scared of the teacher and learning does not take place. They would want the teachers to be strict and instill some kind of a fear in students to promote learning. A parent states:

I think we need teachers to remain as teacher and not as a friend with students. We must know a teacher is a teacher and student is a student but we should be helpful to them in times of need. We should atleast be there to listen to their problems. (...) A teacher cannot be a friend to student but he can be helpful in times of need. I think teachers should be approachable and be able to listen to problems but they should also be strict. A teacher can be friendly inside the classroom and outside the classroom but if a teacher himself or herself is strict and disciplined, the students will definitely follow that. (515-105)

In line with the above parent, another parent opinions that in the present time, students are not afraid of teachers. He cites his own example where fear promoted learning:

*When you compare the quality of education in the school, has it improved or degrading?*  
As far as quality is concerned, that time strictness was there. May be due to fear or something else we used to study. When I compare our time class seven/eight writing and today's class ten/twelve writing, I would say our time was better. But there are improvement in other things like they are far spoken, children possess forwardness, they do not fear anyone. (405-84)

A parent also feels that students should not be given too much freedom as freedom according to him is associated with decline in quality learning:

I am not sure whether it is getting hampered or not but finally it will hamper the quality of education because we should not give so much of freedom to the children. May be it may not be education fault but parents fault. But children should not be given so much of freedom. (405-80)

Some parents feel the initiation by the government to remove corporal punishment completely in the Bhutanese schools is too early:

Parent 2: I would like to talk on driglam namza (etiquette). We often here in BBS that teacher never put hand on students; they cannot give any corporal punishment to the students. They say the student should realize their mistakes themselves and get corrected. But deep inside I feel we should not compare our country with those developed and civilized country and use their ideas in our system. I feel there is mismatch in the system. Even rules need to be revised, not like our time where teacher used to punch us and not entirely leaving the child to correct them but use some minor form of corporal punishment.

Parent 1: I think of banning the corporal punishment like the development country is too early for the Bhutan. There should be some corporal punishment now. May be 30 to 40 years later banning of corporal punishment should be implemented but not now.

Parent 2: today's youth do not fear any one. Children hear BBS at home and they know the rules so if teachers tries to use corporal punishment, they go against the teachers. Our time we really fear our teacher, we never looked at their face directly. But these days we observed, many children do not even stand when a teacher passes by. Why? Because they have no fear with the teachers. I feel if we have little fear in us, we try to be mindful of what we are doing. our country have not reached that standard like the developed country so they should be some strict rules in the school, may be 40 years later afford to we can afford such rules. (305-157)

The empirical material suggest that parents often take a keen interest in relation to their children's learning though their concern seems to be more with the marks scored. Students agree that their parents take keen interest to know the marks they have got in a test or assignment. This is evident from the following comment by a student which is in agreement with other members in the focus group:

For me my parents ask my mark. Whether I have done class test, I have to daily inform my parents, especially my father he check my mark. (217-210)

However, when the children expresses dissatisfaction with the marks obtained, parents are often found hesitant to talk about it with the teachers, as in the case of this an uneducated parent:

*Is the poor performance due to their own inability to perform well?*

My children say that teacher teaches them well but they themselves are not able to perform well and the grades are not up to their expectation.

*When your children tell you that the grades are not up to their expectation, do you go to the teacher and consult what could have been the reason?*

No, I am sometimes shy and other times scared. (205-35)

An educated parent who happens to be a teacher in the same school also feels hesitant not because he is scared or shy. He feels that due to his position in the school (as a teacher) he might be considered to be taking extra care for his daughter. Instead he tries to explain the matter to his daughter citing teacher's heavy workload that might have made the teacher to make mistake. This is apparent from the following:

*Was there a time when she got not very good marks and came to you and said, 'see I did very well but I got only this much mark' or like 'I am not happy with this marks' or 'I am not happy with the correction'.*

Not very often but some cases she would. (...) Especially in that assessment part, sometimes maybe a teacher might have overlooked and definitely she shows that paper and tells me that it is supposed to be correct but somehow the teacher has not given the expected mark. So, she would discuss that with me saying that I am supposed to get that much but the teacher has given, for example it is out of 2 marks and the teacher have given only 1 mark. I am supposed to get at least one and half and I deserve that is what she says. She shows this kind of marks if she is not happy.

*What do you do then? As a parent do you go to the teacher and say what could have gone wrong?*

As of now I have not done that. Actually I tell her maybe the teacher might have overlooked this because of the heavy workload. Maybe I think we have the loopholes. I do tell her that you are supposed to get what you have expected but somehow it has been overlooked. Never mind, the answers are correct, it is fine is what I tell to her. I have never gone to the teacher saying that this is correct but you have given low marks. I have not done that so far.

*Any reason for not doing that? Or is because you are also a teacher and you don't want to hurt somebody?*

Not that I am a teacher and I don't like to do that but somehow I feel that it is not good to take that mistakes to the teacher saying that. Maybe they will think that I am stressing so much on my daughter. There could be some other students who come from farmer's background and what about that. So, that is what many of the teachers have this perspective. If I go to the particular teacher saying to him or her that the answer is right but you have given only this much marks, then I feel that it is quite ambitious. I am not able to do this, so, I don't do this. (215-86)

But there are parents who react in a different way. Instead of finding out the reason for poor performance, they blame the children and tell them to put in more effort. This is obvious from a parent's account:

My daughter generally gets good grades in humanities but gets lesser grades in subjects like science/math. I do scold her for getting lesser grades especially in science/math and tell her to study more of these subjects. (109-46)

Similar views are also expressed by students in a focus group:

*Some of you had shared that sometimes some teachers give more marks to only the good students even after the poor student has done quite well. If you have such cases, do you talk to your parents?*

Yes madam (chorus)

(...)

*Then, what do they tell you?*

Student 1: They tell us it won't be fault of teachers. It will be fault on us as there is some weakness in us to get the low marks.

*What about you?*

Student 2: They scold us. (217-190)

However, few parents do talk to the teachers but the focus is on types of questions asked rather than children's problem:

Yes we do ask them. Today only I asked the mathematics how he makes the question pattern for the class trail paper. He responded by telling me that he follows BBE pattern and the past question papers. (305-110)

## **5.8.2 Parent's educational background**

The amount of help one can render to one's children in learning is dependent on one's own education background. Most of the parents tell that they had no formal education:

Coming from an economically poor background, I have not had any formal education. (205-11)

Because we the parents are illiterate (405-5)

*We don't see their notes since we don't know ourselves. (405-37)*

Due to this, they mention that they are not able to extend help to their children in learning.

However, they frequently advise their children to study. An example is as follows:

But we ask them how they are doing in the class. And advise them to study well otherwise they trouble later. (405-38)

Similar views are given by some students:

As for me, my parents are all farmers. (207-135)

As my parents are uneducated and I don't share anything with them. They do not know anything. (217-208)

Though some parents in the case study are educated, students mention that they are not able to help in their learning due to change in curriculum from the one that their parents have studied:

At young ages our parents used to help now a day, first thing is curriculum has totally changed, they ask us to try ourselves. (407-66)

Sometimes, when we were in the lower classes, they could help. Now I am in class XI and the stream (subject) they took is not same as mine. But they help in some subjects like English and Dzongkha. My parents help me only in Dzongkha because my father is a Dzongkha teacher. (507-135)

### **5.8.3 Student' attitude towards formative assessment**

There are many students who would like to have teachers who are open and friendly and with whom they can discuss their doubts as mentioned in section 5.6.1. But there are also some sections of students who feel that effective learning for them depends upon the teacher's strictness. For them, learning takes place when some kind of fear is instilled in them as they feel students take undue advantage of teachers who are not strict. This is evident from the following comments by some of the students:

What I actually want teacher is that I want them to be little strict because I saw many of students taking advantages of them although I cannot raise my voice and say that or she is doing this or that. I want that particular teacher to be strict. (111-9)

Student 1: Sir there are many types of cases, first of all, this teacher should be strict, if some time if teacher is strict we remain alert in the.  
(...)

Student 3: When teacher are strict and when they like that and when they teaches us nicely showing examples practically. (407-13)

Some of the students in the same focus group above also state that constant reminder of examinations motivates them to learn:

Student 4: Sir usually some teachers remind us about our examinations and all and that is one motivation.

Student 5: I consider fear to me is motivation. If somebody makes us fearful/frighten about the exams and test then we tend to get engage in our academics. (407-22)

In one school, a student cites that corporal punishment is prevailing and it creates a fear in them. Whether that fear leads to learning or not is not elaborated:

One is through their reaction with the students like whenever if one lesson finishes next class they ask questions and if a students is not able to answer the questions, some teachers they tend to beat. Ah! Beat and fear comes in the students. (307-42)

Most of the school administration on their part recognizes that punishment and inculcating fear in students for learning to take place are no longer bringing positive result. One of the principals says it in this way:

Being strict and using punishment is something I am really against. I also ask our teachers never to use the punishment. Fear will be there and when it is there I don't think students will do well in the classroom. They might bunk also. They may not attend the class also. May be sometimes out of fear they will attend the class but they will be lost in the class. (216-240)

#### **5.8.4 Long term benefits of formative assessment**

Students in one case study school are found to appreciate when teachers assign classwork, homework and other assignment where formative assessment takes place. However, the appreciation is not for the learning that takes place but for the possible long term benefits it might bring like getting a better job, as is evident from the following:

*Do you like this assessment practice or not? So many exams, test, homework etc., do you like it? Your own view*

Student 1: From my personal point of view, I don't like it. But I think for our personal benefit, it is good because when we do more assignments, more project work, we learn more. I think to have brighter future; more assignments, project work and activities must be done.

Student 2: It's like my friend. Personally I also don't like because we have to go through many things. Some individuals they have stage fright, they cannot speak in front of crowd. But like my friend said it, if we take it in positive way, there are some positive benefits. In the longer run when we go to other universities we don't have that because we have already faced it during our high school. It is good but personally if we go through it ourselves, it will be very difficult.

Student 3: From my personal view, I also don't like it. When there is more assignment and so many works to do, mentally much pressure on students and it can hamper study. But on the positive aspect of it, actually it really benefits, but from my personal view, I also don't like too much of assignments. (507-93)

## **5.9 Formative assessment requires time and resources that often seem to be unavailable**

Though formative assessment practices have many positive effects on students' learning, teacher's workload together with the lack of time and resources are often mentioned as barriers in practicing formative assessment. A rigid and vast syllabus to cover within stipulated time and lots of reporting requirements put down by various schools and administrators hinder the practice of formative assessment. The professional support to help teachers integrate assessment practices within their teaching is almost absent.

All these constraints tend to make the teaching and learning process teacher-centered, and formative assessment can even be perceived as procedures that take time away from their teaching. This overall challenge is documented within the following problematic issues: teachers' workload, administrative support, syllabus/curriculum, distraction.

### **5.9.1 Teachers' workload**

Though formative assessment is associated with bringing improvement in students' learning, its practice in the teaching and learning process is most of the time being compromised due to heavy teaching workload. This is clear from a principal's view:

But on the other hand what I feel is the problem is most of our teachers are been loaded so many instructions whereby they have to teach three, four subjects in day and then everyday they have detailed lesson plan as mandated by the ministry of education. Somewhere, sometime I feel that this procedure for carrying out CA is being compromised and that will that is what I feel may built up to disadvantages of CA. (506-56)

A similar view is cited by another teacher:

I have 25 periods in a week (one period is 50 minutes) and I hardly get one or two periods free in a day. That also I have to do planning lesson for next day. (212-379)

A teaching period in Bhutanese schools is the face to face contact a teacher has with the students. It doesn't include the time teachers spend in planning the lesson or correcting the students' work. In addition to heavy workload, teachers mention time constraint due to large number of students in a class as a hindrance to practice formative assessment. This leads to a tendency to assess quantity of work rather than quality as is highlighted by the following teachers' comments:

Maximum time I do this way and at the end of the lesson after I finish teaching, I also give them to write on the board. That is one or two students only because of more number of students we don't get time to do that as it is time consuming. Even one student volunteered

and it was ready for time and others were also volunteering. So, it was very difficult to give them chance. If there were like 15-20 students then we can really do. That is what I feel. (210-26)

*How many students do you have?*

I am teaching class VI and X. In class X we have around 70+ and in class VI we have 70.

*So are you able to manage the homework correction, test correction*

No madam but I am trying my best. Maybe 50% or 60% I am able to do but I think other I am not able to do because of time constraint. (510-310)

One pertinent thing that happened in my lesson is, it is not happening just yesterday but is happening in all my lessons is time. Time is very important I feel because if we could have more time we could have brought issues that are related to topics and clarify those matters which actually concern every individual in the class. Even the questions related to the topic that we have taught. Had there been more time I thought we could have solved it and cleared the concepts more rather than just completing the syllabus. (518-34)

Due to heavy workload and time constraint, feedback in terms of comments on students work is missing in many cases and when it is present, it is very generic in nature. A teacher states:

The feedback like “work not complete” or “You have done this well” is provided to the students. However, providing feedback is quite challenging as it consumes a lot of time and it is difficult for the teachers as we have a heavy work load. (104-29)

Parents also agree that feedbacks are very generic in nature:

Like your answer is incomplete, you need to do better, your handwriting is not good, improve your handwriting especially in Dzongkha. So, this kinds of comments. (515-64)

Such generic feedbacks are mentioned by the students too:

*When the notebook is taken by the teacher for correction, do they write some comments?*

Yes, madam (chorus)

*What kind?*

Student 1: Incomplete, good work

Student 2: Update your notes (517-59)

Some parents feel that teacher’s workload is hampering the teachers from doing quality assessment:

Frankly speaking assessment now because of the large number of students a teacher have to assess, I feel that exactly we do not have that quality assessment being done. We have classwork, homework and project work, so, in that way sometimes I feel quality assessment is not there. (215-117)

Besides teaching, some teachers during the action research mentioned various school activities that they are expected to organize and run or participate as adding on to their workload:

School has become the target of all the policy decision. Health will come, dzongkhag will come. Just day before yesterday, there was mental health program. Before that there was rabies workshop. So, all these things are few weeks ago we had young Bhutanese poet sharing his experiences in the assembly time. Students were standing. Most possibly sent by

the office of education minister to inculcate that kind of poetic writing. So, school has become the hot bed of everyone's agenda. Then we have regional tournament, intra tournament and CE classes coming in. So many and even we get tired. (112-160)

This view is in line with the curriculum officer's view who feels that teachers are overburdened with so many activities:

Also, with the teacher come the workloads of teachers because of which they are not able to cope up with the changes. We don't blame teachers, it is the system. We are trying to pour so many things into the system like this and that. If you go to the school and see today they have GNH program, tomorrow they have youth program and so on and all the teachers are overburdened with that and in the process they find it very difficult to cope up with the change and all these are mandatory. Coming from the top down they have no choice but to be part of that. (...). But we cannot have at this time because they are overburdened. Lots of things they have to do and all these are mandatory. Soon there will be election clubs, then we have legal things, UNESCO clubs and so many. All the teachers are overburdened with so many responsibilities. The ultimate thing is it is handicapping our teachers and if these are minimized, things would turn out well. So, that is one of the tumbling block we are finding. (802-396)

The above cited activities are most of the time made mandatory either by the Ministry or the school administrators.

## 5.9.2 Administrative support

Teaching and learning processes are affected by the conditions of support offered by the school administrators in terms of managing the teachers' workload, time, resources and professional development. The kind of support teachers get from the administrator to carry out formative assessment seems to be almost absent as cited by a teacher:

*You have said time constraint is there no, in such cases do you get some kind of a help from administration side?*

No, so far no. From administration side I think we don't have. (510-288)

However, when intervention from administration is present, it is more by way of the managerial role to check whether the teachers fulfill their task of making lesson plans and maintaining record of various recurrent assessments, as is evident from the following principals' comments:

We have subject department, each department has subject head, the lessons are observed in each department and give feedback to subject heads, I also observe some of the teacher's lesson. This is how quality is ensured. (110-7)

The first one is we have already instituted School Level Monitoring and Support Service and under that we divide our teachers into different groups-subject groups. Then we have the monitors and they are called as subject heads also and the monitors in turn are supervised or monitored by the principal. (...) Their duty is to also to observe their colleagues classes, share the feedbacks and even as they check all those things they ensure that in terms of lesson



plan we have in the school whereby each teacher has to follow standard lesson format that school has actually developed. And in line with that they will have to prepare it. Whether it has been done that way or not is taken care by the monitors and in the lesson plan again like we have all those important components in place. So, basically in terms of monitoring this academic part and to ensuring the quality part this is what we do. (206-6)

Similar practices are reported in other case study schools. Teachers on their side express that matters like rigid timetables for assigning work, not receiving the assigned work for timely correction, and almost no support from administration are factors that affect the teaching and learning process:

Again class timetable is always there, homework timetable is there. We cannot get notebooks anytime we like. But we had been always fighting for that right in our subject maths because there is no period where we don't give homework. Always one or two and restriction is minimum three. There are ten to twelve questions and we are asked to give only three questions in a day. So, rest who will do? (214-351)

One of the teachers in the case study mentions the lack of professional support on assessment practices and how they have to rely on colleagues who have attended certain professional development on it to help them:

Nobody has given especially the professional development and this is the knowledge I got from one of my peer friend back in previous school who had attended the workshop on assessment. (514-221)

The education officials also agree that they are not able to provide the much needed professional support to every teacher. Efforts are put in place to at least train some selected teachers who would in turn train the others teachers in his or her schools. But due to various reasons this seemed to be not happening as planned. This is illustrated by an education official:

I think some of the schools they just have one or two teachers. If one teacher falls sick, other teacher is on maternity leave and then one teacher has to attend one, two or three workshops. But since it coincided they could not participate in those workshops. In such cases they could not attend workshops. Therefore without any training they have to teach the new curriculum. They try their best but since they were not oriented they could not do it. So they land up teaching old curriculum like that. (801-274)

Also, there is a question of teacher's own competency level, according to the same education official:

I think some of the teachers themselves are may be, I don't know, but that's what I feel, they themselves were not competent enough to teach and they often complain that language used in the new curriculums are quite high. Even they themselves are not able to understand and when they cannot understand properly they are not able to deliver properly. So this somehow has affected the learning process in the classroom. One of course it has to do with teachers especially in remote schools because of the teacher shortage. Some of the teachers are always placed in the remote schools. They have been transferred from one to schools to another but again in the remote schools and since they did not had much guidance and support from other

I think they landed up speaking broken English. As a result I think even it has impacted students learning as well. (801-279)

To add to all these problems, the education official cites teacher shortage as hindering the quality of learning. Due to teacher shortage, temporary teachers are recruited and they have not undergone the required training to teach:

Normally we have shortages in the remote schools. Therefore to fill up the gap we have appointed the community based teachers who are just class 12 graduates. They just have one or two weeks training. Now when they go back to the schools they land up teaching. Of course they try to get assistance from the senior teachers but senior teachers themselves are bogged down with so many teaching loads. So they are not able to provide education support. As a result this has again impacted the students' learning. (801-293)

In one case study school, students are observed by the researcher to be sleeping in the library during the library period. The students told the researcher that they stayed up late in the night as they are going to have two tests on the following day. When this observation was discussed with a parent, he highlighted the problems faced by students with respect to assessment practice and the administration's helplessness to rectify it:

She used to tell me 'today I have to stay late because I have two tests on the next day'. So, that way she stays late. In regard to this now what happens is of course in our school at least the academic coordinator has framed in such a way that we do not give so much of homework. We have homework schedule and likewise test schedule. But for class X since they have lot of subjects, we somehow land up having two tests in a week. Sometimes even three in a week as per the test schedule they make. Somehow from the administration side they say we will have to conduct the test within that timeframe. So, in that way sometimes for higher classes like IX and X, it happens. So, we are giving so much stress to the students saying that now I have to by any way means conduct this test on that particular day. Another teacher might also say there is no way out. Administration says we have to finish within that particular framed time. So, sometimes I feel that there is definitely lots of stress given on students on tests. (215-134)

In another case study, a parent feels that there is mismatch between teacher qualification and classes they are teaching and this is seen as a weakness on the administrator's part:

...if you look here in this school many qualified and experienced teachers are handling lower class and teacher without any experiences are teaching in class x. So I feel there is a mismatch and this could be the administration fault. (305-69)

On the other hand the administrators agree that they are not able to render much help to teachers in terms of reducing their workload due to teacher shortage:

At the same time another difficulty we have is even in terms of the load, the teachers teaching periods our monitors they are given. Although we are trying to reduce their work load, because they have that monitoring responsibilities but we are not able to do it because of the general shortage of teachers. (206-26)

In addition, the school description and classroom observations indicate that the classrooms in many cases especially in rural schools are compact, dimly lit and in some cases, teacher movement is restricted. The students sitting arrangements i.e. desk and benches are arranged in long rows with almost no spaces in between the rows. In some classes, students had tables and chairs instead of desk and benches. However, like in the earlier case, the tables are arranged in long rows to accommodate more number of students. This kind of a sitting arrangement hampers student movement. A student sitting in the center or close by the class wall will have to disturb all the students sitting in the row behind as well as the row in which he is sitting if he has to move from his place. Besides, most of the tube lights and fans were not working in some classes. An example of these classrooms setup is found in one of the classroom observations, which is similar to observations made in other case study schools:

Classroom looked very congested with 40 students. There was no enough space to move around for the group activity. Only three ceiling fans were available, out of which one was not working. (301-9)

On top of all the problems cited above, some teachers in focus group mention the non-availability of teaching and learning resources as hampering their teaching practice.

### **5.9.3 Syllabus/curriculum**

In most of the case study schools, emphasis on covering the syllabus on time is frequently mentioned. In the classroom observation, teachers are often found rushing through the lesson to complete the lesson on time. An example of a classroom observation is given below:

During the whole process, the teaching was observed to be only one way. The interaction when present between the teacher and the students was also one way i.e. teacher to whole class and whole class to teacher. Teacher seemed to be in a hurry to finish the class and was most of the time facing the board, writing and explaining. He hardly looked at the students. (213-43)

The teachers cite having to cover the syllabus on time which is evident from the following:

Another could be syllabus. That's a big hindrance. We are short of time every time. Mathematics we never finish teaching in the present syllabus. It is very very difficult. We have so many 101 questions and now if you solve all the problems, you will not finish. So, we always run short of time. (112-67)

We need to cover the syllabus on time because that actually matters a lot. We are always concerned about covering the topic or chapter at a particular time (518-40)

Similar views are expressed by the teachers in other schools. Teachers state that vast syllabus to cover within a given time frame leads to them giving lesser priority on formative assessment practices:

I give mostly oral feedback because we do not get enough time because at the same time we have to think of covering the syllabus in time. So, if we go on writing more giving feedback, we feel time is not permitting us. So, most of the feedbacks we are giving oral feedbacks. (208-27)

In a week I get only three periods for that class and if I use that then only two periods and two periods we cannot do much. So, because of time constraint I reduce self-assessment in the class. (212-359)

Education officials on their part agree that they have put in place a fixed curriculum. This according to them is a 'check and balance tool' (terms used by them) for them as well as for the Ministry to see that things are happening in schools as mandated:

Syllabus coverage is like a type of check and balance tool for the DCRD and as well as for the Ministry that something is happening because if syllabus coverage is not checked then some schools may not cover that. (802-189)

The district education officer is also in agreement to syllabus being very vast and the emphasis placed on teacher having to cover the syllabus on time. He agrees that as an administrator it is his duty to check whether timely syllabus coverage is there or not. The emphasis is then not on student's learning. This is evident from his comment:

Then regarding this formative assessment, although we know that formative assessment is supposed to help the teacher as well as the student to assess the actual learning and then motivate them to learn further but as reflected here they have lot of syllabus to be covered and then even us as an administrator, as a monitor when we visit schools we see that we try to check whether the syllabus are covered as per the plan. So it's basically it has become more of administrative responsibility rather than the actual learning the students are supposed to have. (801-35)

The same district education officer recognizes the importance of students' learning rather than covering the syllabus and gives an account of how he advises the school:

So during the monitor I also see how the students are performing. I try to look at their midterm progress report and then from our side one support that we try to provide is like in the past most of the schools they try to analyze their result and say that if they have 100% pass then their performance is very good or excellent. But I try to rationalize and say that this is not true because you have 100% pass percentage but then when you look at the student's individual marks they are all 40s and 50s which is very poor. (...) So we try to advise schools not just to look at the pass percentage rather we also have look holistically. So this is our advice and from our side what we have done is we have done as per the ministry's that format. We had used that format and try to disseminate that information to schools and we have also helped the schools in analyzing the result through using that forms. So this has to certain extent I feel that helped the schools really know their stand. (801-122)

Another education official says that certain changes are being undertaken. However, she feels that the teacher could focus on where the help is required the most and act accordingly:

As a division whenever we go and visit schools we get this feedback as well. So, we actually sat with the department of curriculum and then I think with the revision, some of the

syllabuses are being revised and some are in the process of revision. But I feel that as a teacher or as a tutor we have to have certain time, we have to dedicate as whatever we are doing we are doing for our children though it may be a burden in the beginning but as and when you try to have that interest but I know saying is easier than actually doing it in the classroom. We just cannot reduce the syllabus saying that we cannot do the formative assessment. The best thing is may be trying to take in the formative assessment and try to do it, may be not at a large scale but as and when you feel you need. You need not do it all the time. If you have to do it all the time that would be a burden for the teachers but as a teacher when you know your learners you know who needs your help. In that case based on the need as well as the situation, we have to carry out. (803-231)

One of the teachers also observes a big jump in the syllabus from class X to class XI as hindering learning.

Difficult like basically when there is a big jump in content part, children face difficulty. Plus the vastness. If you compare the class 10 syllabus with the class 11 syllabus, there is a big difference. Very vast difference is there. (112-88)

#### 5.9.4 Distraction

Formative assessment is not seen as something that helps the process of learning. It is seen as an additional work which has to be fitted into teaching and learning process. It is looked upon as distracting teacher's teaching whereby additional time has to be allocated. A teacher finds that giving of homework lead to wastage of time as the students will be copying from each other:

*What kind of Formative Assessment do you do in connection to Class work, homework or project work?*

(...)What I normally do is , I don't provide homework because home work is one such waste of time, these children go home and then they might ,they may do, may not do but mostly after coming back to school they will be referring their friends notebooks, copying and it is common sight in the schools. That's why , I normally do, I usually keep those and then for the end of the unit, I compile those and basically prefer to go for the test, not in the classroom but outside where we can separate the children out, having some gap between them. Otherwise homework is the replication of what their friends have done, they just tend to make copy of what their friends have done. (404-89)

A school administrator cites that though guidelines are provided on assessment practices, it is difficult to monitor all the time. He points out that some kind of resistance exist from teachers' side as teachers think that such practices are just taking time away from their teaching:

The monitoring of formative assessment is not adequate. Actually each Head of the department is supposed to monitor but it is not adequate. One reason why it is not happening the way it should happen is there is some resistance. The reason being it distracts their teaching. (406-27)

Education officials agree to what teachers have said. They add that they try to make the teachers understand the importance of formative assessment during professional development workshops:

Regarding this formative assessment, I think along with the GNH workshop, we have even given them how to conduct, how to record or how to carry on formative assessment. Through my experience during the workshop, I have found that teachers they do find it difficult to have formative assessment as indicated in your study saying that yes, it is extra time or extra burden for them to carry out but during the course of our workshop we have more or less convinced them that it is a part and parcel of the teaching skills and strategies though in the beginning they might find it difficult but with time I think it will surely help them to improve the quality of education. Because of the time I think we are more geared with as it is being said syllabus driven, teacher centered. That is because of the time. So, I think formative assessment is very important to ensure quality education. (803-28)

However, some teachers stresses the lack of time and vast syllabus as making them do summative assessment in the name of formative assessment. This is evident from a teacher's comment:

*I would like to know your view on this formative assessment? There are some percent marks given for formative assessment. What's your overall view on formative assessment?*  
First thing, to be honest not all people follow nicely. That's the great failure of formative assessment. When it finally comes to doing all people do summative only. It may not happen to everybody but it happens too many of us. Because where is the time to track off every little detail of every child. As for example if I teach 10 sections where there are 40 students each for how many I have to collect formative assessment of. So that becomes a problem and most people do it at the end. (308-122)

# **PART III: DISCUSSION AND CONCLUSION**

## **CHAPTER 6: DISCUSSION OF THE EMPIRICAL RESULT**

### **6.1 Introduction**

The main results of data analysis presented in chapter 5 are now going to be interpreted in relation to other empirical sources of direct significance to practical understanding of these results. In particular, the further sources to be taken up include results from the parallel case study analysis on ‘The quality of teaching-learning’ within the collective research project on the quality of school education in Bhutan (Giri et al., 2015) together with a general understanding of the Bhutanese school context and my own experience of it as described in chapter 1 and 4. For this purpose, the formulation in six statements of the results in chapter 5 will be condensed in the following three themes that are discussed in the subsequent sub-chapters:

1. The teachers’ poor working conditions
  - Formative assessment requires time and resources that often seem to be unavailable
2. Limited and underdeveloped knowledge of formative assessment
  - The notion of formative assessment is marked by ambiguity
  - Some crucial methods of formative assessment are poorly established
3. Problems of teacher-student relations
  - Formative assessment influences the quality of learning
  - Social relations and motivation are formative features of particular relevance to assessment
  - The topic of ‘the formative’ is associated with the modern system of education

The discussion of the empirical findings leads to an interpretation of how the practices of formative assessment relate to the nature of students’ learning which should eventually have

implications on the practice of formative assessment in the Bhutanese secondary schools. As discussed below, the empirical findings strongly indicate that summative assessment is now dominating the assessment process, resulting in the formative assessment being compromised.

## **6.2 Teachers' working condition**

Teachers' working conditions play a crucial role in carrying out formative assessment. The working conditions cited in this study are often related to teachers' heavy workload due to large class size, rigid syllabus, resource constraint and other circumstances of the school.

In the case study schools, teachers' heavy workload came up quite distinctly. Most of the teachers under case study describe their working condition as a constraint in formative assessment practices. This view is supported by the school administration and the education officials too. Almost all the teachers have to teach in between four to six hours on a daily basis. These teaching hours are exclusive of the time a teacher would spend in planning and assessing students' work. The planning and the assessment related work are carried out after school hours or over the weekend. In addition, a single teacher would be expected to handle different levels of classes and different subjects in a day. They are expected to have a detailed lesson plan for each lesson as mandated by the Ministry of Education. The school administration follows up on this mandate by instituting a practice where each teacher has to submit the lesson plans to the Head of the Department who in turn has to submit his or her lesson plans to the vice principals, and the vice-principals in turn has to submit their lesson plans to the principals. However, there was no mention of receiving feedback by any of the involved. Hence the practice is seen to be more of check and balance in nature than formative. All in all, the heavy workload leads to compromising formative assessment practice as the teacher would hardly be left with any time to plan for it.

The large student number in a class is cited as another hindrance in carrying out formative assessment. The student number ranges from 24 to 42 in the case study schools with the high number reported mostly in urban schools. The teachers express their concern over the number of students in the class as they are not able to give individuals the attention required in a formative assessment context. This often leads to a teacher generalizing that learning has



taken place based on one or two student's ability to give the correct answer to a question or to solve a given problem.

Another hindrance to implementing formative assessment is related to the syllabus. A uniform syllabus is followed across the schools in Bhutan and the schools are expected to cover each portion of the syllabus within a certain specified time. According to the teachers, these syllabuses are found to be vast and the teacher often faces the problem of not completing the syllabus on time. When the syllabus is not covered on time, the question is never whether it is due to large class size or if more time is required by the students to understand the concept under study. The blame is put on the teacher and his or her capability as a teacher. This puts a teacher in a situation where he or she has on one hand the syllabus to cover on time and on the other hand one is responsible for the students' learning. Since the school administration and the education officials do check for timely syllabus coverage, teachers place priority on covering the syllabus, even though they are aware that it is at the cost of students' learning.

Besides teaching, the teachers are expected to be a role model to the students and also to take part in many other school activities like games and sports, literary studies, clubs etc. Further there are other activities where teachers and students have to take an active part. These activities are not scheduled in the school calendar. This comes as an ad hoc program and is mostly made mandatory either by the Ministry or the school administrators. Some of these activities take place during the normal class hours disrupting the teaching and learning process. Others take place after the school hours or on Saturdays which is infringing on the free hours of the teachers and the students. According to a teacher, these activities would leave them feeling mentally and physically tired.

Resource constraint also has an impact on teacher's working condition. Resources here include infrastructure, class room setup and teaching and learning materials besides other matters. The availability of resources affecting the quality of teaching and learning is not explicitly brought up by the interviewer, but in one of the schools, a teacher (402) mentions the state of classroom infrastructure and availability of teaching and learning materials as affecting the quality of teaching and learning (cf. Giri et al., 2015). However, classroom teaching and learning observations and school descriptions indicate that the classrooms in many cases are compact, dimly lit and in most cases the students' sitting arrangement are

done in long rows that restrict teachers and students movement. In some classes, most of the tube lights and the fans are not working, though the humid climate of the geographical location of the school calls for it.

Although the students' physical and mental wellbeing do not have a direct impact on teachers' working condition, it influences indirectly. Teachers would have to deal with students who come to school with many problems related to their home life. One of the problems is the distance from home to school. In rural schools, it is found that most students live far away from the school and some have to walk for nearly four hours each day. This makes them tired from the very first period in the class. Most of the schools have school bus provided by the government though these buses are not mandated to help transport students from school to home. However, the schools take the initiative to use the bus to transport students coming from far distances and parents help in fueling. But in some rural schools parents are not in a position to support fueling expenses and hence the students land up having to walk long distances.

The other problem is related to parents' poor economic background. Students in Bhutan normally help their parents with the domestic chores during their free hours. However, students in rural schools are also expected to help their parents in farm works, cattle rearing, firewood collection, etc. due to family's poor economic background. In some cases, some of the students mayn't have nutritious food to eat and some would have problems like a broken family.

All these stated problems lead to students being in a state of mind where one is not ready for learning. This is elaborated by a teacher as hindering quality of learning. This teacher admits that it is a teacher's responsibility to have knowledge about the learner's readiness. However, when the student number is high and when you have many students facing such problems, it becomes a daunting task for an individual teacher to bring about effective teaching and learning.

A teacher alone cannot solve all these problems. If somebody has come to school without breakfast, a teacher mayn't be able to provide the same. If the students have to work at home after school hours, a teacher may not have the right to tell the student not to work. Yes, a teacher can have empathy but he or she would not have a solution to all these problems.

If effective learning is to take place, then things need to be put in place and we cannot leave everything up to the teacher. It is a collective responsibility of all concerned, i.e. parents, community, school administration and government at large.

### **6.3 Conceptual understanding**

The conceptual understanding of the term formative assessment varies from one individual to another but almost all the teachers, principals and district education officer agree to formative assessment as being identical to continuous assessment. However, the curriculum developers and education monitoring officials express their correct understanding on the distinction between the formative and continuous assessment. But an in depth study of the interview transcripts indicates that the education officials associate formative assessment with feedback as a very general practice only and the examples they cite are based on primary school only. This leads to a general conclusion that the misconception of the formative assessment as identical to continuous assessment exists extensively across associated with the seven case study schools.

Few teachers cite that the guide book on formative assessment which the schools are supposed to follow is leading to confusion in understanding the concept formative assessment. A teacher mentions that in the guidebook formative assessment is mentioned as classwork, homework and project work. However, on study of the guidebook, it is found that a distinction between formative assessment and continuous assessment is given. Furthermore, it covers different techniques and tools to be used in carrying out formative assessment. But, it is learnt that none of the schools under the case study has access to the guidebook though some teachers mention seeing it before. The researcher had to contact many people and offices to get a copy of it.

The conceptual clarity is also missing when it comes to the practice of peer assessment. Both the teachers and the students agree to the practice of peer assessment taking place. However, the practice in place is that of peer marking whereby peers mark each other's work based on the correct answers provided by the teacher. The important aspect of peer assessment i.e., exchange of feedback is absent in peer marking. In addition, peer assessment is seen to be biased by some teachers especially when that takes place between a weak student and better

performing student. Better performing students are considered to be better in judging others' work compared to weak students.

Similar to the practice of peer assessment, the conceptual understanding of self-assessment is found to be quite weak. Some teachers and students mentioned practicing self-assessment, though in fact the practice is that of self-marking where, like in peer marking, correct answers are provided by the teacher. A student mentioned that self-assessment would be possible only in some subjects like mathematics where the problems would have only one correct answer. His view too is based on self-marking instead of self-assessment.

In addition, the much needed professional support to the teachers so as to clear the above mentioned misconception and understand how to integrate formative assessment practices in their teaching is almost absent. The education officials and the school administration mention that some kind of professional development is being offered to teachers in schools though none of the teachers mentioned it. Besides, the empirical material didn't provide any evidence of having a system where teachers would collaborate with other colleagues to discuss their experience and receive feedback on their formative assessment practices. So, each individual teacher would practice it the way they understood, which may or may not be correct. A similar impression arises from the researcher's experience of being involved with the curriculum developers in writing few science textbooks and teachers' manual as well as giving a professional development workshop called "orientation workshop" to teachers and principals. Whenever there is a change in curriculum, one to two teachers or principals from each school are given a few days professional development workshop during winter holidays. These workshops are resourced by the curriculum designers or other education officials. The workshop participants are in turn expected to impart the knowledge and train the teachers in their respective schools. These teachers and principals land up teaching or training colleagues on what they could understand within the few days training given to them, which is often cited as inadequate by everyone concerned. This leads to a gap between what is intended and what is practiced in the schools.

These conceptual misunderstandings of formative assessment seem to have influenced the teachers to practice continuous assessment in the name of formative assessment. The emphasis on the formative aspect is mostly absent and when present, it is minimal and

generic in nature. The importance is more on grading and ensuring that the work assigned is done on time.

Nevertheless, during the action research process, when the concept of peer and self-assessment were explained to teachers, they were quite enthusiastic to practice peer and self-assessment and could envision the positive impact of it in their teaching as well as in their students' learning. Hence, though there exists a conceptual misunderstanding of formative assessment and its practice, teachers seem to be willing to try out with some guidance the various aspects of formative assessment to improve the learning in students.

## **6.4 Classroom atmosphere and teacher-student relation**

“The classroom atmosphere” refers to students' emotional wellbeing and motivational climate. One of the challenging tasks a teacher faces in a classroom could be to motivate and engage students in the teaching and learning process. A teacher mayn't have control over the external factors like poor home condition, domestic problems, etc., that influences students' motivation and engagement in school, but there are things a teacher can do like creating or cultivating a positive classroom environment where every student feels safe.

In the traditional classroom, teachers are known to be strict and to secure students' obedience through fear of punishment. Such traditional strictness is not found during the classroom observation (Giri et al., 2015). For formative assessment practice to lead to learning for students a trust has to be built between the teacher and the students. For that a teacher has to be approachable and should not be one who instills fear in the minds of students. Teachers and administrators cite that when fear is created, students may seem to be very respectful and attentive in the class but the question of whether learning is taking place is always there.

Though most of the teachers and school administrator admit to being open and friendly with students, this remains a debated issue with both students and parents. On one hand, the classroom observations indicate that students hardly ask questions to the teachers. When this issue was discussed during the interviews with students, the students gave reasons like the fear of teachers' criticism, teachers' strictness and biases. Almost all the students during the interview pointed out their preference of teachers who are friendly and not strict. For them learning is associated with teachers' frankness and kindness. They are able to ask questions and clarify doubts with a teacher who is frank, kind and understands their problems.

On the other hand, some parents are not in favor of this kind of open and friendly relation between a student and a teacher. The friendly relation between a teacher and the students is not seen by the parents as a requirement for learning to take place. They would instead like the teachers to be strict. Corporal punishment that existed in Bhutanese schools for decades is looked upon by many as bringing about effective learning, though this supposed effect is not ascertained. It could be out of fear that the students are attentive (in the literal sense) in the class. The Ministry of Education in 1997 notified schools to stop using corporal punishment. However, the practice continued and in 2008 during the Annual Education Conference<sup>14</sup>, a resolution was adopted to enforce a ban on corporal punishment in all education settings. However, banning of corporal punishment in the Bhutanese education system (though the practice is still there in some schools) is seen by some parents as an approach which our school system is not yet ready for.

## 6.5 Conclusion

The three factors identified as key findings in the discussion have implications for the formative assessment practice in schools. Firstly the teachers' working conditions that include teacher's workload, flexibility in syllabus and facilities like teaching and learning materials as well as infrastructure are found to be very pitiable in Bhutanese secondary schools. Intervention is required from everybody concerned if effective learning is to take place.

In view of the second key finding, for formative assessment to be implemented effectively in the teaching and learning practice, it is a must for teachers, students, and other concerned to be clear with the terminologies used and how they are practiced. Otherwise, formative assessment tends to be looked upon as another summative assessment process.

Lastly, another condition for effective formative practice is the teacher-student relation. Different stakeholders have different views on it. Some will say that a friendly, open atmosphere is necessary, while others prefer a strict and teacher-controlled atmosphere. But at the end it is the learners whose view should be respected, as they are the ones who are going to do the learning. The data analysis suggests that the students' preference is for a friendly classroom environment.

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<sup>14</sup> Global initiative to end all corporal punishment of children, 2014

# CHAPTER 7: DISCUSSION OF SOLIDITY

## 7.1 Introduction

Yin states:

A valid study is one that has properly collected and interpreted its data, so that the conclusions accurately reflect and represent the real world (or laboratory) that was studied. (Yin, 2011, p. 78)

The quality of this research in regards to the issues of validity and reliability has been very important during the entire study. This chapter discusses the quality of this research in terms of internal validity, external validity and reliability.

## 7.2 Internal validity

Internal validity seeks to answer whether the findings capture what is really there in the data and whether the researcher measure what they think they are measuring (Merriam, 1988; Kvale, 2011). Merriam explains that in qualitative research,

...it is important to understand the perspectives of those involved in the phenomenon of interest, to uncover the complexity of human behavior in a contextual framework, and to present a holistic interpretation of what is happening. (Merriam, 1988, p. 168)

de Vaus has explained that the strength of case studies to achieve internal validity lies in their design:

They achieve explanations by building a full picture of the sequence of events, the context in which they occur, and the meaning of actions and events as interpreted by participants and their meaning as given by a context. In the end an adequate causal explanation is one that makes sense. It involves telling a plausible, convincing, and logically acceptable story of how events unfold and how they are linked to one another' (de Vaus, 2001, p. 236).

In this dissertation as in the collective research project, the case studies are about social relations and contexts rather than 'sequences of events' and critical interpretation is aimed at rather than 'causal explanation'. However, the emphasis on methodological design, capturing the participants' perspectives, and contextual interpretation are the same.

In relation to the concern for defensible knowledge claims, Kvale (2011) has suggested three general approaches to obtain validity:

Pragmatic validity – relates to user’s response to an interpretation

Communication of interview findings –testing the validity of knowledge claims in a conversation

Quality of the craftsmanship of the interviewer – examining possible sources of invalidity by checking, questioning and theorizing the interview findings

The topic of pragmatic validity was taken up in particular through the dialogues with teachers and principals about their interpretation and practices of formative assessment. At times it was necessary to make sure, that interviewer and respondent were talking about the same matter or that at least the interviewer understood the point made by the respondent.

As to the second approach mentioned by Kvale, some of the most interesting and surprising findings were discussed and elaborated through the second round of data gathering, which included interviews within the same groups of stakeholders as in the first round in addition to the new interviews with education officers. This process helped to sharpen the complex picture of aspects, interpretations and practices of formative assessment that has been presented in chapter 5.

Finally, there is the approach of checking, questioning and theorizing the findings, which involves the craftsmanship of the researcher. In chapter 6 it was discussed how the findings from the empirical analysis accords with other empirical findings and with the researcher’s experience, and in chapter 8 this deepened empirical understanding is interpreted in the perspective of relevant theoretical knowledge.

Undoubtedly, the researcher’s experiential background enhanced the understanding of the informants’ perspective and the interpretation of the data. The researcher has been a high school teacher for four years and teacher educator for the last fifteen years. As a teacher educator, the researcher was involved in writing school science text books and teachers’ manual that are in use in schools as well as in writing various modules that are being offered in the teacher training colleges in Bhutan. In addition, the researcher was also involved as facilitator in various professional developments programs for the teachers. This background provided a deeper knowledge of the case under study. However, the researcher was careful to maintain the role as a critical researcher and not to let the pre-understanding have a negative, biased influence in the process of interpretation of the data material.



There were times during data collection in the schools that the researcher was often looked upon as somebody who has come to do the job of inspection and solve the problems faced by the teachers and students regarding the assessment process and curriculum. In such cases, the researcher's role was explained to each research participant time and again though the question still remains as to how far it was understood.

Employment of multiple empirical methods to study the same topic can also be regarded as a way in which to ensure the internal validity of the results (Blaikie, 2010). The use of multiple data gathering methods including classroom observation, interviews with various stake holders and study of various documents helped to compare data from various sources and interpret the data accurately. Furthermore, the data materials were studied many times to check for important information that might have been overlooked or taken for granted but which might be important.

To avoid research bias in terms of gender, the informants consisted of both male and female.

### **7.3 External validity**

External validity is about the generalizability of one's findings. In any research, generalizability of one's finding is an issue that comes up quite often. But is it mandatory that all research should lead to generalization? Kvale has pointed out that if research findings are associated with a demand for generalizable knowledge, then it may involve the problematic assumption of a universal knowledge valid for all places and times, for all humankind for all the time (2011). In line with Kvale, Bassey has explained that one need to consider the purpose of carrying out educational research. Is it to produce generalization that will lead to some kind of theory building/theory testing or is it to contribute to some kind of improvement in educational practices? He goes on to explain that in educational research, if the generalization results in very little relevance to the improvement in teaching, then one need to look for alternative forms of pedagogic research. According to him, the alternative research form is the case study research (1981).

The case study approach in this project is not designed to look for findings that can be generalized but is an exemplary study that looks for those interesting and valuable aspects that can be used by somebody working in a similar situation and can relate to it, as has been argued by Bassey:

An important criterion for judging the merit of a case-study is the extent to which the details are sufficient and appropriate for a teacher working in a similar situation to relate his decision making to that described in the case-study. The reliability of a case-study is more important than its generalizability (ibid, p. 85)

This point is similar to Yin's remark referred to in the previous section 4.2 that case studies must aim for what he calls "analytical generalizability", not the statistical generalizability of quantitative studies.

There is scant research undertaken in the field of formative assessment in Bhutan. Most of the issues related to assessment like quality of education on decline are hearsay, though it has become a national issue in Bhutan (cf. introduction chapter). However it is accepted in general that our education practice needs to be studied in depth. In addition, most of the stakeholders concerned with education have a notion that Bhutan has moved forward in terms of education delivery and the focus is highly student-centered. So, this study would be interesting and relevant to all the stakeholders concerned to relate the findings to their own situation and make judgment on what is really not working, what is working and what could be further enhanced in the schools in terms of formative assessment practices to bring about improvement in students' learning.

Another pertinent issue that makes the researcher feel that the research findings would be interesting and valuable to all concerned in other secondary schools in Bhutan is that all the schools in Bhutan including the private schools follow the same prescribed syllabus and textbooks. The time given for completing the syllabus is also uniform and the students in class X and XII have to sit for the same board exam set by the Bhutan Council for Schools Examination and Assessment. There are only two teachers training colleges and almost all the trained teachers have passed out from these two colleges.

## **7.4 Reliability**

In quantitative research, reliability is often understood as the possibility of actually replicating the findings. But in qualitative studies, the reliability denotes the extent to which it is transparent how the research results are acquired and interpreted. In other words, reliability refers to whether the findings are in principle reproducible at other times and by other researchers. Kvale has explained that the issue of reliability arises in connection to whether the research informants will give different answers to different interviewers or the

transcription and analysis of interviews will differ depending on different transcriber and analyzer (2011).

To ensure reliability in this study, the classroom observation used an unstructured format and the interviews didn't have a structured questionnaire. Semi-structured questionnaires were used to guide the interviews and the questions in most cases were open questions. The interviews were recorded, transcribed verbatim and member checking of the transcribed materials were carried out in the two case study schools Gedu HSS and Yoeseltse MSS that were a particular focus of this dissertation. In the other case study schools the same processes were followed except for a few of the schools where interviews could not be recorded due to non-availability of voice recorders. In such cases, care was taken to note down the participants views as accurately as possible.

In relation to the interviews with the education officials who are involved in developing the curriculum, and monitoring and supporting the school education by providing professional support, the preliminary findings were sent to them before the conduction of interviews. Enough time was also made available for them to study the findings.

The whole process of data gathering resulted in getting a rich and thick description of the case under study and helped in enhancing the quality of the research as has been suggested by Merriam (1988). She has suggested that for the research findings to be reliable, a rich and thick description is necessary so that other users can use it as a base of information. Blaikie has further elaborated that

If researchers provide sufficiently 'thick descriptions' of their cases it is possible for others to make judgments about whether the findings can be related. The burden of the proof is on the user rather than the originator of the research (2010, p. 193)

## **7.5 Conclusion**

The chapter consists of information on how the issues of validity and reliability for this study have been taken care of.

The issue on internal validity is handled by considering the case as a whole and not as a part. The researcher has tried to get a full understanding of a case within its wider context as mentioned by de Vaus (2001). The stress was on the importance of looking at parts within the context of the whole.

The issue of generalization wasn't a concern for this study. Instead, the focus was on exemplariness, i.e. to come up with findings that readers competent within the field of the research project would find interesting, valuable, and relevant to their context.

On the issue of reliability, the focus was on detailed rendering of the research process and its results in order to give a rich and thick description that can be comprehended closely and used constructively by others.

# CHAPTER 8: THEORETICAL DISCUSSION OF THE EMPIRICAL FINDINGS

## 8.1 Introduction

This chapter discusses the theoretical interpretation of the research findings that were the outcome of chapter 5 and 6. Now this outcome is going to be interpreted in relation to the theoretical framework outlined in chapter 2 together with a few additional texts of particular conceptual relevance to some of the findings. The chapter is organized with a focus on only the most essential and significant findings so as to reach in chapter 9 a solid answer to the research question of the dissertation. These decisive findings are about the general issue of a teacher-centered rather than student-centered class, and the relationship between learning and formative assessment in the practices of peer learning, feedback and questioning.

## 8.2 The teacher-centered rather than student-centered class

The theoretical framework presented in chapter 2 points to a need to have a student-centered learning for the formative assessment to be effective. This in turn leads us to discuss the classroom approach to teaching and learning in the case study schools.

As pointed out in chapter 6 under section 6.4, most of the teachers in the case studies are not found to be strict in the classroom. However, the data material shows that the teaching and learning processes practiced in the classroom are to a large extent still teacher-centered, as is the case in many other Asian countries (Pham, 2012; Roder, 2012; Zohrabi, Torabi & Baybourdiani, 2012; Pham & Renshaw, 2013). The following aspects of teaching and learning in the case study schools characterize the teacher-centeredness:

- The lesson is distinctly organized (managed) by the teacher.
- Teacher is central to the dissemination of knowledge.
- The students become active only after teacher's presentation of the day's content theme.
- The student-centered activities comply fully with instructions provided by the teacher.
- The student-centered activities engage individual students in problem solving activities (in other 'typical' examples, problem solving may take place in groups) as well as in subsequent presentations of their problem solutions to the class plenary. (Giri et al, 2015, p. 4)

The activities in which students are engaged usually comprise of one of the practices: copying text from the blackboard; question-answer dialogue where the teacher may pose questions as a means of testing whether the students can repeat the subject matter just presented by the teacher; and problem solving in pairs or groups or individually. While carrying out activities, students act in accordance with the teachers' instruction. Such activities are understood by teachers as a student-centered approach which is considered as one where some kind of student participation takes place.

Besides, the classroom observation and interviews point to ample of examples where teacher's authority rules in the class. Students are reluctant to ask questions even if the concept being taught is not clear to them. Whenever the teacher asks whether students have understood the concept being taught, the response is often in positive agreement irrespective of whether the concept is understood or not. This leads to teachers assuming most of the time that everybody has learnt the concept. Some teachers would try to change such practices by asking more questions and encouraging students to ask questions. But it has not gained acceptance as of now.

In sum, these aspects present a classroom culture where each individual student has built a cocoon around themselves which others cannot trespass. Then the interaction between a teacher and the students when it exists in the class seems superficial. Dewey's theory on 'Experience and Education' stresses understanding student's past experience and building the present learning based on that experiences to make the present learning effective. When each student has a cocoon built around oneself, getting to know the past experiences of a student becomes difficult for a teacher. A teacher trying to break that cocoon would be seen as somebody intruding and getting very personal and mayn't be acceptable in the Bhutanese culture.

Moreover, the emphasis on summative assessment is very prevalent as has been pointed out. This kind of emphasis placed on a traditional approach to education with emphasis on summative assessment leaves little room for experience-based education of the kind suggested by Dewey. Firstly, the focus is on content delivery that might lead to superficial learning. Dewey argues that for students to connect to the new information given by the teacher, content should be delivered in a way that would allow the students to relate the information to their prior experience. Secondly, even the student activities are entirely teacher

lead. Students are seen to fulfill the purposes that the teacher has planned for them. This is in contradiction to Dewey's experience based education that advocates student's active involvement in constructing purposes of learning. Thirdly, making students into passive learners where they are not given opportunity to talk about their views, constrain the outward freedom explained by Dewey. All these constrains would in turn prevent teachers from understanding the students' prior experience. Here students' learning differences would not be considered. Everybody would be treated as having the same learning ability irrespective of individual differences. In such cases, teachers will not be in a position to determine and make contact with the student's ZPD. Hence, effective formative assessment practice will not be possible and surface learning will take place instead of deep learning.

On one hand, the data material indicates the traditional approach to education still being followed to a great extent in Bhutanese schools. On the other hand, the data also indicates the students' strong desire for an experience-based education where the learning is not restricted to what is given in the textbooks only. Besides, they would like to be involved actively in the learning. They express their preference for working in groups where each group member takes more responsibility for their own learning. They cite that what they discuss in groups helps them in understanding and retaining the points discussed for a longer period of time compared to teacher's teaching where they are passive listeners.

However, the data material didn't point to students having a desire to have complete freedom in their learning as in progressive schools. They would want to have a teaching and learning process where both teacher and students are equally involved.

### **8.3 Social interaction and peer learning**

According to Dewey, the quality of learning emphasizes social environment that includes social interaction and classroom environment among others. Social interaction in the classroom is found to take place in a collaborative learning set up, which is either in groups or pairs. In the collaborative learning, students feel motivated to learn when they understand that they are part of the group where they are valued as a group member making a positive contribution (Newmann, Wehlage, & Lamborn, 1992). Vygotsky has also mentioned that learning in the ZPD is a joint activity. The social environment in collaborative learning

encompasses two types of interaction: interaction between the learner and the teacher; and interaction amongst the learners.

Though the interaction between the learner and the teacher is absent most of the time, the interaction amongst the learners seems to bring about effective learning. As pointed out in chapter 2, peer assessment in the form of peer learning is found to be a valuable learning experience for students. Students can take a responsibility for their own learning as well as learning of others. In addition the comfort level amongst the learners is high as the communication is usually in the language they are at ease with (Sadler, 1998; Black et al, 2003; Black & Wiliam, 2005; Clarke, 2005; Topping, 2009). Both the teachers and the students interviewed express that reciprocal peer learning and peer teaching (cf. section 2.2.3) take place in the teaching and learning process.

The students in particular mention their preference of reciprocal peer learning when the concept taught by the teacher is not clear to them or when they find the teacher unapproachable or when they feel hesitant to clarify their doubts in front of other students. In such learning set up, there is no feeling of competition between the learners. Each one is open to the others' suggestions and whatever one knows is taught to the other. The reciprocal peer learning which serves to help students to give or receive feedback faster from peers to improve their learning obviously plays a significant role in the students' school-related self-understanding.

Though one-to-one interaction between teacher and student may not be evident most of the time, teachers do engage students in social interactions to help students to learn. Peer teaching is one such example of social interaction initiated by teachers in the case study schools. The teachers use peer teaching when they are under time constraint or to assist students in their ZPD by catering to the special learning needs of students whom the teacher label as introvert or weak learners.

The practices of reciprocal peer learning and peer teaching serve to provide immediate feedback to the learners and bring about improvement in their learning. This practice is also reported in countries like South Africa and China (cf. Hakizimana & Juegens, 2013).

In most of the case study schools, the teachers make the sitting arrangement in the class in such a way that a weak and a better performing student would be sitting next to each other.



This kind of sitting arrangement in fact is looked on by a teacher (as well as a parent) as an advantage to both the weak as well as better performing student.

Aspects of the social environment, like the classroom set up discussed under teachers' working condition in section 6.2, are also seen as inhibiting students' outward freedom. According to Dewey, even the classroom sitting arrangement has an impact on student's learning. The long rows of desk which restricts teacher and student movement is seen as restricting student's intellectual and moral freedom. Other constraints, for instance on resources in terms of infrastructure and teaching-learning (as discussed under section 6.2), can also restrict students' outward freedom, according to Dewey.

## **8.4 Formative feedback**

The data material indicates feedback practice mostly in homework assessment only (Giri et al., 2015) and suggests that the feedback when taking place is minimal and generic in nature. Typically feedback examples mentioned have a very feeble meaning content, such as "good work" or "work harder", i.e. with no detailed, qualitative information value for improving the student's learning habits. This is in contrast to the literature findings that feedback should be specific to the task at hand and students should be provided with detailed information on how to improve (Clarke, 2005; Shute, 2008; Kluger & DeNisi, 1996; Clarke, 2005; Black & Wiliam, 1998a).

Though the feedback is generic, the students in the case study schools are found to give importance to the feedback provided by the teacher and work on it to bring improvement in their work. Students also indicated that unlike feedback, marks didn't help them to understand where they went wrong and what area needs improvement. However, parents in the case study revealed their support of grades which is in agreement to the survey findings of Black et al (2003) and Wiliam (2011) as pointed out under section 2.2.4. This is especially found to be true if the parents are not literate. For them getting high grade means that learning has taken place and their children are doing well in terms of studies and low grade implies just the opposite. However, whether the high grade is because the child has rote learned without understanding or low grade is due to a child not being able to comprehend the concept taught is not considered.

Though the literature study didn't point to the difference in effectiveness of oral feedback and written feedback, students indicated their preference of written feedback in comparison to oral feedback. According to them, written feedback can be referred to time and again when needed. However, some of the teachers have mixed feelings on it. Expressing heavy workload, vast syllabus and time constraint, they prefer giving oral feedback as written feedback is found to be time consuming. This view of the teachers is similar to the findings by Rawlins (2007) in his Ph.D. dissertation on "Students' perceptions of the formative potential of the National Certificate of Educational Achievement".

Feedback is central to Vygotsky's ZPD. Feedback termed as scaffolding is used to close the gap in the learners' ZPD and move to the next higher level of learning. In most of the instances, even though the students tries to bring improvement in their work based on the teacher's feedback, follow up from the teacher's side is missing. The teachers almost always assume that students have successfully moved to the next higher level of learning.

However, while students clearly refer to the feedback as being helpful in their learning process, the empirical material suggests that the concept of formative feedback carries much un-used learning potential.

## **8.5 Questioning**

From the classroom observation and interviews with the teachers, the use of questioning in the classroom teaching topped the list of different forms of formative assessment practice applied. This is in line with the research findings on 'Classroom questioning' by Cotton (1988).

Teachers in the case study agree that questioning is a very important tool for various purposes: to check students' understanding of the lesson, to encourage the participants of students who are weak learners, and to bring the students' attention to the lesson if they are found diverting their concentration. It helps them to check whether their lesson objectives are fulfilled or not. Many of the teachers are also found to give reinforcement. However, most of the questions asked in the class are observed to be factual questions which require very little or no thinking on the student's part. Correspondingly, most of the answers are given in chorus. The chorus answer is observed to be owing to the nature of the question asked. Many of the questions asked require the students to either agree or disagree only. In addition, there

are incidences when a teacher asks more than one question at a time. This kind of a practice leads to a confusion amongst students as to which question they are supposed to answer.

There are some questions asked in the class that provoked thinking in students. But the general practice followed is that when one student is not able to answer, other students are not encouraged or given opportunity to answer. Teachers cite time constraint as the reasons for such practices. This kind of a practice was found by Rowe (1972) to lead to very poor participation by the students. Over the time the students were found to be complacent and don't even try to think of an answer, as they come to understand that teacher would give the correct answer. This was evident in one of the schools where the students were involved in class presentation. Most of the students seemed neither interested to ask question nor response to the question asked by the student giving the presentation. If somebody does respond, it is just to indicate that he or she doesn't know the answer. So, the presenter lands up giving the answer.

Teachers in general expressed their concern for not being able to give equal opportunity to every student to answer. They also mentioned that most of the time it is the better performing students who get the opportunity to answer. This kind of practice was cited by Walsh & Sattes, (2005) in their study on 'quality questioning'. They stated that teachers frequently call on better performing students to response due to three reasons: time constraint, making the teachers' job easy, and the teachers' loss of patience. In the case study, it was not evident that teachers call on better performing students to response. However, they stated that most of the time it was the better performing students who volunteered the answer and due to time constraint they allow them to answer. They didn't mention their job being made easy or their impatience as reasons. Walsh and Sattes have also pointed out that frequent calling on better performing students would have a positive impact on their learning, but such practices would have a negative impact on weak students. This is in agreement with the teachers under case study. A teacher cites that volunteer students are usually better performing students and giving them opportunity always to answer the question often led him to assume that everybody have learnt the concept being taught. However, later on he found that the weak learners have failed to understand the concept being taught which was made evident to him while correcting the students' homework. Another teacher recognizes the importance of giving the chance to the weaker students to answer most of the time. But he states that it is

difficult not to give the chance to better performing students sometimes because they then become demotivated.

The data material indicates that the type of questions asked are mostly factual or requiring a student to agree or disagree. Hence, the problem of 'wait-time' pointed to by Rowe (1972; 1986) didn't come out distinctly in the empirical material though one teacher mentioned that he gives enough time for students to think for a response.

The research findings indicate teachers' helplessness in carrying out questioning effectively. But they agree that questioning is a very important tool to enhance learning and one where they can give a quick feedback.

## **8.6 Conclusion**

In summary, the four major findings as reflected in relation to the applied theoretical framework can now be lined up. Firstly, the teaching approach in Bhutanese schools appears to be distinctly teacher-centered, though students prefer an active involvement in the learning process, which actually corresponds to the concept of experience based learning. Secondly, the reciprocal peer learning and peer teaching is a feature of formative assessment that is favored by the teachers as well as students, and – quite in line with the dominant theoretical understanding – it is thought to bring about improvement in learning. Thirdly, though the feedback is very generic in nature, it is used by the students to improve their learning. However, in the perspective of relevant theoretical knowledge, this feature of formative assessment is an area which has lots of unused potential to enhance learning. Lastly, the questioning process is one that is used frequently in a classroom teaching but the focus on feedback is feeble and also here the promise of the applied theoretical understanding is that there is much to win through a stronger focus on the topic.

# CHAPTER 9: CONCLUSION AND RECOMMENDATION

## 9.1 Introduction

The principal research question of this study was to find out how practices of formative assessment relate to the nature of students' learning. Specifically, the study endeavored to find the features of formative assessment that presumably are most important for learning in Bhutanese secondary school context. It was found adequate to employ an interpretive case study approach that includes the data collecting methods of classroom observation and interviews with various stakeholders to get an in depth understanding of what goes on in the real classroom situation.

The principal research question was addressed in chapter 6-8 of the dissertation where relevant empirical and theoretical knowledge was taken in to interpret the data analysis unfolded in chapter 5. This chapter reports the conclusion on the specific research question and offers recommendations that resulted from the study.

## 9.2 Conclusion

The features of formative assessment of most importance for learning in the context of Bhutanese secondary schools are found to be the following:

- A student-centered framework for the practices of formative assessment
- Peer assessment as an integrated element of peer learning
- Feedback practices of a genuinely formative kind
- Extensive usage of dialogue with questioning

Formative assessment practices in Bhutanese secondary schools exist with lots of misconceptions and needs a revamp. The introduction of continuous assessment to curb the school dropout rate and grade repetition thereby reducing the wastage of government budget has led to an actual emphasis on summative assessment. This in turn has led to formative

assessment practice taking a back seat. In consequence, the question arises of in how far learning has really taken place due to assessment practices.

For formative assessment to be efficient, students have to take an active part in their own learning i.e., the learning has to be student-centered. But the currently dominating teaching-learning approach in Bhutanese secondary schools only allows for student participation in activities that are highly teacher directed. In addition, the respect bestowed to teachers in the classroom has encouraged students to be passive learners.

The conceptual misunderstanding of formative assessment as identical to continuous assessment, the underdeveloped practice of peer and self- assessment and the limited attention paid to the feedback process have prevented any full fledged practice of formative assessment that could radically improve the students' learning. The problem is further aggravated by the teachers' poor working conditions, students' economically disadvantaged family background and minimal professional support for teachers as discussed under chapter 6.

Besides all the problems outlined, the research findings indicate the potential for a formative assessment practice. Almost all the students who participated in the case study indicated their desire to be more actively involved in the learning processes. The students were found to read and use the feedback from the teachers to improve their learning, though it was often generic in nature. Teachers on their part expressed their genuine interest to undertake formative assessment practices like peer and self-assessment. They communicated that the assessment they are practicing as of now is hardly sufficient to bring about learning in students. Some of the school administrators also expressed their interest to learn more about formative assessment practices so that they would be able to assist their teachers and students in that regard.

### **9.3 Recommendation**

The current research has provided some insights in how formative assessment is understood and practiced. In addition, the literature study and my personal experience from this study point to ways in which formative assessment could be leading to effective learning in students. These understandings guide me to make the following recommendations:

Firstly, for the teachers who are already in the field, professional development programs on formative assessment practices need to be instituted the sooner the better. The professional development programs shouldn't be targeted to a few selected teachers or school administrators as is the practice now and also it shouldn't be a onetime professional development cycle. According to the observations made during this study, the present practice has not been successful in terms of knowledge building and sharing. However, if the present practice has to be continued for reasons beyond ones control, then review has to be conducted regularly after providing the professional support.

Secondly, for the long term benefit of those teacher trainees undergoing teacher training at the two colleges of education i.e., Samtse College of Education and Paro College of Education, 'the Educational Assessment and Evaluation' modules currently offered (attached as appendices 13a and 13b) need to be revised. Some components of formative assessment are already included but in the perspective of the present research, they must be regarded as insufficient and not thoroughly developed. The teacher trainees need to attain new skills and be familiarized with carrying out self- and peer assessment and giving feedback, especially on the written work of the students. In addition, the bifurcation of continuous assessment and formative assessment has to be made clear to everybody.

Besides the above recommendations, the research findings also indicate the advisability of a number of future research projects. Research studies using intervention methods to find the effectiveness of formative assessment components would be valuable. Furthermore, the observation made from this study is that the practice of continuous assessment in the form of class test prevails. Hence, research to implement and enhance formative use of summative assessment could be interesting to carry out. Lastly, as the school syllabus in terms of it being rigid and vast came up quite distinctly in this study, a research could be fruitful to carry out to find out if some system rectification could be done.

## REFERENCES

- Ahmed, S. S. (2010). Educating through experience. John Dewey: The modern father of experiential learning. Retrieved from <http://sultanspeaks.com/blog/?p=175>
- Aljaafreh, A., & Lantolf, J. P. (1994). Negative feedback as regulation and second language learning in the zone of proximal development. *The Modern Language Journal*, 78 (4), 465-483
- Allal, L., & Lopez, L. M. (2005). Formative assessment of learning: A review of publications in French. In *Formative assessment: Improving learning in secondary classrooms*, ed. J. Looney, 241-264, Paris: OECD.
- Andrade, H. G. (nd). Understanding rubrics. Learn Web, Harvard University. Retrieved from <https://learnweb.harvard.edu/alps/thinking/docs/rubricar.htm>
- Andrade, H., & Valtcheva, A. (2009). Promoting Learning and achievement through self-assessment. *Theory into practice*, 48 (1), 12-19
- Assessment Reform Group. (2002). *Assessment for learning: 10 principles research-based principles to guide classroom practice*. Assessment Reform group, London, United Kingdom
- Au, W. (2007). Vygotsky and Lenin on Learning: The Parallel Structures of Individual and Social Development. *Science & Society*, 71(3), 273–298
- Bassey, M. (1981). Pedagogic research: on the relative merits of search for generalization and study of single events. *Oxford Review of Education*, 7(1), 73-94
- Bhutan Broadcasting service (BBS) News. (2013). Profile: Students still walking hours in pursuit of knowledge, April 03. Retrieved April 30, 2013, from BBS News: <http://www.bbs.bt/news/?p=25421>
- Bingham, G., Holbrook, T., & Meyers, L. E. (2010). Using self-assessment in elementary classrooms. *Phi Delta Kappan*, 91 (5), 59-62.
- Black et al. (2003). *Assessment for learning: Putting it into practice*. Buckingham, England: Open University Press.
- Black, et al. (2004). Working inside the black box: Assessment for learning in the classroom. *Phi Delta Kappan*, 86(1), p. 8-21
- Black, P., & Wiliam, D. (1998a). Assessment and Classroom Learning. *Assessment in Education: Principles, Policy & Practice*, 5(1), 7-73
- Black, P., & Wiliam, D. (1998b). *Inside the black box: Raising standard through classroom assessment*. London: King's College London School of Education.
- Black, P., & Wiliam, D. (2005). *Developing a theory of formative assessment*. In *Assessment and learning*, edited by John Gardner, p. 81-100. London: Sage publications



- Blaikie, N. (2010). *Designing social research: The logic of anticipation*, 2<sup>nd</sup> Ed. Polity Press, Cambridge
- Blatchford, P., & Martin, C. (1998). Research review: The effects of class size on classroom processes: 'It's a bit like a treadmill-working hard and getting nowhere fast!' *British Journal of Educational Studies*, 46(2), 118-137.
- Bostock, S. (2001). Student peer assessment. A commissioned article for the ILT now in the HE Academy resources database. Retrieved from <http://78.158.56.101/archive/palatine/files/994>.
- Boud, D. (1991). *Implementing student self-assessment*. Second edition. Sydney: HERDSA.
- Boud, D. (1993b). In Boud D., Cohen R. and Walker D. (Eds). *Using experience for learning*. Buckingham: Open university
- Boud, D., Cohen, R., & Sampson, J. (1999). Peer Learning and Assessment. *Assessment and Evaluation in Higher Education*, 24(4), 413.
- Boud, D., & Falchikov, N. (Eds). (2007). *Rethinking assessment in higher education: Learning for the longer term*. London: Routledge.
- Brookhart, S. M. (2008). *How to give effective feedback to your students*. Association for Supervision and Curriculum Development. USA.
- Candy, P., Crebert, G. & O'Leary, J. (1994). Developing lifelong learners through undergraduate education. Commissioned report no.28 (National Board of Employment, Education and Training, Canberra, Australian Government Publishing Service).
- CAPSD. (Curriculum and Professional Support Division). (1999). *Continuous Assessment. Classes VI to X (Class-work, Homework and Project work). Teachers' Guide. Ministry of Education*. RGOB
- CAPSD. (Curriculum and Professional Support Division). (2006). *A Review of Continuous Formative Assessment: Second Educational Project (1998-2003)*, World Bank. Ministry of Education. RGOB.
- CAPSD. (Curriculum and Professional Support Division). (2008). *Syllabus for classes IV to VI*. Ministry of Education. RGOB.
- CAPSD. (Curriculum and Professional Support Division). (2011). *English Curriculum. Assessment and evaluation, Classes PP-XII*. Ministry of Education. RGOB.
- Carlsen, W. S. (1991). Questioning in Classrooms: A sociolinguistic. *Review of Educational Research*, 61(2), 157-178
- Clarke, S. (2005). *Formative assessment in secondary classroom*. Great Britain: Hodder Education
- Clay, M. M., & Cazden, C. B. (1990). A Vygotskian interpretation of Reading Recovery. In P. Lloyd & C. Fernyhough (Eds.), *Lev Vygotsky: Critical assessments, Vol. 3: The zone of proximal development* (pp.353-370). London: Routledge.

- Corporal punishment of children in Bhutan. Report prepared by the Global Initiative to End Corporal Punishment of Children. Retrieved from [www.endcorporalpunishment.org](http://www.endcorporalpunishment.org)
- Cotton, K. (1988). Classroom questioning. Retrieved from <http://selltime.info/workshops/socialstudies/pdf/session6/6.ClassroomQuestioning.pdf>
- Creswell, J. W. (2003). *Research design: Quantitative, qualitative, and mixed methods approaches*. 2<sup>nd</sup> Ed. Thousand Oaks: Sage.
- Dahlberg, K., Dahlberg, H., & Nystrom, M. (2008). *Reflective lifeworld research*, 2<sup>nd</sup> revised ed. Studentlitteratur, Lund. USA.
- DCRD. (Department of Curriculum Research and Development). (2012). *Teacher's Manual Class IV*. Thimphu: Ministry of Education. RGOB.
- DCRD. (Department of Curriculum Research and Development). (2012). *Teacher's Manual Class V*. Thimphu: Ministry of Education. RGOB.
- DCRD. (Department of Curriculum Research and Development). (2012). *Teacher's Manual Class VI*. Thimphu: Ministry of Education. RGOB.
- Deki. (2008). *The development and state of the art of adult learning and education: National Report of the Kingdom of Bhutan*. Ministry of Education. RGOB.
- deLuque, M. F., & Sommer, S. M. (2000). The impact of culture on feed-back-seeking behavior: An integrated model and propositions. *Academy of Management Review*, 25(4), 829–849.
- de Vaus, D. (2001). *Research design in social research*. London: Sage
- Dewey, J. (1938). *Experience and Education*. New York: Kappa Delta Pi.
- Dewey, J. (1916). *Democracy and Education: An Introduction to the Philosophy of Education*. New York, NY: Simon & Schuster, the Free Press.
- Dimitrov, N. (2009). *Western guide to mentoring graduate students across cultures*. London, ON: The University of Western Ontario.
- Dorje, R. (1990). A brief historical background of the religious institutions of Bhutan. *Buddhist Himalaya: A journal of Nagarjuna Institute of Exact methods*, 3(1&2). Retrieved from <http://ccbs.ntu.edu.tw/FULLTEXT/JR-BH/bh117506.htm>
- Dorji, J. (2005). *Quality of education in Bhutan: The story of growth and change in the Bhutanese education system*. Thimphu: KMT publisher
- Editorial: Education as a priority. (2006, July 15). Kuensel Online: Bhutan's daily news site. Retrieved from <http://www.kuenselonline.com/editorial-education-as-a-priority/#.VLYRnk10zIU>
- Ehrenberg, R.G., Brewer, D.J., Gamoran, A., & Willms, J. D. (2001). Class size and student achievement. *Psychological Science in the Public Interest*, 2(1), 1-30.

- Falchikov, N., & Boud, D. (1989). Student self-assessment in higher education: a meta-analysis, *Review of Educational Research*, 59(4), 395-430
- Frierson, N., Henriksson, C., and Saevi, T. (Eds.), 2012, *Hermeneutic phenomenology in education: Method and Practice*. Netherland: Sense publishers.
- Gallimore, R., & Tharp, R. (1999). Teaching mind in society: Teaching, schooling, and literate discourse. In P. Lloyd & C. Fernyhough (Eds.), *Lev Vygotsky: Critical assessments, Vol. 3: The zone of proximal development* (pp.296-330). London: Routledge.
- George, J. W., & Cowan, J. (1999). *A handbook of techniques for formative evaluation*. London: Kogan Page
- Giri, K., & Krogh, L. (2015). *Final results of qualitative case studies. Part IV: Educating for happiness*. The Danish-Bhutanese research partnership on 'Quality of school education in the perspective of gross national happiness and assessment practices in Bhutan'. Royal University of Bhutan and Aalborg University.
- Giri, N., & Willert, S. (2014). *Schooling and school history in Bhutan as part of a nation-building exercise*. Creative economy, creative university and creative development: Ideas, knowledge and paths towards sustainability, happiness and wellbeing, 3<sup>rd</sup> Creative University Conference, Royal University of Bhutan Convention Centre, Thimphu, 14-16 April.
- Giri, N., Keller, H.D. & Willert, S. (2015). *Final results of qualitative case studies. Part III: The quality of teaching-learning*. The Danish-Bhutanese research partnership on 'Quality of school education in the perspective of gross national happiness and assessment practices in Bhutan'. Royal University of Bhutan and Aalborg University.
- Hakizimana, S., & Jurgens, A. (2013). The peer teaching /learning experience programme: an analysis of students' feedback. In *Alternation special edition 9*, 99-127
- Hattie, J., & Timperley, H. (2007). The power of feedback. *Review of Educational Research*, 77, 81-112
- Higgins, et al. (2010). *Effective and efficient methods of formative assessment*. Heriot-Watt University
- Hunt, E., & Pellegrino, J.W. (2002). Issues, examples, and challenges in formative assessment. *New Directions for Teaching and learning*, 2002(89), 73-85
- iDiscoveri Education and Royal Education Council. (2009). *The Quality of School Education in Bhutan: Reality and Opportunities*. Ministry of Education, Bhutan
- Kafle, N. P. (2011). Hermeneutic phenomenological research method simplified. *Bodhi: An Interdisciplinary Journal*, 5.
- Keller, H.D., & Utha, K. (2014). *Pedagogical discourses in Bhutanese upper secondary school*. Creative economy, creative university and creative development: Ideas, knowledge and paths towards sustainability, happiness and wellbeing, 3<sup>rd</sup> Creative University Conference, Royal University of Bhutan Convention Centre, Thimphu, 14-16 April.

- Keller, K. D. (Ed.) (2015). *Final results of qualitative case studies. Part I: Overview*. The Danish-Bhutanese research partnership on 'Quality of school education in the perspective of gross national happiness and assessment practices in Bhutan'. Royal University of Bhutan and Aalborg University.
- Kvale, S. (2007). *Doing Interviews*. Thousand Oaks: Sage
- Kennedy et al. (2007). Student assessment and its social and cultural contexts: How teachers respond to assessment reforms. Redesigning pedagogy- Culture, Understanding and Practice Conference, Singapore, 28-30 May
- Kennedy, G. (2006). Peer assessment in group projects: Is it worth it? *Conferences in Research and Practice in Information Technology*, 42. <http://crpit.com/confpapers/CRPITV42Kennedy.pdf>
- Kluger, A.N., & DeNisi, A. (1996). The effects of feedback interventions on performance: A historical review, a meta-analysis, and a preliminary feedback intervention theory. *Psychological Bulletin*, 119(2), 254-284
- Kolb, D. A. (1984). *Experiential learning. Experience as the source of learning and development*. Prentice-Hall. Englewood Cliffs. NJ
- Kulhavy, R. W. (1977). Feedback in written instruction. *Review of Educational Research*, 47(1), 211-232.
- Looney, J., & Wiliam, D. (2005). England: Implementing Formative Assessment in a High Stakes Environment. In OECD. *Organisation for Economic Co-operation and Development. Formative Assessment: Improving Learning in Secondary classrooms* (pp. 129-144). Paris. OECD
- Manen, V. M. (1990). *Researching lived experience: Human science for an action sensitive pedagogy*. Albany, NY: State university of New York press.
- Maxwell, T. W., Rinchen, P., & Cooksey, R. (2010). Evolutionary trajectories in schools assessment systems: The case of Bhutan. *Asia pacific Journal of Education*, 30(3), 273-288.
- Merriam, S. B. (1988). *Case study research in education: A qualitative approach*. San Francisco: Jossey Bass.
- Ministry of Education. (2012). *Annual Education Statistics*. Thimphu: Policy and Planning Division
- MoHE. (Ministry of Health and Education). (1995). *14<sup>th</sup> Quarterly Policy Guidelines and Instructions*. Thimphu. Bhutan
- National Education Association policy brief. (2008). Class size reduction: a proven reform strategy. Retrieved from [http://www.nea.org/assets/docs/PB08\\_ClassSize08.pdf](http://www.nea.org/assets/docs/PB08_ClassSize08.pdf)
- Newmann, F. M., Wehlage, G. G., & Lamborn, S. D. (1992). The significance and sources of student engagement. In F. M. Newmann (Ed.), *Student engagement and achievement in American secondary schools* (pp. 11-39). New York: Teachers College Press.

- Nidup, Y. (2013). Students still walking hours in pursuit of knowledge. Bhutan Broadcasting Service, April 3. Retrieved from <http://www.bbs.bt/news/?p=25421>
- Nolen, S. B. (2011). The role of educational systems in the link between formative assessment and motivation. *Theory into practice*, 50, 319-326.
- OECD. (Organization for Economic Co-operation and Development). (2005). *Formative Assessment: Improving learning in secondary classrooms*. Paris. OECD
- Pelden, S. (2014). What's in store for class XII students? *Kuensel Online: Bhutan's daily news site*, January 31. Retrieved from <http://www.kuenselonline.com/whats-in-store-for-class-xii-students/#.VGcpcU10yUk>
- Perrenoud, P. (1998). From formative evaluation to a controlled regulation of learning processes: Towards a wider conceptual field. *Assessment in education: Principles, policy and practices*, 5(1), 85-102
- Pham, T. T. (2012). Teacher autonomy and learner autonomy: An East Asian's perspective. *International Journal of Social Science and Humanity*, 2(6), 468-471
- Pham, T. T., & Renshaw, P. (2013). How to enable Asian teachers to empower students to adopt student-centered learning. *Australian Journal of Teacher Education*, 38(11), 65-85
- Phuntsho, K. (2000). On the two ways of learning in Bhutan. *Journal of Bhutan Studies*, 2(2), 96-126. Retrieved from <http://www.bhutanstudies.org.bt/journal/vol2no2/v2n2learning.pdf>
- Pinchok, N., & Brandt, W. C. (2009). *Connecting formative assessment research to practice: An introductory guide for educators*. Naperville, IL: Learning Point Associates
- Pokhrel, N. (2014). Competition gets even more cutthroat. *Kuensel Online: Bhutan's daily news site*, August 7. Retrieved from <http://www.kuenselonline.com/competition-gets-even-more-cutthroat/#.VGcmKU10yUk>
- Pokhrel, N. (2014). Civil service vacancies cut down by 27. *Kuensel Online: Bhutan's daily news site*, October 10. Retrieved from <http://www.kuenselonline.com/civil-service-vacancies-cut-down-by-27/#.VGcn0U10yUk>
- Pope, N.K.L. (2005). The impact of stress in self- and peer assessment. *Assessment & evaluation in higher education*, 30 (1), 51-63.
- Race, P. (2001). Assessment: A briefing on Self, Peer and Group Assessment. LTSN Generic Centre Assessment Series Number 9. York: LTSN Generic Centre.
- Ramaprasad, A. (1983). On the definition of feedback. *Behavioral Science*, 28, 4-13.
- Ramaswamy, S., Harris, I., and Tschirner, U. (2001). Student Peer Teaching: An Innovative Approach to Instruction in Science and Engineering Education. *Journal of Science and Technology*, 10(2), 165-171
- Rawlins, P. L. C. (2008). *Students' perceptions of the formative potential of the National Certificate of Educational Achievement*. (Doctoral thesis, Massey University, New Zealand)

- REC. (Royal Education Council). 2012. *School Enabling Conditions: An Educator's guide. Assessment and Evaluation for GNH seed schools*. The School Education and Research Unit. RGOB.
- RGOB. (Royal Government of Bhutan). (2003b). *A guide to continuous assessment with particular emphasis on formative assessment*. Thimphu: Ministry of Education.
- RGOB. (Royal Government of Bhutan). (1989). *Sixth Five Year Plan (1987-1992)*. Thimphu: Planning Commission
- RGOB. (Royal Government of Bhutan). (1993). *Seventh Five Year Plan (1992-1997)*. Thimphu: Planning Commission
- RGOB. (Royal Government of Bhutan). (1998). *Eighth Five Year Plan (1997-2002)*. Thimphu: Planning Commission
- RGOB. (Royal Government of Bhutan). (2003). *Ninth Five Year Plan (2002-2007)*. Thimphu: Gross National Happiness Commission
- RGOB. (Royal Government of Bhutan). (2009). *Tenth Five Year Plan (2008-2013)*. Thimphu: Gross National Happiness Commission
- Ricoeur P. (1976a). *Interpretation theory: discourse and the surplus of meaning*. TX, USA: Christian University Press.
- Ricoeur, P. (1991). What is a text? Explanation and Understanding, in *Text to Action: Essays in Hermeneutics II*, Trans. Kathleen Blamey and John B Thompson, Northwestern UP, Evanston.
- Rinchen, P. (2000). *Continuous assessment as a method of student evaluation in primary schools in Bhutan: An analysis of policy and practices in English curriculum 1986–1998*. (Doctoral dissertation, University of New England, New South Wales, Australia).
- Roberts, T. G. (2003). An interpretation of Dewey's experiential learning theory. *Opinion papers* (120).
- Roder, D. C. (2012). *Girls should come up: Gender and schooling in contemporary Bhutan* (Doctoral dissertation, Arizona State University).
- Rowe, M. B. (1972). *Wait-time and rewards as instructional variables: Their influence on Language, Logic, and Fate control*. Paper presented at the annual meeting of the national Association for Research on Science Teaching, Chicago.
- Rowe, M. B. (1986). Wait time: Slowing down may be a way of speeding up. *Journal of teacher education*, 37, 43-50
- Sadler, D. R. (1989). Formative assessment and the design of instructional systems. *Instructional Science*, 18, 119–144.
- Sadler, D. R. (1998). Formative assessment: Revisiting the territory. *Assessment in Education*, 5(1), 77-84

- Shepard, L. A. (2005). Linking formative assessment to scaffolding. *Educational Leadership*, 63(3), 66-71
- Shute, V. J. (2008). Focus on formative feedback. *Review of Educational Research*, 78, 153-189
- Sinha, A. C. (2001). *Himalayan Kingdom Bhutan: Tradition, transition and transformation*. Indus publishing company, New Delhi
- Sliwka, A., & Spencer, E. (2005). *Scotland: Developing a coherent assessment system in Formative assessment : Improving learning in secondary classrooms*. Paris, OECD.
- Sluijsmans, D., Dochy, F. & Moerkerke, G. (1999). Creating a learning environment by using self-, peer- and co. assessment. *Learning Environment Research*, 1, 293-319
- Tharp, R. G., & Gallimore, R. (1988). *Rousing Minds to Life: Teaching, learning and schooling in social context*. Cambridge. Cambridge University press
- Topping, K.J. (1998). Peer Assessment between Students in Colleges and Universities. *Review of Educational Research*, 68(3), 249-276
- Topping, K. J. (2009). Peer Assessment, *Theory into Practice*, 48(1), 20-27
- UNESCO. (United Nations Educational, Scientific and Cultural Organization). (2011). World Data on Education. 7<sup>th</sup> edition. Downloaded from [http://www.ibe.unesco.org/fileadmin/user\\_upload/Publications/WDE/2010/pdf-versions/Bhutan.pdf](http://www.ibe.unesco.org/fileadmin/user_upload/Publications/WDE/2010/pdf-versions/Bhutan.pdf) on 30/03/2013.
- Utha, K., Gurung, B., & Keller, K. D. (2014). *Preliminary results of qualitative case studies. Part II: Formative assessment in the schools*. The Danish-Bhutanese research partnership on 'Quality of school education in the perspective of gross national happiness and assessment practices in Bhutan'. Royal University of Bhutan and Aalborg University.
- Utha, K., Gurung, B., & Keller, K. D. (2015). *Final results of qualitative case studies. Part II: Formative assessment in the schools*. The Danish-Bhutanese research partnership on 'Quality of school education in the perspective of gross national happiness and assessment practices in Bhutan'. Royal University of Bhutan and Aalborg University.
- Vygotsky, L. (1978). *Interaction between learning and development. From Mind and Society* (pp. 79-91). Cambridge, MA: Harvard University Press
- Walsh, J. A., & Sattes, B. D. (2005). *Quality Questioning: Research-based practice to engage every learner*. USA: Sage.
- Wangdi, K. (2006). Call centres: will it work in Bhutan? *Kuensel: Bhutan's National newspaper*, May 3, p.3.
- Wen, M. L., & Tsai, C.C. (2006). University students' perceptions of and attitudes toward (online) peer assessment. *Higher Education*, 51, 27-44
- William, D. (1999). Formative assessment in mathematics. Part 1: Rich questioning. *Equals: Mathematics and special education needs*. 5(2), 15-18

- William, D. (2011). *Embedded formative assessment*. United State: Solution Tree
- Wood, D. J., Bruner, J. S., & Ross, G. (1976). The role of tutoring in problem solving. *Journal of child psychiatry and psychology*, 17(2), 89-100
- Yin, R. K. (1994). *Case study research: Design and methods* (2nd Ed.). Thousand Oaks, London: Sage Publishing.
- Yin, R. K. (2011). *Qualitative research from start to finish*. New York, NY: The Guilford press.
- Zhan, Y., & Wan, Z. (2010). Perspectives on the cultural appropriateness of assessment for learning in the Chinese context. *Educate*, 10(2), p. 9-16
- Zohrabi, M., Torabi, M. A., & Baybourdiani, P. (2012). Teacher-centered and /or student-centered learning: English Language in Iran. *English language and literature studies*, 2(3), 18



# APPENDICES

## Appendix 1: Ph.D. courses undertaken

| Sl.no | Title of the course   | Date   | Venue   | ECT |
|-------|---|--|---|-----|
| 1     | Introduction to the PhD study   | May 31, 2012   | Aalborg University<br>Fredrik Bajers Vej 7B/2-107<br>DK-9220 Aalborg East | 1   |
| 2     | Practical Project Management  | June 14, 2012  | Aalborg University<br>Fredrik Bajers Vej 7B/2-107<br>DK-9220 Aalborg East | 1   |
| 3     | Impact of PBL   | 21, 22 and 29 May 2012                                 | Aalborg University, CWO Huset, Skibbrogade 5, 9000 Aalborg, room C1.12    | 3   |
| 4     | Seminar on Bhutanese-Danish research group on quality of education                          | 22.-28. June, 2012                                     | Aalborg University, Østre Allé 91, room 2.001                             | 2   |
| 5     | Seminar presentation on theories, concepts and methods in Development studies and sociology | 11 Feb, 2013   | Aalborg University, Fibigerstraede 1                                      | 3   |
| 6     | Professional Communication  | 12-14 <sup>th</sup> March, 5 April, 2013               | Aalborg University<br>Niels Jernes Vej 6                                  | 2   |
| 7     | Basic course in University pedagogy   | 22 <sup>nd</sup> March and 2 <sup>nd</sup> April, 2013 | Østre Allé 91, 9000 Aalborg – room 1.14                                   | 2   |
| 8     | Research Information management   | 26 <sup>th</sup> march, 2013                           | Aalborg University Library, Langagervej 2, 9220, Aalborg Ost, room 211    | 1   |
| 9     | Multidisciplinary publishing toolbox  | 22-25 <sup>th</sup> April, 2013                        | Doctoral School of Business and Social Sciences, Aarhus University        | 5   |
| 10    | An Introduction to Qualitative Methods  | 15-17 May, 2013  | Doctoral School of Engineering and Science at Aalborg University          | 3   |
| 11    | Understand how to write good papers for high level journals                                 | 21 May 2013 - 22 May 2013                              | Doctoral School of Engineering and Science at Aalborg University          | 1.5 |
| 12    | Danish-Bhutanese International Seminar/conference   | 29-30 May, 2013  | Copenhagen  | 3   |
| 13    | Quantitative Methods in Educational Research  | 12-14 June, 2013                                       | Aalborg   | 3   |
| 14    | Educational Research as Craft and Representation: Challenges and Possibilities              | 17-21 June, 2014                                       | Norway  | 1.5 |

## Appendix 2: Index of reference for the statements and subthemes on formative assessment

1. The notion of formative assessment (FA) is marked by obscurity due to divergent conceptions  
The different conceptions of FA can be grasped through the two following typologies:
  - a) The *assessment* performed by teachers <-> The *formative* influence on students
  - b) Support of strong/weak learner disparities <-> Support of communities of learners

| Sl. no | Statement  | Sub themes under the statement  | Case no 1                               | Case no 2  | Case no 3                         | Case no 4                | Case no 5   |
|--------|--|---|---|--|-----------------------------------|--------------------------|---|
| 1      | The notion of FA is marked by obscurity due to divergent conceptions | Mixture of formative and summative functions                                | 101-44                                  | 202-53, 209-16, 209-45, 210-38, 210-171, 210-220, 212-197, 212-482, 214-53, 214-106, 214-323, 217-160, 218-54, 218-152 | 306-129, 307-74, 308-113, 308-122 | 406-14                   | 502-52, 516-54, 507-66, 508-77, 510-41, 512-223, 513-41, 516-22 |
|        |  | Misconception of formative assessment as identical to continuous assessment | 102-36, 104-22, 106-54, 111-58, 112-29, | 204-18, 207-46, 207-135, 210-108, 214-44, 214-159, 216-34, 216-109, 217-179  | 304-50, 306-114, 308-139          | 404-89                   | 506-43, 508-45, 510-41, 512-117, 516-26, 516-90                 |
|        |  | The managerial role of assessment   | 102-36, 102-64, 106-76, 110-06          | 202-65, 208-61, 210-84, 210-251, 212-88, 212-129, 212-456, 214-73, 217-25  | 306-102, 306-129                  | 404-103, 404-111, 406-21 | 508-59, 516-54  |

## 2. Formative assessment is sustained with divergent attitudes

### Tendencies to denigrate formative assessment coexist with good will towards formative assessment

| Sl. No | Statement  | Sub themes under the statement                | Case no 1   | Case no 2  | Case no 3                               | Case no 4  | Case no 5  |
|--------|--|---|---|--|---|--|--|
| 2      | Formative assessment is sustained with divergent attitudes | Questioning                                   | 101-30, 111-58  | 202-109, 203-25, 210-171, 212-64, 213-34                                   | 301-20                                  | 404-45   | 509-34, 511-34, 513-37, 514-123, 518-58, 518-92, 518-133 |
|        |  | Peer assessment                               | 102-46  | 202-89, 204-20, 207-86, 209-58, 210-154, 212-66, 214-364, 215-204, 216-152 | 302-63                                  |  | 502-72, 504-98, 507-110, 512-192                         |
|        |  | Self-assessment                               | 106-72  | 210-211, 212-327, 214-244, 217-299, 217-312, 218-227                       | 302-70                                  | 404-129  | 510-212, 512-133, 514-148, 516-180, 518-207              |
|        | Feedback   | 102-36, 102-59, 104-28, 106-9, 106-78, 111-69 | 202-76, 204-23, 207-135, 209-61, 210-38, 210-84, 210-129, 210-261, 212-145, 212-385, 214-138, 215-70, 217-76, 218-152 | 305-82, 307-58, 307-177  | 404-37, 404-109, 407-37, 407-48, 408-28 | 502-111, 504-166, 507-66, 507-176, 508-71, 510-138, 510-171, 510-330, 512-44, 512-145, 514-73, 514-226, 515-40, 516-41, 517-59, 517-139, 517-244 |  |

### 3. FA influences the quality of learning

This is a statement on the actual effect of FA (in distinction to point 4). The influence happens through:

- a) positive attitude towards the importance of FA
- b) student centeredness/teacher-student relation
- c) teachers' approach to FA and to teaching
- d) students' perception of FA

| Sl. no | Statement                             | Sub themes under the statement                                   | Case no 1                                      | Case no 2  | Case no 3              | Case no 4              | Case no 5   |
|--------|---------------------------------------|--|--|--|------------------------|------------------------|---|
| 3      | FA influences the quality of learning | Positive attitude towards the importance of formative assessment | 102-59, 112-33                                 | 202-13, 207-45, 212-153, 212-456, 217-30   |                        |                        | 501-18, 502-111, 504-77, 508-71, 509-79, 510-84, 510-335, 512-159, 514-88, 515-62 |
|        |                                       | Collaborative learning   | 101-22,  | 202-94, 209-56, 210-154, 211-64, 212-186, 212-334                                    | 302-115, 307-5, 307-20 | 401-16, 404-16, 404-27 | 504-104, 514-15   |
|        |                                       | Support of weak learners   | 102-46, 102-64, 106-26, 106-49, 108-32, 110-13 | 202-94, 204-28, 207-120, 212-37, 212-309, 214-251, 214-364, 215-204, 217-30, 217-184 |                        |                        | 502-43, 502-85, 506-5, 507-84, 510-262, 517-125                                   |

#### 4. Social relations and motivation are formative features of particular relevance to assessment

This is a statement about how learning seems to be accessible for F.A. The social relations of formative significance to the individual learner encompass relations to the other students as well as to the teacher.

| Sl. no | Statement  | Sub themes under the statement     | Case no 1  | Case no 2                                      | Case no 3                               | Case no 4                                      | Case no 5                                      |
|--------|--|------------------------------------|--|--|---|--|--|
| 4      | Social relations and motivation are formative features of particular relevance to assessment | Formative Interaction              | 101-22, 102-13, 103-17, 103-46, 105-12, 105-22, 107-33         | 201-23, 201-27, 202-6, 202-19, 207-24, 207-156 | 307-137, 308-49                         | 401-11, 404-28, 404-167, 407-5, 407-54, 408-15 | 501-18, 503-9, 507-10, 507-110                 |
|        |  | Self-esteems of pupils             | 103-47, 111-5, 111-88  | 207-24, 217-130                                | 307-32, 308-49                          | 404-60, 407-27, 407-48                         | 507-10, 507-40, 517-197                        |
|        |  | Responsible for their own learning | 102-46, 104-25, 106-66   | 207-83, 212-28                                 | 307-5                                   | 404-32, 407-58                                 | 507-110, 507-128, 515-164                      |
|        |  | Students motivation for learning   | 101-30, 102-13, 102-70, 103-29, 105-16, 106-9, 111-34, 112-113 | 201-45, 202-19, 202-38, 204-9                  | 302-16, 302-78, 304-40, 307-22, 308-130 | 404-60, 407-11, 407-48                         | 502-100, 503-23, 504-9, 507-10, 507-40, 508-71 |

**5. The topic of ‘the formative’ indicates the students’ position as an early generation in the modern system of education**

Some of the ways in which this is seen are:

- a) The parents’ commonly reserved attitude towards FA
- b) The students’ appreciation of teachers’ kindness and strictness as encouraging to their motivation and learning

| Sl. no | Statement  | Sub themes under the statement   | Case no 1             | Case no 2                        | Case no 3                       | Case no 4             | Case no 5                         |
|--------|--|--|-----------------------|----------------------------------|---------------------------------|-----------------------|-----------------------------------|
| 5      | The topic of ‘the formative’ indicates the students’ position as an early generation in the modern system of education | <p>Parent’s reserved attitude towards formative assessment</p> <p>Parents’ educational background</p> <p>Student’s attitude towards formative assessment</p> <p>Long term benefits of formative assessment</p> | 109-45                | 205-31, 207-135, 215-86, 217-190 | 305-99, 305-145                 | 405-78, 407-65        | 505-37, 507-135, 515-100, 517-158 |
|        |  |  |                       | 205-10, 205-26, 207-135, 217-208 | 305-34, 305-86, 305-106         | 405-5, 405-35, 407-65 | 507-135                           |
|        |  |  | 111-5, 111-43, 111-88 | 207-5, 207-24, 216-231           | 302-10, 307-32, 307-137, 308-49 | 407-11, 407-54        | 507-10                            |
|        |  |  |                       |                                  |                                 |                       | 507-93                            |

**6. FA requires time and resources that often seems to be unavailable**

This relates to:

- a) Teachers workload
- b) Syllabus or curriculum
- c) Lack of conceptual clarity

| Sl. no | Statement   | Sub themes under the statement | Case no 1                        | Case no 2  | Case no 3              | Case no 4                | Case no 5   |
|--------|---|--------------------------------|----------------------------------|--|------------------------|--------------------------|---|
| 6      | FA requires time and resources that often seems to be unavailable | Teachers workload              | 104-28, 112-57, 112-122, 112-160 | 204-23, 210-24, 212-375, 215-115   |                        | 407-37, 408-28           | 506-43, 508-88, 510-310, 515-62, 517-59, 518-12, 518-34 |
|        |   | Administrative support         | 110-7                            | 201-8, 203-12, 206-6, 206-21, 209-10, 210-26, 211-9, 214-316, 214-347, 215-128 | 301-9, 305-65, 305-145 | 403-7, 404-60            | 510-288, 514-220  |
|        |   | Syllabus/Curriculum            | 101-44, 112-57, 112-84           | 201-14, 203-17, 208-23, 211-65, 212-342, 213-43, 218-54                        |                        | 403-9, 404-45            | 509-34, 510-30, 518-12, 518-40                          |
|        | Distraction -FA additional work -FA process depending on time     | 106-63                         | 210-140, 212-342                 | 308-122  | 404-89, 406-14         | 502-85, 518-48, 518-149, |   |

## Appendix 3: Guide for the observation of teachers

### General matters

Description of the classroom setting

Description of activities during the lesson

- Time management of the activities
- Participants in the activities (selected part of the class, everybody)
- Communication during the activities (one-way, interactive, dialogue, discussion)

### Formative assessment

Structured forms of formative assessment – peer assessment, self-assessment and so on

Informal forms of formative assessment – feedback, questioning, and discussion.

Teachers' learning by using formative assessment

Learning outcome

- mechanical learning versus understanding of principles or ability to use knowledge in practice
- content specific versus general competences like analytical ability or critical thinking

### Teaches' support of learning

How is the teacher trying to motivate students?

- relating to the life world of the student
- concrete examples/abstract presentations
- instrumental kind of motivation

How is the teacher maintaining the students' focus (mindfulness)

Teachers' sensitivity to the diversity among the students

### GNH

Explicit parts of GNH

Implicit parts of GNH

- Respect, understanding the students versus negative judgment of the student
- Atmosphere (open to students' expressions, creating student engagement)



## Appendix 4: Guide for the observation of pupils

### *Formative assessment*

Classroom-relevant output by pupil(s) is made subject to evaluative comments by teacher/peers

Teacher initiates evaluative comments on pupil performance

Pupil asks for evaluative comments on own performance

Summative assessment of student product (e.g. homework) is followed by dialogue concerning evaluative details

### *Motivation – Zone of proximal development (ZOPED)*

Individual learning-relevant initiatives from students that have not been called for by teacher/method

Absence of irrelevant activities amongst pupils

Global level / activity-specific level(s) of energy in classroom interaction

### *GNH*

Explicit reference to formal GNH values

Shared commitment (shown in conduct; compliance) to the ‘programme’ governing class activities

Active expression of moral, society-relevant attitudes towards subject matter taught

Pupils (singly/collectively) taking unrewarded GNH-relevant initiatives that go beyond the classroom ‘programme’.

## Appendix 5: Guide for interview with teachers

### A: General teaching style (project-themes: Motivation – ZOPED)

There are many ways to be a teacher. We want to get a picture of your special profile. Generally speaking, how do YOU ensure that intended learning objectives are achieved by pupils? Feel free to use examples as well as guiding principles.

Now we'll ask questions about two specific teaching dimensions:

- 1) Do you have specific techniques for ensuring pupil motivation?
- 2) Do you have specific techniques for managing diversity in capacity among pupils ('weak pupils/strong pupils')?

### B: Assessment practices

Please tell me about the various assessment procedures that are included in your teaching practice (possibly grouped according to SA/FA/CA) – What? – How? – When?

How do you see the educational effects (positive/negative) of the various assessment procedures? – *Apart from* their summative aspects (grading).

In our project, we take a specific interest in a number of assessment practices that may have an impact on pupils' learning. Our list looks like this (show list – which has yet to be developed!). Some of these assessment practices you may already have mentioned (point out, and summarize respondent's comments to these). For those not mentioned, I would like to know

- 1) Are they part of your teaching practice? – If yes, when? – how?
- 2) Do you find them valuable in a teaching-learning context? – please specify/elaborate

### C: GNH

GNH is based on a specific Bhutan-grown value orientation. Please tell me the most important ways in which YOU as a teacher translate GNH values into classroom practice?

In our project we are specifically interested in teachers' ways of enhancing –

- 1) A general atmosphere of wellbeing in the classroom
- 2) Shared commitment and social responsibility among pupils for classroom activities
- 3) Pupils' personal growth and development

(Ask respondent to comment on the three sub-questions one by one – in case the question-theme has already been touched upon by respondent, start by summarizing)

## Appendix 6: Guide for group interview with pupils

### *Quality of learning and education*

- How do you like a good teaching to be?
- When do you think, you learn the most?
- What do you think of the engagement of the students in the classroom?
- What can the teacher do to enhance students' participation?
- How does the teacher take into account, that there are differences of ability among the students?

### *Formative assessment*

- How are you assessed in the classroom/homework/project work? Grades/comments?
- What is your perception on the assessment of classwork/homework/project work?  
Does it help you to learn more?
- Are there possible negative effects of the assessment practice?
- When you have troubles understanding, how do you proceed? Do you get help from the teachers'/peers'/parents'/others

### *GNH*

- What is your perception of GNH? Has it influence you in some way?
- Is your school life influence by GNH?
- How are the teachers' trying to create a good classroom atmosphere?

## Appendix 7: Guide for interview with parents

### *The Quality of Teaching and Learning*

How are your sons/daughters doing in the school?

How important is education?

Are you happy with the education your child receives in the school?

Is your child motivated to go to school?

How do you support your child in the school work?

What do you think about the quality of teaching and learning in your child's school?

### *Formative assessment*

Does your child talk with you about the school work?

Do you take the initiative to talk with your child about his/her school work, if yes – how often do you do it?

If no – why not?

NB: IF the parents answer yes – you can continue with the following questions:

Are you content with the assessment process, which is going on in your child's school?

Do you talk with the child about the feedback she or he receives?

Does your child seek your help to react on the feedback, he/she receives from the teacher?

If your child is unhappy with the grade/feedback, how do you intervene (in relation to the school/in relation to your child)?

### *GNH*

Are you happy with your child's well-being in school? If yes – how do you know that your child is being well?

Does your child talk with you about GNH values, he/she learnt in the school?

Have you noticed any changes due to the introduction of the GNH philosophy in schools? If yes – tell us a little bit more about this.

What is your opinion about the philosophy of GNH on how it is practiced in schools?

Do you have any suggestions on how the schools might handle it in different ways?

## Appendix 8: Guide for interview with principals

Very simple, open question that have to be elaborated through dialogue

### Quality of education

How do you and your teaching staff ensure quality of education in your school?

Success stories?

Problem stories?

### Formative assessment

What is your opinion on the influence of summative/formative assessment practices on pupils' learning?

Have you ideas about the ideal weighting between formative and summative assessment (as 'pure types')?

### GNH

How do you and your teaching staff ensure that GNH values are implemented in the school and in the classroom setting?

Success stories?

Problem stories?

## **Appendix 9: Guide for interviews with education officers**

(District education officer, curriculum officer, education monitoring officer)

### Quality of education

How do you ensure quality of education in your work?

Success stories?

Problem stories?

### Formative assessment

What is your opinion on the influence of summative/formative assessment practices on pupils' learning?

Have you ideas about the ideal weighting between formative and summative assessment (as 'pure types')?

### GNH

How do you ensure that GNH values are implemented in the schools and in the classroom settings?

Success stories?

Problem stories?

## Appendix 10: Guide for the action research

(1) FA/feedback theme is easily operationalized into AR through observation-based interviews with teachers. In the following series of questions a descriptive phase (relating to the observed session) is followed by a prospective phase (engaging the respondent in small scale Action Learning experimentation):

- Interviewer's general (brief) introduction to project – with special reference to FA/feedback
- “We have observed session with you as teacher, what are your own general comments/assessments of what happened? ... (interviewer, is joining in, mirroring and sharing when the following sub-questions are answered – all the time respecting the respondent as an expert on her own experiential world):
  - Was it normal/typical? ...
  - Were there any special (non-typical) features? ...
  - Noteworthy, successful features? ...
  - Features you would have liked to work out better/improve? ...
  - Features linking specifically to FA/feedback? ... (maybe supplemented by interviewer's observations)
- Thinking back on the session as it unfolded, can you here and now think of ways and means to enhance/intensify its formative assessment features – in the form of feedback or otherwise?
- How can your ideas possibly be translated into (manageable) practice within the actual classroom setting?
- How can you assess whether your practical efforts work out as intended? ... Or, possibly, need modification? ... (Interviewer and respondent collaborate with a view to finding practical answers to these questions)

The above interview format combines an *action orientation* (finding practical ways to improve pupils' classroom-based teaching-learning, especially in the realm of FA/feedback) with a *research orientation* (getting case-based information about teachers' Zone of Proximal Development in the area of FA/feedback – of potential interest for designers of future FA-enhancing programs).

(2) Theme concerning pupils' Motivation + Zone of Proximal Development (ZOPED): Knowledge concerning pupils' perspectives on these themes (they are the experts!) may serve as an important guideline for helping to improve teachers' classroom practices.

Method: Pupils' perspectives could be sampled, e.g. by asking focus groups of pupils from same class, first, to draw an 'intensity/excitement curve' (from 'boring/uninterested' to

‘excited-curious-interested’) on a ‘structured time-line’ representing a just finished (possibly observed) teaching session – followed by joint interview where individual curves are shared/interpreted/commented upon by all group members (e.g. “What made it exciting/boring? ... etc.) – aiming, not at a consensus, but at a variation of suggestive ideas, possibly reflecting individual pupils’ learning style, gender, intellectual capability, subcultural background ... . Interviewer should also aim at clarifying differences between ‘just being excited’ (motivation as such) and feeling intellectually challenged in a positive manner (ZOPED).

Pupils’ views could be sampled in October → analyzed in November → used as background for Action Research with teachers during Spring research activities: “These are samples/summaries of pupils’ statements concerning Motivation + ZOPED → Action Learning interview (cf. above format) aimed at finding ways to enhance these two, supposedly teaching-learning improving variables of classroom practice.

### (3) GNH-theme

Lots of activities are already going on concerning the translation of GNH values into school activities. A stocktaking could be made. GNH could be made headline for facilitated action learning groups.

A number of schools could be involved as partners in action research activities within a GNH frame.

Example: Follow up on already existing GNH-inspired practices: “What are the effects of ‘silent sitting’ before the start of class?”



## **Appendix 11: Guide for the general context description (empirical themes)**

Three levels of concretization of the themes:

- 1) Reformulation of the research themes
- 2) What relevant kinds of written materials are there to be found?
- 3) Usage of written material to describe the various system levels (and the interaction level) as well as the empirical context of our project

Ad 1:

- A. What does literature say about the importance of feedback (among the other kinds of FA) in Bhutan?
- B. How is motivation and similar concepts (pupil centeredness, pupil's perspective, etc.) understood at various levels of the Bhutanese school system?
- C. What is written about the proximal zone of development and similar concepts (e.g. space of discretion and action) at various levels of the school system?
- D. What has been said (in public) about decline of quality of education?
- E. How does the rising unemployment influence GNH aspects of education?

Ad2:

- A. What has been written about the hindrances for what we want to promote with our projects?
- B. What can we learn from written material produced by pupils?
- C. What can we learn from written material produced by teachers?
- D. What can we learn from text books and other teaching materials?

Ad 3:

- A. What are the urban / rural differences in the school's role in the society?

## Appendix 12: General context description

### Policy Guidelines

1. Ministry of Health and Education (MoHE). (1993). 11<sup>th</sup> Quarterly Policy Guidelines and Instructions. Thimphu. Bhutan

To involve the schools in the assessment and the promotion system of the students, amongst others, at the end of the primary level and accordingly prepare them for the proposed phasing out of the existing Primary School Certificate Examination in the near future, BBE had already notified all concerned schools about the introduction of the changes in assessment as 20% internal assessment (school-based) and 80% external examination (BBE). The internal assessment shall be based mainly on the two term tests.

2. Ministry of Health and Education (MoHE). (1994). 13<sup>th</sup> Quarterly Policy Guidelines and Instructions. Thimphu. Bhutan

In 1994, common examination for class VI is conducted based on 50% external examination and 50% internal continuous assessment and for class VIII examination, 80% is external and 20% is internal continuous assessment.

3. Ministry of Health and Education (MoHE). (1995). 14<sup>th</sup> Quarterly Policy Guidelines and Instructions. Thimphu. Bhutan

After the introduction of internal assessment for class VI and VIII, it was observed that the internal markings of the schools were generally high and fluctuated from school to school. It was also observed that internal assessments were based on term tests and end of the year exams rather than continuous assessment. These shortcomings are expected to be overcome after providing necessary training during in-service programme in the winter of 1994. Also, a booklet titled 'Guidelines for internal assessment for classes VI and VII' has been developed to assist in solving the present discrepancies as well as provide catalytic improvements to all aspects of examination, evaluation and promotion also to the non-common examination classes (the booklet is attached as annexure II). The guideline booklet consist of what homework, classwork, project work and oral assessment is and marking criteria for each one. The 4<sup>th</sup> CAPSD board meeting on 10<sup>th</sup> April, 1995 decided to introduce uniform assessment weighting system for classes PP to V (100% internal and 50% external) and class VII (same as class VIII) from 1996 onwards.

4. Ministry of Health and Education (MoHE). (2000). 19<sup>th</sup> Education Policy Guidelines and Instructions. Thimphu. Bhutan

A provisional edition of A Guide to Continuous Assessment for primary schools is being piloted in 5 resource centres: Changkha JHS and Khasadrapchu JHS, Buna Rangjung HS and Thrimshing Community school in Trashigang and Tangmachu HS in Lhuentse Dzongkhag. This guide will help teachers to conduct various formative and summative assessments with students.

5. Ministry of Education. (2004). 23<sup>rd</sup> Education Policy Guidelines and Instructions. Thimphu. Bhutan

Based on teacher student ratio of the country i.e. 1: 32, Bhutan's current teacher student ratio is found to be 1: 31 as per 2004 statistic and hence there is no teacher shortage. However, the ground reality is different. Teacher shortage still continues in rural and remote areas as well as in some subjects like Mathematics, science and History. Hence teacher requirement will be based on shortages in subjects and by geographical areas.

Towards enhancement of quality of education, preparation is underway to localize class XII examination from ISC (Indian Secondary Certificate) from 2006 onwards and for class XI from 2005 onwards. The conduct of class XII examination will be taken over by BBE from 2006 onwards (BBE meeting on 14<sup>th</sup> March, 2004). With this, schools will follow the new curriculum developed by CAPSD along with teachers from higher secondary schools, personnel from NIEs, EMSSD, BBE and other agencies. The new curriculum will have Bhutanese syllabus which is developed with the national requirement in mind, which would meet the National and international standard.

Major curriculum reform for classes PP to XII in three tools subject Vis. English, Mathematics and Dzongkha is also initiated. CAPSD with the involvement of some focal persons from across the country has developed the curriculum framework for English and Mathematics which will be followed by development of 'program of studies' and textbooks. These new curriculum will be implemented from 2005 onwards in class XI. Teacher orientation on the use of Programme of studies in teaching these subjects will be organized in the winter of 2004. Similarly curriculum improvement work in Dzongkha will take place based on experience gained from English and Mathematics. The normal curriculum improvement in other subjects will continue.

6. Ministry of Education (MoE). (2005). 24<sup>th</sup> Education Policy Guidelines and Instructions. Thimphu. Bhutan

The current teacher student ratio as per the 2005 statistics is 1:30.7. (Rest same as 23<sup>rd</sup> policy guidelines)

The department of school education has observed that a large number of students withdraw from appearing for the ISC examination on the pretext of ill health with an intention of scoring better marks in the succeeding year leading to withdrawn candidates taking one extra year to complete class XII. Starting from 2005, it has been decided that should any candidate withdraw, they will not be allowed to repeat the following year as in the past. Schools have to seek approval for genuine cases from MoE.

Information on curriculum change is same as in 23<sup>rd</sup> Education Policy Guidelines and Instructions

To increase access to quality education for all, 'Embracing diversity: creating inclusive learning Friendly environments (ILFE)' is being piloted in 20 schools in 7 dzongkhags starting February 2005 with help from UNESCO. Specific emphasis will be placed on further development of formative continuous assessment as a tool for the inclusive approaches to reduce the number of repeaters in primary and lower secondary education.

7. Ministry of Education (MoE). (2009). 27<sup>th</sup> Education Policy Guidelines and Instructions. Thimphu. Bhutan

Though there is a general perception that Quality of education is compromised for the sake of expansion, various steps like curriculum reform, introduction of minimum standard facilities in schools and focused interventions in teacher deployment and remuneration are undertaken to improve quality of education.

Reform of English Curriculum for classes PP-XII has complemented and is in practice in schools. Dzongkha curriculum is also reformed and is implemented in classes IV to XII and similarly in Mathematics from classes V to XII with exception of classes VI and VII which will be implemented from 2009 onwards. In Dzongkha and Mathematics, for classes PP to IV will be in place by 2010.

Since capacity building of teachers is seen very crucial in new curriculum implementation, training of the trainer workshops at National level has been conducted followed by cluster based workshops at Dzongkhag level.

As outlined in Bhutan's tenth Five-Year Plan (2008: 2013), major science curriculum reform is initiated based on Need Assessment Study for Science Education in Bhutan completed. Issues like teacher preparedness to teach science through child centered approach will be taken care.

The other strategies for improving quality of education is piloting Child Friendly or Good School concept in seven primary and lower secondary schools by MoE in partnership with UNICEF.

MOE has adopted both long term and short term strategies to address teacher shortage by appointing temporary teachers from amongst University graduates and retired teachers under the project 'Light Druk Yul'.

8. Ministry of Education (MoE). (2011). 29<sup>th</sup> Education Policy Guidelines and Instructions. Thimphu. Bhutan.

Ministry of Education has developed School Self-Assessment (SSA) tool to assess students' progress and their overall development on an ongoing basis. MoE launched Performance Management System (PMS) in 2010 to institute healthy completion and merit based culture amongst the schools.

9. Ministry of education. Policy and Planning Division. A study on enrolment and retention strategies in Bhutan. Thimphu, 2009.

The study has outlined the factors affecting enrolment and retention in the school. Some of the factors of interest are: long walking distances to school, shortage of teachers, lack of adequate facilities in the schools including teaching and learning material assessment and non-progressive mode of assessment and examination. These factors are found to affect quality of education.

Some principals have recommended practice of continuous assessment to increase retention rate. Formative assessment has also been mentioned to decrease failure rates.

10. Ministry of Education. Policy and Planning Division. Annual statistics 2010. Thimphu, 2010.

### **Annual Education Conference**

11. 10<sup>th</sup> Annual Education Conference, 2007

The then Education minister informed that quality of education is a subject of national concern and the conference theme was chosen as 'enhancing quality of education'. In view of the concern raised, the government established an Education Sector Review Commission comprising of 10 members to carry out comprehensive review of the education sector and propose a road map for the development of education in the country within a year.

During the conference, the state of Education report, 2006 was presented. Under the educational programs, it was reported that continuous formative assessment is not implemented in its true sense and school teachers are more comfortable assigning marks based on class tests conducted on a weekly or monthly basis. The use of criteria based assessment for classwork, homework and project work is on the rise and teachers are becoming more professional in their job. However, appropriate feedback to students on their

performance in the units of learning is often minimal and would definitely improve learning is so done.

It has also been reported that assessment is a big challenge for teachers due to teachers having to manage several activities besides teaching and learning activities and also large class size.

12. 13<sup>th</sup> Education conference, 2010

It was decided that the existing assessment system has to be reviewed and the report to be presented in the CAPSD Board (action: BBE/CAPSD).

### **Five Year Plans**

13. first Five-Year Plan (1961-1966)
14. second Five-Year Plan (1966-1971)
15. third Five-Year Plan (1971-1976)
16. fourth Five-Year Plan (1976-1981)
17. fifth Five-Year Plan (1981-1986)
18. sixth Five-Year Plan (1987-1992)
19. seventh Five-Year Plan (1992-1997)
20. eighth Five-Year Plan (1997-2002)
21. ninth Five-Year Plan (2002-2007)
22. tenth Five-Year Plan (2008-2013)

### **National Report**

23. Ministry of Education. National Report on the development of education. Presented at the 47<sup>th</sup> session of the International Conference on Education, Geneva, 2004

Reports on quality education, its trend, challenges and priorities

24. Ministry of Education. The development of education. National report of Bhutan. Presented at the 48<sup>th</sup> session of the International Conference on Education, Geneva, 2008

Reports on introduction of continuous assessment as part of teaching and learning programme through in service program for teachers and also integrated in pre service teacher training programme.

It is also reported that to assess and improve quality of education, various studies are undertaken focusing on quality of education, on strategies to improve access (focusing on children, youth and adults that are excluded), enrollment (early childhood intervention) and

retention, on improving assessment strategies, and on the quality of education services and resources.

25. World Bank. Findings from the Bhutan Learning Quality Survey. Discussion paper Series, Report No. 21, South Asia Human Development Unit, January 2009.

The paper focuses on examining quality of education in early grades in primary school. It reports on the steps being taken by the government to improve the quality of education.

The major findings includes school (pupil teacher ratio, school infrastructure, availability of mid-day meals, etc.) and teacher (recruitment, preparation, motivation, experience, deployment processes, etc.) as very important for learning achievements

26. World data on education 6<sup>th</sup> edition 2006

It reports on Bhutan government concern with high education waste by school dropouts and grade repeaters. One of the strategies put in place is abolishing end of the year exam in primary classes and focusing more on continuous assessment (starting from 1995 onwards). It also reports concern on quality of education at primary level which led to introduction of NAPE. However, government has not been able to make much improvement in terms of resources and also facilities to retain teachers.

It gives the structure of education system. It also talks about review taking place on examination system and standardized test being piloted to give meaningful feedback on quality of education to educators and the general public.

27. World data on education 7<sup>th</sup> edition 2010/2011

It gives the overall picture of administration and management of the education system. The curriculum development stresses on competencies necessary for self-directed, independent and lifelong learning besides other. Assessment component should also cover formative, summative and diagnostic aspects. The schools should design continuous and comprehensive assessment from kindergarten to grade VI with no formal end of the year examination, examination along with yearlong continuous assessment for grade VII onwards, criterion referenced assessment to check the level of standards achieved, etc. It also talks about institution of National Education Assessment.

28. Corporal punishment of children in Bhutan. Report prepared by the Global Initiative to End Corporal Punishment of Children.

## Curriculum Related Documents

29. CAPSD. (1999). Curriculum and Professional Support Division. *Continuous Assessment. Classes VI to X (Class-work, Homework and Project work). Teachers' Guide. Ministry of Education. RGOB.*

The teachers' guide booklet consists of five chapters.

Chapter 1 explains the concept of continuous assessment, what to assess and how much weighting to be given.

Chapter 2, 3 & 4 deals with the processes in carrying out classwork, homework and project work respectively.

Chapter 5 gives suggested progress report forms

30. CAPSD. (2006). Curriculum and Professional Support Division. *A Review of Continuous Formative Assessment: Second Educational Project (1998-2003), World Bank. Ministry of Education. RGOB.*

Continuous formative assessment introduced in schools to focus on students learning was felt that it was not implemented effectively in the class. This review was undertaken with the help of World Bank to find out the problems and what could be done to strengthen its practice in schools.

31. CAPSD. (2008). Curriculum and Professional Support Division. *Syllabus for classes IV to VI. Ministry of Education. RGOB.*

This booklet consist of syllabi for Mathematics, Science and Social Studies for classes IV to VI, number of hours allocated, and mode of assessment. The mode of assessment in mathematics focus completely on summative assessment which is further broken down into sub units like class participation, assignment, unit assessment (unit test, performance task, and assessment interview), mid-term examination and year end examination.

In Science, assessment is undertaken as summative and formative assessment. Summative consist of year end and mid-term examination. Formative assessment is carried out through continuous assessment consisting of class work, homework and project work.

In Social Studies, mode of assessment is same as in Science with additional component of continuous assessment i.e. written tests.

32. CAPSD. (2011). Curriculum and Professional Support Division. *English Curriculum. Assessment and evaluation, Classes PP-XII. Ministry of Education. RGOB.*

This book consists of English subject syllabi for classes PP to XII, number of hours allocated, and mode of assessment.



33. DCRD. (2012). Department of Curriculum Research and Development. *Teacher's Manual Class IV*. Thimphu: Ministry of Education. RGOB.

Chapter 1 (p 17-34) of the teachers' manual for science has a clear distinction of Continuous formative assessment (CFA), continuous summative assessment (CSA) and summative assessment with specific techniques and tools to carry out each one (samples are also given). It also gives the weighting for each component along with when and how to carry out. The assessment component explained in this manual is same as in Teachers' manual class IV and Teachers' manual class V.

34. DCRD. (2013). Department of Curriculum Research and Development. *Science: Class VII*. Thimphu: Ministry of Education. RGOB.

In Science, from class VII onwards, there is no separate Teachers' manual as in classes IV to VI. However, the assessment component is included in the introduction. The assessment component described is same as in Teachers' manual for classes IV to VI.

#### **Assessment related documents**

35. REC. Royal Education Council. 2012. *School Enabling Conditions: An Educator's guide. Assessment and Evaluation for GNH seed schools*. The School Education and Research Unit. RGOB.

There are some schools in Bhutan which are identified as GNH Seed schools. This guide is followed in these schools.

The guide consist of assessment and evaluation process to be followed at different key stages like KG 1 to Grade II, Grade III to VI, Grade VII-X, and Grade XI-XII. Assessment consists of continuous assessment, formative assessment and summative assessment. Strategies and tools for carrying out the assessment processes are also outlined with a brief mention of peer and self-assessment. The guide has also distinguished between formative and summative assessment.

36. Bhutan Board of Examination & Ministry of Education. National Education Assessment in Bhutan: A benchmark study of student achievement in literacy and numeracy in class VI, 2003. Technical Report. Thimphu, June 2004

It is found that Students performance in literacy and numeracy is dependent on school location (urban, rural), everyday walking distance to school, class size, too many school activities, lack of resources, parents' educational background, vast syllabus, etc. English teachers opinioned on the unsuitability of the mode of assessment (continuous assessment weighting to be reduced) followed. Two interesting findings related to continuous assessment

are: students copy from their friends and weak students get through (to next level) because of CA (which is also being voiced in our findings).

Findings from students questionnaire also reports minimal practice of student centered learning (similar to our findings).

37. Royal Education Council. iDiscoveri. The quality of school education in Bhutan. Reality and opportunities. Thimphu, January 2009.

38. Education Sector Review Commission. 2008. Education without compromise. Thimphu

The main conclusions drawn is that learners' achievement in Bhutan is very low, and the most important challenge for secondary (primary also included) education is to improve education outcomes of the children. The paper also talks about Bhutanese schools having a classroom culture whereby students are seen only as a recipient of knowledge. They are passive in class. Some recommendations include creating a culture of engagement in classroom instead of culture of fear, a school intervention process that helps students stay on track and at grade level etc.

39. Royal Government of Bhutan (RGoB). (2003). *A guide to continuous assessment with particular emphasis on formative assessment*. Thimphu: Ministry of Education.

The guide book consists of two parts. Part 1 starts with the history of assessment practices, introduction of continuous assessment, its place in teaching-learning cycle, procedure for carrying out continuous assessment, detailed description on techniques and tools for carrying out formative assessment. Part 2 gives various examples on carrying out formative assessment techniques.

40. Ann Childs, Wangpo Tenzin, David Johnson & Kiran Ramachandran. (2012). Science Education in Bhutan: Issues and challenges. *International Journal of Science Education*. 34(3),375-400

The article investigate the status and challenges of science curriculum in Bhutanese schools through interviews with teachers, students, lecturers and other stake holders, curriculum document analysis and classroom observation. The findings are on teaching and learning issues (some emphasis on student centered learning), resources and practicum, issues related to content and curriculum fragmentation with no continuity.

41. Tom W. Maxwell, Phub Rinchen & Ray Cooksey (2010). Evolutionary trajectories in school assessment systems: the case of Bhutan. *Asia Pacific Journal of Education*, 30(3), 273-288

The article explains the history of assessment practice in Bhutanese schools with special focus on primary schools and external examination. It also talks about quality of education and the concerns that led to introduction of NEA (National educational Assessment in Bhutan).

42. Rinchen, P. (2000). *Continuous assessment as a method of student evaluation in primary schools in Bhutan: An analysis of policy and practices in English curriculum 1986–1998*. (Doctoral dissertation, University of New England, New South Wales, Australia).

The introduction chapter explains the background to continuous assessment. The second chapter starts with description of development of modern education including the introduction and implementation of NAPE (New Approach to Primary Education) with a major shift in assessment policy in English curriculum. It also gives the continuous assessment practice in schools in English subject in lower classes.

43. Roder, D.C. (2012). *Girls should come up: Gender and schooling in contemporary Bhutan* (Doctoral dissertation, Arizona State University).

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

## Appendix 13a: Education assessment and evaluation for B.Ed Secondary

- 1. Title of the module** : Educational Assessment and Evaluation  
**2. Code** : EDN 2101  
**3. Programme** : B. Ed Secondary  
**4. Credit Value** : 12  
**5. Member of staff** : Mr Karma Jigyel, PCE, Mr Bhupen Gurung, SCE

### **6. General objectives/Aims:**

This module introduces the student teachers to a range of educational assessment and evaluation techniques including the use of statistics for analysing test items and results.

### **7. Learning Outcomes/specific Objectives:**

By the end of the module, the learners should be able to:

- 7.1 Define and distinguish the terms assessment, measurement and evaluation
- 7.2 List the purposes of evaluation in education
- 7.3 Enumerate the difficulties faced by the teachers and students in evaluation
- 7.4 Understand professional responsibilities in assessment
- 7.5 Recognize the differences among various types and techniques of evaluation
- 7.6 Define continuous assessment and its importance
- 7.7 Design and use various tools of formative assessment
- 7.8 Describe the characteristics of a good test
- 7.9 Plan and construct a good test
- 7.10 Explain and use Bloom's taxonomy of thinking
- 7.11 Prepare a table of specification
- 7.12 Prepare marking scheme for various techniques of evaluation
- 7.13 Organize and prepare students for various types of tests like oral, practical and written
- 7.14 Differentiate and use various types of testing techniques

- 7.15 Analyze the items prepared in terms of their difficulty level, discrimination power, and pattern of responses
- 7.16 Score tests, interpret the data and standardize the marks
- 7.17 Grade students on the basis of test results
- 7.18 Prepare and maintain cumulative record cards to be used for reporting
- 7.19 Appreciate the importance of feedback and adjustment to educational programs

**8. Skills to be developed:**

The learners will develop the skills of preparing and applying the assessment tools, and developing test items using revised Bloom’s Taxonomy. Further the learners will also develop skills in analysing test items, test results, recording, reporting assessment results and providing meaningful feedback.

**9. Level (optional):**

**10. Learning and teaching approaches used:**

- Exposition and discussion
- Online assignments and forum
- Practical on formative format recording; test design
- Presentations and seminars
- Video vignettes (as available)

**11. Assessment:**

|  |            |
|--|------------|
| <b>11.1 Course Work</b>                          | <b>50%</b> |
| 11.1.1 Class/VLE Participation and presentations | 10%        |
| 11.1.2 Assignment 1 (Online)                     | 10%        |
| 11.1.3 Assignment 2                              | 15%        |
| 11.1.4 Project                                   | 15%        |
| <b>11.2 Examination</b>                          | <b>50%</b> |

**12. Pre-requisite (optional)**

**13. Subject matter:**

**13.1 Introduction to Assessment**

- 13.1.1 Concepts and definitions of assessment, measurement and evaluation

- 13.1.2 Purposes of assessment
- 13.1.3 Types of evaluation
- 13.1.4 Problems of evaluation
- 13.1.5 How do we assess? (Techniques of evaluation)
- 13.1.6 Professional responsibilities in assessment

## **13.2 Continuous Assessment**

- 13.2.1 Concept and definition of continuous assessment
- 13.2.2 Characteristics of continuous assessment
- 13.2.3 Main aims of continuous assessment
- 13.2.4 Advantages of continuous assessment
- 13.2.5 Problems of continuous assessment
- 13.2.6 Definition of formative assessment (Assessment for Learning), and summative assessment (Assessment of Learning)
- 13.2.7 Ten principles of formative assessment
- 13.2.8 Tools and techniques of formative assessment

## **13.3 Bloom's Taxonomy**

- 13.3.1 Background of Bloom's taxonomy
- 13.3.2 Background of Revised Bloom's taxonomy
- 13.3.3 Change in terms and emphasis
- 13.3.4 Exploring each of six levels
- 13.3.5 Lower and higher order questions

## **13.4 Testing Strategies**

- 13.4.1 Objective type (Completion items, alternative response items, multiple choice items, and matching items)
- 13.4.2 Essay type (Restricted response type question and extended response type question)

## **13.5 Testing**

- 13.5.1 Characteristics of a good test
- 13.5.2 Steps in planning a test
- 13.5.3 Test blue print / Table of specification
- 13.5.4 Preparing marking schemes

## **13.6 Test Item Analysis and Statistical Analysis**

- 13.6.1 Item analysis (Concept and purpose, steps in item analysis, and analyzing test items)
- 13.6.2 Statistical analysis (Concept and purpose, elementary statistics, steps in statistical analysis, and standardizing scores)

## **13.7 Feedback and reporting the results of assessment**

- 13.7.1 Meaning of feedback
- 13.7.2 Type of feedback
- 13.7.3 Providing effective feedback – oral and written
- 13.7.4 Reporting to students, parents, and other stakeholders

### **13.8 Ministry of Education requirements and procedures in terms of both summative and formative assessment**

#### **14. Reading list:**

##### **14.1 Essential Reading**

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

Handbook for Distance Education Programme

##### **14.2 Additional Reading**

Anderson, L. W. & et al (2001). *Taxonomy for Learning, Teaching & Assessing: Revision of Bloom's Taxonomy of Educational Objectives*. New York: Longman.

Aiken, Lewis R. (2000). *Psychological Testing & Assessment*. Boston: Allyn and Bacon.

Black, P. & others (2004). *Assessment for Learning: Putting it into Practice*. Maidenhead: Open University Press.

Condon, M. E. & others (2002). *Exercises in Psychological Testing*. Boston: Allyn and Bacon.

Ebel, R. L. & Frisbie, D.A. (1986). *Essentials of Educational Measurement (4th ed.)* Englewood Cliffs, New Jersey: Prentice-Hall, Inc.

Freeman, R. & Lewis, R. (1998). *Planning & Implementing Assessment*. London

Hopkins, K. D. (1998). *Educational & Psychological Measurement & Evaluation (8<sup>th</sup> ed.)*. Boston: Allyn & Bacon.

James, M. (1998). *Using Assessment for School Improvement*. Oxford: Heinemann Educational.

Ken O'Connor (2002). *How to Grade for Learning: Linking Grades to Standards*. Illinois: Pearson Skylight.

Kubiszyn, T. & Borich, G. (2007). *Educational Testing & Measurement Classroom application & Practice*. New Jersey: John Wiley & Sons, Inc.

Loannou, G, Sophie & Pavlos, P. (2003). *Assessing Young Learners*. Oxford: Oxford University Press.

- McAfee, O. & Leong, D. J. (2007). *Assessing and Guiding Young Children's Development and Learning*. Boston: Pearson Education, Inc.
- McLean, J. E. & Lockwood, R.E. (1996). *Why We Assess Students-And How: Competing Measures of Student Performance*. California: Corwin Press, Inc.
- Popham, W. J. (1981). *Modern Educational Measurement*. Englewood Cliffs, New Jersey.
- SDC/Helvetas (2003). *A Guide to Continuous Assessment with Particular Emphasis on Formative Assessment*. Thimphu: Ministry of Education
- Sharma, R.A. (2001). *Essential of Measurement in Education and Psychology*. Meerut: Lal Book Depot.
- Sharma, R. A. (1998). *Advanced Statistics in Education & Psychology*. Meerut:R. Lal Book Depot.
- Popham, W. J. (1981). *Modern Educational Measurement*. Englewood Cliffs, New Jersey.

**15. Date:** August 2014



## Appendix 13b: Educational assessment and evaluation for post graduate diploma

1. **Title of the module** : Educational Assessment and Evaluation
2. **Code** : EDU 502
3. **Programme** : PgDE
4. **Credit Value** : 15 credits
5. **Member of staff responsible** : B. B. Mongar, P. B. Subba

### 6. **General objectives**

This module familiarizes the student teachers with the concept of assessment and evaluation. They will use both formative and summative assessment in teaching and learning process. It further aims to provide the opportunity for the students to become effective assessors and improve the teaching through feedback mechanism. It discusses a range of assessment techniques and tools available, develop, use and analyze them and ultimately aspire to develop them professionally.

### 7. **Learning outcomes**

On completion of the module, the learners should be able to:

- 7.1 define and distinguish the terms assessment for/as/and of learning, and evaluation,
- 7.2 list the purposes of assessment,
- 7.3 discuss about ways of making assessment educational and fair,
- 7.4 discuss the professional responsibility of a teacher in assessment,
- 7.5 compare and discuss about different types and techniques of assessment,
- 7.6 discuss about the background and ways of carrying out assessment for learning,
- 7.7 describe the characteristics of a good test,
- 7.8 plan and construct a good test,
- 7.9 use Bloom's taxonomy of thinking in preparing a table of specification,
- 7.10 prepare marking scheme for various techniques of evaluation,
- 7.11 discuss about the benefits of the moderation procedure,
- 7.12 differentiate and use various types of testing strategies,
- 7.13 design and use appropriate assessment tools
- 7.14 analyze the items prepared in terms of their difficulty level, discrimination power, and pattern of responses,
- 7.15 analyze score tests, interpret the data and standardize the marks,
- 7.16 use test results to grade and report the student achievement,

7.17 use effective ways of giving feedback for the improvement of learning.

## 8. Skills to be developed

The learners will develop the skills of preparing the tools of authentic assessment. They will use the results to reflect upon, analyze and improve further thereby developing themselves professionally. They will also realize the value of being meticulous in preparing the results – the only document of student performance.

## 9. Learning and teaching approaches

| Approach  | Percentage of time |
|---|--------------------|
| Lecture method for new information  | 24 hrs.            |
| Practical on: Preparations of blue print, question paper and marking scheme                   | 12 hrs.            |
| Presentations of: their understanding about the topics and their findings from the practical. | 6 hrs.             |
| Seminars on research works and/or sharing about their ideas.                                  | 6 hrs.             |
| Handouts reading, Internet searches and library research                                      | 12 hrs.            |

## 10. Assessment

|                                       |     |
|---------------------------------------|-----|
| 10.1 Attendance and participation:    | 5%  |
| 10.2 Major assignment:                | 30% |
| 10.3 Group project on optional topic: | 15% |
| 10.4 Examination:                     | 50% |

## 11. Subject matter:

### 11.1. Concept of assessment

- 11.1.1 Assessment for, as and of learning, and evaluation
- 11.1.2 Purpose of assessment
- 11.1.3 Two broad kinds of assessment: formative and summative
- 11.1.4 Making assessment educational
- 11.1.5 Eight types of assessment

### 11.2 Assessment for Learning

- 11.2.1 Introduction to assessment for learning
- 11.2.2 Learning intentions
- 11.2.3 Success criteria and rubrics
- 11.2.4 Strategic questioning

- 11.2.5 Peer feedback
- 11.2.6 Student self-assessment
- 11.2.7 Formative use of summative assessment

### **11.3 Planning a Test**

- 11.3.1 Characteristics of a good test
- 11.3.2 Steps in planning a test
- 11.3.3 Table of specification
- 11.3.4 Levels of thinking
- 11.3.5 Preparation of Blue print
- 11.3.6 Preparing marking schemes
- 11.3.7 Moderation process
- 11.3.8 Administering a test - physical set up, supervision, test orientation etc.

### **11.4 Testing Strategies**

- 11.4.1 Introduction
- 11.4.2 Completion and short answer items
- 11.4.3 Multiple-choice items
- 11.4.4 Matching items
- 11.4.5 Alternative response items
- 11.4.6 Essay type items

### **11.5 Item analysis**

- 11.5.1 Concept and purpose
- 11.5.2 Analyzing objective items
- 11.5.3 Analyzing essay items

### **11.6 Statistical analysis**

- 11.6.1 Purpose
- 11.6.2 Elementary statistics
- 11.6.3 Standardizing marks (e.g. T score)

### **11.7. Effective teacher feedback**

- 11.7.1 Concept of feedback
- 11.7.2 Principles of giving feedback
- 11.7.3 Oral feedback
- 11.7.4 Written feedback
- 11.7.5 Strategies of giving feedback
- 11.7.6 Feedback from students

### **11.8 Optional topics (students choose one)**

- 11.8.1 Oral tests
- 11.8.2 Practical exams

- 11.8.3 Assessing group work
- 11.8.4 Assessing presentation
- 11.8.5 Observation & conference
- 11.8.6 Models of giving feedback
- 11.8.7 Learning portfolio development

## **12. Essential reading**

- Angelo, T. A. & Cross, K. P. (1993). *Classroom assessment techniques*. Jossey-Bass, San application. John Wiley & Sons. Inc, USA. Bacon, Boston.
- Bloom et al (1956), *Taxonomy of Educational Objectives Handbook I*, Longman, NY Francisco.
- Hogan, T. P (2007). *Educational Assessment: A practical introduction*. John Wiley & Sons
- Hopkins, K. D. (1998). *Educational Psychological Measurement & Evaluation*. Allyn &
- Kubiszyn, T. & Borich, G. (2007). *Educational testing & practice: Classroom* Sons. Inc, USA.

## **13. Additional reading**

- Borich, GD (1999), *Observation skills for effective teaching*, Merrill, New Jersey
- Brown, FG (1981), *Measuring Classroom Achievement*, Holt, Rhinehart & Winston, NY
- Cangelosi, JS (1982), *Measurement and Evaluation: an inductive approach for teachers*, WCB Co. Dubuque
- Cannon, R. & Newble, D. (2000), *A handbook for teachers in universities and colleges*. Kogan Page, London.
- CAPSD (2003), *A Guide to Continuous Assessment: with particular emphasis on formative assessment*, Helvetas/UNICEF, Thimphu
- Killen, R (2003), *Programmed assessment for quality education*, Thompson, Singapore
- Stiggins, RJ (2005), *Assessment for learning*, ATI, Portland

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## **SUMMARY**

Using case study approach, the dissertation provides the notions and practices of formative assessment in Bhutanese Secondary Schools. It includes the teachers' understanding of the practice of student-centered teaching and learning, which is regarded as a precondition for effective formative assessment. It also take account of those features of formative assessment which are much more favored by students and teachers in the case study schools.