<center>**Appendices**</center>

<center>**Appendix 1: Chapter One: Introduction**</center>

**Appendix 1.1: Context of the Study**

### Introduction

It is pertinent to look at the policies and directions that have influenced and shaped higher education globally. Such understanding will provide the context of the policies and regulations in the Royal University of Bhutan.

### Global Higher Education Policies and Directions

In the past half century, higher education has been profoundly affected by the evolution of the knowledge-based economy (Altbach, Reisberg, & Rumbley, 2009, p. 18). It has brought about dramatic changes in the character and functions of higher education in most countries around the world (Skelton, 2008) such as a shift from an élite to a mass system (Trow, 2000) and the processes of globalisation and internationalisation (Maringe & Foskett, 2010). Higher Education (HE) marked by transformations unprecedented in scope and diversity (Altbach et al., 2009). This global phenomenon in higher education has given rise to a number of challenges to its governance systems, curriculum, mission focus, external relations, research and financing (Shin & Harman, 2009). Countries are presented with enormous funding challenges, which fuel the rise of the private sector and privatisation of public colleges and universities, the accountability movement (including today's imperative to measure the outcomes of higher education), and deep changes in the nature and role of the professoriate (Shin & Harman, 2009).

An example of how the processes of globalisation and internationalisation have impacted Higher Education is the European Higher Education Area (EHEA) is the Bologna Process which has helped in the:

- Restructuration of HE into a system of two/three cycles, combined with a credit system for accumulation and transfer.

- Teacher centered into student centered approach to teaching and learning.

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- Increase the mobility of students, staff and graduates across Europe.

- Creation of the European Higher Education Area (Nazaré, 2008 slide 7).

The Bologna Process is Europe's response to the globalisation and acknowledgement that universities are a major driver of the global knowledge-based economy, since economic competiveness depends on the quality of human resources.

Consequently, these fundamental and interrelated forces have impelled the current academic revolution in higher education (Altbach et al., 2009, p. 1) summarised as:

- The "massification" of higher education, globalization,

- The advent of the knowledge society,

- The importance of research universities within it, and

- Information technology (including distance education).

Simultaneously these fundamental changes and challenges in HE have affected nations with different forms of government and economic circumstances. In the developing world, these issues are particularly challenging as without more and better higher education, the countries will find it increasingly difficult to benefit from the global knowledge-based economy (Bank, 2007). The *Higher Education in Developing Countries: Peril and Promise* Report (The Task Force in Higher Education and Society, 2000) stresses the threat/opportunity facing developing countries, particularly as they enter into global competition with other nations who are investing in higher education. To further compound the issue, the report describes the state of HE in developing countries as chronically underfunded, with many faculty poorly qualified and students badly taught. Many of these systems are undergoing restructuring against a national, regional, and global backdrop of HE reforms in areas such as funding, resources, governance and curriculum development (Lee & Healy, 2006). For instance, HE in South East Asia has undergone various stages of development. It has, and still is, facing numerous challenges, including increased student enrolments, knowledge and information overload, economic restructuring, and financial constraints (Lee & Healy,

2006, p. 11). Additionally the World Bank-UNESCO report (The Task Force in Higher Education and Society, 2000) warns that without more and better higher education, developing countries will find it increasingly difficult to benefit from the global knowledge-based economy.

**Policies and directions in the Royal University of Bhutan**

Austin Reid (2007, p. 1) reputed commentator on higher education and consultant involved in the establishment of RUB notes the broadening of the role of higher education policy specifically in countries such as Bhutan as it embraces economic growth, the promotion of the 'knowledge-based economy, internationalisation and trade'. In knowledge-based economies, governments see universities as engines for social change and expansion of prosperity especially in developing countries (Ramsden, 2003, p. 3). Bhutan intends to become a part of the global economy as evident from the seminal document *Bhutan 2020* (Royal Government of Bhutan, 1999).

At the onset the consultants responsible with preparing the plan for a national university in Bhutan were explicitly briefed that the university should provide an education that is inward, allowing the students to understand themselves as Bhutanese, and that is outward, preparing them to be citizens of the international community (Austin Reid, 2004). The advent of the RUB in 2003 represented a new era in education in Bhutan - one that signalled its readiness to establish its own HE teaching, training and knowledge creation capacity (Maxwell et al., 2006, p. 68). Implicit in such a development, as pointed out by Austin Reid (2007) was the fact that the university, like Bhutan itself, faced particular challenges concerning internationalisation and retention of its culture. The desire to become a recognised member of the tertiary sector of education internationally led to the adoption of internationally recognised standards of achievements, policies, and procedures. To that end, *The Wheel of Academic Law* represents a crucially important document because it provides a set of policies and procedures to guide the RUB in its effort to establish itself as an internationally credible entity (Maxwell et al., 2006). Further and more importantly, the RUB made a stand through its adherence to Gross National Happiness (GNH) to infuse and use GNH values and principles in the teaching and learning in the Colleges.

Thus with global and Bhutanese policies and directions, RUB has set a clear path by stating:

> *The vision of the Royal University of Bhutan is GNH inspired excellence in human development and opening new paths to a better future* (Royal University of Bhutan, 2012, p. 1).

The university thus needs to be able to respond effectively to its vision and also adapt to a rapidly shifting socio-political economic landscape, and adopt more flexible modes of organisation and operation in Bhutan. These are daunting challenges that the university must cope within the next few years. Austin Reid (2007) noted that the university was already feeling the political, economic, social, and technological pressures to be more responsive to the students' needs and more concerned about how well they are prepared to assume future societal roles which will be further intensified as Bhutan aspires to have a world-class education, attract international clientele and develop curricula appropriate to young people for the 21$^{st}$ century. These are profound challenges as the RUB is a very young university.

RUB has to ensure relevant and quality education. Consequently the university faculty will have to lecture less, make learning environments more interactive, integrate technology into learning experiences and use collaborative learning where appropriate and focus on the quality of learning in the university classrooms.

**Introduction to the Royal University of Bhutan – Mandala of Colleges**

Education has been a central player in the transformation of Bhutan from a traditional society to a dynamic, confident participant in regional and global affairs (Education Sector Review Commission, 2008). One of the central goals of the Royal Government of Bhutan (RGOB), as inspired by the Fourth King's vision of Gross National Happiness (GNH), is that Bhutanese people should be the ultimate beneficiaries of any development activity. Consequently, education has been accorded priority as a means of building the human resource base for supporting political, social and economic development programmes in Bhutan (Maxwell, 2008). Education directly enriches and creates more fulfilling lives for the population that it serves (P. C. Royal Government of Bhutan, 1999).

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It was only in the 1960's that Bhutan consciously and carefully opened its doors to the outside world. The seminal document *Bhutan 2020: A Vision for Peace, Prosperity and Happiness*, (P. C. Royal Government of Bhutan, 1999) set out the position in the following terms:

> *Our starting point must be a conscious acceptance of the fact that, in choosing to participate in a globalising world system dedicated to moulding the world in its own image, we have to take the good with the bad. We have opened the doors to these powerful forces of change and we are no longer able to close them, even if we wanted to, and revert to a world in which we choose to isolate ourselves from events around us* (P. C. Royal Government of Bhutan, 1999, p. 7).

Since the release of the *Bhutan 2020* vision document in 1999, considerable changes have taken place in Bhutan, especially in field of education.

Eight years later since its establishment the Royal University of Bhutan (RUB) stands at historic crossroads. As RUB became an autonomous organisation (July 2011) separate from the Royal Civil Service Commission (RCSC) as a means of accelerating the Royal Government's Bhutan Socio- Economic Development project. This autonomy was intended to facilitate RUB toward becoming 'a seat of excellence in learning that advances knowledge, improves the quality of life and promotes collective happiness' (Royal University of Bhutan, 2010a). In its transition avatar the RUB defines itself as a *Mandala of Colleges*. The RUB mandala as shown in Figure 1.1 (which also shows the geographical spread of the colleges) represents harmony among the ten colleges together with the Office of the Vice Chancellor towards a common goal.

The analogy of the mandala is drawn from the Buddhist philosophy where the mandala is an integrated structure organised around a unifying centre (Longchenpa, 2000 as translated by Lipman & Peterson). A mandala symbolises harmony and order; offerings and a focus point, wisdom and compassion. Creating a group mandala as the RUB mandala is a unifying experience in which academics and students can express themselves individually within a unified structure

The RUB mandala is based on the distributed model with the different campuses of the colleges forming the core element of the University (Figure 1.1). Under this

model, the colleges tend the academic functions of teaching and learning, while the Office of the Vice Chancellor lies at the centre and is responsible for central coordination. In this way, the RUB mandala signifies the preciousness of teaching and research wherein harmony, order, wisdom, and compassion flourish and are focal points for excellence in learning and teaching.
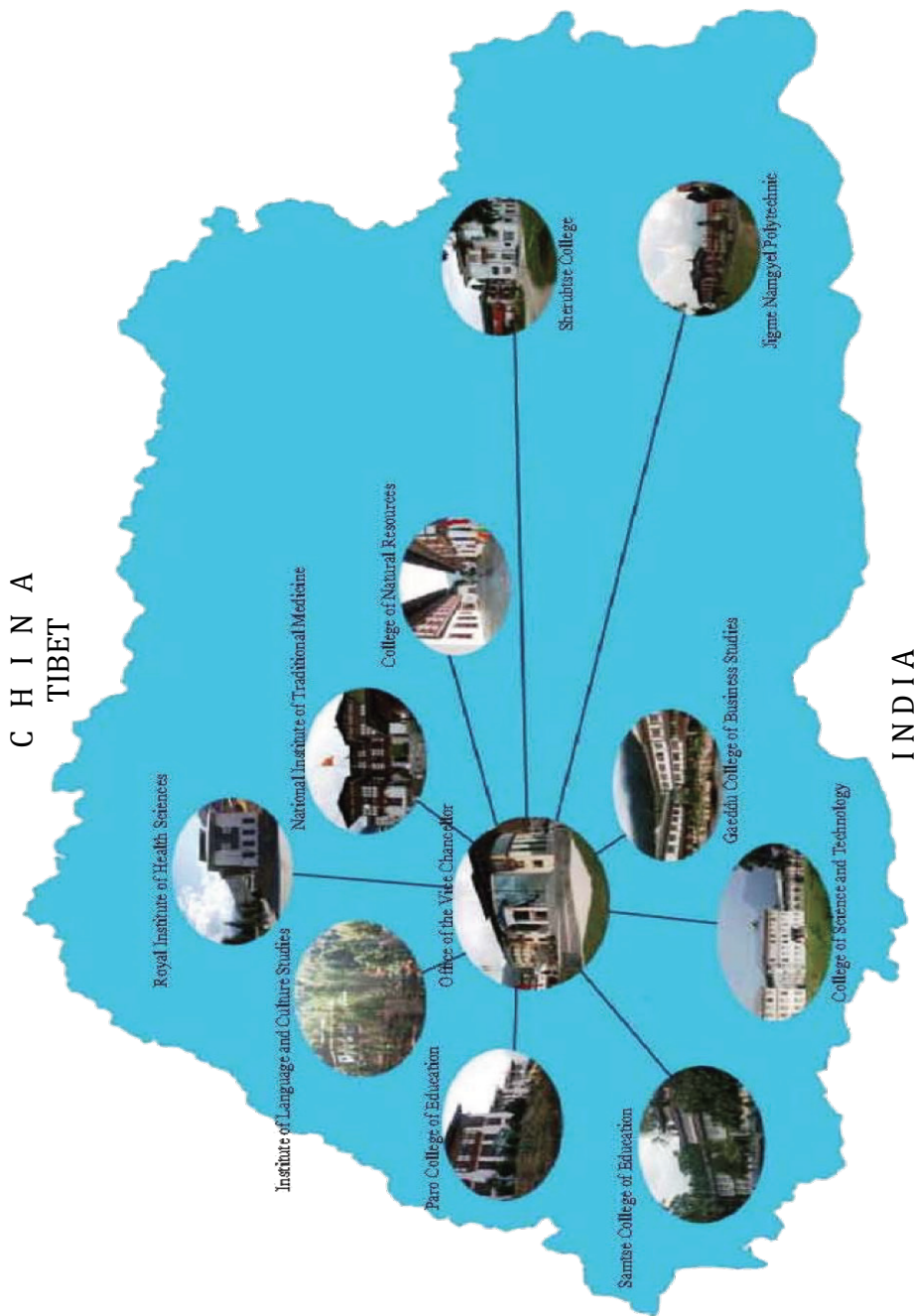
Figure 1.1. Location of the Mandala of Colleges

Source- RUB Annual Report, 2010

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The establishment of the Royal University of Bhutan allowed the member colleges to be mutually supportive and to work as one in overcoming challenges. Over the years despite the initial challenges presented by the various curriculum focus areas, the member colleges now have a common vision towards which to strive.

The programmes across the campuses that are offered cover broad curriculum areas: teacher education, business and management, engineering and physical sciences, computing and information science, biological sciences and agriculture, health sciences, humanities and social sciences, Dzongkha language and literature, Bhutanese history and culture, counselling and Buddhist studies. The ten member colleges, which form the mandala, are:

1. The College of Science and Technology in Phuentsholing,

2. The Gaeddu College of Business Studies in Gaeddu,

3. The National Institute of Traditional Medicine in Thimphu

4. The Royal Institute of Health Sciences in Thimphu

5. The Institute of Language and Cultural Studies in Thimphu

6. Paro College of Education in Paro

7. The College of Natural Resources in Lobeysa

8. Sherubtse College in Kanglung

9. Jigme Namgyal Polytechnic in Deothang

10. Samtse College of Education in Samtse.

**Teaching and learning in the Royal University of Bhutan**

Since the inception of RUB, teaching and learning have been of primary concern with research receiving significant attention only in recent years. The following discussions from the Annual Reports highlight the concern on teaching and learning in the Royal University of Bhutan.

### *Annual Reports*

The University Annual Reports (2006-2010) have also advocated a change in approach to teaching and learning, as evident in the following quote:

> *The University intends that students of the University become more responsible for their own learning, that they develop patterns of enquiry and critical thinking, innovation, leadership and self-awareness. This will require changes in the programmes, but will also require changes in teaching styles, changes in university structures, and even changes in buildings.* (Royal University of Bhutan, 2006a, p. 25).

The 2007 Annual Report voices the same concern:

> … [In] *the methods of delivery of courses, the colleges vary from those which use more learner-centred methods … to very traditional teacher driven classroom teaching … The students at the moment seem to demand spoon-feeding and be shy of more learner-driven and problem solving-tasks* (Royal University of Bhutan, 2007, p. 5).

The concern is raised again, and in even stronger terms, in the 2008 Annual Report, which is critical of the didactic style of education prevalent in the colleges:

> *One of the greatest challenges facing academic staff is to change their style of teaching so that students play a more responsive role in their own educational process … Staff identifies with the didactic pattern of education based on rote learning and book knowledge established over years in the primary and secondary educational system, and that is a pattern with which both staff and students are familiar. The problem is not insurmountable but it does pose a major challenge to our faculty* (Royal University of Bhutan, 2008, p. 8).

It is clear from the tone of the Annual Reports that the nature of teaching and learning is a great concern in RUB. The reports have identified the causes of the didactic teacher-centred nature of teaching and learning and have urged the Colleges to make efforts to move towards a more learner-centred mode of teaching and learning. The reports recognise the major challenges of shifting towards learner-centredness and the need to improve.

By 2009, the Annual Report finally bears evidence of actions taken by RUB to grapple with the protracted challenge of educational reform. It records the establishment

of the Centre for University Learning and Teaching (CULT) at Samtse College of Education in 2008 (Royal University of Bhutan, 2009). The Centre grew out of the compelling desire to improve learning and teaching in RUB. The primary objective of the new centre was to generate more student-centred methods of learning, as opposed to the largely teacher-centered practices of that prevailed at RUB (Maxwell, Reid, Gyamtso, & Dorji, 2008). The following quote from a Concept Paper for CULT reiterates this need:

> *The nature of the education offered in many parts of the University is characterised by the rather bookish nature of the teaching, by the rigidity of the boundaries between theory and practice, by limited choice of programmes and the limited student choice within programmes*
> (Royal University of Bhutan, 2008, p. 1).

Both the RUB and CULT report (Maxwell et al. 2008), therefore, provide evidence of a general consensus amongst the academics involved with those institutions about the need to improve university teaching and learning in RUB.

An appreciation of the strength of the movement towards change depends on an understanding of historical factors. The RUB is a relatively new entity created by the alliance of ten different colleges situated across the country and themselves established in the late 1960s and early 1970s. These ten colleges have focussed on different areas of study, ranging from Science and Technology to Language and Cultural Studies. Rennie and Mason (2007, p. 2) observed that there was a wide diversity in the educational development of the RUB institutes/colleges, and in the faculties and departments across the university. They commented that the National Institute of Traditional Medicine teaches almost entirely through indigenous languages and the teaching is based on ancient Tibetan concepts of medicine. In contrast the National Institutes of Education has many staff members with second degrees from occidental universities and has adopted many advanced pedagogical approaches that would be familiar to Western academics (Rennie & Mason, 2007, p. 2). These pose considerable challenges for RUB as acknowledged in the Annual Reports (Royal University of Bhutan, 2010a).

The range of specialisations in each college, and the socio-cultural history of

learning and teaching together intensify the challenge of modernising education in Bhutan. In order to gain a clear perception of the issue at hand, it is necessary to trace the socio-cultural history of learning and teaching in Bhutan. This has been vividly captured in the Maxwell, Reid, Gyamtso and Dorji CULT Report (2008, pp. 9-11).

### *Socio-Cultural History of the Bhutanese Education System*

The socio-cultural history of Bhutan has, to a considerable extent, shaped education as it is today in Bhutan. Three major factors have played significant roles in determining the current state of education of Bhutan:

- Influence of monastic education;

- Dependence on education curricula and teaching styles from India; and

- Western influences on education.

From the eighth to the early 20 mid-twentieth century monasteries exerted the greatest influence on education in Bhutan. Towards the end of the 1950s, a new chapter in the history of learning and scholarship began in Bhutan, bringing heterogeneity to what was a largely homogenous Bhutanese educational system (Phuntsho, 2000). Educational opportunities that were previously restricted to elites and clerics began to become increasingly available to the general population.

In his article *On the Two Ways of Learning in Bhutan,* Karma Phuntsho (2000) compared 'traditional' and 'modern' education practices (see Table 1.1). This table provides valuable information into the historical and cultural perspective of education in Bhutan. It depicts the details of pre-1959 education, which mostly centred on monasteries, and the more modern education systems introduced from the west.

Table 1.1 - Traditional vs. Modern Learning

|  | **Traditional** | **Modern** |
|---|---|---|
| Purpose | Mainly introvert Spiritual Training culminating in omniscience | Mainly extrovert skills for human development |
| Content | Religion or Religion Oriented, Liberal | Secular and Scientific, Technical |
| Approach | Mostly passive reception, static, conservative | Mostly Active Innovation, Creative, progressive. |
| Perspective | Faith, Reverence, Sanctity, For Religious Edification | Interest, Curiosity, Rationality, For Acquiring Knowledge and skills |
| Medium | Chökey/Dzongkha | English |
| Methodology | Buddhist monastic methods of memorization, debates, contemplation, exposition etc | Systematic western educational techniques of critical scrutiny, statistics, experiments, etc |

Source: Phuntsho, 2000, p.100

It is the ultimate goal of each 'style' that determines both perspective and process and which marks the major difference between the two. Traditional learning, laden and dictated by religious content, is conducted in an atmosphere of awe and reverence given to the teacher and to what is what is taught. Learning is characterised by passive reception and repetitive exposition. This is an approach designed to receive, uphold and preserve. Under the traditional educational system, teachers in Bhutan are viewed as discipline-keepers and knowledge-providers; and this is consistent with cultural or societal norms (Jamtsho, 2004) and also consistent with the monastic approach, since majority of the Bhutanese people are inspired by Buddhist philosophy.

In contrast, modern education is generally aimed at human development and improving living conditions in this world inviting rational inquiry and critical scrutiny. It is marked by innovation and development. It is characterised by learning systems aimed at discovering more and inventing something better. Courses and syllabi are carefully designed, instructors are trained professionals, and instruction is imparted proficiently using skilful pedagogical techniques. All kinds of educational equipment and methods are used for making learning faster, easier and even enjoyable. However, there has been extensive debate in a wider context about what constitutes modern education. Often the debate focuses on the tension between teacher-centred and learner-

centred practices.

The rapid development in modern education brought about unprecedented changes in social, cultural, political and economic structures in Bhutan. During the early years of modern education teaching was largely based on curricula imported from India, and teaching materials with the exception of teaching Dzongkha (Gyamtso & Dukpa, 1998) were those prescribed for Anglo-Indian schools.  In addition, because the country lacked teachers trained in modern education, teachers were frequently recruited from India. Indian teachers brought with them an educational style characterised by 'vessel filling' – a teacher-centred approach, which was dominant in Anglo-Indian schools in India at the time. Another factor that promoted teacher-centeredness was that the Dzongkha teachers, trained as they were in traditional religious practice (Dorji, 2005) found themselves ill-prepared to teach in the modern education context.

It was only after 1985, a watershed in the history of modern Bhutanese education, that some elements of leaner-centeredness gained a foothold in educational policies, and to a lesser extent, practices. This was one of the outcomes by education officials while they studied in western countries like the UK, Canada, and Australia. These education officials brought new ideas back to Bhutan and tried to assimilate them into the Bhutanese context. The New Approach to Primary Education (NAPE) was based on practices in the classrooms of primary schools in the UK and Ireland (Dorji, 2005). It was the first big curriculum change in Bhutan and emphasised activity-based learning, shifting the focus from 'teacher-centredness to child-centredness, as well as from remoteness of content to familiarity of content (Dolkar, 1995, p. 7). At the same time the Education Department too had started 'Bhutanising' the education system so that teaching and learning in schools was in accordance with national needs and aspirations (Ministry of Education, 1989, p. 8). Thus teachers were required to shift their teaching styles from lecturing to guiding, and the ability to integrate 'new' subjects into the curriculum was to become required of them. Jagar Dorji's seminal work, *The Quality of Education in Bhutan* (2005) has generated critique of the changes that have taken place in Bhutan. He has drawn up a comparative description of the paradigm shift in teaching practices since 1985 with the introduction of the NAPE as illustrated in

Table 1.2.  In the 'new' teaching methods, the focus was to facilitate in learners a deeper and wider understanding of concepts and principles in different subject areas, as opposed to learning the content by rote in order to pass examinations (Dorji, 2005, p. 101)

Table 1.2. – Shift in Classroom Teaching required by the new syllabuses at Lower Primary Level

| Old Teaching Methods | New Teaching Methods |
|---|---|
| Emphasis on rote learning | Activity based learning by doing, leading to understanding. |
| A teacher dominated classroom | Children actively participate in the lesson development. |
| End of term exams | Continuous assessment based on children's performances in the lessons. |

Source: Dorji 2005, p. 101

The changeover, however, has not been entirely successful, although the contents of the curriculum materials have been 'Bhutanised'. Pedagogically the learner-centred approach in primary and secondary schools has not been accomplished as envisioned, due to the shortage of qualified teachers, lack of support and guidance from the centre, lack of resources, mismatch between the physical establishment of schools and increase in enrolments (Dorji, 2005, pp. 117-118). The shortage of qualified teachers means that Bhutan, even now, has to recruit teachers from India, especially at secondary levels, and thus teacher -centeredness remains. Current teachers, including those in the Colleges of RUB, mostly grew up with teacher-centred models of teaching and learning and probably reproduce similar practices while teaching.

Over the last decade, many Bhutanese academics have benefited considerably from international higher-degree, or short-course studies. Such academic pursuits are of great benefit personally and professionally.  They facilitate the development of academic rigour and of individual discipline, and culminate in higher level research and writing abilities and broadened theoretical understandings (Brooks & Jones, 2008).

However, the teacher-centred method of education that was absorbed over a considerable time in Bhutanese life will be hard to modify.

It is significant that the ten colleges had been engaged in their individual fields of specialisation and interest for several years before their amalgamation into the RUB. This merging of ten (10) geographically distant colleges across Bhutan into a mandala of colleges meant that the RUB inherited the following:

- *Deep-rooted practices in teaching and learning unique to each college,*

- *Academics with different backgrounds to, and sometimes conflicting attitudes about learning and teaching* (Maxwell et al., 2008), *and*

- *A deep attachment to their parent ministries.*

It was into this immensely complex setting that the RUB was formed.

*Context of the Research*

The establishment of RUB led to the formulation of a set of policies and regulations in higher education with a key mandate being to direct more energies and resources toward research development and improving the professional capacities of academic staff (Royal University of Bhutan, 2011a). Particularly desired, as mentioned earlier, was a shift to a more student-centred teaching practice (Maxwell et al., 2008).

The recent autonomy of the RUB from the Royal Civil Service Commission in July 2011 has provided the University with the opportunity to develop itself to what it has always desired to be - a learning organisation (Royal University of Bhutan, 2011a). As a part of this initiative to become a learning organisation, RUB intends to establish tertiary education teaching as a profession in its own right (Royal University of Bhutan, 2010a). Implicit in this transformation was the imperative to improve teaching and learning as the core functions of the mandala of colleges. These twin functions thus need to be strengthened and modernised by shifting delivery methods from a teacher-driven model to a more learner-driven model (RUB Vice Chancellor, P. Thinley, personal communication, 2009). Only then, can the RUB provide a realistic contemporary vision for a rapidly changing Bhutanese society. Moreover, in order *for*

*the curricula, teaching and learning to be deeply GNH-infused*, University lecturers would have to practice "holistic, contemplative, eco-literate, and culturally-responsive education and critical thinking" approaches to curricular and extracurricular learning (P. Thinley, personal communication, 2009).

To this end, two significant developments have generated the shift in teaching and learning practices in RUB: *The Wheel of Academic Law* and the formation of the *Centre for University Learning and Teaching* (CULT).

### *The Wheel of Academic Law*

Central to the launch of the RUB was the desire for Bhutan to become an internationally recognised member of the Higher Education community, and fundamental to that is the adoption of internationally recognised standards of achievement, policies and procedures (Maxwell et al., 2006). To that end, the RUB's *Wheel of Academic Law* provided a new set of policies and procedures. The *Wheel* is the compilation of definitive policies, regulations and guidelines governing academic matters of the RUB and is therefore a crucially important policy document. The *Wheel* advocates learner-centredness rather than teacher-centred learning with its focus on student learning outcomes (Royal University of Bhutan, 2008, p. 39). It provides a framework for the conduct of the Royal University of Bhutan's academic activities and is intended to be a guide for the member colleges and institutes of the RUB (Royal University of Bhutan, 2006b, 2008, 2010). Thus, the *Wheel* provides uniform guidelines governing the development, implementation, and evaluation of programmes offered by member colleges and institutes.

The formulation of the *Wheel* involved consultation with experts in HE and as far as possible, examples from other universities. The *Wheel's* regulations and policies are in greater conformity with the academic regulations of Higher Education in UK (K. Tshering, personal communication, 2011), and although Austin Reid, WBL Consultant (2004) developed the initial draft of the *Wheel*, the final outcome emerged from collaboration and consultation with all the stakeholders of the RUB (Royal University of Bhutan, 2008 ). This implies that the making of the *Wheel* was thus generated using a bottom-up, rather than a top-down process. This was done with a view to making the

regulations as realistic and implementable as possible in the context for the ten colleges. Application of the academic regulations took place in conjunction with each member college's academic regulations, thus taking the finer nuances of each college into account. This acknowledgement of the autonomy of the individual colleges is important given the broad range of disciplines and nature of the mandala of colleges and fits well with the bottom-up philosophy behind the *Wheel.*

The *Wheel* is, therefore, an influential document that requires the making of a conceptual shift by RUB staff, from the input model (transmission/teacher-centred) to a learning-outcomes model, with the aim of facilitating an increase in students' ability to take responsible for their own learning (learner-centred). The academic regulations clearly advocated a shift from the teaching-based learning approach to a more learner-centred teaching approach.

Accordingly, significant sections of the *Wheel* reinforce the shift in the teaching-learning practices in RUB. A discussion of the sections pertinent to this work follows.

*Programme Definition*

The section on *Programme Definition* in the *Wheel* depicts what constitutes a programme in RUB. It clearly implies a learner-centred approach wherein specific objectives of the programme are defined as the specific attributes *which the students should be able to demonstrate* at the end of the programme as a result of their learning (Royal University of Bhutan, 2010b, p. 122). The emphasis on what the students should be able to *demonstrate* indicates the central focus is on students' learning rather than on lecturers' teaching. Yet the programme's approach to teaching and learning has been described as:

> *A statement of the teaching and learning strategy for the programme which outlines the balance between lecturer-centred and learner-centred approaches, which addresses the needs of full time, part-time young/mature, in-situ/distance learners, which takes account of use of ICT such as video conference or the web* (Royal University of Bhutan, 2010b, p. 122).

This essentially spells out the expectations of the university towards a learner-centred

approach where lecturers are encouraged to utilise different types of strategies to engage the learners actively in face-to-face, on-campus, or online modes of education. The lecturers need to use pedagogical approaches that address the learning needs of students, provide opportunities for students to practice what they are learning, to talk and listen meaningfully, write, read, and reflect on the content, ideas, and concerns of any academic subject.

*Assessment Regulations*

*Section D1 on Assessment Regulations* (Royal University of Bhutan, 2010b, p. 88) specifies staff responsibilities to students regarding assessment, in terms of the fairness and appropriateness of the assessment, the schedule and spread of assessment throughout the semester, submission of assignments, specification of turn-around time and the stipulation of timely feedback. D1 takes a powerful stand on supporting student's learning by maintaining that assessment is an essential component of the student's learning process and should be designed on that basis (Royal University of Bhutan, 2010b, p. 88). The section states that the prime purpose of assessment is to enable students to demonstrate that they have fulfilled the objectives of the programme of study and that they have achieved the standard required for the award(s) to which they aspire (p. 88). Further it asserts that assessment should reflect the achievement of the individual student in relation to a consistent national standard. Both summative and formative assessments are advocated in order to provide useful feedback to students. Importantly, students should be informed of their performance in the assessment within three weeks of submission, so that they are aware of their progress (Royal University of Bhutan, 2010b, p. 81).

Further the *Assessment regulation Article 7.4 in D1* (Royal University of Bhutan, 2010b, p. 92) allows for re-assessment, which provides students with the opportunity to make good an initial failure, based on the understanding that all students do not learn the same way. Thus students are presented with an opportunity to succeed in passing modules, and ultimately gain an award (p. 92).  Article 12 in D1 (p. 94) offers the student the right to appeal the decisions of a programme board of examiners

by following a legitimate line of action.

These regulations in the *Wheel* undoubtedly point towards an assessment practice based on learner-centred principles. They support student learning by specifying provisions for assessment to be transparent, accountable, and reliable.

*Module Descriptor*

The Module Descriptor Section B4 (Royal University of Bhutan, 2010b, p. 52) provides the framework/guidelines for the units of a curriculum (programme) in a defined area of knowledge, skills and understanding, leading to a specific assessment. Specifically they provide the structure and purpose of modules for both lecturers and students, and assist in translating the module expectations into action in the classroom. The structure reflects a constructivist philosophy and sets out the essential details of each module and how it should be conducted, with emphasis on student learning. The Module Descriptor in the *Wheel* captures the entire planning, implementation and assessment cycle of teaching and learning at RUB.

*Quality Assurance procedures*

Quality Assurance (QA) procedures are firmly embedded in *The Wheel*. The procedures are meticulously defined and explained for the entire University. For example, for a programme to be validated by the RUB, it has to be systematically examined through a series of rigorous quality assurance bodies, such as the College Academic Committee, the Academic Planning and Resources Committee (RUB) and the Programmes and Quality Committee(Royal University of Bhutan, 2010b) . Following scrutiny from these academic bodies, potential programmes are put before a validation panel of subject experts for further examination and final approval. In all phases, the programme document has to meet rigorous criteria related to QA as set out in *Section E1 on Planning Approval for a New Programme* (pp. 120-121) and *F1 on Validation of a New Programme and the Adoption of an Existing Programme* (pp. 128-131). These documents contain comprehensive information on the requirements for validation and adoption of programmes by the RUB. Further, *Appendix 1 on Programme Definition* (Royal University of Bhutan, 2010b, pp. 122-123) mandates the

topics for inclusion in programme document.

Quality Assurance procedures at the RUB are extremely and demonstrably thorough and rigorous, and are described by the RUB's Department of Academic Affairs (DAA) as "the means through which an institution ensures and confirms that the conditions are in place for students to achieve the standards set by it or by another awarding body".

Evidence of the efficacy of the DAA is provided by the fact that individual member colleges are responsible for Quality Enhancement (QE), which allows deliberate steps to be taken at an institutional level to improve the quality of learning opportunities (The Quality Assurance Agency for Higher Education, 2006). The *Wheel* is an influential document whose policies, rules, and regulations meet with and operate in accord with international standards.

With such rigorous and detailed guidelines it is only to be expected that the ten member colleges of RUB conform to the regulations set out in the *Wheel of Academic Law* thereby ensuring smooth operation of the University's academic programmes. The preface to *The Wheel* emphasises the responsibility of staff and students to be familiar with, and to take responsibility for upholding the *Wheel's* regulations in order that they may at all times, be informed and comply with academic requirements, rules and regulations (Royal University of Bhutan, 2010b). However, despite this emphasis on personal discipline, compliance with the rules and regulations has not been easy to achieve. According to the Annual Report of 2006:

> *Implementation of the new regulations and processes takes time and understanding. A major hindrance is the lack of understanding and practical implementation by users in the colleges. This requires some form of workshop/training and more importantly practical usage of the regulations* (Royal University of Bhutan, 2006a, p. 22).

Initial implementation of the *Wheel* would be difficult initially and would require time to become fully understood, because at that time experience implementing such policies and procedures enshrined in the *Wheel* was limited.  However, since 2006 some progress have brought about positive changes to the teaching and learning culture in the

mandala of colleges.

*The Centre for University Learning and Teaching*

The second defining event that compelled a paradigm shift in teaching and learning in RUB was the establishment of the Centre for University Learning and Teaching (CULT) in 2008. The creation of CULT was seen as a significant endeavour made by RUB to develop and support best academic practice in learning and teaching for the university (Royal University of Bhutan, 2010a). The stated objectives were to:

> Assist in the development of best academic practice in learning and teaching and provide support for lecturers of the University;
>
> Develop and deliver continuous professional staff development programmes;
>
> Develop and deliver an award in learning and teaching in tertiary education that will advance the professional standards of the university's academic staff;
>
> Provide and enhance access to resource materials (books, journals, manuals and guides) to all university staff and students; and
>
> Support research into university learning and teaching (Maxwell et al., 2008, p. 7).

It was into an immensely complex setting that CULT, with its central objective to promote and enhance professional development of RUB academic staff, was launched. CULT was therefore confronted with the immense task of professionalising tertiary education provision in Bhutan by establishing tertiary education teaching in its own right (Royal University of Bhutan, 2010a). In order to facilitate this task, CULT has the following core functions:

> Accrediting professional achievement in the management of learning and teaching;
>
> Commissioning research and development work into learning and teaching practices;
>
> Stimulating innovation and coordinating the development of innovative learning materials and methods (Royal University of Bhutan, 2010a, pp. 18-19); and
>
> RUB's intention to moving towards a more student-centred, approach to

teaching and learning became apparent with these two significant developments the introduction of the *Wheel* and CULT.

### *Conclusion*

It is within this setting that the research project has been conceptualised. An understanding of the background information on the context and policies of tertiary education in Bhutan and the socio-cultural factors that influence the teaching and learning culture in RUB will enable an appreciation of the findings of the current study.

The time is ripe for Bhutan's university system, to demonstrate a commitment to bringing about changes in its teaching and learning culture, and to moving towards a more learner-centred/facilitative approach. In this context, a highly visible aspect of change will be a reflective examination of teaching-learning practices combined with an attempt to acquire more knowledge about the best practices available (Knapper, 2008).

**Appendices 3: Chapter Three, Methodology**

**Appendix 3.1: The Research Learning Management Matrix**

| |
|---|
| **Research Title:** An inquiry into the nature of teaching and learning practices at the Royal University of Bhutan. <br><br> Research Questions: <br><br> *What is the nature of lecturers planning that lecturers engage in as they prepare for their lessons?* <br><br> *How do the lecturers implement their prepared plans in a way that supports student learning?* <br><br> *To what extent do the planning and implementation practices of the lecturers' support student learning?* |
| **Purpose:** <br><br> To find out: <br><br> The nature of teaching and learning practices taking place in RUB? <br><br> The factors that facilitate or impede the practices recommended by the *Wheel of Academic Law*? <br><br> The practices currently occurring in the colleges consistent with the *Wheel*? <br><br> (Is there a gap between what is intended and what is actually being practiced?) <br><br> Provide directions for future staff development. <br><br> Suggest recommendations for policy |

**Planning**

| Research Question | Data Required | Source | Data Collection | Data Collection Timing | Data Analysis | Data Analysis Timing | Writing |
|---|---|---|---|---|---|---|---|
| *What is the nature of lecturers' planning to support student learning?* | Individual Lecturers' Lesson Plans | Individual Lecturers' lessons plans (Including the pilot study), Module plans, Progra documents, Field Notes | Stratified random Sampling of Copies of lesson plans | Linked to lesson observations April – October 2010 | Seven categories and related indicators using both qualitative & quantitative methods (Case Studies) | October 2011 – Feb 2012 | Complete draft by end April 2012 |

**Implementation**

| Research Questions | Data Required | Source | Data Collection | Data Collection Timing | Data Analysis | Data Analysis Timing | Writing |
|---|---|---|---|---|---|---|---|
| How do the lecturers implement the plans to support student learning? | Actual practices in the classrooms of B.Ed/B.Sc/B.Eng/Diploma students | B.Ed/B.Sc/BA/B.Eng/Diploma Classrooms (Including the pilot study) | Observation schedule using classroom observation schedule, Stratified & Random samples of lessons across Depts and Years | Linked to the lesson observations April – October 2010 | Qualitative/ quantitative Interpretation of case studies of lessons using seven categories and related indicators | October 2011 – Feb 2012 | Complete draft by end April 2012 |
| | | Lecturers | Pre & post conference interviews Interviews | | Content analysis Qualitative analysis | | |
| | | Students | In lesson Questionnaires based on effective teaching and learning checklist and similarity of this lesson to others, Informal FGD with selected students on the In-lesson Questionnaire | | Qual and Quant analysis | | |
| | | Academic Support staff (Librarians/It officers/ laboratory assistants) | Interviews on resources to support teaching and learning | | | | |

| Research Questions | Data Required | Source | Data Collection | Data Collection Timing | Data Analysis | Data Analysis Timing | Writing |
|---|---|---|---|---|---|---|---|
| | | Wheel of Academic Law, Field notes, Program documents, RUB Annual Reports (2006-2011), RUB Strategic Plan Reports, J.Dorji's Quality of Education in Bhutan, CULT Report, Focus on Students' Learning Outcomes Report, | | | | | |

**Evaluation:**

| Research Question | Data Required | Source | Data Collection | Data Collection Timing | Data Analysis | Data Analysis Timing | Writing |
|---|---|---|---|---|---|---|---|
| To what extent do the planning and implementation practices of the lecturers support student learning? | Data analysed in the five case studies on the planning and implementation practices. | Planning and implementation practices in the five case studies (including the pilot study), Wheel of Academic Law, College Programme documents, J.Dorji's Quality of Education in Bhutan, Focus on Students' Learning Outcomes Report, Field notes | Lesson Plans (oral and written) In lesson Questionnaires Interviews Staff and students | October 2011- June 2012 | Based on the seven categories and related indicators using qualitative & quantitative methods Content Analysis - quant & qual | October 2011 – Feb 2012 | Complete draft by end April 2012 |
| | Resources | Library | Count types of resources in the library (Dewey Catalogue) | | | | |
| | IT Labs | No. of computers Internet connectivity Use of computers for students & lecturers | | | | | |

| Research Question | Data Required | Source | Data Collection | Data Collection Timing | Data Analysis | Data Analysis Timing | Writing |
|---|---|---|---|---|---|---|---|
| | Academic facilities like science labs, classrooms – numbers & size, | Campus survey of academic count facilities and note their utility/fun ction | | | | | |
| | Academics experience and knowledge | Lecturers | Interviews College Profiles | April – October 2011 | Content analysis Quantitativ e & qualitative | | |

**Appendix 3.2: Information to Colleges for data collection**

I am presently undertaking research into the nature of teaching and learning practices in your college to develop an understanding of their range in the programmes offered in RUB. I seek to improve our present practices in teaching and learning. To this end, I have identified your college as a potential site for my study.

The data will be collected across subject departments in your college and therefore I would like to request you to kindly grant me permission to invite the lecturers and students to participate in this study by:

- Permitting me to observe lessons;
- Invite lecturers and students to partake in informal interviews;
- Answer questionnaires on the lessons; and
- Collect curriculum and other documents related to the history, and resources of the colleges.

The information collected will be analysed and used in two ways. First, it will assist in the evaluation of our existing practices as well as the planning for our improvement in this area. Second, this information will be used in my formal studies supervised by the University of New England towards the completion of a PhD degree.

All information collected through the questionnaires, focus group discussions and interviews will be kept confidential, and no participants will be identified in any way in reports arising from this study.

I would require being in your college for at a week to collect the data. However, if there are many subject departments and student numbers are large then maybe I would require more time.

**PRIOR TO THE VISIT**

1.  Select volunteer members of staff to have one of their classes observed and share their teaching plan for that lesson. (You might ask for volunteers across levels and programmes).

2.  Select volunteer members (academic, IT, Library, Lab assistants and students) to be interviewed on resources, programme standards and quality and teaching/learning practices in the college.

3.  Select between 4-6 student volunteers from other classes for informal meeting.

4.  Provide the relevant enclosed participant information sheets to staff and students who will be interviewed.

5.  Arrange for the interviews, observations and meetings as shown in the timetable above.

**DAYS 1 to 5 of Data Collection visit**

Provide the researcher with:

1. Relevant college teaching and learning policy documents

2. A selection of module/subject guides showing teaching aims and assessment strategies

3. Semester Work Plans (Random Stratified Samples)

4. Enable the interviews, observations and meetings to be carried out

I look forward to the participation of the College in my study. Kindly reply to this invitation by emailing me on:

dgyamtsh@une.edu.au/dgyamtso@druknet.bt or calling me 5-36585

**Appendix 3.3: Interview schedules**

*Appendix 3.3.1: Academic Staff*

1. What programme/s do you teach?

2. What is learning?

3. What is teaching?

4. What is your aim/s of teaching in your college?

5. There are many different ways to teach. Which way is comfortable to you?

6. Is there anything you would like to change? Why?

7. What constraints do you face while teaching?

8. If the situations/conditions are conducive for effective teaching, what you prefer, what changes would you incorporate in your teaching approach? Why?

9. What strategies are you using to help students understand the subject matter?

10. How do you think students learn best in your subject?

11. What are the main learning activities you utilise in class?

12. What were the key features of your own education in terms of teacher-centredness or learner-centredness?

13. What impact has your education (TC or LC) had on your own teaching and learning?

14. Do you think that you use more of active and deep learning approaches in your classes?

15. What difficulties have you often encountered while using other active learning approaches?

16. Do you think it is appropriate that the RUB should encourage a western model of teaching? Why?

17. What type of assessments do you use for your students?

18. How soon do you return the assignments to the students after marking them? Probes

19. How do you normally assess students' work? Do you only put grades on the assignments? and also provide feedback?

20. What type of feedback do you provide to the students?

21. Do you think giving feedback to students is important? What are the benefits and drawbacks (if any)?

22. Is there anything else you would like to tell me about teaching at your college?

*Appendix 3.3.2: Students*

1. What programme/s are you studying?
2. What in your view is teaching?
3. What is learning?
4. How do the lecturers in your college make you learn?
5. What do you think the main role of the teacher should be?
6. What types/kinds of learning activities are most mostly used in class?
7. Which ones do you find the most useful and interesting?
8. What do the lecturers mainly do while teaching in the class?
9. Are you satisfied with how the lecturers are teaching you?
10. What would you like them to change?
11. What do you think is the main purpose of assessment in the college?
12. What types of assessments are mainly given? (Summative or formative)
13. When are your assignments returned after marking? (Frequency of feedback)
14. What type of feedback do the marked assignments have? (Quality of feedback)
15. Is there anything else you would like to say about being a student at the college?

*Appendix 3.3.3: Academic Support staff*

Interview Schedule administrative staff

1. What is your job description?
2. What is the involvement of your job in your college?
3. What role do you play in the teaching and learning activities of the College?
4. How do you support the teaching and learning practices in the College (in your capacity)?
5. What impact has your role on the academic activities of the College?
6. Do you think that you satisfy the needs/requirements of the students and staff in your job?
7. What constraints do you face while providing support to the academic activities in the College?
8. Are you satisfied with the service you are providing?
9. What do you think you could do to improve the services you provide?

**Appendix 3.4: The In-Lesson Questionnaire**

Lecturer:……………………………… Subject:……………………………….

Topic:……………………………… Class:………………….........

Number of students…**….**

**"In lesson" Questionnaire for Students**

This questionnaire is anonymous. Your identity will be protected, as according to the research mandate and only I and my supervisors at the University of New England will see these responses. Your careful response would be appreciated. There are no right or wrong answers to these questions. Simply put down what _you_ think. Please do not discuss with your friends.

These first questions refer to the strengths and weaknesses of the lesson that you have just experienced. Please rate these using the scale below by putting a cross (x) in the box which best corresponds to your answer:

_4 – Excellent_

_3 – Good_

_2 – Acceptable_

_1 - Unsatisfactory_

_NA – Not Applicable/seen_

| | Rating | | | | |
|---|---|---|---|---|---|
| **Planning and organising teaching** | 4 | 3 | 2 | 1 | NA |
| The lesson learning outcomes were clear | | | | | |
| Lesson contents were systematically organised | | | | | |
| The choice of learning materials were appropriate | | | | | |
| The learning activity aroused students' interest | | | | | |
| There was an appropriate use of teaching materials | | | | | |
| **Communication Skills** | | | | | |
| The lesson appropriately encouraged me | | | | | |
| There were clear explanations, instructions and demonstrations | | | | | |

|  | Rating |  |  |  |  |
|---|---|---|---|---|---|
| **Class interaction** |  |  |  |  |  |
| Encouraged me to participate in activities |  |  |  |  |  |
| Provided opportunities for students to participate in class discussions |  |  |  |  |  |
| Provide opportunities for me to work in collaboration (groups) |  |  |  |  |  |
| Maintained a congenial and open atmosphere |  |  |  |  |  |
| **Professional Knowledge** |  |  |  |  |  |
| Good mastery of the contents shown |  |  |  |  |  |
| **Professional attitude** |  |  |  |  |  |
| Showed a genuine attitude towards teaching |  |  |  |  |  |
| Respected my viewpoints/opinions |  |  |  |  |  |
| Has appropriate expectations of my learning |  |  |  |  |  |

To what extent was this lesson typical when compared to previous lessons with this lecturer? Use the "yes" table and tick in the boxes given in the table for those aspects that were similar and explain in what ways the lesson was similar in "Explanation". For those aspects that were not similar, use the "No" table and put a cross in the boxes given in the second table for those aspects that were not similar and explain in what ways today's lesson was different in "Explanation."

| Yes | Planning and organising teaching | Communication Skills | Class interaction | Classroom management | Professional Knowledge | Professional attitude |
|---|---|---|---|---|---|---|
| Explanation: | | | | | | |
| No-: | Planning and organising teaching | Communication Skills | Class interaction | Classroom management | Professional Knowledge | Professional attitude |
| Explanation: | | | | | | |

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3. Overall what is your rating of this particular lesson? (Please circle just one response.)

       4 – Excellent

       3 – Good

       2 – Acceptable

       1 – Unsatisfactory

4. Any other Comments? (Please confine your comments to the lesson)

*Thank you for participating. Please hand this directly to me at the end of the lesson*

**Appendix 3.5: Sample of Original In-Lesson Questionnaire used in the Pilot Study**

Lecturer……………………
Subject……………………..

**"In lesson" Questionnaire for Students**

Your identity will be protected as according to the UNE Research Ethics mandate and it will be appreciated if you put in some thinking while answering the 3 questions. There is no right or wrong answers to these questions. Simply put down what *you* think.

1. Write three strengths of the lesson taught:

 …………………………………………………………………
 ………………………………………………………………..
 ………………………………………………………………..

2. Write three weaknesses of the lesson taught:

 …………………………………………………………………
 ………………………………………………………………..
 ………………………………………………………………..

3. To what extent was this lesson typical when compared to previous lessons with the lecturer whose lesson was observed?

4. Any other Comments?

 *Thank you for participating. Please hand this directly to me at the end of the lesson.*

**Appendix 3.6: Sample Data Collection Planning Schedule**

The proposed activities and suggested timetable - Sherubtse College

| Day | Morning Activities | Afternoon Activities | Evening Activities |
|---|---|---|---|
| Day 1 | 9.00 am Researcher meets Director/Dean Academic Affairs, Dean Research and Industrial Linkages and confirms schedule for the visit | 10.00 am – 3.00 pm (any 2 lessons conducted at this time) Classroom Observation One followed by In-Lesson Questions to students, Pre conference – 15-20 minutes, Observation – 1 hour, and Post conference – 15-20 minutes. Classroom Observation Two followed by In-Lesson Questions to students, Pre conference – 15-20 minutes, Observation – 1 hour, and Post conference – 15-20 minutes | 4.00 pm – 5.00 pm |
| Day 2 | 8.00 – 12.00 am (any 2 lessons conducted at this time) Classroom Observation Three followed by In-Lesson Questions to students, Pre conference – 15-20 minutes, Observation – 1 hour, and Post conference – 15-20 minutes. Classroom Observation Four followed by In-Lesson Questions to students, Pre conference – 15=20 minutes, Observation – 1 hour, and Post conference – 15-20 minutes | 1.30 – 3.00 pm (Any time which is convenient -for an hour max.)  Group/individual Interview with teaching faculty on Resources teaching/learning practices in the college.  (Could the lecturers be other than the ones whose lessons were observed) | Compile data from In-Lesson Questionnaires of the lessons observed |

| Day | Morning Activities | Afternoon Activities | Evening Activities |
|---|---|---|---|
| Day 3 | 8.00 – 12 am (any 2 lessons conducted at this time)<br>Classroom Observation Five<br>followed by In-Lesson Questions to students,<br>Pre conference – 15-20 minutes,<br>Observation – 1 hour, and<br>Post conference – 15-20 minutes<br>Classroom Observation Six<br>followed by In-Lesson Questions to students,<br>Pre conference – 15-20 minutes,<br>Observation – 1 hour, and<br>Post conference – 15-20 minutes. | 1.30 – 4.00 pm<br>(Any time that is convenient -for an hour max.)<br>Group/individual Interview with students on teaching/learning/ Assessments/Resources and their experiences as students in the College. | Compile data from In-Lesson Questionnaires of the lessons observed |
| Day 4 | 8.00 – 12 am (any 2 lessons conducted at this time)<br><br>Classroom Observation Seven<br>followed by In-Lesson Questions to students,<br>Pre conference – 15-20 minutes,<br>Observation – 1 hour, and<br>Post conference – 15-20 minutes.<br>Classroom Observation Eight followed by In-Lesson Questions to students,<br>Pre conference – 15-20 minutes,<br>Observation – 1 hour, and<br>Post conference – 15-20 minutes | 1.30 – 4 pm<br>Researcher requires time to prepare for the informal meeting with students as the questions are directly related to the observed lessons. Therefore, some time is required to make an analysis of the issues that needs attention in the informal meeting with the students. | 4.00 – 5.00 pm<br>Informal meeting with Students on Observed lessons to confirm and clarify responses/comments. |

| Day | Morning Activities | Afternoon Activities | Evening Activities |
|---|---|---|---|
| Day 5 | 8.00 am – 12 am (Any time that is convenient -for an hour max.) Interview administrative staff on resources After interview - Visit library, ICT facility etcetera. | 1.30 – 3 pm Collect documents or information on Programmes, College appraisal, College Transformation Plan, Lecturers' information etc. | |

Note: One observation per department would be preferred and adequate. But since you have 16 departments I don't need to observe all of them as it would very time-consuming. Perhaps a mix of the old and new departments would be useful (Delhi University and RUB programmes).

# Appendix 3.7: Documents verifying research approval from UNE & RUB

Royal University of Bhutan
Office of the Vice Chancellor
Semtokha, Thimphu
Bhutan
Post Box 708

RUB/ADM/40/2007/5514                    December 24, 2007

Research Ethics Officer
Research Services
University of New England
Armidale, NSW 2351
Australia

**Re: Approval to Conduct Research in Samtse College of Education, Bhutan**

Dear Madam,

This is for your kind information that the Department of Research, Office of the Vice Chancellor, the Royal University of Bhutan is pleased to approve Ms. Deki C. Gyamtso's proposal to conduct a research on the ***Study of the Nature of Teaching and Learning Practices at Samtse College of Education***, Bhutan.

With Best Wishes,

Yours sincerely,
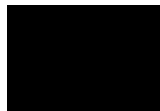
(Changa Dorji)
Asst. Research Officer

Telephone:  Vice Chancellor: + 975 2 351625!  Facsimile + 975 2 351710!     Registrar:  + 975 2 351649!

Director, A&A, (Tele-fax) + 975 2 315627!                General:  (PABX) + 975 2 351626/  351711!

The Royal University of Bhutan
Office of the Vice Chancellor
Motithang: Thimphu: Bhutan
Post Box: 708

Royal University of Bhutan

18 June 2009

### To Whom It May Concern

Ms Deki C. Gyamtsho, Dean of Academic Affairs, Samtse College of Education has been granted approval to conduct research in the colleges of the Royal University of Bhutan. We believe that her work will be beneficial in the development of teaching and learning practices in higher education institutions, particularly in the Royal University of Bhutan.

(Changa Dorji)
**Research Officer**
**Department of Research and External Relations**

**UNE**

THE UNIVERSITY
OF NEW ENGLAND

# HUMAN RESEARCH ETHICS COMMITTEE

**MEMORANDUM TO:**  A/Prof T Maxwell, Dr D Paterson & Ms D Gyamtso
School of Education

This is to advise you that the Human Research Ethics Committee has approved the following:

**PROJECT TITLE:**  The Study of the Nature of Teaching and Learning Practices at the Royal University of Bhutan (RUB).

**APPROVAL No.:**  HE09/143

**COMMENCEMENT DATE:**  08/10/2009

**APPROVAL VALID TO:**  08/10/2010

**COMMENTS:**  Nil. Conditions met in full.

The Human Research Ethics Committee may grant approval for up to a maximum of three years. For approval periods greater than 12 months, researchers are required to submit an application for renewal at each twelve-month period. All researchers are required to submit a Final Report at the completion of their project. The Progress/Final Report Form is available at the following web address: http://www.une.edu.au/research-services/researchdevelopmentintegrity/ethics/human-ethics/hrecforms.php

The *NHMRC National Statement on Ethical Conduct in Research Involving Humans* requires that researchers must report immediately to the Human Research Ethics Committee anything that might affect ethical acceptance of the protocol. This includes adverse reactions of participants, proposed changes in the protocol, and any other unforeseen events that might affect the continued ethical acceptability of the project.

In issuing this approval number, it is required that all data and consent forms are stored in a secure location for a minimum period of five years. These documents may be required for compliance audit processes during that time. If the location at which data and documentation are retained is changed within that five year period, the Research Ethics Officer should be advised of the new location.

Jo-Ann Sozou
Secretary

08/10/2009

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Research Development & Integrity
Research Services
Armidale, NSW 2351, Australia
Telephone: 02 6773 3449
Facsimile: 02 6773 3543
http://www.une.edu.au/research-services\ethics
E-mail: jo-ann.sozou@une.edu.au

**UNE**
THE UNIVERSITY
OF NEW ENGLAND

## HUMAN RESEARCH ETHICS COMMITTEE

**MEMORANDUM TO:**  A/Prof T Maxwell, Dr D Paterson & Ms D Gyamtso
School of Education

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**APPROVAL VALID TO:**  08/10/2010

**COMMENTS:**  Nil. Conditions met in full.

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The *NHMRC National Statement on Ethical Conduct in Research Involving Humans* requires that researchers must report immediately to the Human Research Ethics Committee anything that might affect ethical acceptance of the protocol. This includes adverse reactions of participants, proposed changes in the protocol, and any other unforeseen events that might affect the continued ethical acceptability of the project.

In issuing this approval number, it is required that all data and consent forms are stored in a secure location for a minimum period of five years. These documents may be required for compliance audit processes during that time. If the location at which data and documentation are retained is changed within that five year period, the Research Ethics Officer should be advised of the new location.

Jo-Ann Sozou
Secretary

08/10/2009

## Appendix 3.8: Information Letter to Participants and Consent Form

**UNE**

THE UNIVERSITY
OF NEW ENGLAND

School of Education
ARMIDALE NSW 2351 Australia
Telephone [Int'l +61 2] (02) 6773 3716/6773 4221/6773 3716
Facsimile [Int'l +61 2] (02) 6773 2445/6773 5078
Email: education@une.edu.au

22 May 2010

**Research into the Nature of Teaching and Learning Practices at RUB (Staff)**

Ms. Deki C. Gyamtso, Samtse College of Education, will be researching the nature of teaching and learning in your college to develop an understanding of the range in the programmes offered in RUB practices. All lecturers will be invited have their lessons observed including a pre and post lesson discussion and interview. The purpose of the research is to evaluate the existing practices at RUB and look to further improve them. The information collected will be used as data toward the completion of a PhD degree at the University of New England (UNE). This project has been approved by the Human Research Ethics Committee of the University of New England (Approval No. HE09/143 Valid to 08/10/2010).

Should you have any complaints concerning the manner in which this research is conducted, please contact the Research Ethics Officer at the following address:

Research Services
University of New England
Armidale, NSW 2351.
Telephone: (02) 6773 3449 Facsimile (02) 6773 3543

Email: Ethics@pobox.une.edu.au

### Consent Form

I _____ have read the above information and I have been informed of the nature of the study to be undertaken by Deki C. Gyamtso, SCE. I consent to participate in the research study. I understand that:

All information collected will be kept confidential;

All participants may withdraw from the Lesson Observation and interview at any time and have personal information returned to them; and

No participants will be identified in any way in reports arising from this study.

Participant's signature: _____

Email address: _____

Date: _____

*Please return this consent form to me*

**Appendix 3.9: Samtse College of Education, the Pilot Study**

**Introduction**

This study of Samtse College of Education (SCE) was also the pilot study, which, as explained in Chapter Three, examined the nature and factors that affect teaching and learning practices in the Samtse College of Education (SCE). The findings of this pilot illustrate the teaching and learning practices, and assessment procedures used in SCE (Appendix 3.9). Although the frame of reference for the literature and the methods employed in the pilot study differ from those in the larger study, the quality and quantity of data recorded make it suitable for inclusion as a separate study and in the cross case analysis. This chapter presents a condensed version of the pilot study. The pilot study concentrated on planning and implementation, with evaluation of the planning and implementation practices not undertaken in the same depth as in the subsequent case studies, making this chapter a little different from those that follow.

**Background to the College**

The College is located in the southwest of Bhutan, on a thickly wooded grassy slope overlooking the Indian plains, at an altitude of approximately 400 metres above sea level. In 1968 Samtse College of Education was founded as the first Teacher Training Institute (TTI) for the training of primary school teachers. In 1985 the B.Ed. Secondary programme was introduced and the TTI was renamed as the National Institute of Education (NIE). In 1989 the Postgraduate Certificate in Education was launched, and was later upgraded to a Postgraduate Diploma in Education in 2007. In 1993, the B.Ed. Primary programme was introduced for pre-service students and offered for in-service teachers by distance education in the winter of 1994. In 2003 it became a member of the Royal University of Bhutan and renamed Samtse College of Education in 2006. The College has a close association with the Ministry of Education and works closely with the other College of Education, Paro to train teachers, and participate in the development and improvement of education in the country.

Samtse College aspires to be a centre of excellence for teacher education, specialising in secondary education and educational research. It aims to:

*Prepare academically- and professionally-competent graduates who meet*

*international standards,*

*Offer programmes that are responsive to the diverse needs and aspirations of the learners and society at large,*

*Provide visionary leadership and effective management,*

*Develop highly-qualified, motivated and committed staff,*

*Enhance reciprocal relationships with the Ministry of Education, Schools and member Colleges of RUB, industry, alumni, international organisations and institutions* (Samtse College of Education, 2011, p. 1).

The College now offers six programmes to students and experienced teachers. The Postgraduate Diploma in Education, B.Ed. Secondary Education, and B.Ed. Primary Education are offered to novice teachers, and the B.Ed. Primary Education is offered by distance education to in-service teachers. The Postgraduate Diploma in Guidance and Counselling, and the Primary Mathematics and English Certificate courses are in-service programmes designed to upgrade and update the qualifications, knowledge and skills of practising teachers.

The total student population across the six programmes was 972 in 2011 (Royal University of Bhutan, 2011b). Students enrolled in the pre-service programmes have successfully passed courses in Science and Arts at higher secondary level (Class XII) level for the two B.Ed. programmes, and those enrolled in the Postgraduate Diploma in Education are college graduates who aspire to become secondary teachers. For the in-service programmes, teachers in the field are considered for admission into the programmes based on their academic marks, experience, performance at schools and skills and these are assessed through their professional portfolios.

A total of fifty-three academics taught in the programmes. Figure 3.1 shows the distribution of lecturers across the seven subject Departments with a large number of academics in the Science Department. The English, Mathematics and Information Technology, and Social Studies Departments had high numbers of teaching staff while the Dzongkha Department had a proportionally less number. The Professional Development Studies Department shows a small number of lecturers, but this was boosted by the contribution of lecturers from across the departments who team-taught in
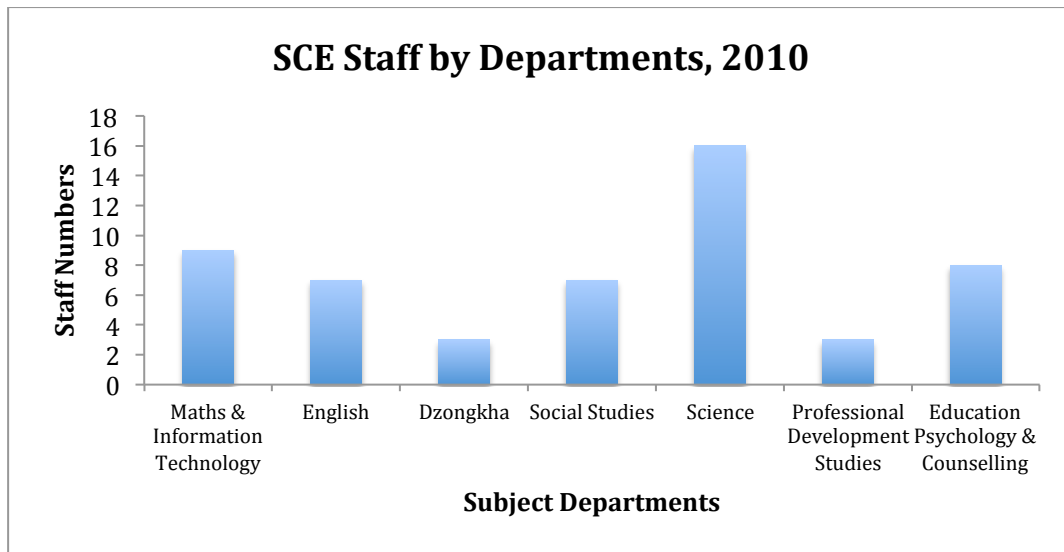
the professional development modules.



Figure 3.1. Samtse College of Education Staff by Departments, 2010, RUB 2011

In terms of academic expertise, there were a relatively high number of masters degrees in substantive areas, commonly coupled with professional qualifications such as the Post Graduate Certificate in Education (PGCE) though several held only a Bachelor degree (Figure 3.2). Twenty percent held masters degrees in education. Only one lecturer had a PhD, but three more were enrolled in doctoral studies. All higher degrees were earned outside Bhutan.
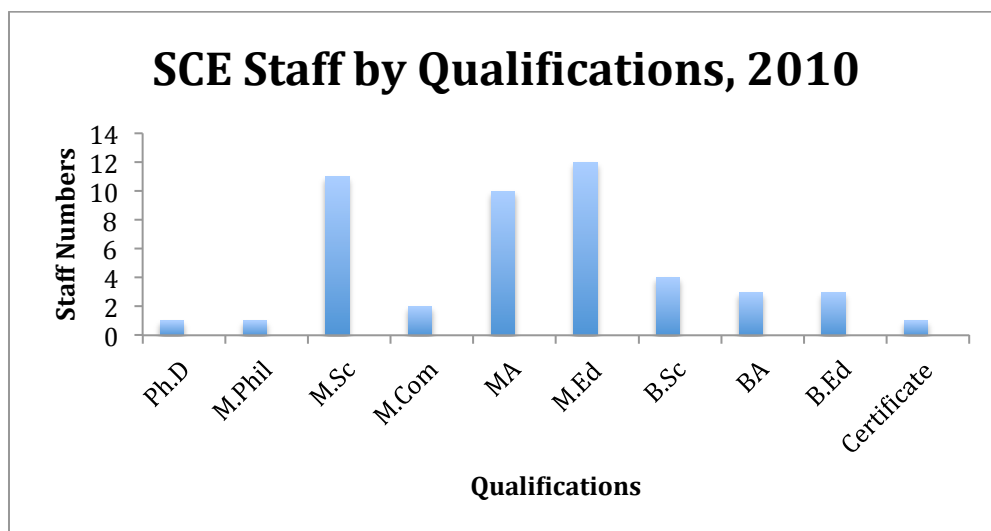


Figure 3.2. Samtse College of Education Staff by Qualification, 2010, RUB 2011

It is against this background that the *Planning, Implementation,* and *Assessment* practices in SCE are examined. The research questions that guided the pilot study are different to the ones that have been presented in the preceding case studies although in principle the focus was similar. They were:

1. What is the nature of teaching and learning practices at one of the Colleges of Education?

> *Planning: What characteristics do lecturers' planning for teaching and learning demonstrate?*

> *Implementation: What characteristics do the lessons demonstrate?*

> *Evaluation: To what extent does the assessment techniques applied by the lecturers support students' learning?*

2. What Factors facilitate or impede these practices?

> *How do the cultural factors support teaching and learning practices?*

> *What resources support the teaching and learning practices?*

> *How do the academics' knowledge and experiences influence the teaching and learning practices?*

It must be noted that the second set of research question on factors that facilitate or impede the teaching and learning practices are not discussed as they are incorporated in the discussion.

**Planning**

The research question that guided the analysis of planning in the pilot case study is *What characteristics do the planning for teaching and learning demonstrate*? This question is reported on here.

All eight lessons observed had written lesson plans provided by the lecturers who taught them. This was expected practice in SCE. The plans were brief but comprehensive and contained the essential components to implement a lesson successfully. As preparation of plans for lessons was common practice in the College,

the lecturers were able to hand them to me prior to each lesson that was timetabled for observation by the researcher. Written plans encourage teachers to think carefully through the phases of a lesson specifically, and through each lesson generally. This is a sign of good practice and professionalism, and one which the lecturers had to model for the students who were training to become teachers. Examination of these lesson plans as the unit of analysis was therefore pivotal to understanding how the lecturers planned, implemented, and evaluated the lessons in order to promote learner-centredness in the classrooms.

The categories in both the pilot and the principal study in planning were mapped to compare them in order to identify the similarities (Table 3.4). These themes, listed as characteristics of *Teacher-centredness* and *Learner-centredness* were used to analyse the data on Planning at SCE – *Goals and objectives, Organisation of curriculum, View of knowledge, Role of teacher* and *Role of student*. Table 5.1 shows detailed information about the characteristics of each analytical category and the corresponding categories in the principal study.

Table 3.4. Planning Categories

| Pilot Planning categories | | | Principal study Analytical categories |
|---|---|---|---|
| | **Teacher Centred (TC)** | **Learner Centred (LC)** | |
| View of Knowledge | Students are viewed as 'empty' vessels and learning is an additive process
Teachers serve as the centre of epistemological knowledge, directing the learning process and controlling student's access to information
Focus is on a single discipline
Knowledge exists 'out there'
Time held constant, learning varies | Learners come with their own perceptual frameworks (Erikson, 1984)
Learning is an active dynamic process in which connections are constantly changing and their structure is continually reformatted (Cross, 1991)
Learning held constant, time varies | Role of teacher
Content knowledge |

| | Pilot Planning categories | | Principal study |
|---|---|---|---|
| | Teacher Centred (TC) | Learner Centred (LC) | Analytical categories |
| Goals and objectives | Teacher prescribes learning goals and objectives based on teacher understanding of student prior experiences, past practices, and state and/or locally mandated standards Improve the quality of instruction | Students work with teachers to select learning goals and objectives based on authentic problems and students' prior knowledge, interests and experience Create powerful learning environments Improve the quality of learning | Learning Outcomes Assessment |
| Organisation of curriculum | Courses in the syllabus handbook Syllabi and curricula are both discipline and product-based Knowledge sequenced in the conception of the teacher | Cohesive programme with systematically created opportunities to synthesise, create and develop increasingly complex skills, ideas and values Syllabi and curricula are organised not just around the 'facts' the learner is supposed to acquire but around the processes through which learning is to be developed | Content Knowledge Teaching and Learning Approaches |
| Role of Teacher | Teachers serve as the centre of epistemological knowledge, directing the learning process and controlling student's access to information Organises information to groups of students | Teacher acts as facilitator, helps | Role of Teacher |
| Role of Student | Not actively involved | Involved in curriculum construction | Role of student |

As noted in the Methodology Chapter, eight lessons were selected across the eight subject departments, for observation during the first semester in 2008 and each had a pre-and post interviews as well as the *In-Lesson Questionnaire*.

**Goals and Objectives** *[learning outcomes]*

The LOs demonstrated learner-centredness in the plans for the eight lessons as they indicated what the students would be able to do at the end of the lesson, thus focussing on student performance. For example, *Construct a concept map of a science topic* in the *Concept Mapping* lesson (Sce.psc.lp, 14 March 2008); *Measure and calculate HR and BMI* in the *Fitness* lesson (Sce.hpe.lp, 11 March 2008); and *Analyse the relationship between education and different types of development* in the *Education for Development* lesson (Sce.efd.lp, 11 March 2008). Each is clearly based on valid problems and takes into account students' prior knowledge, interests and experience gained during their training as teachers in their respective subjects. They focus on what the students would do, rather than what the lecturer will do, in the lesson. Similarly the LOs for the other five lessons used action verbs such as *analyse, measure, construct,* and *discuss* in the LOs, indicating learning that was observable and measurable. The use of concise and appropriate language helped students to use the LOs to structure their learning. The more clear and concise the language, the greater the likelihood that student learning will be promoted according to Kennedy et al. (2006). Clear articulation of learning outcomes serves as a foundation to evaluate the effectiveness of the teaching and learning process.

A combination of lower and higher levels of thinking was evident in the LOs as shown in Table 1.2:

Table 3.5. Types and Levels of Thinking in the Learning outcomes across the lessons

| | **Lesson** | **Examples of Learning outcomes** | **Type SMART Criteria Category** | **Level of thinking (Bloom's Revised Taxonomy)** |
|---|---|---|---|---|
| 1 | The Relationship between Education and Development lesson plan (Sce.efd.lp, 11 march 2008). | *Analyse the relation between education and the different types of development* | Subject-specific | Analysing |
| 2 | Fitness (Sce.hpe.lp, 11 march 2008 | *Measure Heart Rate and Body Mass Index* | Subject-specific Skill-based | Evaluating Applying |

| | Lesson | Examples of Learning outcomes | Type SMART Criteria Category | Level of thinking (Bloom's Revised Taxonomy) |
|---|---|---|---|---|
| 3 | Communication Approach (Sce.engh.lp, 13 March 2008). | *Practice verbal communication within a language context through role-play, picture story and language game* | Subject-specific | Applying Creating |
| 4 | Concept Mapping lesson plan (Sce.psc.lp, 14 March 2008). | *Construct a concept map of a science topic* | Subject-specific Skill-based | Creating |
| 5 | Stem and Leaf Display (Sce.math.lp, 12 March 2008). | *Compile data and draw the stem and leaf display* | Subject-specific | Remembering Understanding |
| 6 | Project Method (Sce.ssc.lp, 18 March 2008). | *Discuss the definition, importance, and procedures in Project Method* | Subject-specific Skill-based | Remembering Understanding |
| | | *Present group findings* | | Applying |
| 7 | Pronunciation of Difficult Words (Sce.dzo.lp, 20 March 2008);| *Recognise the importance of pronouncing consonants correctly* | Subject-specific Skill-based | Understanding |
| | | *Identify the problems in pronouncing consonants* | | Understanding |
| | | *Improve pronunciation through practice* | | Creating |
| 8 | Individual Differences (Sce.utl.lp, 19 March 2008) | *Discuss Individual Difference* | Subject-specific | Understanding |
| | | *Explain what are Individual Differences* | | Understanding |
| | | *Find out students perceptions about Individual Differences* | | Evaluating |

Fifty-seven percent of the LOs were designed to stimulate higher levels of thinking, which required that students manipulate information and ideas in ways that

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Newmann and Wehlage (1993) say transform meaning and implications. A. L. Ball and Garton (2005) assert that the development of well-written objectives [learning outcomes] greatly accelerates a learner's ability to move into higher levels of thinking which have the effect of engaging students with a deeper understanding of learning.

Lower levels of thinking were also essential at times, such as in the Dzongkha lesson on *Pronunciation of Difficult Words* in which students were required to 'recognize' and 'identify' the consonants in order to improve their pronunciation. In some sessions, however, such as the lessons on *Project Work* and *Individual Differences*, there were both levels so that students' learning could gradually move from lower levels of thinking to a more demanding, higher level of thinking.

**Organisation of the curriculum *[in the lessons]***

The curriculum for the lessons was not planned just around 'facts' that the students were supposed to acquire, but around processes such as thinking, discussion, analysis, construction, measurement, calculation, and synthesisation through activities. Almost all of the lessons had thinking activities organised so that students were required to apply the 'facts' through discussions, analyses or hands-on activities such as measurement and calculation (e.g. the *Fitness* lesson). This indicates learner-centredness as the focus is not on what the lecturer would do in the lesson; instead the focus is on what the students were doing. Weimer (2002) asserts that content plays a dual function in learner-centred teaching: establishing a knowledge base and promoting learning. Lecturers should develop course content not to cover everything, but to develop learning skills and learner awareness.

**View of Knowledge**

The view of knowledge presented in most of the lesson plans focused on building knowledge of facts or understanding concepts. For instance, in the *The Relation between Education and Development* lesson plan, the lecturer arranged a group activity, assigning each group specific topics such as *education and spiritual development, education and economic development* thus facilitating students discussion aimed at determining relationships between ideas (Sce.efd.lp, 11 March 2008). This

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strategy indicated that while planning the activity, the lecturer did not intend to control students' access to knowledge but acknowledged the implicitness of students' own 'perceptual framework' in learning. Similar examples were observed in the *Concept mapping* lesson in which a group activity was planned for students to construct concept maps for a topic from the Science textbook (Sce.psc, 14 March 2008). Thus, the view of knowledge was not that of 'filling empty vessels' but a revisitation and reinforcement of the ideas the students already had. The activities planned for the lessons demonstrated that opportunities were to be provided for the students to interact with the content through analytical reasoning, interpreting, understanding, or responding to the demands of the tasks. A large body of research (Bain, 1994; Biggs, 1999; Entwistle, 1991; Meyer & Boulton-Lewis, 1999; Trigwell & Prosser, 1991) demonstrates that there is a link between students' previous experiences and motivation and their performance as learners. Tapping into this information puts the teachers in a better position to assist students by increasing relevance and thereby enriching understanding (Ingleton, Kiley, Cannon, & Rogers, 2000).

**Role of Teacher**

The role of the teacher in planning was as developer of the lessons and organiser of resources. In the role as developer of the lesson plans, the lecturers planned learning activities such as measuring and calculating the heart rate and Body Mass Index for the *Fitness* lesson (Sce.hpe, lp, 11 March 2008); group activity and class presentation in the *Relation between Education and Development* lesson plan (Sce.efd.lp, 11 March 2008); group activity on concept mapping of science topics in the Primary Science lesson plan (Sce.psc, lp, 14 March 2008); role-play and simulation in the *Communication Approach* lesson plans (Sce.engh.lp, 13 March 2008). The fact that the lecturers planned such activities indicated the learner-centred focus of the lessons. Even the largely lecture-based *Individual Differences* lesson had brief self-assessment activities embedded in the class. The role of the teacher, therefore, included that of facilitator as the lessons were organized around student activities. Indications of such practices were evident in the lesson plans as the lecturers provided a variety of learning opportunities designed to achieve the learning outcomes. These indicated not what they would do, but what the

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students would do and learn. Raising the students' awareness of the learning process through the activities indicated an assumption that learning would have meaning for the students. Weimer (2002) asserts that the role of the instructor in student-centered classrooms is to encourage learners to engage in discovery learning and to learn from each other; the instructor focuses on constructing authentic, real-life tasks that motivate learner involvement and participation – which reflects the situation in this case study.

### Role of Student

In contrast to the learner-centred role of the lecturers described above, the role of the student was passive in the planning process; they were viewed as knowledge receivers. For instance, as noted in the *Individual Differences* lesson plan, information input was a major part of the lesson. In the other seven lessons, although activities were planned to promote learning, the students were not directly involved in actively constructing the lesson. This divergence from the ideal role of students in learner-centeredness was not reflected in the planning characteristics of the lecturers, suggesting that teacher-centredness was inherently in the curriculum design.

### Summary

Analysis of the data that emerged from the eight lesson plans indicated that learner-centredness was an essential characteristic of the planning performed by the lecturers. This was demonstrated by the fact that the lecturers developed LOs for the lessons which were significantly specific, measurable and achievable.

LOs were also based on levels of thinking that were mostly at moderately higher order level. Moreover the inclusion of activities in the lessons plans, suggests that the focus was on students processing information through discussions, analyses, measurement and calculation. The lecturers were observed as facilitators of learning in the plans while conflictingly students were seen in the passive mode. All these characteristics pointed towards learner-centred practices during planning, which centred not on what the teacher does, but what the teacher does to ensure student learning.

Student-centred learning has subtle but profound implications for lecturers. To move toward this model, lecturers must be willing to emphasise learning while sharing

power with learners in the classroom (Barr & Tagg, 1995). This can be done in a thoughtful way through planning and the use of incremental steps. First, teachers can help learners set goals for themselves, and offer self-directed activities through which learners could build both their self-confidence and their learning skills. As a result, learners can become motivated to take greater control of their learning, and teachers are able to gain confidence in managing the new environment. However, the SCE plans analysed did not show any evidence of this power-sharing.

### Implementation

In this section, data from the lesson observations, and the *In-Lesson Questionnaires* was explored in order to address the research sub-question - *What characteristics do the lessons possess?* Comparative analyses of the eight lessons against the characteristics identified for analysis are presented, followed by the key findings in order to provide a comprehensive picture of the characteristics of lecturers' teaching, thus adding rigour to the analytic process.

### Comparative Analysis

The eight lessons were informative of the teaching and learning practices that occurred in the classrooms of SCE. They provided the basis for analysis, and assisted me to see 'into' the classroom learning and identify the characteristics that emerged. Table 5.2 Comparative Analyses of the Observed Lessons, presents a summary of the findings.

### *View of knowledge*

With respect to view of knowledge all the lessons had a combination approach (different emphases of teacher-centred (TC) and learner-centred (LC) in the teaching and learning process (Table 1.1). Each lesson demonstrated that the lessons were focussed on acquiring knowledge of facts or understanding concepts, followed by opportunities to use analytic reasoning which focussed on understanding, interpreting or responding to the topic. For instance, in the *Relation between Education and Development* lesson, the focus of the lesson was on the group activity in which the students had to present their understanding of the relationship between education and

various kinds of development. Prior to the group activity, the lecturer explained the relationship between education and development, and cited appropriate examples. Comments in the *In-Lesson Questionnaire* corroborated the conclusions drawn from the observations:

> *The lesson was informative and useful; we are made to work in groups; The tutor taught and lectured in simple language with transparency* [OHT] *display;* and
>
> *The lesson was well prepared and enjoyed doing group work* (Sce.efd.lq, 11 March 2008).

Similar patterns were observed in the Science, Social Studies, Child Development Studies, and English lessons. Comments from the respective *In-Lesson Questionnaires* confirmed these findings:

> Communication Approach
>
> *More of activity-based learning;* and
>
> *Various activities were carried out to make class interesting* (Sce.engh.lq, 13 March 2008).
>
> Concept Mapping
>
> *Group activity was interesting with good discussion and presentation and monitoring during the activity* (Sce.psc.lq, 14 March 2008).
>
> Individual Differences
>
> *Got clear concept/idea about the topic;* and
>
> *Analytical questions asked in an excellent way* (Sce.chd.lq, 19 March 2008).
>
> Project Work
>
> *Lesson was well planned, comprehensible and interesting*; and
>
> *Lesson concept was clearly explained with good presentation by lecturer* (Sce.ssc.lq, 18 March 2008).

The view of knowledge for the lessons was determined by the manner in which the lessons were organised and implemented, and included information input, explanations and opportunities for discussion through activities. The view of knowledge was identified a as combination of TC and LC. However, not all the lessons demonstrated this combination, for example comments from students in the *In-Lesson Questionnaire* for the *Stem and Leaf Display* lesson, included the following:

*Lesson concept was not clear;*

*Covered less content*; and

*Data collection was not suitable* [for the activity] (Sce.math.lq, 12 March 2008).

These comments suggested that the view of knowledge in the lesson was unclear, inadequate, or inappropriate.

### *Instructional Strategies*

All the lessons demonstrated a combination of LC and TC instructional strategies. There was blend of lecturer input and activities in all of the eight lessons though the amount varied from 10% in the English lesson on *Communication Approach* to 40% in the Science lesson *Concept Mapping* in which a large segment of the lesson was spent explaining the components and stages of concept mapping (Sce.engh.lo, 13 March 2008). Group work was included in six of the lessons, and pair- and individual-work in the *English* and *Child Development Studies* lessons respectively. In six of the lessons, the lecturers asked questions, whereas in two lessons (*Child Development Studies and Education for Development*) questions were elicited from the students during the follow-up activity, which was challenging for them. Comments on the *In-Lesson Questionnaires* for some of the lessons supported the observation findings:

Pronunciation of Difficult Words (Dzongkha lesson)

*Everyone was involved in the class;*

*Class activity was effective;*

*Lesson was student centred;* and

*Different activity was given to us like searching for difficult words from the Kuensel* (Sce.dzo.lq, 20 March 2008).

Individual Differences

*Lesson was focused on individual activities;*

*More number of learner activities were* [sic] *carried out;*

*More focus given to discussion;* and

*Analytical questions were asked in an excellent way* (Sce.utl.lq, 19 March 2008).

The Relationship between Education and Development

*Lesson focussed on the interaction between the lecturer and the*
*students and among the students themselves during the group work*
(Sce.efd.lq,11 March 2008).

The instructional activities largely promoted LC in the lessons. The activities included group work, which was the most commonly used, and individual activities. However in some lessons, the activities were not very substantial e.g. in the *Maths* lesson, students spent an hour compiling data and drawing the stem and leaf display, an essentially trivial task compared with the more intellectually engaging ones carried out in the *Science, English, Education for Development and Dzongkha* lessons. Moreover, the activities in the *Maths* lesson were at the lower levels of Bloom's Revised Taxonomy (Anderson & Krathwohl, 2001). For students in the third year of the three-year B.Ed programme, the Maths activities could have been much more demanding and challenging.

### Learning Outcomes

All of the lesson plans included learner-centred outcomes using action verbs and processing information skills which were designed to elicit moderately higher order thinking.

The lesson activities were guided by the planned learning outcomes. For example, the LO *construct a concept map of a science topic* in the Science lesson, required that groups of students make a concept map of a science topic (Sce.psc.lo, 14 March 2008). Similarly in the other lessons, activities were guided by the LOs.

### Role of Teacher

In three of the lessons, the role of the teacher was clearly learner-centred. These teachers acted as facilitators, indicating a helping relationship, for example, by providing handouts in the Social Studies lesson, by effective monitoring, by assisting, checking, keeping them on task in lessons such as in the *Dzongkha* and *English* lessons. In the other five lessons (*Science, Educational for Development, Child Development studies, Maths and Health &Physical Education*) lecturers were observed to be skilled

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performers who employed a set of specific techniques, who shared their knowledge with the students and employed a facilitative approach to teaching. The lecturers displayed their knowledge of the given topics, their familiarity with the relevant teaching techniques and assigned activities for the students accordingly.

### Role of Learners

In six of the eight lessons students were actively involved in the lessons, engaged in individual, pair and group activities. The nature of the learning activities inevitably resulted in the students taking responsibility for their learning by discussing, analysing, and reconstructing knowledge. For instance:

Preparing presentations and defending their topic in *Education for Development* lesson (Sce.efd.lo, 11 March 2008)*,*

Explaining the steps in project work for *Social Studies* lesson (Sce.ssc.lo18 March 2008)*,*

Making predictions, filling in the blanks of a story, and constructing a telephonic conversation based on different themes in the *English* lesson (Sce.engh.lo, 13 March 2008), and

Reading the Dzongkha newspaper and identifying the words that are mispronounced and practising them by pronouncing them repeatedly in the *Dzongkha* lesson (Sce.dzo.lo, 19 March 2008).

The other two lessons had a combination of both approaches as they contained some from each in various segments of the lesson. In the *Science* lesson, 40% of the session was taken up by lecturer input, as the teacher described the topic with a shorter time spent in group activities. A similar pattern was observed in the *Individual Difference* lesson, with the lecturer's explanation of Gardner's theory on Multiple Intelligence taking up a large part of the lesson period (Sce.utl.lo, 19 March 2008).

### Learning Environment

The learning environment was observed to be a fine balance between TC and LC in five of the lessons. There was support and assistance from the lecturers and

cooperation and collaboration from the students, resulting in an environment that was conducive to learning. The lecturer gave clear instructions and provided information systematically which facilitated student involvement. In the other three lessons *Project Work, Fitness* and *Communication Approach*, the environment was very learner-centred and learning was encouraged in a warm and amiable environment. Students took responsibility for their learning and shared a friendly, easy relationship with the lecturers.

### *Effective Teaching*

For this characteristic on effective teaching, in four of the lessons a learner-centred approach prevailed in the classroom whereas the other four lessons were driven by a combination of approaches. The lessons showed the lecturers using a combination of strategies, on of which is sometimes described as the 'sage on stage' approach which included presenting information and engaging students in their learning. The combination approach was observed in the *Dzongkha, Science, Child Development Studies,* and *English* lessons with the lecturers effectively delivering the information and then assigning activities to engage the students in learning. In the other four lessons *(Education for Development, Social Studies, Maths, and HPE),* the lessons displayed LC attributes, with the lecturers helping students to master the learning outcomes and providing meaningful feedback as way of informal assessment.

### *Other Findings*

A significant finding that emerged from the data is the belief that learner-centredness means simply organising activities for the students. Activities should not be organised for their own sake, but with the specific aim of meaningful learning taking place. With reference to some of the lessons (e.g. *Mathematics* and *Social Studies*), although the activities kept the students engaged throughout the duration of the lesson, the question - *What kind of significant and substantial learning took place?* remains unanswered.

The Dzongkha lesson was a complete surprise. Phuntsho's *Two Ways of Learning in Bhutan* (2000) indicates that the teaching of Dzongkha uses a traditional

approach, meaning that it is notably teacher-centred. However, the Dzongkha lesson was one of the most learner-centred lessons observed in the study. It included individual activities such as the lecturer bringing in the week's newspaper, distributing sheets of it to the class, and asking them to read and identify the commonly mispronounced words. This was a creative idea as it related to the students' everyday activity and made sense. Reading and repeating the words aloud until they pronounced them correctly as a class activity was appropriate and fits with the explanation provided by Webb (1997, as cited in Biggs, 2003, p. 14) that there is a common misconception that memorisation indicates surface learning. On the contrary, it was entirely appropriate in such cases of language learning and especially in Dzongkha, which requires practice to pronounce words correctly.

While there was 100% confirmation from the students that the *Mathematics* and *English* lessons were very different from the usual lessons, the other lessons were only moderately so, with additional activities or the use of resources likely that the lessons were intentionally planned for observations. These findings were sobering as they reflected that what was observed may not the reality of what usually happened in the classrooms at SCE. However, to consider it positively, it proved that the lecturers *could* organise LC lessons and that they know how to do it. Students' comments in the *In-Lesson Questionnaire* corroborated this observation. The responses to the question: *To what extent was this lesson typical when compared to previous lessons with this lecturer?* demonstrated that the lessons were the 'best possible practices' and to some degree 'not usual':

> *Before there was no group presentation as such. Now good interaction made students active by providing some useful activities which is informative and effective* (Sce.efd.lq, 11 March 2008);

> *I would like if Sir could give us different activities and make us do our activities in pairs like we had in present class* (Sce.engh.lq, 13 March 2008);

> *The classroom becomes more lively with various learning activities and it would be better if continued with the same spirit* (Sce.engh.lq, 13 March 2008)*;*

> *Today's lesson was far more better* [sic] *as compared to the previous one because he used to read out what was there in the transparency*

*and close the lesson. But today's lesson, I could see that he was using chalkboard and explaining with the help of aids* (Sce.math.lq, 12 March 2008)*;*

*More activities were given compared to previous one* (Sce.dzo.lq, 20 March 2008)*;* and

*Activities were given individually and stress more upon individual as compared to previous lesson* (Sce.utl.lq, 19 March 2008)*.*

On reflection, the lessons should be interpreted as the 'best possible' lessons, as lecturers knew well beforehand that their particular lesson was to be observed.


### *Summary of findings*

The key features observed in the lessons led to the following conclusions about the characteristics of the teaching and learning practices at SCE. The most significant feature was the existence of a combination of practices in the classrooms, with TC and LC being employed to varying degrees. A combination of the two approaches was commonly observed. Features of teacher-centredness – for example such as treating students like 'vessels to be filled' were observed. This was especially evident in the *Individual Difference* lesson in which theories were explained to the students. However, there may have been extenuating circumstances, as this was a new subject for the students so the possibility that they would have prior knowledge was unlikely. Not a single lesson demonstrated *all* of *the* seven characteristics of learner-centredness.

Although activities were spread throughout the lessons, the lecturers' behaviour suggested that they believed that they must also *teach something*; therefore the lecturer must be a skilled performer who also has significant expertise in the topic. In this mode, students are viewed as 'vessels to be filled' and the lecturer as 'the sage on the stage'.

While the teacher-centred/learner-centred ratio was satisfactory, rigour was missing in some of the lessons, with the substance and level of the tasks not appropriately demanding. Greater lesson substance that that challenged the students would have enhanced learning. As pointed out earlier in relation to the *Social Studies* and *Mathematics* lessons, the topic had already been introduced in previous modules. The students engaged with the activities in the way described by Ference Marton and

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Säljö (1976a) as aiming to complete the task with the minimum of effort, yet appearing to meet the course requirements. Low-level cognitive activities were conducted when higher-level activities should have been required. On the other hand, the *Science* and *English* lessons engaged the students in slightly deeper learning. When deep learning was required, active responses were elicited from students by questioning, presenting problems, and teaching with the aim of explicitly bringing out the structure of the subject (Ference Marton & Säljö, 1976a). Some of these attributes were also present in the *Education for Development, Child Development Studies,* and *Dzongkha lessons.*

Table 3.6 summarises the key findings in relation to the data that emerged from the lesson observations, showing the characteristics of the lessons, whether were teacher-centred (TC), learner-centred (LC) or had a combination (C) of both features. Table 3.5 provides a snapshot of the characteristics of the lessons. The key seven characteristics used across the eight lessons illustrate whether the lessons are teacher-centredness, or student-centredness or a combination of both approaches.

Table 3.6. Comparative analyses of the lessons in the study

| Characteristics | Professional Lesson 1 | Dzongkha Lesson 2 | Social Studies Lesson 3 | Science Lesson 4 | Maths Lesson 5 | Child Development Lesson 6 | Health and Physical Education Lesson 7 | English Lesson 8 | Total Count |
|---|---|---|---|---|---|---|---|---|---|
| View of Knowledge | C | C | C | C | C | C | C | C | C - 8 |
| Instructional Strategies | C | C | C | C | C | C | C | C | C - 8 |
| Learning Outcomes | LC | LC | LC | LC | LC | LC | LC | LC | LC – 8 |
| Role of Teacher | C | LC | LC | C | C | C | C | LC | LC-3 C - 5 |
| Role of Learner | LC | LC | LC | C | C | C | LC | LC | LC-5 C-3 |
| Learning Environment | C | C | LC | C | C | C | LC | LC | LC – 3 C- 5 |
| Effective Teaching | LC | C | LC | C | LC | C | LC | C | LC – 4 C-4 |
| | LC- 3 C- 4 | LC - 3 C - 4 | LC – 5 C - 2 | LC – 1 C - 6 | LC – 2 C - 5 | LC – 1 C - 6 | LC – 4 C - 3 | LC – 4 C - 3 | |

Key: LC – Learner-Centredness, TC – Teacher-Centredness, C- Combination of both approaches

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The research sub-question: *What characteristics do the lessons demonstrate*? is addressed, with findings from analysis of the lessons summarised in Table 3.6 These indicate that the lessons included a combination of teacher-centred and learner-centred characteristics, with evidence of some surface learning features in a few of the lessons. The lessons were learner-centred as they were guided by the learning outcomes. Activities in the lessons ensured the learner-centredness of the lessons although there were varying degrees of deep and surface learning promoted by the activities.

The next section examines the assessment techniques utilised by the lecturers in the lessons.

### Research sub-question - To what extent do the assessment techniques applied by the lecturers support students' learning?

Assessment is known to have a profound influence on what students study, how they study, how much they study and how effectively they study (Gibbs & Dunbat-Goddet, 2007, p. 1). Therefore carefully-designed assessment strategies contribute directly to the way students approach their studies and therefore contribute indirectly, but powerfully, to the quality of their learning.

Data from the *Focus Group Discussion* (FGD) and *In-lesson questionnaires* from the eight lessons was utilised to address the research sub-question: *To what extent do the assessment techniques applied by the lecturers support students' learning?* However some caution had to be exercised with the data, as the discussions that took place could not fit well with the five categories in the checklist namely view of knowledge, assessment strategies, grades, role of teacher and role of learner that was utilised to analyse the data. Therefore, most discussions were considered that were closest to the five categories. As one of the purposes of the study was to discover the kinds of assessment that were being employed at SCE.

#### View of knowledge

The responses of the participants in the focus group discussions indicate that the *view of knowledge* about assessment was mostly teacher-centred. Most of the lecturers included in the Focus Group Discussion (FGD) viewed assessment as an exercise

designed to sort and monitor students but not as an integral part of learning. One-third of the participants in the FGD recognised that assessment is an integral part of learning and not separate from it, but none acknowledged the importance of performance-based assessment, which suggested that assessment was not practiced in a learner-centred manner and therefore was not supportive of students' learning. Thus the respondents did not appear to be very conversant with assessment issues like peer-assessment and the workload for the students and this was probably not reflected in their practices too.

### Assessment Strategies

Assessment strategies at SCE tended towards LC, 70% indicating clear and widespread appreciation of the essential components of assessment strategies. Strategies included projects, portfolios, written assignments, and essays. In contrast, 30% of the assessment strategies practised were summative (like the semester-end exams), and therefore teacher-centred, driven by module requirements.

Only one participant mentioned diagnostic assessment, which is a learner-centred characteristic in which the students' needs and difficulties are identified and addressed. As no other lecturers even mentioned diagnostic assessment it may be safely assumed that this kind of assessment was not very common in the college.

Although assessment strategies were largely learner-centred, it is not assumed that the principles were well established. None of the lecturers referred to *assessment that is 'formative' in character, based on understanding of the processes in knowledge construction*. This was a rather serious concern as formative assessment is known to have a significant impact on the quality of learning outcomes (Black & Wiliam, 1998). Additionally research on summative assessment confirms that students' experiences were mostly negative when there was a high volume and variety of summative assessment, and little formative-only assessment or oral feedback (Gibbs & Dunbat-Goddet, 2007, p. 4). Being a teacher training college, SCE lecturers could be expected to employ such formative assessments in their teaching so that the students could learn and implement them in their own teaching after graduation.

### Grades

There was agreement among the lecturers that grades were used to indicate mastery of learning outcomes, a learner-centred characteristic. The lecturers involved in the FGD said that grading their work encouraged students to perform their best work, and it was their work rather than the normal curve distribution that determined their grades indicating mastery. Thus assessment practices were aimed at evaluating individual student performance rather than identifying their relative position in a group, or mapping their performance in relation to an average score. The lecturers also asserted their commitment to assessment that provided them with an understanding of what the students know, and what they could do with what they knew. This involved more than knowledge and skills, and includes values, attitudes and habits of mind that affect both academic success and performance beyond the classroom. Therefore mastery of the learning outcomes provided lecturers with an accurate picture of the students' learning, learning which would allow them to apply similar practices in their professional careers.

### Role of Teacher

Fifty percent of the respondents in the Focus Group Discussion viewed themselves as upholding teacher-centred assessment practices. Of these, 20% of the respondents viewed themselves as gatekeepers of knowledge and the remaining 80% viewed themselves assessors of performance. At SCE it was the lecturers who decided the nature of, and set the assessment tasks which were, in turn, determined to some extent by the B.Ed Syllabus.

The other 50% of lecturers who expressed assessment in learner-centred terms held the view that the teacher acts as a facilitator who helps the students to learn. This accorded well with the process-oriented strategies that prevailed in the college. The lecturers explained that in this role, they guided the students in their assessment tasks by looking at their drafts and directing them to resources, some even provide materials from their own collection of references if not available in the college library. They also provided oral feedback on class discussions and presentations.

Students in the *In-Lesson Questionnaires* and *Interviews* commented that the types of feedback given by lecturers on their assignments were mainly evaluative and

descriptive feedback. Providing feedback is a powerful tool that promotes student achievement by helping to diagnose problems and thus assist students in their learning and is clearly a learner-centred practice. With regard to the quality of the assistance, students noted that the feedback was particularly helpful when it was specific and when it provided them with directions to improve their work, for example citing references correctly, focussing on the questions of the assignment, use of language, collecting relevant materials from a range of sources. However the timeliness of the feedback was varied, with some students reporting a turn-around time of two weeks, and others saying that it was two months or more. The lecturers who returned students work immediately or within a fortnight were considered as promoting learner-centred practices, whereas the ones who took two months or more were seen as adhering to teacher-centred practices. Timely feedback is *extremely* critical in student learning. According to Anderson and Burns (1989), timely, detailed feedback provided as near in time as possible to the performance of the assessed behaviour and work is **most** effective in providing motivation and in shaping behaviour and promoting student learning.

It was evident from the data that the role of the teacher in assessment was combined with both LC and TC practices being variously employed.

### *Role of Student*

In the FGD, lecturers described the students' role in evaluation as learner-centred, with 12% of the respondents saying that students take responsibility for their learning. Another four 4% said that lecturers and students work together to define performance criteria, and 64% claimed that students developed self-assessment and peer assessment skills during class presentations and group activities. However, the lecturers also said that it was not very common to have the students and lecturers define the performance criteria together for major assignments, as the assessment details were already set in the work plans and syllabus handbook (which they had prepared in advance).

Also in the FGD, 20% of the lecturers asserted that there was a teacher-centred approach to the role of students' involvement in assessment and suggested that this stemmed from the fact that they taught the students what would allow them to pass the

exams, and that students asked what the lecturer expected of them in the module. This was a teacher-centred orientation suggesting the importance of summative assessment i.e. examinations.

As noted earlier in relation to the role of the teacher, students reported that the kind of feedback on the assignments was mostly descriptive and evaluative. In relation to five of the eight lessons, students reported feedback that they described as both descriptive and evaluative, indicating that learner-centre practices were in place. The feedback informed the students about their performance either as a value judgement (e.g. *A$^+$ good! keep it up!* (Sce.math.lq, 12 March 2008) in the *Maths* lesson), or a description of what the student wrote (e.g. *Need to focus on the topic more precisely* (Sce.engh.lq, 13 March 2008) in the *English* lesson). Students were also provided with strategies for improvement, for example *Use more references, improve organisation of assignment, and improve citing reference*s (Sce.hpe.lq, 11 March 2008) in the *Health & Physical Education* lesson. Students commented on the usefulness of the feedback saying that it helped to improve their subsequent assignments. In the other three lessons students did not comment on the feedback question in the questionnaire, as they had had no prior contact with the lecturer concerned. Although quality feedback was provided to help students improve their learning, timeliness was an issue for them, with students again reporting in the *In-lesson Questionnaires* that the turn-around time for some assignments could be two months or more. This is not considered successful learner-centred teaching as delayed feedback, according to Race (2001) significantly erodes the positive effects of feedback. There were some lecturers, however, who provided feedback immediately or within two weeks, which was beneficial for the students.

In summary, a combination of teacher-centred and learner-centred assessment practices was observed in the planning, implementation and assessment approaches employed by lecturers. Although they did not result in significant overall support for student learning, it is evident that other factors impacted on the teaching and learning processes.

**Evaluation**

This final section of the pilot study consists of an evaluation of the teaching and learning practices at SCE with a view to addressing the research question: ***To what extent do the planning and implementation practices of the lecturers support student learning in the Samtse College of Education?***

As acknowledged in the introduction of this chapter the focus of this pilot case study is on describing and analysing the planning and implementation at SCE, rather than on evaluation. This section is, therefore, limited in comparison with the evaluation sections in subsequent case studies. The seven categories identified in the analytical framework for the other case studies are applied in order to ensure consistency and to facilitate the cross case analyses in Chapter 8.

### *Learning outcomes*

The learning outcomes were consistently and reasonably well-planned in all of the eight lessons and satisfied the SMART criteria; 57% incorporated higher levels of thinking. Most of the LOs supported student learning to a large extent as they described what students would be able to demonstrate in terms of knowledge, and skills. Well-articulated LOs supported the teaching and learning approaches in the lessons, focusing on what the students were to learn, not on what the teachers were to do. Thus the LOs were well-constructed, and were designed to promote learner-centredness.

It was clear during the implementation phase, that the LOs were achieved on account of the specific learning activities that were included. For example, in the *The Relation between Education and Development* lesson, the LO *analysing the relation between education and development* involved group activity in which they students discussed the relationship between education and various kinds of development (e.g. spiritual development, economic development) and each group then shared their findings with the class. Similar examples were seen in the *Concept mapping, Communication approach, Pronunciation of Difficult Words, Fitness, Project method* and *Individual Difference* lessons. The exception was the *Stem and Leaf display* lesson in which the LO *Compile data and draw the stem and leaf display* was relevant to the subject (Mathematics) but was not presented an appropriate level for tertiary studies.

Consequently the LO was achieved at a superficial level with not much deep learning being promoted.

### *Teaching and Learning*

An important observation about the teaching and learning approaches is that learning activities were planned with the intention of stimulating and challenging the students. Activities such as role plays and simulation in the *Communication approach* lesson, group work in the *The relation between Education and Development*, *Concept mapping*, *Project method*, *Stem and Leaf display*, *Pronunciation of Difficult Words,* and *Fitness* lessons and individual self-assessment tasks in the *Individual Difference* lesson were selected to correspond with the learning outcomes. The planning showed characteristics of learner-centredness, as the focus was on what the students would do in the lessons. They ranged from fairly simple 'read and repeat' exercises in the Dzongkha lesson on *Pronunciation of Difficult Words,* to complex ones such as the role play in the *Communication approach* lesson and concept mapping in the *Science* lesson.

During implementation, the learning activities were carried out as planned in order to actively engage the students. The students were doing more than listening; they were engaged in discussing, writing, reading, practicing, calculating. In doing so they were engaged in higher order thinking tasks, which required application, analysis, synthesis and evaluation. For example, they were prompted to think more deeply about the content in the *Concept mapping* and *The relation between Education and Development* lessons; to bring additional energy to learning by playing roles in the *Communication approach* lesson, to practise correct pronunciation in the Dzongkha *Pronunciation of Difficult Words* lesson, to measure and calculate Body Mass Index and heart rates in the *Fitness* lesson, and to carry out individual self-assessment tasks in the *Individual Difference* lesson. These represent a range of activities that were used extensively in the lessons. On the other hand the substance and lower level of learning activities in the *Stem and Leaf display* and *Project method* lessons were not as demanding as those implemented in the other lessons. So while the 'activities' lent a learner-centred exterior, in reality they were not productive, and did little to enhance student learning. Moreover, since the topics had already been covered elsewhere, the

purpose of spending an hour on the topics was unclear. As a result the activities demonstrated examples of a shallow implementation of learner-centred learning, a misinterpretation of learner-centred learning. Even the students, as noted earlier, commented on the inappropriateness and scantiness of the learning activities.

### Content knowledge

Based on the lesson observations and lesson plans, apart from the *Stem and Leaf display* and *Project method* lessons, the lessons fairly thoroughly covered the depth and breadth of the topics and largely supported student learning. The focus on pedagogical content knowledge was relevant for the lecturers during their teaching and for the students to experience as they could later transfer it to the school situation in their own teaching. While content in *The relation between Education and Development* lesson was subject-specific, the group activity ensured thorough coverage of five areas, namely education and spiritual, economic, political, national and individual development. The other lessons also included an appropriate combination of subject and pedagogical content and followed a similar pattern. Content in the *Stem and Leaf display* and *Project method* lessons, however, was inadequate as no new knowledge was acquired by the students.

### Assessment

While assessment of student learning was not mentioned explicitly in the lesson plans, there were references to informal formative assessment, which included assessment of prior learning by asking students questions while recapping the previous lesson and during end-of-lesson summarisation, Most of the lessons opened with *Ask students to recap previous lesson,* or *Ask questions about previous learning,* and closed with *Ask questions to summarise the lesson*, typical lesson opening and closure practices in the college. Monitoring the activities during the lessons provided opportunities for the lecturers to observe the students on task as well as provide immediate feedback to them. Lecturers also provided feedback when the groups presented/shared their findings, which provided motivation for the students. These forms of informal formative assessment were carried out by the lecturers in the lessons and supported student learning.

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### Resources

Resources such as the overhead transparency projector, the LCD projector, handouts that covered such topics as the relationship between education and development, and the procedures for project method, activity sheets, *Kuensel* newspaper and video clips were mentioned in the lesson plans in addition to the chalkboard. In the *Fitness* lesson, the use of multimedia with the LCD projector and viewing of video clips about BMI and HR calculation using Internet access in the classroom were the most sophisticated level of resource planned and utilised among the eight lessons. On the other hand, the Dzongkha lecturer had very resourcefully planned to use the national newspaper *Kuensel* as the main resource for the lesson activity, in combination with overhead transparencies. It is significant that all eight lessons had planned to use either the LCD or OHT projectors for their lessons. While the LCD was used extensively in the *Fitness* lesson, in the other lessons, the OHT or LCD projectors were utilised to provide some content input or directions for the activities. Resources were used well to enhance learning for students and teaching for lecturers.

The classrooms were large and well ventilated and the tables were trapezium shaped, which encouraged group seating arrangements rather than rows and columns. The interactive design of the tables greatly enhanced the learning environment as students were already sitting in little groups facing each other, rather than facing the teacher, which would have reinforced the transmission mode.

### Role of teacher

Evidence in the lesson plans and the lesson observations suggests that the teachers had taken on the role of facilitators of learning, rather than transmitters of information. In the planning they developed appropriate learning outcomes, designed learning activities and organised the resources to be used in the lessons. These indicated the learner-centred orientation of the planning practices of the lecturers.

During implementation of the lessons, the lecturers facilitated student learning as by developing learning activities designed to engage the students and promote learning. Nevertheless, not all the lecturers fulfilled the facilitative role very

successfully in their teaching, for example, in the *Stem and Leaf display* lesson.

Of particular interest as explained above, was that some of the lessons observed were the best possible lessons. In most of the lessons that were observed for the study, additional resources or activities were included as indicated by the students' feedback/comments in the In-lesson Questionnaires. Most of the lessons themselves were *not very different* from previous lessons provided by the lecturers concerned. Two, however, stand out as being markedly different from previous lessons given by the same lecturer - the *Stem and Leaf display* and the *Communication Approach* lessons. Evidence from the students in the *In-Lesson Questionnaires* (see Appendix 3.4) indicates that the lessons were 'atypical', that additional activities and resources were included. These findings reflected the reality of what takes place in the classrooms in some lessons and were not examples of 'good practice' in the college. Lecturers were not successful facilitators of learning in these circumstances.

### *Role of student*

There was no evidence of a role for students in the planning phase, although the development of learning outcomes and the inclusion of learning activities in the lessons implied that the lessons were about student learning and not the lecturer teaching.

In the implementation phase, as the lecturers were facilitators, students were required to assume a more active role in their learning by participating in the activities. The students appeared attentive and interested in learning and actively took part in the group/pair and individual activities. They were eager to share their findings, which were substantial and well thought out. Students were familiar with one another, and quickly recognised their roles in the class, readily formed groups and required only basic instructions from the lecturers. They showed some independence.

### *Summary*

Evaluation of the planning and implementation practices across the categories showed that student learning was, apart from a few exceptions, largely supported by the teaching practices of lecturers in the College. The use of well-constructed learning outcomes, inclusion of fairly challenging learning activities, appropriate use of informal

formative assessment, the inclusion of relevant resources, efficient coverage of the lesson content all converged to support student learning well.

**Conclusion**

The pilot study clearly established that the nature of teaching and learning practices at SCE is in the 'middle' that is, neither completely teacher-centred nor completely learner-centred. According to Brooks and Jones (2008, pp. 7-8) all lecturers need to ensure that they are conversant with current pedagogies and related issues, and that the content of their lectures is sound. The Samtse pilot study revealed some apparent gaps in the lecturers' understanding of relevant concepts and theories, particularly those related to evaluation and assessment techniques. The study also found that numerous professional teaching practices were common in the College, suggesting that given some motivation and resources, all could adopt similar quality practices.

The process and results of this pilot study have guided the refinement of data collection and analysis procedures which were described in the Methodology Chapter. These were employed in the investigation of four other Colleges of the RUB, and in the construction of detailed case studies into the teaching practices found there.

**Appendix 3.10 - Data Codes**

**Generic codes**

| | |
|---|---|
| Module plans | mp |
| Lesson plans | lp |
| Lesson observations | lo |
| In-lesson Questionnaires | lq |
| Academic staff interview | acs.int |
| Student interview | stu.int |
| Information and Technology Officer interview | it.int |
| Librarian interview | lib.int |
| Laboratory assistant interview | lab.int |
| Field Notes | fld. nt |

**College Codes**

| | |
|---|---|
| Sherubtse College | Sh |
| College of Natural Resources | Cnr |
| College of Science and Technology | Cst |
| Paro College of Education | Pce |
| Samtse College of Education | Sce |

**1. Sherubtse College – Sh**

Data collection period:  11-18 September 2010

**Module Plans (July – December 2010):**

| | |
|---|---|
| History | Sh. hist.mp |
| English | Sh.engh.mp |
| Sociology | Sh. soci.mp |
| Mathematics | Sh. math.mp |
| Economics | Sh. econ.mp |
| Computer Science | Sh. comp.mp |
| Botany | Sh. botn.mp |
| Chemistry | Sh. chem.mp |

**Lesson Plan:**

| | |
|---|---|
| Chemistry Lesson Plan | Sh.chem.lp, 14 September 2010 |

**Lesson Observations:**

| | |
|---|---|
| History Lesson | Sh. hist.lo, 13 September 2010 |
| Economics Lesson | Sh. econ.lo, 13 September 2010 |
| Computer Science Lesson | Sh. comp.lo , 14 September 2010 |
| Chemistry Lesson | Sh. chem.lo, 14 September 2010 |
| Mathematics Lesson | Sh. math.lo, 14 September 2010 |
| English Lesson | Sh.engh.lo, 15 September 2010 |
| Sociology Lesson | Sh. soci.lo, 15 September 2010 |
| Botany Lesson | Sh. botn.lo, 16 September 2010 |

**Interviews:**

| | |
|---|---|
| Academic staff interview | Sh.acs.int, 16 September 2010 |
| Student interview | Sh.stu.int, 16 September 2010 |
| ICT staff interview | Sh. ict.int, 14 September 2010 |
| Library staff interview | Sh. lib.int, 13 September 2010 |
| Laboratory assistant interview | Sh.lab.int –, 16 September 2010 |

**In-Lesson Questionnaires:**

| | |
|---|---|
| History | Sh. hist.lq, 13 September 2010 |
| Economics | Sh. econ.lq, 13 September 2010 |
| Computer Science | Sh. comp.lq, 14 September 2010 |
| Mathematics | Sh. math.lq –, 14 September 2010 |
| Chemistry | Sh. chem.lq, 14 September 2010 |
| English | Sh.engh.lq, 15 September 2010 |
| Sociology | Sh. soci.lq, 15 September 2010 |
| Botany | Sh. botn.lq, 16 September 2010 |

**Field Notes:**

| | |
|---|---|
| Field Notes | Sh. fld.nt, 11–18 September 2010 |

**2. College of Natural Resources - Cnr**

Data collection period: 15 – 21 August 2010

**Module Plans (July-December 2010):**

| Soil Science | Cnr. ssc.mp |
|---|---|
| Forestry | Cnr.forst.mp |
| Veterinary Surgery | Cnr.vts.mp |
| Plant Protection | Cnr.plp.mp |

**Lesson Plans:**

| Plant Protection Lesson Plan | Cnr. plp.lp,16 August 2010 |
|---|---|
| Veterinary Surgery Lesson Plan | Cnr. vts.lp, 18 August 2010 |
| Soil Science Lesson Plan | Cnr. ssc.lp, 19 August 2010 |
| Forestry Lesson Plan | Cnr.forst.lp, 19 August 2010 |

**Lesson Observations:**

| Plant Protection Lesson | Cnr. plp.lo, 16 August 2010 |
|---|---|
| Veterinary Surgery Lesson | Cnr. vts.lo,18 August 2010 |
| Soil Science Lesson | Cnr. ssc.lo, 19 August 2010 |
| Forestry Lesson | Cnr.forst.lo, 19 August 2010 |

**Interviews:**

| Academic staff interview | Cnr.acs.int, 20 August 2010 |
|---|---|
| Student interview | Cnr.stu.int, 18 August 2010 |
| ICT staff interview | Cnr. ict.int, 17 August 2010 |
| Library staff interview | Cnr. lib.int, 17 August 2010 |

**In-Lesson Questionnaires:**

| Plant Protection | Cnr. plp.lo, 16 August 2010 |
|---|---|
| Veterinary Surgery | Cnr. vts.lo, 18 August 2010 |
| Soil Science | Cnr. ssc.lo, 19 August 2010 |
| Forestry | Cnr.Forst.lo, 19 August 2010 |

**Field Notes:**

| Field Notes | Cnr. fld.nt, 15 – 21 August 2010 |
|---|---|

**3. College of Science and Technology – Cst**

Data Collection period: 11-17 April 2010

**Module Plans (February –July 2010):**

| | |
|---|---|
| Earthquake Engineering | Cst. eqe.mp |
| High Voltage Engineering | Cst.hve.mp |
| Introduction to Robotics | Cst. iro.mp |

**Lesson Plans:**

| | |
|---|---|
| Earthquake Engineering Lesson Plan | Cst. eqe.lp, 12 April 2010 |
| High Voltage Engineering Lesson Plan | Cst.hve.lp, 13 April 2010 |
| Introduction to Robotics Lesson Plan | Cst. iro.lp, 13 April 2010 |

**Lesson Observations:**

| | |
|---|---|
| Earthquake Engineering Lesson | Cst. eqe.lo, 12 April 2010 |
| High Voltage Engineering Lesson | Cst.hve.lo, 13 April 2010 |
| Introduction to Robotics Lesson | Cst. iro.lo, 13 April 2010 |

**Interviews:**

| | |
|---|---|
| Academic staff interview | Cst.acs.int, 14 April 2010 |
| Student interview | Cst.stu.int, 14 April 2010 |
| ICT staff interview | Cst. ict.int, 12 April 2010 |
| Library staff interview | Cst. lib.int, 15 April 2010 |

**In-Lesson Questionnaires:**

| | |
|---|---|
| Earthquake Engineering | Cst. eqe.lo, 12 April 2010 |
| High Voltage Engineering | Cst.hve.lo, 13 April 2010 |
| Introduction to Robotics | Cst. iro.lo, 13 April 2010 |

**Field Notes:**

| | |
|---|---|
| Field Notes | Cst. fld.nt, 11 – 17 April 2010 |

**4. Paro College of Education – Pce**

Data Collection period: 23-29 May, 2010

**Module Plans (February – July 2010):**

| Extraction and Purification of Common Metals | Pce.epm.mp |
|---|---|
| Teaching Primary Mathematics | Pce.tma.mp |
| School Organisation | Pce.sorg.mp |

**Lesson Plans:**

| Extraction and Purification of common Metals | Pce.epm.lo, 25 May 2010 |
|---|---|
| Teaching Primary Mathematics | Pce.tma.lo, 26 May 2010 |
| School Organisation | Pce.sorg.lo, 26 May 2010 |

**Lesson Observations:**

| Action of heat on Nitrates Lesson | Pce.epm.lo, 25 May 2010 |
|---|---|
| Coordinate Geometry Lesson | Pce.tma.lo, 26 May 2010 |
| A Happy School Lesson | Pce.sorg.lo, 26 May 2010 |

**Interviews**

| Academic staff interview | Pce.acs.int, 24 & 28 May 2010 |
|---|---|
| Student interview | Pce.stu.int, 27 May 2010 |
| ICT staff interview | Pce. ict.int, 25 May 2010 |
| Library Staff interview | Pce.lib.int, 24 May 2010 |

**In-Lesson Questionnaires:**

| Action of heat on Nitrates | Pce.epm.lq, 25 May 2010 |
|---|---|
| Coordinate Geometry | Pce.tma.lq, 26 May 2010 |
| A Happy School | Pce.sorg.lq, 26 May 2010 |

**Field Notes:**

| Field Notes | Pce.fld.nt, 23 - 29April 2010 |
|---|---|