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Centre for Educational Research and Development Paro College of Education, Paro Royal University of Bhutan.

Telephone : 975 08 272011/975 08 271620 Facsimile : 975 08 271917 Email Address : cerd.pce@rub.edu.bt

Editor in Chief

Kezang Sherab, PhD, Dean Research & Industrial Linkages, CERD, PCE

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- 1. Kinley Dorji, PhD, Lecturer, PCE (English Editor)
- 2. Pema Dhendup, Assistant Professor, PCE (Dzongkha Editor)
- 3. Tashi Tobgay, Lecturer, PCE (Dzongkha Editor)

Layout & Design

Bishnu Pradhan, CERD, PCE

Reviewers

CERD has made a significant move forwward by going for a blind peer review process of its manuscripts beginning this issue. We would like to extend our sincere gratitude to the following individuals for helping us blind review the manuscripts for this issue.

Singay Namgyel, PhD, Bhutan Judy Miller, PhD, Australia John Haynes, PhD, Austria Timothy Bedford, PhD, Finland Karen Bjerg Peterson, PhD, Denmark Ray W. Cooksey, PhD, Australia Tandin Dorji, PhD, Bhutan Peggy J. Saunders, PhD, USA

Production Editors:

Mr. Ramesh Thapa, Research Officer, CERD, PCE Mrs. Bishnu Pradhan, Administrative Assistant, CERD, PCE

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Editorial

The Centre for Educational Research and Development (CERD) is pleased to publish the 15th volume of RABSEL after an absence of almost four years since the 14th volume in 2010. With this volume, we would like to rededicate our energy and determination in bringing educational research to all our readers and researchers on a regular basis.

We are proud to announce that in our effort towards enhancing the quality of RABSEL, we have made a historic move ahead by putting in place a blind peer review process. Therefore, all the articles in the present volume have been peer reviewed by at least one experienced national/international reviewer who has immense experience in the educational research review process. CERD would like to express our deepest gratitude to all the viewers for their invaluable comments and suggestions for each of the papers. In the future, each article will have two reviewers.

The 15th volume addresses a wide range of educational issues ranging from classroom interaction and early childhood care to the promotion of university research culture. This volume also has two papers in Dzongkha, which looks into reading and writing practices in English and Dzongkha languages and the differences between written and spoken Dzongkha.

The first article by Tshewang Rabgay examines–Patterns of teacher-student verbal interaction in the tenth grade Biology classes in Samtse District using Flanders Interaction Analysis System. The findings generally indicate that Biology teachers dominate the teaching and learning processes with minimal student interaction. Developing and nourishing a research culture at Paro College of Education by Kezang Sherab and Roy Greenwood discusses the potential of evidence-based education. This paper presents some of the strategies that CERD would like to implement at Paro College of Education to support a research culture amongst both faculty and students and build a wider research network. The article also aims to document research activities initiated by CERD.

The third article by Amina Gurung, Kinzang Lhendup and Karma Chewang is based on a sequential mixed methods study conducted to understand if there is a need for a early childhood care and development Centre at the College. The authors argue that the establishment of a child care centre at the College would help narrow the gap between theory and practice by making some of the modules such as child development and psychology more practical oriented for the student teachers.

The fourth article by Ramesh Thapa, on using binary logistic regression to identify the factors inhibiting research culture at the RUB colleges reveals significant positive relationships between faculty qualifications and their publication as well as presentation of papers in research conferences. This is an indication that in order to increase faculty research output, RUB Colleges need to provide additional attention to up-grade the qualification of all faculty members.

The 5th and the 6th articles are in Dzongkha by Penjor and Samten Tharchen respectively. Penjor's paper is based on a small-scale pilot study to see if there is any difference between reading and writing practices in English and Dzongkha languages under Paro Dzongkhag. The author argues that the prevailing practice among most respondents is that English is more commonly used than Dzongkha in both reading and writing.

The last article by Samten Tharchen is on the differences between reading and writing in Dzongkha language. The author highlights some of the key issues regarding speaking and writing in Dzongkha with some appropriate examples that all Dzongkha users need to keep in mind.

With much indebtedness, we would like to thank all our contributors and readers for their continued interest and support in working towards a common goal - enhancing the quality of education in Bhutan.

We would like to continue to make RABSEL an important forum to share educational research, visions, ideas and convictions.

Tashi Delek

Dean Research and Industrial Linkages

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Patterns of Teacher-Student Verbal Interaction in the Tenth Grade Biology Classes in Samtse District

Tshewang Rabgay ¹

Abstract

Grounded in the importance of classroom interaction in teaching and learning, this small scale study examined the pattern of teacher-student verbal interaction in grade ten biology classes using Flanders Interaction Analysis System (FIAS). The sample of the study consisted of 8 teachers and 383 class 10 biology students from three higher secondary schools and a middle secondary school in Samtse district. Seventeen grade 10 biology classes were observed using a coding chart. The data obtained were analyzed using the decoding process prescribed in FIAS. The study was significant because its findings and conclusions may stimulate teachers to improve their interaction practices inorder to maximize students' learning.

The findings revealed that 75.71% of the time was used for 'lecturing' making it the most popular approach. The findings also revealed that teacher talk (85.23%) was much more than student talk time (11.38%) which indicated that classroom interaction was dominated by teachers. It was also found that teachers used more direct influence (77.27%) through lecturing and giving directions than indirect influence (7.96%) which include behaviors like accepting student's, feelings, praising, encouraging, accepting or using students ideas and asking questions. By and large the findings indicated that teacher dominated classroom interaction continues to be the dominant teaching trend in teaching tenth grade biology in Samtse district. The study confirmed previous studies done in Bhutan which reported similar findings.

Key words: Classroom Interaction, Flanders Interaction Analysis System (FIAS), Biology Class

^{1.} Teacher, Samtse Higher Secondary School

1.1 Introduction

1.1 Rational

Ever since the inception of modern education in Bhutan teachercentered teaching was the most common method used by teachers. In teacher-centered teaching, the role of teacher was just to be knowledge transmitters. In doing so they became the dominant figure in the class and students were hardly given opportunity to talk, share ideas and ask questions. There was very little interaction between teachers and students. Such learning environment did not facilitate meaningful learning. Students became passive learners. Students mostly learned by rote memorization and found that the concepts they had learned had no practical value in their lives (Dorji, 2005).

However, later due to changing times and changing need of the country it became necessary for students to enhance the conceptual understanding of the subject content so that they could apply the knowledge in their day to day lives. Further, it was necessary for students to have other skills like communication, creativity, critical thinking, collaboration, problem solving and decision making. Students were also required to be more responsible for their own learning than relying on teachers to decide what and how to learn. This situation signified the importance of shift in teaching trend from being non-interactive teacher-centered to a more interactive and child centered learning. It required the teachers to change their roles from being someone who had authority and a dominant figure in the class to someone who facilitated learning through active interaction; giving more time for students to talk; share ideas and ask questions. In other words, teachers were required to create learning atmosphere that was characterized by active interaction between teacher and student. It was also expected that teachers use more indirect teaching by way of asking questions, accepting students' ideas, feelings, praising and encouraging than direct influence which included verbal behaviors like lecturing, giving direction, criticizing and justifying authority (Dorji, 2005).

Subsequently, in the years that followed efforts had been placed to bring about this change. Several rounds of curriculum

reforms were initiated to make the curriculum congruent with the idea of interactive teaching. One such curriculum review resulted in the launch of a new approach known as NAPE (New Approach to Primary Education) by the erstwhile Department of Education in 1986. The approach framed a new policy that laid emphasis on teaching through interaction and activity (UNESCO, 2000). Several INSET (In-service education and training) programs were conducted at the national level (National Based In-service Program), district level (District Based In-service Program) and school level (School Based In-service Program) to train in-service teachers on the use of interactive teaching techniques (Laird, Maxwell, Tenzin & Jamtsho, 2006). Moreover, the two teacher training colleges of education started training prospective, as well as in-service teachers on the use of various interactive teaching techniques like cooperative learning method, inquiry learning method, questioning method and activity-based learning method (National Institute of Education, 2003).

By now it has been almost over two decades since interactive teaching was given importance in Bhutan. Has there been a change? Do teachers create interactive learning atmosphere? What is the current pattern of teacher-student interaction? What proportion of class-time do teachers devote for their talking? Do teachers give enough time for students to share ideas and ask questions? Do teachers use more indirect teaching or direct teaching? Driven by these questions, this study attempts to examine the pattern of teacher-students interaction with reference to grade ten Biology in Samtse district using an interaction analysis tool called Flanders Interaction Analysis System (FIAS).

1.2 Significance of the study

Given the importance of teachers to constantly reflect and improve their classroom practices, the findings of the study would especially be useful for teachers to understand the current teacher-student interaction pattern; who was talking in the classroom, how much and what kind of talk took place. The results would stimulate teachers to reflect on their current practices and improve their interaction practices by using more interactive teaching approaches in order to maximize students' learning.

1.3 Research Objectives

Broadly, the objectives of this study were to determine the teacherstudent verbal interaction patterns in grade ten biology classes. Specifically, this study will explore:

- The mostly used interaction category in Flanders Interaction Analysis System.
- The teacher talk time and student talk time.
- Time for teachers' direct influence and indirect influence.
- Students' response time and students' initiation time.

1.4 Research Questions

What are the patterns of teacher-student verbal interaction in grade ten biology classes in Samtse?

- What is the mostly used interaction category in FIAS?
- What proportion of the class time is teacher talk time and student talk time?
- Do teachers use more direct influence or indirect influence?
- What percentage of time is students' initiation and response?

2. Literature Review

This section presents the review of relevant literatures. It includes the meaning of classroom interaction, theory underlying classroom interaction, significance of classroom interaction and related researches.

2.1 Classroom Interaction

Biddle (1967) defined classroom interaction as an actionreaction or a two-way influence which may be between teacher and students or among students. Odinko and Monican (2011) provided an elaborate definition considering teacher, learners and learning material. They defined it as "behaviors exhibited by the teacher and learners in the form of communication between teacher and learner in small groups or with the entire class as well as learner-learner, learner-material and teacher-material." Tuan and Nhu (2010) stated that classroom interaction consists of two types: non-verbal interaction and verbal interaction. Nonverbal interaction is related to behavioral responses in class. It means students interact through their behaviors such as head nodding, hand raising, body gestures, and eye contact. Verbal interaction, on the contrary, contains oral interaction. Oral interaction implies that students interact with others by speaking in class, answering and asking questions, making comments, and taking part in discussions.

In the concept of interaction the idea of two-way effect is essential, as opposed to a one-way causal effect. Interaction does not only occur from one side and it does not only involve the teacher. It involves all the participants, and there must be mutual influence between the teacher and the learner (Wagner, 1994; Rivers, 1987). According to Tsui (1995), classroom interaction is a co-operative effort among participants in which each participant contributes in determining the direction and outcome of the interaction.

2.2 Theory Underlying Classroom Interaction

Classroom interaction is based on social interdependence theory. The social interdependence theory claims that learning should be socially mediated (Ochongor & Daiko.,2011). By implication, the degree of social interaction in any class is assumed to influence learning. The extent of attainment in the class could be dictated by the extent of social cohesion between the teacher and the learners and among the learners. The theory also states that social interaction leads to conceptual growth. This implies that when learners are put in social context, they develop positive and promotive interaction encourages children to share their ideas and points of view, getting feedbacks, give and receive support from friends and dig below the superficial level of understanding of the material they are learning (Johnson & Johnson, 1994).

2.3 Significance of Classroom Interaction

Interaction is viewed significant in learning because it influences students' academic achievement. Several interaction studies have indicated that some relation exists between classroom interaction pattern and student achievement. Okafor (1993) found a positive relationship between classroom interaction and student level of achievement. Udeani (1992) reported that classroom interaction accounted for about 74% of the variation in students' academic achievement.

Besides academic achievement, classroom interaction also leads to gains in social skills. Johnson and Johnson (1989) found that when students were placed in social context such as in cooperative learning where they engaged in active 'face to face interaction' (one of the five principles of cooperative learning), they shared ideas, point of views provided, got positive feedback and reached a common consensus which promoted skills like communication, decision making and leadership. They also found that students learned how to accept differences based on ability, ethnic background and gender.

Interactive classroom also brings about changes in students' behavior and motivation. Sheng and Fui-Hoon. (2006) reported that students in interactive classroom were more motivated to learn, more attentive, more participative and more likely to exchange ideas with instructors and fellow students. Furthermore, positive classroom interaction helps in building positive relationship between teacher and students or among students. Hamre and Pianta (2001) stated that when students had strong and positive relationship with teachers, they were more likely to believe, love the teachers and were more motivated while teachers were more motivated to spend time and energy to improve student success. A negative relationship with the teacher and students would lead to student dropout rates and teachers often handled only student behavior and prevented efforts to promote positive school environment.

2.4 Related Researches

Several studies have been conducted in Bhutan to determine classroom practices and environment. A study conducted by Royal Education Council (2009) to study the classroom practices in school in Bhutan reported the following findings:

- Teaching consisted mostly of one-way talk by the teacher to convey textbook content without being able to get students to comprehend and demonstrate their learning (p.27).
- Classroom instruction showed predominance of one-way talk by teacher and writing on the chalkboard with lesser evidence of student-centric activities (p.28).
- There was little evidence of active dialogue between the students and teachers (p.29).
- Inside the class, students rarely asked questions and were not seen to be participating actively in the teaching process.

In another study by Sherab and Dorji (2013) carried out to determine the types of teaching practices applied by primary school teachers in Bhutan, it was found that teacher dominated teaching prevailed in the Bhutanese classrooms. These studies indicated that non-interactive traditional teacher fronted classrooms is still prevalent in Bhutanese classrooms.

There are numerous studies done in other countries on classroom interaction using FIAS. Kalu (2004) in Nigeria observed and coded interaction pattern using FIAS during Physics lessons in 15 selected secondary schools in Nigeria. The sample included 516 Senior Secondary One (SS1) students and 15 Physics teachers. The results revealed that most of the teachers used direct influence than indirect influence. Most of the class time was dominated by teachers. The study also revealed a strong correlation between classroom interaction and students' attitude towards learning physics and academic achievement. The more teachers used indirect teaching, the more students developed positive attitudes towards physics and achieved higher in academic tasks. In other words, students' development of positive attitude towards physics and achievement in low academic tasks significantly increased with teachers' indirect influence of classroom activities. Similar results were found in a study conducted by Babelan and Kia (2010) in Ardebil, Iran. The study aimed at finding interaction pattern among teachers and primary school students using FIAS as the research instrument. The sample included 400 teachers and 1083 primary school students. Regression analysis of the data gathered showed that from the total observation time teacher talk time made up 57.77% of which 16.7% was indirect influence, 41.04% was direct influence, while 33% made up student talk time and 10% made up silence time. In another study by Inamullah (2008) the results were along the same line. The study explored the ratio between direct and indirect influence of English teachers teaching college level students of North West Frontier Province of Pakistan using FIAS. It was found that majority of the teachers used more direct influence than indirect influence.

3. Research Methodology

The focus of the study was to examine the patterns of classroom interaction in tenth grade biology in higher and middle secondary schools. The study required observing classes using Flanders Interaction Analysis system (FIAS). Given the observational nature of the study, the study employed observational type of the descriptive method.

3.1 Research Design

The research design adopted for this study was coding and decoding process involved in interaction analysis. The coding process involved assigning numbers as codes for each interaction categories in the FIAS. The result of assigning codes to the categories in the FIAS was the coding chart as shown in Table 3. The coded chart was used to observe seventeen tenth grade biology classes in the sample schools of Samtse district. The classes were observed by a nominated teacher in each sample school. In the decoding process, the coded data were interpreted to get a picture of the interaction patterns in the classroom.

3.2 Population

As the purpose of the study was to explore teacher-student verbal interaction in grade ten biology classes in the light of Flanders' Interaction Analysis the target population comprised all grade ten classes of all the middle and higher secondary schools in Samtse district. The population was selected only from middle and higher secondary levels because only these levels had class ten.

3.3 Sample

Since the researcher could not go to far-flung schools due to lack of motorable road, classes of accessible schools were selected as samples for the study. Therefore, convenience sampling was used to select the samples for the study. The sample included 17 grade ten biology classes of higher secondary and middle secondary schools. The number teachers observed was 8. The number of grade ten students observed was 383. The sample details are shown in Table 1.

	•		
School	No. of Students	Classes Observed	No. of Biology Teachers
Samtse HSS	123	10A 10B 10C 10D	3
		10E 10F 10G	
Yoeseltse MSS	99	10A 10B 10C	2
Peljorling HSS	64	10A 10B 10C 10D	2
Tendruk HSS	97	10A 10B 10C	1
Total	383	17	8

Table 1: Sample of the study

3.4 Research Instrument

The research instrument and tool used for the study were Flanders' Interaction Analysis System (FIAS) as shown in Table 2 and coding chart shown in Table 3.

Table 2: Flanders' Interaction Analysis System (FIAS)

			ors meeraecion imarysis system (1 ms)	
		1.	Accepts feeling: Accepts and clarifies an attitude or the	
			feeling tone of a pupil in a non-threatening manner.	
			Feelings may be positive or negative. Predicting and	
			recalling feelings are included.	
		2.	Praises or encourages: Praises or encourages pupil	
			action or behavior. Jokes that release tension, but not	
L.	ő		at the expense of another individual: nodding head, or	
Sec.	enc		saying 'Um hm?' or 'Go on' are included.	
ldi	ηų	3.	Accepts or uses ideas of pupils: Clarifying, building	
1	In		or developing ideas suggested by a pupil. Teacher	
			extensions of pupil ideas are included but as the	
			teacher brings more of his own ideas into play, shift to	
			category five.	
		4.	Asks questions: Asking a question about content or	
			procedure, based on teacher ideas, with the intent that	
			a pupil will answer.	
		5.	Lecturing: Giving facts or opinions about content or	
			procedures: expressing his own ideas, giving his own	
			explanation or citing an authority other than a pupil.	
	e	6.	Giving directions: Directions, commands or orders to	
ct	snc		which a pupil is expected to comply.	
Dire	Πuε	7.	Criticizing or justifying authority: Statements intend-	
Ι	Η	In		ed to change pupil behavior from non-acceptable to
			acceptable pattern; bawling someone out; stating why	
			the teacher is doing what he is doing; extreme self-de-	
			fense	
		8.	Pupil talk – response: Talk by pupils in response to	
			teacher. Teacher initiates the contact or solicits pupil	
			statement or structures the situation. Freedom to	
			express own ideas is limited.	
		9.	Pupil talk – initiation: Talk by pupils which they	
			initiate. Expressing own ideas; initiating a new topic;	
			freedom to develop opinions and a line of thought, like	
			asking thoughtful questions: going beyond the existing	
			structure.	
		10.	Silence or confusion: Pauses, short periods of silence	
			and periods of confusion in which communication	
			cannot be understood by the observer.	
	Direct Indirect		2. Indirect Juliance Indirect 4. 5. 6. 7. 8. 8. 9.	

The items in the Flanders' Interaction Analysis System were converted into an observation sheet called coding chart as illustrated by Gay (2000). The specimen of the observation sheet (coding chart) is given below (see Table 3). Each sheet represented 105 seconds for 10 FIAS categories. Each block in the sheet represented 3 seconds.



Table 3: Coding chart

3.5 Observers

From each school, a teacher was appointed as on observers. They were familiarized on how to use the observation forms. Two rounds of pilot testing were conducted to make sure that the observers had clear knowledge about the observation procedures.

3.6 Observation Procedures

The following observation procedures were adopted.

- 1. Total time for observation comprised 45 minutes (2700 seconds)
- 2. Each observation sheet represented 105 seconds (1.75 minutes) and was considered as one observation session.
- 3. In each class of 2700 seconds (45 minutes) 26 observation sheets or sessions were used.
- 4. Each block in the sheet was considered as an observation period which spanned for 3 seconds duration.
- 5. The teacher's behavior in each observation period of 3 seconds was observed, classified and recorded in the relevant block of the observation sheet till the termination of observation session of 105 seconds.
- 6. Stop watch was used to note initiation and expiry of each observation period of 3 seconds.
- 7. The observer followed the following ground rules.
- When it is not clear to which category the behavior belongs, the serial number of the farthest category from the 5thcategory should be noted. If there is no decision between 2nd and 3rd category, then category 2 is the farthest category from 5th. Hence, the 2nd category must be recorded.
- If more than one category occurs during the 3 second interval, then all categories used in that interval are recorded. If no changes occur within 3 seconds, repeat the category numbers.

- When the teacher calls on a child by name, the observer records as 4.
- When the teacher repeats student's answer and if it is a correct answer, this is recorded as 2. This tells the student that he has the right answer and therefore functions as praise.
- A teacher's joke which is not made at the expense of the children is a 2. If the joke makes fun of a child, then it is coded as a 7.
- A 9 is recorded when several students respond in union to a narrow question.

3.7 Data Analysis Procedure

The data secured through above research instrument was analyzed using Microsoft Excel in the following sequence.

3.6.1 Observation Periods for Each Category

An observation period spanned for three seconds. The number of observation periods for each category was recorded by check marks in the observation sheets. At the end of each lesson observation, the checks were added to get the total observation periods for each category.

3.6.2 Percentage of Time for Each Category

The total observation periods for each category were multiplied by 3 to get the time in seconds. The time in seconds were converted to percentage using the following formula.

• Percentage for each category = (Time for specific category/ Total observation time) x 100

3.6.3 Teacher Talk Time

Teacher talk time comprised direct and indirect influence. To calculate the percentage of teacher talk time, time for direct and indirect influence was calculated first. They were then added to get the time for teacher talk.

- Time for indirect influence = Time for category 1-4/Total observation time) x100
- Time for direct influence = (Time for category 5-7/Total observation time) x100
- Teacher talk time = Time for indirect influence + Time for direct influence

3.6.4 Student Talk Time

Student talk time had two components- initiation and response. To get the percentage of student talk time, percentage of student initiation and responses was calculated first. Then the time for initiation and response were added to get the student talk time.

- Time for initiation = (Time for category 9/Total observation time) /100
- Time for response = (Time for category 8/Total observation time) /100
- Student talk time = Time for initiation + Time for response

3.6.5 Silence Time

The percentage of silence or confusion time was calculated by using the following formula.

• Silence or confusion = (Time for category 10 / Total observation) x 100

4. Results of Data Analysis

The data secured by using FIAS was analyzed using Microsoft excel in the following sequence.

4.1 Time for Each Category

Table 5 shows the time for each category. It was clear from the table that 'Lecturing' category accounted for 75.71 percent of the class time. The times for the rest of the categories were less than 10 percent. 'Pupil talk-response' accounted for 9.93 percent, followed by 'Asked questions" Silence and Confusion" Pupil Talk Initiation' and 'Giving Direction' with 6.67, 2.91,1.45 and 1.12 percent respectively. The lowest times were recorded for 'Criticizing or justifying authority' (0.44 percent), 'Accepts or uses ideas of pupils' (0.48 percent), 'Accepts feeling' (0.74 percent) and 'Praises or encourages' (0.81) of teacher's talk.

FIAS Categories	Frequency	Time in Seconds (Frequency x 3)	Percentage
Accepts feelings	120	360 Sec	0.74
Praises or encourages	131	393 Sec	0.81
Accepts or uses ideas of pupils	77	231 Sec	0.48
Asks questions	1080	3240 Sec	6.67
Lecturing	12265	36795 Sec	75.71
Giving directions	182	546 Sec	1.12
Criticizing or justifying authority	71	213 Sec	0.44
Pupil talk – response	1608	4824 Sec	9.93
Pupil talk – initiation	235	705 Sec	1.45
Silence or confusion	471	1413 Sec	2.91

Table 5: Time for each category





Figure 1: Time in percentage for each category

4.2 Teacher Talk Time

The percentage of time for teachers' indirect influence was 7.96 and direct influence was 77.27 as shown in Table 6. The seven categories of 'Teacher talk' accounted for 85.23 percent of class time. The difference between direct influence and indirect influence was 69.31 percent.

			FIAS Categories	%	% of Time For Direct And Indirect Influence	Teacher Talk Time (%)
		1.	Accepts feelings	0.74		
alk	ct Ice	2.	Praises or encourages	0.81		
	Indirect Influence	3.	Accepts or uses ideas of pupils	0.48	7.96	
ler 1		4.	Asks questions	6.67		85.23
Teacher Talk	υ	5.	Lecturing	75.71		
	Direct Influence	6.	Giving directions	1.12	77.27	
	Di Influ		Criticizing or justifying authority	0.44		

Table 6: Teacher talk time

4.3 Student Talk Time

The percentage of time for the pupil talk-response and pupil talkinitiation was 9.93 and 1.45 respectively. Their sum gave the pupil talk time 11.38 percent. The difference between pupil-response and pupil-initiation was 8.48 percent.

Table	7:	Student	talk	time
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	FIAS Categories	Percentage	Pupil Talk Time (%)
Pupil Talk	Pupil talk-Response	9.93	11.38
Pupil	Pupil talk-Initiation	1.45	11.50

4.4 Silence Time

The percentage of time for silence or confusion was 2.91 as shown in Table 8.

Table 8: Silence time

FIAS Categories	Percentage
Silence or confusion	2.91

5. Conclusion, Discussion and Recommendations

5.1 Conclusion

The major conclusions drawn from the study were:

- 1. Lecturing' was the mostly used teaching method.
- 2. Teacher talk time was much more than student talk time.
- 3. Teacher used more direct influence than indirect influence.
- 4. Students' response time and answering teachers' questions were much more than students' initiation.

5.2 Discussion

The study found that teacher talk time (85.23%) was much more than student talk time (11.38). This indicated that classroom interaction was dominated by teacher talk and students were not given opportunity to initiate questions, share ideas or opinions and respond to questions. This was supported by less time for student initiation (1.43%) and respond (9.93%). This lopsided result of high teacher talk time and meager student talk time indicated that teacher dominated interaction continues to be the predominant interaction trend in the classrooms. As stated by Dorji (2005) such learning atmosphere might not have given opportunity for students to be actively engaged in the learning process.

Even though teacher talk time was more it would have been ideal if teachers used the time for asking questions, accept feelings, using pupils' ideas, praising and encouraging (Flanders, 1963). Unfortunately, very less time was devoted for these categories (Ask questions-6.67%, Accept feelings-0.74%, Praise or encourage-0.81%, Accept or uses ideas of pupils-0.48%) and most of the time was used for lecturing which accounted for 75.71% of the total class time. It indicated that despite of having emphasized on the use of interactive teaching techniques, lecturing is still the popular approach used by teachers.

Another point of discussion was teachers' use of more direct influence than indirect influence. Flanders (1967) claimed that teachers should use more indirect teaching than direct teaching as indirect teaching leads to gains in students' academic achievement and cognitive development. He claimed that for teacher to have indirect influence, teachers should ask questions, accept pupils' ideas, praise and encourage. Science is best learnt in interactive environment, inquiry based, where students get more opportunity to ask questions, exchange opinions and share ideas. Unfortunately, the study showed the opposite. Kalu (2004) explained the implications of more direct influence:

Direct teaching emphasizes control of students and their compliance. It is a situation where the teacher gives out the facts, does not use much (if at all) of students' ideas and students are not encouraged to think deeply about the facts. Consequently, students become passive recipients of facts and knowledge given by the teacher.

Nonetheless, a positive point to note in the findings was the less time for 'Criticizing and justifying authority' which accounted for only 0.44%. This is a good practice which teachers must keep practicing.

The findings of the study confirmed previous study conducted by Royal Education Council (2009) which reported that teaching consisted of one-way talk by the teacher with little evidence of active dialogue between the students and teachers. The study was also congruent with the study done by Sherab and Dorji (2013) where they found teacher dominated classroom to be the most common practice among primary school teachers. From the foregoing, it can be concluded that little has changed since emphasis was laid on interactive teaching in Bhutan. However, this generalization may not apply to all schools in Bhutan because the study was conducted only in one district. While it was concluded that there has been little change, it would have been interesting to explore the militating factors against teachers' use of interactive teaching. Since the study limited its scope to quantitative analysis the factors could not be elicited.

5.3 Recommendations

Literature suggests that teachers are the single most important factor in improving classroom interaction. Their behaviors in the classroom have been found to determine the classroom environment (Flanders, 1970). Therefore, the study suggests teachers the following recommendations to improve classroom interaction:

5.3.1 Use of Interactive Teaching Techniques

An effective strategy to facilitate interaction in the classroom is questioning technique (Shomoossi, 2004). When students are encouraged to answer questions, it provides stepping stones for continued interaction. Asking question stimulates and provides scaffolding for children who are beginning to build their own understandings. It also helps students connect concepts, make inferences, increase awareness and deepen their level of knowing and understanding.

Another leading new approach to interactive learning is cooperative learning in which face to face interaction is the key principle. Cooperative learning is opposed to individualistic and competitive learning and has been found to be an effective instructional approach which involves the characteristics of learner-centered approach (Johnson & Johnson, 1994). It requires learners to work in groups, interact with the group members to achieve a common goal. Working together maximizes opportunities for student-student interaction with meaningful input and output in a supportive environment.

5.3.2 Teachers as Facilitators

In a teacher dominated classroom, teachers have been found

to take the center-stage in the classroom. To create interactive learning atmosphere, the study recommends teachers to step out of the limelight and allow learners to speak, share ideas, ask questions, take the least directive role and be a facilitator.

5.3.3 Professional Learning Community

A professional learning community (PLC) is a group of educators, most commonly teachers, who meet regularly, share expertise, and work collaboratively to improve their teaching skills and academic performance of their students (DuFour, 2004). PLC plays an important role in improving classroom practices by enabling teachers to continually inquire into their practice and, as a result, discover, create, and negotiate new meanings that improve their practices. The study recommends teachers to work as professional learning community in schools for professional growth.

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Developing and Nourishing a Research Culture at Paro College of Education

Kezang Sherab¹ PhD and Roy Greenwood² PhD

Abstract

It has been encouraging to observe that there has been a growing number of faculty and students showing interest in research at the Paro College of Education. Over the last couple of months, the Centre for Educational Research and Development has provided assistance to more than ten groups of beginning researchers (both present faculty and students and other faculty pursuing their PhD in other countries) on various research areas. However, there are also many others in the College who lack basic research skills and also have low efficacy for research. This indicates that the past professional development programmes on research offered to the faculty has not been able to make sufficient impact in promiting a research culture at the College. This paper discusses the potential of evidence-based research in education and presents some strategies to promote and nourish research culture at the College.

Key words: Research culture, research skills, professional development, action research, seminar series, mentoring, statistics.

Introduction

It has been encouraging to observe that there has been a growing number of faculty and students showing interest in research at the Paro College of Education. Over the last couple of months, the Centre for Educational Research and Development (CERD) has provided assistance to more than ten groups of beginning researchers (both present faculty and students and other faculty pursuing their PhD in other countries) on various research areas such as writing a proposal, working with literatures, choosing the methodology, data analysis, and designing survey questionnaires.

^{1.} Dean Research and Industrial Linkages, Centre for Educational Research and Development, PCE, RUB

^{2.} Former Lecturer at PCE, RUB

However, there are also many others in the College who lack basic research skills and also have low self-efficacy for research. Research (e.g., Bandura, 1997; Tschannen-Moran & Hoy, 2001) has shown that individuals with low self-efficacy for a particular task are less likely to put in required effort and also less likely to persist in times of difficulties. This indicates that the past professional development programmes on research for the entire faculty has not been able to make an impact in terms of raising their self-efficacy for research and promoting overall research culture at the College.

A challenge for many new universities and colleges is how to establish, and nurture a research culture. Today, one of the strengths of any university in the world is its research capacity. Most universities in the world (e.g., University of Leeds, York St John University, University of New England, Macquarie University) provide an emphasis on teaching and learning that is informed by research. Such universities invest huge resources in research and publications and take their distinctive character from the fact that research is a major hallmark of what they do. According to Marginson and Considine (2000, p.145), "research culture takes different meanings in different universities. In institutions where research activity is already widespread, the task is to push it into more productive lines. In some universities the task is to create research from almost nothing." In the Bhutan context, while there has been some initial effort made to enhance a research culture, the response has been very insubstantial. This is a challenging task for new universities and faculties that are still establishing themselves on many different levels. Pratt, Margaritis and Coy (1999) acknowledge that:

A major challenge for aspiring universities and new departments within existing universities is in raising the research output of the staff. Many of the newly designated universities have their origins in applied and vocational disciplines where there is a stronger focus on teaching than on research. (p. 43)

The Royal University of Bhutan (RUB) and the Paro College of Education (PCE) fit into this category. In 2003 the University was established through the amalgamation of ten colleges spread across Bhutan (now only eight colleges). Each of the colleges had their own identity and culture and now they are being asked to blend those cultures into the greater culture of RUB. We believe that research culture needs to become more fundamental and imbedded in education.

This paper discusses the potential and importance of evidence-based research in education and presents some of the strategies such as seminar series, collaborative action research, faculty mentoring programme and hands-on sessions on statistics and quantitative data analysis to promote and nourish research culture at the College. Furthermore, this paper intends to document initiatives taken by the CERD to promote research culture at PCE.

Research and Teaching Nexus

Today we live in a world where "our knowledge is incomplete and problems are waiting to be solved" (Leedy, Newby & Ertmer, 1997, p. 1). Albert Einstein once said, "The significant problems we face cannot be solved at the same level of thinking we were at when we created them." Such assertions indicate that there is an emphasis needed on teaching and learning that is informed by evidence-based research. For instance, Clark (1997) states that:

From high-school diploma to the doctorate, graduates will increasingly need habits of mind necessary for informed and disciplined problem solving. For life in an inquiring society, one where information becomes knowledge and knowledge occasionally becomes wisdom, a sense of inquiry and related research enlightenment may be the best common tools that higher education can offer its graduates. (p. 253)

There is no argument about the potential benefit of teaching and learning informed by research. Much research (e.g., Clark, 1997; Colbeck, 1998; Elen, Lindblom-Ylanne & Clementto, 2009) has shown that there is a positive relationship between teaching and research. Elen, Lindblom-Ylanne and Clementto (2009, p. 124) argue that teaching based on research provides up-to-date information and contextualises the information. They further stress that by getting involved in research, researchers "demonstrate that knowledge is continuously evolving, continuously challenged, and changing" and that "by being actively involved, research brings knowledge to life" (p. 135). The Royal Charter and the Statutes of the Royal University of Bhutan (2003, p. 3) acknowledges the importance of research through one of its main objectives,"to promote and conduct research, to contribute to the creation of knowledge in an international context and to promote the transfer of knowledge of relevance to Bhutan." The university Strategic Plan also provides an emphasis on promoting a research culture in the colleges (Strategic Plan, RUB, 2007).

The positive influence of research on teaching has been summarised by Coate, Barnett and Williams (2001, p. 166) in the following points:

- research-active academics are at the 'cutting-edge' of their fields, and therefore have more 'authority' to teach their subject ('students love seeing their lecturers' books on the library shelves');
- academics gain enthusiasm from being research active, which 'rubes off' on the students;
- research-active academics teach more relevant, up-to-date material;
- research-active academics teach from their immediate research experience rather than reproducing secondhand knowledge from textbooks.

Further, academics need to understand that intuitive knowledge claims based on one's personal experience or anecdotal evidence would not have the same status as knowledge claim made through substantial body of scrupulously produced empirical data (Mnookin et. al. (2011).

In Bhutan, education historically was within the domain of the Monasteries. It has not been a discipline based on scientific research. The new idea of pedagogy is that it is a science and can be investigated by research to discover what should be used in a classroom. Research in education is something that is new compared to research in other disciplines and practising
teachers presently working in education may not be familiar with this new demand upon their discipline. According to Gemmell, Griffiths and Kibble (2010, p. 161) teachers' "histories and selfimage as teachers signalled (to teachers) that our place within education was to use the results of research rather than to make a contribution to them". It has also caused a "tension between an identity as educator with a sense of responsibility to students and that of an active researcher" (Gemmell et al., 2010, p. 161).

Bennett and Rolheiser (2001, p. 3) point out that "teachers must be aware of and act on the science within the art of teaching." They go on to point out that educators must become aware of other methods and incorporate them into their practice. In chapter 12 of their book they point out the need to "focus more on the critical role that specific bodies of knowledge play in assisting educators to make wise decisions concerning the design of learning environments" (Bennett & Rolheiser, 2001, p.339). The specific bodies of knowledge discussed by Bennett and Rolheiser are: Multiple Intelligences, Emotional Intelligences, Learning Styles, the human brain, children at risk and gender, we would add to this list the necessity of understanding the culture in which the learning is taking place. This is important in Bhutan, as the culture in Bhutan is unique and different than it is in the west, and as such strategies and pedagogy that might be applicable in the west may not have the same result in Bhutan. As Bennett and Rolheiser explain these and other areas are just "lenses designed to extend teachers' understanding of how students learn, and from that understanding, to make decisions about how and when to select, integrate, and enact items in the ... list" (2001, p. 340). The more "lenses" or tools that educators can use to evaluate or develop their repertoire the greater their "instructional intelligence" (Bennett & Rolheiser, 2001) will be and the better able they will be to deal with the complexities of their classroom. Research is just another lens for teachers to view their discipline.

If one was ill and went to the Doctor, the Doctor might prescribe a drug or therapy to help you recover. You might ask the Doctor why they are giving you this therapy and they would probably reply that the research shows that this therapy helps people with your symptoms. What if a parent comes to a teacher and asks why did you teach that way? Educators should be able to respond in a similar manner. That is, that research says that this is the best way to teach that topic. Although there is no research carried out, there is adequate anecdotal evidence to show that most educators in Bhutan at present cannot answer this question

Even a weaver or wood carver who has great innate ability is limited, unless they have some understanding of the "science" of the wool or wood that they use. They may experiment with new ways to work with their wool or wood to discover new and better ways to develop their craft. With this additional "intelligence" they can become better weavers and carvers. Educators have the same opportunity. "Teaching effectively is an art informed by a science ... and personal experience" (Bennett & Rolheiser, 2001, p. 23).

As delineated above, education faculties tend to have a stronger "focus on teaching than on research" (Pratt, Margaritis & Coy, 1999). In the past it indicated that research has fallen into three categories as Arthur Ellis, Professor of Education and Director of the International Centre for Curriculum at Seattle Pacific University, has stated. Level I research refers to "basic research on learning" (Ellis, 2001, p. 21). This research is based on observation, experience or a philosophy. Level II research "involves studies designed to test the efficacy of particular programs or instructional methods in educational settings" (Ellis, 2001, p. 22). Level III research is an evaluation of programmes that have been implemented at the school or district level.

These are the basics and indicate that educators must use these categories and develop new ones to improve their discipline. As the field of education research continues to grow it is important that educators be part of this research. The development of a Research Culture for teachers then is very important so that they can bring their expertise and take an active role in directing the research that may be needed to improve classroom practice and student outcomes. Achieving an active and flourishing research culture cannot be accomplished over night– it takes time, direction and commitment. For PCE, the process has been very slow as is evident from the annual research output. The College's Centre for Educational Research and Development publishes its biannual journal- RABSEL, the CERD Educational Journal, which has often lacked empirical research papers.

Research at PCE: Said or Done

At the Paro College of Education (PCE), a college of RUB, there is a desire to establish an active research culture. For example to enable this, a workshop on action research was conducted for the PCE staff in February 2010. At the workshop the basics of how to undertake an action research project was explained and time was given during this week-long workshop for the various departments at the College to establish a research project that they might like to undertake. During the workshop many ideas were discussed about the importance of a research culture and the difficulty of doing research while teaching. The difficulties that were mentioned at the workshop were similar to those concerns mentioned at any University. Time and money needed to undertake a research project being the major obstacles for staff to undertake a research project. We believe that these obstacles are persistent issues commonly mentioned by staff around the world. PCE, like other education faculties may face other unique difficulties in establishing an active research culture. One of these additional obstacles is the shift in an understanding of what is meant by being a College of Education within a University. In previous vears, the study of learning was the domain of philosophers such as Socrates, Descartes, Locke, and more recently Dewey who explored learning through observation and discussion.

A recent (Spring Semester 2014) research support needs analysis carried out by the CERD showed that the self-efficacy of faculty at PCE in regard to research is low. This is also evident from the very low annual research output from the faculty. According to Bandura (1997) who is the founder of efficacy theory and other researchers (such as Tschannen-Moran & Hoy, 2001; Knobaluch, 2004), someone with low self-efficacy for a particular task is not likely to attempt and pursue difficult tasks. This can be attributed to various factors, which amongst others include academics' beliefs about teaching and research, research knowledge, administrative support, research mentoring and supervision, funding, and teaching culture. These are some of the factors that perhaps are playing a hidden role in lowering the self-efficacy of academics at the college. While much has been achieved in the college's effort to enhance research self-efficacy of academics, we still believe that there is still more that can be done to increase the research output of PCE. For instance, putting in place effective mentoring and research supervision system, introduction of seminar series (to create a forum for sharing completed research work, work in progress, proposal, and perhaps an idea for research), adequate funding and providing incentives would also play a crucial role. Most universities that began their research culture from scratch found that paying attention to these self-efficacy lowering factors pay high dividends. PCE is not unlike many other Universities. Gemmell et al (2010, p. 162) point out "many (teachers) felt they lacked the experience and expertise to do the theoretical, "high quality" research which they saw as characterising university research."

Research Culture at PCE: What is the Way Forward?

There are many factors involved in this change. One of the first to be accomplished, according to Williams, Dobson and Walter (1993), is to change the faculties' beliefs and perceptions about research. Some of the strategies suggested by Pratt et al. (1999, p. 50) are convincing staff that they can be successful in doing research; giving staff the necessary support to do research; making research and having higher degrees necessary to be appointed, to be promoted, and keeping ones job; and that research is "expected of everyone as much as successful teaching." For many faculty members this will be a shift in their understanding of the role of an educator; however, it is not a shift that faculty members cannot accomplish.

Pratt et al. (1999) suggest ways to encourage this shift. Some of these suggestions may not be applicable to Bhutan but others might be modified so that they may have relevance for Bhutan. One suggestion that is worthy of discussion and consideration is that of a points system. Briefly a point system could be established in the college to reward points to a department that had undertaken a research project and /or had published their work. Departments that had earned points were financially rewarded from a Research Fund. For example the points criteria used in the Pratt study were if the department published;

Textbooks, research books	they earned 8 points
Edited books, monographs	
(< 100 pp.), revised editions	they earned 5 points
Refereed journal articles	they earned 4, 5, 6 points
Book chapter	they earned 1.5 points
Conference proceedings	they earned 1points
Refereed conference papers	they earned1points
Commissioned reports	they earned1points
Working papers	they earned 0.5points
(Pratt, Margaritis & Coy, 1999, p. 52))

At the end of a year all the points earned by all the departments of the college were added up. The points earned by each individual department were added up and converted to a fraction of the college total. The department was then awarded whatever fraction their department had earned of a Research Fund that had been established at the beginning of the year. The department could spend this money on whatever it wanted and this money was above their regular budget. For example, if in total the College had earned 25 points and the Science Department had earned 5 points and the English Department 3 points, the Science Department would be given 5/25 or 20% of the money in the Research Fund and the English Department would be given 3/25 or 12% of the money in the Research Fund. Likewise a points system could be introduced for individual faculty to be used for performance evaluation at the end of an academic year and for promotion to the next grade level.

There are many other ways that the points might be awarded that would be more applicable to the research culture in Bhutan. For example in the beginning points might be awarded for starting a research project. Later this might not be enough to qualify for a portion of the research fund but it might be enough to start the development of a research culture. Along with rewarding research, obstacles to research need to be removed to aid the development of a research culture. One obstacle in the development of a research culture at PCE could be attributed to the lack of a data or research base to build upon. Although the situation is improving, academic journals and other resources are not easily available or accessible in Bhutan and as such research is difficult to carry out. A potential researcher within Bhutan may be unable to consult studies that have already been undertaken or be able to access data that may have already been gathered or researched. This makes it difficult to build upon previous knowledge or not to waste time and or money repeating studies already completed. It is also important to build a research base that is specific to Bhutan, the Bhutan school system and the culture of Bhutan.

One step taken recently to establish a Bhutan-specific research base was placing RABSEL, the CERD Educational Research Journal at PCE online. This now makes research articles more easily accessible to anyone conducting a research project. Another way to build this research/data base would be to insist that all graduate students' thesis/projects at PCE and at the other teacher college in Bhutan (Samtse College) be produced digitally and then placed on the internet, perhaps as a special publication of the RABSEL once a year. Bhutanese postgraduate students studying outside of Bhutan could also have their theses included, thus expanding the research base for future Bhutanese researchers and researchers of Bhutan. Having this journal online and meeting the criteria and configured for inclusion in Google Scholar would make this research not only available to Bhutan researchers but researchers from around the world. These two steps would go a long way in developing a research base for future research in education and other disciplines in Bhutan.

Recently, Paro College of Education has been putting in extra effort to promote research amongst faculty, students and other staff. For instance, the College research fund has been increased from 1% of its annual budget to 2%, which is a significant increase. Faculty involved in research work are provided reduced teaching load as well as flexi-time by setting aside one or two free days every week to enable them to work on their research. Some other intervention strategies that will be implemented at PCE to promote research culture commencing 2014 Autumn Semester are:

Collaborative Action Research as Professional Development for Teacher Educators

Although action research (AR) has become a part of the compulsory course at Paro College of Education since 2010 with the introduction of four year B. Ed programme, not many faculty members have shown interest in conducting action research till date. This is an indication that the past professional developments for faculty on action research, data analysis, proposal writing and designing data collection tools have not made much impact in terms of skill development as well as raising their self-efficacy for action research. Such an inconclusive response is likely to have negative impact on the quality of the courses offered, as not many faculty members would have first-hand experience to share with their students. Theoretical teaching is not enough (as indicated by the needs analysis report 2014) to make such a practical oriented module meaningful and have long-term impact on student teachers. Keeping this in view, a collaborative action research (CAR) project has been initiated in the College for interested faculty members.

CAR is now increasingly used as professional development for teachers (e.g., Jaipal & Figg, 2011; Goodnough, 2011). Most often such research is lead by university researcher/s and is done in collaboration with small groups of school teachers or pre-service teachers. In the context of Paro College of Education, this model of CAR will be followed between CERD and interested groups of teacher educators. So it will be an on-going professional development process for teacher educators instead of focussing on 'one-shot' PD programme. There are adequate evidences (e.g., Ross, 1994; Hunzicker, 2011) to show that such 'one-shot' PD programmes are ineffective. Furthermore, AR is considered to be one of the effective models of PD for teachers (Kennedy, 2005; Timothy & Cooper, 2013).

Therefore, any colleague interested to join the CAR group will been couraged to form a group of two to three people depending on the area of interest that they would like to pursue as their AR during the Autumn Semester 2014. As most colleagues are aware. Their AR topic must originate out of a genuine concern/interest

for improvement in ones own teaching and student learning. Although each group will work on their own AR topic, all groups will meet on a regular basis to share their AR journey and learn from each other. CERD will facilitate the process and guide all the groups through the entire process of AR.

At the end of the CAR cycle, each group will be able to produce one AR paper for publication. Further, CERD will document the entire process of CAR to produce a paper. So this will be a double-layered research, where CERD will study the AR groups while they conduct AR with their students.

Seminar Series

Given that there is an increasing number of faculty and students engaged in research and many return to the College after completing their postgraduate studies abroad, there is a need to provide an avenue for these researchers to share their research work with other faculty and students at the College (in addition to the online posting discussed prevously). The seminar series could be either on completed research work, work in progress, proposal, literature review, methodology, data analysis, and referencing or anything related to research that would help promote research. The Seminar series will be open to interested staff and students and it is intended to have two-way impact- both on the presenter and the audience. While the presenter would benefit from the feedback provided by the audience (especially if it is a research proposal or work in progress), the audience would also benefit in terms of research knowledge and skills. Half of the time will be slotted for presentation and the other half for question-answer session. Any interested faculty and students who wish to share their work or need some feedback and suggestions could register with CERD. If there are not enough entries, CERD will approach appropriate researcher/s with a request to share their work. Efforts will be made to invite guest speaker/s who has passion for research.

Mentoring Beginning Researcher/s.

Mentoring/helping a beginning researcher is one of the important ways of promoting research culture. As discussed above many of our faculties are not able to initiate research journey because

of their low self-efficacy for research. Therefore, to help raise their self-efficacy for research, a mentoring group will be formed consisting of faculties with research experience, especially the PhDs. Research profile of all the mentors will be made available via college website, so that the faculty looking for specific research support could approach the right mentor. All mentors will be provided flexi time as well as considered for lighter workload depending on the overall situation in the College. Mentors will be required to slot a time frame everyday/week for consultation and maintain a diary of support provided using a template specifically designed for this purpose.

Hands-on Sessions on Statistics and Data Analysis

Although PD programmes in the past have not made much impact, there are still faculty members who would like to attend PD sessions on various research related topics. One of the areas that most faculty members desire to learn is about the quantitative data analysis using statistical softwares such as Software Packages for Social Sciences (SPSS) as indicated from the research support needs analysis. In response to this, the CERD has planned to offer about fifteen tailor-made hands-on sessions on statistics and data analysis beginning with very basics on statistics such as the nature of probability and statistics, and descriptive analysis to more complicated inferential analysis such as analysis of variance, correlation and regression for interested faculty members. Each session would be roughly about two hours. Based on the number of interested faculty signing up for a particular unit, statistics sessions will be offered either during lunch break, during free periods for a particular groups of faculty members, Wednesday afternoons or after classes in the evening.

Conclusion

Based upon the discussions presented in this paper, it is quite clear that evidence-based teaching has more relevance than teaching-learning process based only on textbooks. To reiterate, it is imperative that both faculty and pre-service teachers understand that knowledge produced through empirical data are far better than intuitive knowledge claims based on one's personal experience or anecdotal evidence. Although the process is slow, academics and students at the College must be encouraged to learn that the government and its leaders in Bhutan are now signalling their support and interest in research. For example, the then Honourable Prime Minister Jigme Y. Thinley, during the RUB midterm review meeting stated, "we want you to focus more on research" (kuenselonline.com, dt. 11th December, 2010). The Royal University of Bhutan as well as the Ministry of Education have also now started recognising research output of its faculty as a basis for career promotion and further studies.

We hope to see enhanced faculty research output with the successful implementation of intervention strategies identified in this paper. Faculty at PCE are in a position to help establish a research culture and establish a research base for further study and in so doing help in improving the education system of Bhutan.

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Exploring the Need for ECCD Centre at Paro College of Education

Amina Gurung ¹
Kinzang Lhendrup ²
Karma Chewang ³

Abstract

Although there is adequate literature on early childcare practices in western context, there is hardly any study being carried out on childcare practices in Bhutan. This study has made an attempt to look at the feasibility of establishing a work-place based ECCD centre at Paro College of Education. A sequential mixed method was deemed appropriate for this study as it enabled the researchers to build an explorative interview questions from the responses gathered through survey questionnaire. The respondents included the administrative staff, the teaching faculty and the final year student teachers of 2010. A 34 item questionnaires were administered amongst 109 participants and four in-depth semi-structured focus group interviews were conducted among the faculty, student teachers, and the administrative staff. The analysis of both the sets of data indicated that there is a need for the College to establish a childcare center. The findings show that establishing a childcare centre at the College would have multifaceted benefits, among which teaching and learning child development and psychology modules would become more practical.

Key words: Early Childcare and Development, Early Childcare Education, Caregivers

^{1.} Lecturer, Paro College of Education

^{2.} Lecturer, Paro College of Education

^{3.} Lecturer, Paro College of Education

Introduction

Bhutan 2020 envisions maximizing the happiness of all Bhutanese so as to enable them to achieve their full and innate potential as human beings. In conformation to this vision the Royal Government of Bhutan has recognized the importance of early childhood care and development as the key to foundation for a happier society. The vital link between Early Childhood Care and Development Services and primary education is highlighted by the Education Sector Review Commission (2006-2007) which concludes that ECCD programmes and services are necessary for Bhutan to achieve the universalization of primary education by 2015. It is evident that a number of initiatives have been taken both at the national and international level on raising awareness on early childcare programme, and it is only appropriate that early interventions are put in place at the local level as well because children are increasingly at risk due to the vanishing traditional child rearing practices as a consequence of aping the western style of nucleus family system. The rapid increase in mothers working outside home and leaving children at the hands of inexperienced and unqualified baby sitters is a huge concern for both the parents and the government.

Context of the study

In the context of the importance of the critical link between early experiences, and achievement of universal primary education, it is important to understand the roles and responsibility of an education college and the positive contribution the college can make, especially Paro College of Education which till date is the only college trying to achieve excellence in primary education. The importance and need of having a childcare facility needs to be understood closely, not just in terms of the need of the population but from the perspective of the institute's specialization in primary curriculum.

Literature Review

The Convention on the Rights of the Child recognizes ECCD as a "right" that has to be bestowed on every child. This is further supported by the EFA- Global Monitoring Report's (2007) emphasis on the impact of ECCD. Some of the rationales for early childcare programs are brain development, school readiness, school success, better health care for children and families and social impacts including stronger workforce and reduced crime rates. Further, Kagan (1994) supports that children are also looked at as the human capital for the future, and because this human capital will be directly affected by the kind of early experiences they have had, ECCD plays a major role in shaping the future human resource. ECCD programs also increase school preparedness, which results in increased learning and a decrease in grade repetitions and dropout rates. In Bhutan, The Education Sector Strategy: Realizing the Vision 2020 document clearly outlines the importance of supporting children through early childcare programme:

> All children aged 0-5 years will be supported to enhance their intellectual, emotional and physical development through a programme that enables them to grow in their familiar and natural environment. Priority will be give to home and family-based approaches, with additional inputs from institutional structures and options, which recognize the increasing diversity of life-styles and settings in which children are now being raised. (p. 10)

The Education Sector Review Commission's report Education without compromise (2008) confirms that "Highquality ECCD is one of the best investments a nation can make in its young people" (P.7). Realizing the importance ECCD programs have on children, the government has already outlined frameworks and strategies that support and enhance ECCD programs (Tenth Five Year Plan, (2008-2013), p. 91-93).

Description of the research study

This study employed sequential mixed method approach which is "an approach to inquiry that combines or associates both qualitative and quantitative forms of research. It involves philosophical assumptions, the use of qualitative and quantitative approaches, and the mixing of both approaches in a study "(Creswell, 2009, p. 230). One of the main reasons for employing mixed methods paradigm is its complementarity- i.e., seeking elaboration, enhancement, illustration, clarification of the results from one method with results from the other method" (p. 22). Accordingly, findings from quantitative data gathered from a larger sample were explored through interviews with a smaller number of informants. This helped the study to explain the results of the quantitative data in greater depth.

In this study, though data obtained quantitatively provided relevant statistical and demographic information on the establishment of a childcare centre at the College, statistical evidence indicated a need to understand better the psychological dimensions and organizational issues of the College. Hence, data gathered in two phases from two groups of samples using both the qualitative and quantitative methods allowed us to corroborate and so also increase the validity and reliability of this study.

Data Gathering Procedures

In the first phase of the study, data were gathered through self- administered survey questionnaires from 109 participants. The participants were randomly selected so as to ensure that each individual had an equal probability of being selected, and the findings could be generalized to the larger population. The questionnaires were distributed to 59 college faculty and to 50 third year student teachers of 2010. The qualitative data in the 2nd phase of our study was gathered through focus group interviews. Twenty-four participants were selected for the interviews using purposive sampling technique. The interviews were conducted in four phases of six members each.

Seeking consent and gaining access

The proposal for the study was presented to the faculty and other staff of the College for their comments and approval. The researchers sought formal consent from the Director and the College faculty prior to the commencement of the study. The interview participants were briefed on the aims and purpose of the study once during the proposal presentation and once again before the interviews. For each of the interviews, participants were requested to complete the consent form. A detailed explanation was given to all the participants regarding the modality of the interviews.

Data presentation and Discussion

This section presents an in-depth discussion of the themes that emerged from the data. Interpretation and findings are discussed after each analysis supported by relevant literature.

1. The need for an ECCD centre at the college

All categories of participants felt the need for an ECCD centre at the college. Faculty members teaching "Child Development" and "Learning Process" modules were very passionate about establishing such a centre. They thought that the centre would provide care giving experiences by directly "observing and recording" in their "assignments and case studies". The faculty in general also expressed the existing difficulties in teaching due to the disconnectedness of theory and practice. The availability of an ECCD centre within the college was seen as an opportunity to link theory and practice. The general tone of the discussion from the faculty could be summed up in the words of participant 1:

At the moment ...we don't really get the opportunity. I wanted to but it is very difficult. We don't have children around...So we just discuss in the class through lecture. We just say at this stage the child does this and that ... we couldn't really practice. That's why I m saying that maybe in future if we could have a childcare centre it would be very different. (Interview -16th November, 2010)

The student teachers equally see the opportunity of having a childcare centre in helping them understand the practical aspect of the modules they are learning.

The findings from the quantitative survey revealed that 81.8 % of the staff respondents thought that having a childcare centre would increase their efficiency and 70.5 % thought that the centre could help increase their motivation. It can be safely

said that having an ECCD centre within the College will not only benefit the working community of the College contributing to the general well being, but also greatly enhance the quality of teaching learning at the College.

Education Sector Review commission The (2008)has highlighted the critical function of the ECCD programs and services which is necessary for Bhutan to achieve the universalization of primary education by 2015. The responsibility then, falls directly on Paro College of Education as it is the only college that offers primary curriculum and is to specialize in primary education in the country. Therefore, it is expected that Paro College will have to take the lead role in spearheading, facilitating, and enhancing ECCD programs in the country, and thus it is vital that the College has an ECCD centre. Given this opportunity, the college will benefit from having an ECCD centre. The College already has some contents and components of ECCD, so having an ECCD centre within the College could greatly strengthen the quality of ECCD modules.

2. ECCD as a Childcare Lab School

The findings from the study also show that there is potential for the ECCD centre to function as an excellent early childcare lab school. Quantitative data below show that 77.2% of the faculty participants feel that having the centre within the college premise will allow the student teachers to carry out practical observation on childcare and development.



Fig 1: The Faculty view on using the centre as a lab school

This is substantiated by qualitative finding where the faculty seems to be the most resonating in having the centre and the benefits of using it as a lab school. A tutor presently teaching Child Development module in the College expressed the benefits of the childcare centre in his module which aligns well with the student teachers' perspective on the point where 84.6 % of the student participants agree on the benefits of the centre .



Fig 2: The student teachers' view on using the centre as a lab school

Qualitative findings suggest that the student teachers in general feel that there is a wide gap that exists between theoretical lessons they learn in the classroom and the lack of practice. Student participants felt that having the centre within the premises would give them opportunity in experiencing childcare practices and what they learn in the class. Participants expressed that at the moment modules like Learning Process and Child Development have been mostly theoretical. They said that having the centre would give them opportunity to come to the centre and observe children and their development. The childcare facility as bridging the gap between theory and practice in primary curriculum comes out clear in the lines of one of the participants:

> Learning just theoretically is not important- not enough for us. One way or the other we will become teachers ... so having the centre will be very beneficial to the primary teachers. (P6, Interview, 7th Nov. 2010)

Further, quantitative data also suggest that it is not only the tutors teaching modules related to child development who finds the centre useful but 58.94% tutors who teach modules other than Child Development also find that it will be helpful and they see opportunities to link their courses with the centre.



Fig 3: As a lecturer in the college I see the opportunity to link my course/courses with the program in the childcare centre.

A faculty member felt that the present teaching learning in the College is, "fairly restricted to classroom" and that having a Childcare learning centre "will, in fact, open new opportunity" for our students to explore. (P6, Interview, 7th Nov. 2010).

Linking theory and practice through ECCD lab school.

The study clearly finds a detachment in the theory they learn in the classrooms and the practice they lack as a result of not being able to observe in real situation. In an era when the quality of education in Bhutan is a major concern at all levels and teacher education colleges are looked upon as the main contributors to the quality of teachers, there is responsibility on the part of the College to address this issue by making classrooms more learnercentred. In light of this issue VanBalkom and Sherman (2010) warn that "Bhutanese schools will improve only if there is a shift to a culture of engagement in classrooms" and that the lecturers in the Colleges of Education play a vital role in creating such a culture. They also suggest that unless the experiences provided to students are authentic, practical and relevant, quality will be compromised. Therefore, it is recommended that the childcare centre we open in our college be used as a childcare lab school for the student teachers and the faculty. Student teachers will not feel that the theory that they learn is "divorced from reality." The childcare centre could give our student teachers and lecturers an opportunity to engage meaningfully in hands on research, practical observation, and other innovative and creative ideas that they will discover along the journey.

3. Quality of ECCD centre:

Participants from all categories had concerns on several issues related to the functioning of the centre. All these concerns raised connected to the quality of the centre, which is perhaps the most interesting finding of this research. Participants' concern for the quality of the centre was quite inspiring. Initially, the quality of childcare was not a part of our original investigation, but it emerged as one of the most prominent themes through qualitative data. This issue directly relates to what kind of ECCD centre we might have in the College. The participants expressed that if the College opened a childcare centre they should not replicate the existing centres that private organizations have established. They are of the view that the centre at the College should serve with the quality of international standard. For some participants, quality meant the experiences provided by the teachers and the caregivers, while for others it meant the empowerment of the parents and community by the centre in childcare and support. Quality also meant the availability of adequate resources and infrastructure as well as the curriculum we implement at the centre. The two issues that repeatedly came up were:

- a) The quality of the management of the centre and
- b) The necessity for employing a full-time supervisor.

The survey showed that 86.4% of the staff respondents wanted a full-time supervisor at the centre.



Fig 4: The faculty's view

The survey also showed that 82.5% of the student teachers thought that a full-time supervisor at the centre is necessary even though the parents could be involved.



Fig: 5 Student teachers' view on having a full time supervisor

In addition, having someone at the centre with adequate knowledge and experience in early childcare was very strongly voiced by majority of respondents from all categories. It is, therefore, recommended that the college form a committee who will start working on establishing a centre that is fitting for all children.

It is not without reason that ECCD has been called the "Missing Link" by the ESRC (2008) report. It reminds us of ECCD's untapped potential and unrecognized strength. The PCE ECCD centre could provide the highest quality because of the fact that the College has experts and professionals in early childcare. The untrained and uninformed manner in which the present childcare centres around the country function should inform the College ECCD committee to focus on quality and enhance quality services. Rather than replicating what exists in the present daycare centres, Paro College should situate itself in a position to lead the development of quality centre.

Summary of recommendations

- 1. Form a committee to do the ground work in exploring for fund, planning infrastructure and identifying human resources to man the centre.
- 2. Before the centre opens, the committee should have at least identified a competent full-time supervisor and well trained caregivers willing to work full time.

Conclusion:

In Bhutan the global transmission of urbanization has touched every section of the society, directly affecting social and cultural lifestyle. Home-life in Bhutan is becoming increasingly diversified as more people move towards the urban centres and an increasing number of women join the workforce outside their homes. These changes directly affect family structures and child rearing practices, creating new demands for childcare and education services. According to a GNH report, "In urban centres, the emerging trend of working parents, and extended family system gradually shifting to nuclear families, pose serious challenge to childcare. Under this circumstances the traditional childcare support system is fast disappearing, causing a serious imbalance in the Bhutanese family and child rearing system. Childcare centres thus, are increasingly becoming an answer to address these increasing challenges, with the government taking swift actions in their plans to give importance to Early Childhood Care and Education (ECCE) (Tenth Five Year Plan, 2008-2013, Early Childhood Care and Education in Bhutan, Situational Analysis, 2008, Education Sector Strategy, Realizing Vision 2020). Hence, a quality childcare centre at the College is an integral part of providing holistic primary curriculum education to our student teachers.

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Using Binary Logistic Regression to Identify the Factors Inhibiting Research Culture at the Colleges of Royal University of Bhutan

Ramesh Thapa¹

Abstract

Universities play a very significant role in any society. They are the main source of wisdom and knowledge production. Its role has been changing rapidly from mere knowledge dissemination to knowledge production. It helps to strengthen the country's economy and develop nation as a whole. The Royal University of Bhutan has been attempting to develop research in its member colleges since its inception but the take up by the academics has been very slow. This study was mainly geared towards finding out the key factors that influenced the development of university research culture. A survey data of 228 faculty members from all colleges under the university was used for the study. Two different binary logistic regressions for response variables; 1) Published papers in research journals 2) Presented papers in research conferences and seminars, which measured university's research productivity was modeled with a set of 12 selected predictor explanatory variables. Results revealed that two explanatory variables; qualification of the faculty members and participation in research conferences and seminars was statistically significant for response variable published papers in research journals. Similarly, three explanatory variables; qualification of the faculty members, attending research trainings and workshops and participation in research conferences and seminars was statistically significant to the response variable presented papers in research conferences and seminars. Thus, this study revealed that there is still a need for the Royal University of Bhutan to address such urgencies towards building a strong research culture at the university. The university should continue to reinforce greater support in encouraging faculty members to upgrade their qualifications besides providing necessary support in relevant research trainings as well as participation in the research programmes.

Keywords: Research culture, logistic regression, significant variables, stepwise selection

^{1.} Research Officer, Centre for Educational Research & Development

Rationale of the Study

Universities anywhere in the world place much of its strength in research capacities. They put lot of importance on research based curriculum or teaching and learning informed by research. Universities also spend lot of resources on research and publication activities. In fact, universities acquire their unique popularity because of their greater focus on research as major activities. Universities are the crucial hubs for producing knowledge. Besides these, universities also play a crucial role in the society. Margison and Considine (2000) while trying to discuss the role of the university has rightly stressed that "there can be little dispute about the need for universities to play an active and constructive role in the economic and social renewal of their communities" (p.5). To fulfill such a significant role in the society, universities need to build strong research cultures.

Research in Bhutan, in the Western sense, is relatively new. The recent establishment of the Royal University of Bhutan (RUB) provides the opportunity for research in Bhutan to be led by the RUB. The advent of the RUB means that the role of academics in the previous colleges now forming part of RUB needs to change to encompass research (Strategic Plan, RUB, 2007). Implied here is a change from a culture of teaching to a culture of teaching and research in the constituent RUB colleges and institutes. The importance of these developments has been foreshadowed in the development of the Research Department in the Office of the Vice Chancellor, RUB.

The Royal Charter and the Statutes of the Royal University of Bhutan (2003, p. 3) emphasizes that one of the core objectives of the university is to "promote and conduct research, to contribute to the creation of knowledge in an international context and to promote the transfer of knowledge of relevance to Bhutan." Similarly, the university's Strategic Plan also give much importance on promoting research culture in the constituent member colleges (Strategic Plan, RUB, 2007). According to Sherab (2009, p.1) RUB like other universities elsewhere, "is also giving more emphasis and encouragement on research activities for the enhancement of the quality of courses offered". Various research training programmes and professional development workshops are being organised to equip the faculty with research skills. These programme are training for research but the numbers are still very few. Likewise, if we look at the list of the faculties within RUB, not even 10% of our faculty has doctorate degrees. On the other hand, any university in the west would have more than 90% of their faculty with doctorate degrees. However, within its limited capacity RUB has also been providing generous support with research funding and supply of research materials to its member colleges. RUB has launched its own annual publication journal entitled the Bhutan Journal of Research and Development to provide the platform for the researchers to publish their research work. The RUB has been also able to institute research and publication as one of the key criteria for selection to higher posts and further studies. Such developments clearly indicate the significance of research and publication.

In spite of all these efforts, we do not see many faculty members taking up research, and surprisingly the only university journal often does not have adequate research papers to be published. The calls for the submission of research proposals for funding have not been successful either. All these are indicators that show research at the colleges of RUB is not a priority at the moment. We can conclude that a research culture has not been developed in each of the colleges and institutes of RUB.

As implied above, there are a range of reasons why this might be the case. Is it because faculty members are not skilled enough to carry out research? Is it because research funds are not readily available? Is it because our faculty members are heavily loaded with teaching? Is it because our faculty members do not get sufficient administrative and research support? Is it because research materials are not easily accessible? Is the past practice of only teaching and no research by the RUB academics difficult to change? Is it because the RUB academics are not mandated to carry out research? There could be many reasons and the likely cause is in fact a combination of these. However, no research has been carried out to find out possible reasons for the lack of research productivity at RUB. In the RUB colleges, lots of effort has been made to enhance research culture, however, the response by the faculty members has been very slow. Therefore, the main purpose of this study is to gain a better understanding of the research culture, research planning and priorities of each of the RUB member colleges.

Main Research Question

How well do the explanatory variables concerning research culture explain the over all RUB faculty's research experiences and productivity?

Research Objectives

- 1. Identify significant explanatory variables that influence the university research experiences and productivity.
- 2. Examine the direction of the relationship between the explanatory variables and the university research experiences and productivities based on sign (+ and -) of the regression coefficients.

LITERATURE REVIEW

Introduction

Researching the research culture at the Royal University of Bhutan presents two broad associated areas in the Bhutanese context; the research itself and the concept of culture that has to be understood. The recently established Royal University of Bhutan (RUB) has been providing much emphasis on enhancing the research culture in the member colleges. According to Sherab (2009), RUB like other universities elsewhere, "is also giving more emphasis and encouragement on research activities for the enhancement of the quality of courses offered" (p. 1). However, RUB is a recently established, and the first, university in Bhutan. Bhutan as a country itself does not have a tradition of research in the Western sense of that term. It is therefore attempting to develop research without a history of research to support it, and that means that research capacity is being developed from a low base. Moreover, the colleges, prior to amalgamation into the RUB, were closely affiliated with government Ministries and their primary task was to produce graduates that could work in the Ministries. College staffs were, therefore, teachers and not researchers. The focus has been on teaching since the inception of the colleges from about the 1970s onwards. A culture, 'the way we do things around here'; that has been built up in each college that revolves around teaching and does not include research.

Moving from a culture of no research to one which centrally includes research involves going through a process of change. To provide a clear picture of the factors that support and inhibit research at RUB colleges one needs to understand the history and current practices and policies surrounding research and its production at each of the RUB colleges. Therefore, the literature analysis that follows presents a detailed discussion on the importance of research grounded in the concept of culture and change.

Concept of the Research

The word research has been very loosely used in our everyday life to convey different meanings. Today we live in a world where "our knowledge is incomplete and problems are waiting to be solved" (Leedy, Newby & Ertmer, 1997, p. 1). The general understanding is that these problems can be resolved through research by asking significant questions and seeking authentic answers. Tan (2002, p. 2), defines research as "a careful and systematic process of inquiry to find answers to problems of interest". In a similar tone, Kothari (2004, p. 1) defines research as "a scientific and systematic search for pertinent information on a specific topic". We can say then that research in the context of a university means undertaking a systematic process of enquiry to find answers to significant questions. In brief, research refers to a search for knowledge.

According to Bernard (2006), research is like a craft which requires practice to perfect it. Researchers require skills. Researchers need a range of technical and ethical skills to undertake the rigorous processes of identifying a problem for study, asking questions, formulating hypothesis or specific research questions, conducting literature reviews, designing the study and identifying relevant methodologies, developing data collection tools, identifying sources of data, selecting participants, collecting data, analysing the data, writing to particular audiences and sharing the findings with others and finally publishing the results. The search for knowledge demands highly developed skills that vary across disciplines and professions and takes time.

Importance of Research

The 21st century landscape is changing at a rapid pace. What is relevant today becomes obsolete tomorrow. New knowledge is being generated at an alarming rate. Universities which are the learning hub of any society struggle to excel in discovering and producing knowledge through research. Today one of the strengths of any university is its research capacity. Most universities in the world provide much emphasis on research as an end in itself as well as teaching and learning that is informed by research. A careful study of the strategic plans of universities abroad will show that a research agenda is always at the top of priorities. For instance, according to the University of Leeds (2006) in the United Kingdom, they have a "world-class ambition" which is expressed in the following words:

Our world-class ambition is a standard of excellence to which we aspire. It means, firstly, that our learning and teaching takes place in a research-intensive environment, that our programmes and courses are constantly refreshed by new research findings, that our students are taken to the cutting-edge of knowledge and that they learn about the research process, how new knowledge is created and are given opportunities to contribute to that knowledge base. (p. 4)

Another relevant example is the mission of the Macquarie University in Australia for 2009-2011, which states that the university aims:

to establish a pervasive research culture across all areas of the University, and in particular to achieve internationally and nationally leading research in selected concentrations of research excellence, by maximizing the institution's intellectual and physical resources and by maintaining a continuous improvement framework (p. 1)

Looking at the vision and mission statement of these universities we understand that universities use research and its output to strengthen their status as leading universities. These universities invest huge amount of time and resources in research. This demands investments not only in research capacity building of staff but also in other areas such as research infrastructure e.g. libraries. In Bhutan too the Royal University of Bhutan has recognised the importance of research in its mission statement (2007, p. 3), which states that, "the Royal University of Bhutan will continue to enhance access to tertiary education and its quality through advancement of research, ..." (The Royal University of Bhutan: Strategic Plan 2004-2012). Discussing the role of research in the university, the RUB strategic plan also states that, "research is a crucial element of any institution of higher education and without the active involvement of staff in research, no institution can justifiably be recognised as a university" (p. 33)

Examining the mission statement of RUB, several questions immediately arise. Do member colleges under the Royal University of Bhutan invest their time and resources in the research capacity building? What is their vision? What are their missions? What is the annual research product in these colleges? Are their teaching-learning processes based on research findings? What are the priorities of the Royal University of Bhutan and its member colleges? Is there any gap between the existing literature and the actual practices at these member colleges? If there is any gap, what immediate and long term measures should we employ to reduce the gap? These are some of the concerns that this research would addresses

Much of the practices in the developed countries and even many developing countries are based on evidence. For instance, implementation of any new change in teaching and learning, or the introduction of new policies in the system is all evidence based as against ideology based. Research is considered to be the driving force for policies and it helps in the development of inquiring minds to inspire students to be innovative and creative through critical thinking. Until recently in Bhutan research was not very much a part of the teaching learning process or for that matter the introduction of any new changes in the system were not based on evidence. One's ideology played important role in the Bhutanese society. Such practices have resulted in the failure of the programmes and policies that were implemented. This clearly indicates the importance of introduction of programmes, policies, and teaching learning practices that is underpinned by research. Discussing the importance of research, Thailand has integrated into their developmental activities a philosophy of "Triangle that moves the mountain" propagated by Professor Prawase Wasi in 2000 as shown in figure 1 below;

1. Creation of relevant knowledge



2. Social movement

3. Political involvement

Figure 1 Triangle that Moves the Mountain (Wasi, 2000)

According to this triangle there should be three things working in close collaboration to make anything possible in this world. First and the most important thing is to create relevant knowledge through research which has to interact with social movement or social learning. Wasi (2000) states that, "without relevant knowledge, social movement cannot go very strong or may deviate to something else" (p.4). He further claims that to complete a working structure political involvement is a must. He also warns that without knowledge production and social movement politics cannot do much. So this philosophy is imperative to solve difficult problems. In fact, Thailand has moved a few mountains using this philosophy. For instance, through research, social movement and political involvement they have rewritten "the Constitution which led to political reform, developed 8th National Economic and Social Developmental Plan, and the National Education Act for education reform was issued" (Wasi, 2000, p. 5). Ever since then this philosophy has been applied to formulate policies, design and implement programmes, and initiate major reforms.

Thus it is time now that faculties under the Royal University of Bhutan as academics show and prove to the outside world that we are also capable to carrying out research works which can support the overall development of the country.

Culture and Change

It is essential that this study consider culture and change to understand fully the research culture of the colleges of RUB. As stated above, research is a fairly new concept in Bhutan. It was only after the establishment of RUB in 2003 that research has gained some importance. Prior to this there was little research produced at the colleges who are now members of RUB. After the establishment of RUB much emphasis has been provided to encourage and build research capacity at the member colleges. Some generous funding has been provided, capacity building such as refresher courses and professional development programmes have been initiated, and seminars and conferences have been organized. When such innovations are introduced it is likely that there will be demands on the change in culture of those affected. In fact such innovations are part of a process to effect change at RUB to influence the development of research at RUB.

According to Schein (2004, p. 1), "culture is both a dynamic phenomenon that surrounds us at all times, being constantly enacted and created by our interactions with others and shaped by leadership behaviour, and a set of structures, routines, rules and norms that guide and constrain behavior". For instance, it is imperative that first we understand the kind of leadership our colleges have. Are our leaders supportive to the changing culture? Are our leaders able to visualize the potential of research and its products? On the other hand, it is also equally important to understand the work culture of our faculties and the colleges to change the culture of research amongst the faculties of the Royal University of Bhutan. What is the work load of each lecturer? Do they have adequate time to take up research? Do they have adequate research skills? How comfortable are they taking up new responsibilities? Bridges (1991, as cited in Sherab, 2001, p. 19) shares that, "Inevitably accepting something new often means letting go of something old". So how are the faculties of RUB responding to this culture change? Are they receptive? Are they adequately prepared to undergo change? What arrangements are made to support the faculties so that they undergo a smooth transition? Are these arrangements adequate? These are some of the issues addressed in this study.

However, change in culture requires time and often it is met with resistance from the change practitioners. O'Niel (2006) states that, "all cultures are inherently predisposed to change and at the same time, to resist change" (p. 1). Educational theorists such as Fullan (1999) and Lieberman (1995) highlight the significance of resistance as a natural phenomenon in the process of implementing a change initiative. Change in culture means changing ones beliefs and ways of doing things. Change can be painful causing stress and discomfort for some and liberation for others.

Factors that Support Research Culture

One needs to acquire the skills of researching through university training and adequate experiences. Existing literature (e.g., Robinson, 2005) indicate that there are various factors such as training, administrative support, funding sources, infrastructure and resources, mentoring, the role of colleagues and collaborators, research conferences and faculty meetings, and recognition of research efforts of the faculty that support research culture in an institution or a university. Each of these areas is discussed below

Training and Experience

One requires adequate training and experience to be able to conduct research. Specialist skills are necessary and these vary depending upon the demands of each discipline or profession.

Administrative Support

Adequate training and experiences are not just enough for someone to take up research. According to Robinson (2005) administrators need to understand the importance of the potential of research and support research activities. This can be achieved through administrative guidelines including ethical procedures to follow in undertaking research.
Funding Sources

Research usually involves money. In other developed countries there are various private and non-governmental organisations funding research activities besides government funds. Do we have such funding sources in Bhutan? Are funds adequately available for our researchers?

Infrastructure and Resources

Infrastructural support for carrying out research is crucial. Do our colleges have facilities and resources such as digital recorders, adequate working space, support staff and library facilities, etc. to encourage faculties to take up research?

Mentors

Existing literature indicates that mentors play a crucial role in building up the confidence level of these academics. Many academics at the colleges of the Royal University of Bhutan have just started taking up research. Confidence level has been very low due to lack of experience. Do we have mentoring process established in our colleges to support novice researchers? What systems are in place to support the new researchers? Are international partnerships in research another way forward? While research is a new development in our colleges, we do have some experienced researchers. It is important that these experienced researchers work in close collaborations with novice researchers.

Research Conferences and Faculty Meetings

Research conferences and faculty meetings are often considered to be good ways of promoting research in the established universities. They provide platforms for researchers to share their work where novice researchers could learn. They are the bottom rung for research presentation that can lead to refereed publications (Maxwell, 2006).

Recognition of Research Efforts of the Faculty

It is significant that research efforts of the faculty are recognized through various mechanisms. For instance, promotions are based on the number of papers published, reduce number of teaching hours, opportunities to attend the international conferences, seminars, trainings and workshops and provide incentives for taking initiatives.

METHODOLOGY

Introduction

The methodology applied in this study is quantitative. This study involved the primary survey data collected from faculty members of all the colleges of RUB on research culture. The survey instrument was pre-tested using reliability test involving the samples size of 25 faculty members. The Cronbach's alphas for the 6 research output and 12 perception and research experiences items were .894 and .807 respectively which indicated high level of internal consistency of the scale in the instrument. The questionnaire consisted of 25 items on demographic information and faculty member's perception and experiences about the overall research culture at the RUB. The response (outcome) variables were measured on binary categorical - 'Yes' and 'No'. The explanatory (predictor) variables included 12 items that were dichotomous and ordinal measured on five-point Likert scale related to demographic, responsibilities of the faculty member, training and experiences, research and publication services, research knowledge, facilities and resources, perception of research and research policies. The binary variables were coded as 0=No, 1=Yes. The variables which used five-point Likert scale was coded as 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree.

An attempt was made to collect data from every faculty member in all the colleges; however, the data was collected from those faculty members who were present at the colleges during the time of the survey administration. A census (enumeration of all the faculty members of each college) method was applied as every faculty members who were present on the day of the survey administration were included in the sample. The sample size was estimated based on the following statistical formulation.

$$n = \frac{Z^{2*}p^*q + ME^2}{ME^2 + Z^{2*}p * \frac{q}{N}}$$

n=required sample size, $Z^2=Z^2$ is the abscissa of the normal curve that cuts off an area α at the tails (1 - α equals the desired confidence level, e.g., 95%), N=the population size, p=the population proportion (assumed to be. 50 since this would provide the maximum sample size), ME=Margin of Error (Sample Size: SRS, n.d). From the total faculty members of 485 in all the colleges, with 5% margin of errors, 95% confidence interval and 50% response distribution, the recommended sample size was estimated to be 215. However, the data collected from a total of 228 faculty members were used for this study. The Statistical Package for Social Science (SPSS) version 16 was extensively used to analyze the data. In this study, the researcher was interested to see the effect of explanatory variables to response variables which were among others the core research objectives of the university. A binary logistic regression method was used to model the relationship between the variables to see the extent of the effect. While developing the model, some of the cases with high missing values were removed as it was highly sensitive to chi-square test and goodness of fit in the model building process.

In order to suitably select factors or variables that are believed to have significant effect on the research experiences and productivity, a careful judgment of each factor on the basis of cause and effect relationship was first established. A univariate regression analysis was then carried out to select the covariables (with p-value <0.25) to enter into the model. The use of more traditional level (p<0.05) often fails to identify the variables known to be of importance (Bendel & Afifi, 1977, Mickey & Greenland, 1989 as cited in Hosmer & Lemeshow, 2000). After the factors have been identified for the model, the logistic regression procedure was used in combination with stepwise method for binary response variables. The stepwise method enables to select those significant variables which are most effective in predicting response variables while at the same time removes those variables which are of lesser effect.

Description of the Variables Specified in the Model

In this study of research culture and productivity, two different response variables were selected which measured the research performances and productivity of faculty members at the university. It comprised of two variables; published papers in research journals and presented papers in research conferences and seminars. These variables among others were considered as the central objectives of research and development initiatives carried out at the university. Thus, two models were developed to find out the effect of explanatory variables on each of the response variables. For each of the model, only those significant explanatory variables were entered which were identified by the univariate regression analysis.

The explanatory variables included all those variables that explained the response variables; qualification, attended research trainings and workshops, attended research conferences and seminars, research discussed in faculty meetings, received fund for conducting research, aware of the procedures for application of research grants, receive support for research from the Office of Vice Chancellor, aware of existing RUB research policies and guidelines, RUB researchers are rewarded for their research contribution through promotion, RUB researchers are rewarded for their research contribution through both in-country and excountry trainings, and RUB researchers are rewarded for their research contribution through leadership positions.

In an effort to build the most effective logistic regression model, the following variables were discarded from the analysis; teaching hours, number of students teaching, research discussed in department meetings, library has materials and references to support research, access to online database (eg. E-journals like AGROBA, HINARI, PROQUEST, JSTOR, ERIC, etc.), office space to facilitate research study, access to reprographic facilities that support research study, receive support from College Research Committee, receive support for research from colleagues, There are mentors/senior researchers to support and guide beginning researchers, RUB should provide research grants for researchers, incentives in place for the beginning researchers. These variables were either statistically non-significant or p > 0.25 of the univariate analysis of variable selection.

RESULTS AND DISCUSSION

Background

A total of 228 faculty members from all 10 colleges completed and returned the questionnaires with a response rate of 47% (228/485). Table 1 shows the percentage distribution of respondents for all the colleges. Of the total respondents, male accounted for 77.2% where as women accounted for 22.4% and missing values 0.4%

S1.	College	Frequency	Percent	Cumulative
No				
1	SCE	32	14	14
2	SC	44	19	33
3	RIHS	13	6	39
4	NITM	6	3	42
5	ILCS	7	3	45
6	GCBS	45	20	65
7	JNP	12	5	70
8	CST	18	8	78
9	CNR	13	6	83
10	PCE	38	17	100
	Total	228	100	

Table 1 Frequency distribution of college respondents

Majority of the faculty members had qualification of master's degree which constituted 69.7%, followed by bachelor's degree 19.3% and only 9.2% with doctorate degree as shown in table 2.

0						
	Bachelors	Masters	PhD	Total	Missing	Total
Frequency	44	159	21	224	4	228
Percent	19.3	69.7	9.2	98.2	1.8	100.0
Valid Percent	19.6	71.0	9.4	100		
Cumulative %	19.6	90.6	100.0			

Table 2 Highest qualifications

Majority of the faculty members (36.4%) just had the teaching experience of less than 5 years, 28.1% between 6-10 years and 15.4% with experiences of 11-15 years. Less than 6% constituted above 16 years of teaching experiences.

Most of the faculty members (44.3%) in all the colleges taught about 11-15 hours per week followed by 34.2% who thought around 6-10 hours (Table 3). Similarly, most (41.7%) of the faculty members in all colleges taught around 51-100 students, 21.5% taught 21-50 students and 20.2% taught about 101-150 students.

Model 1: Published Papers in Research Journals

A stepwise logistic regression was performed to find the most parsimonious set of predictors that are most effective in predicting the response variable with 'published papers in research journals' as response variable. The response variable published paper in research journals was binary; Yes coded as 1 if the faculty members have published, and No coded 0 if Explanatory variables included both dichotomous otherwise. as well as ordinal which are qualification, attended research trainings and workshops, attended research conferences and seminars, research discussed in faculty meetings, received fund for conducting research, aware of the procedures for application of research grants, receive support for research from the Office of Vice Chancellor, aware of existing RUB research policies and guidelines, and RUB researchers are rewarded for their research contribution through promotion, RUB researchers are rewarded for their research contribution through both in-country and ex-country trainings, RUB researchers are rewarded for their research contribution through leadership positions.

	Chi-square	df	Sig.
Model	43.149	3	.000

Table 3 Omnibus Tests of Model Coefficients

Table: 4 Model SAummary

step	-2 log	Cox & Snell	Nagelkerke R	
	likelihood	R	Square	
2	167.073	.225	.317	

A test of full model against the constant only model was statistically significant and reliable (x^2 (3, N=228) = 43.149, p<.001). This model accounted for between 22.5% and 31.7% of the variance in published papers in research journals. The prediction overall success was 79.8% (89.7% for No and 57.7% for Yes). The Wald statistics demonstrated that two variables; qualification (p=.001) and attended research conferences and seminars (p=.004) made significant contribution to prediction. All others were not significant predictors. There were two steps in the process and all other variables were removed from the model in which the step selection was terminated at step two.

		Pred	icted	1		
Observed			published papers in research journals		rcentage Correct	
Step	published papers in	no	104	12	89.7	
2	research journals	yes	22	30	57.7	
	Overall Percentage					

In table 6, the sign of the coefficient for Qualif(1) is negative (doctorate degree as reference category) which implies that the probability of faculty members with bachelor degree to publish papers in research journals is lower than the faculty members with doctorate degree. The EXP(B) value of Qualif (1) was 0.14 which means that the probability of the faculty members with bachelor's degree to publish papers in research journals was 0.14 times lower than the faculty members with doctorate degree. If we calculate the inverse of EXP(B) here, i.e. 1/0.14 = 7.14, we can say that a faculty who has doctorate degree is 7.14 times more likely to publish than faculty members who just have bachelor degree.

The value of EXP(B) of Qualif (2) was 0.209 meaning that faculty members with master's degree have probability of 0.209 times lower than of faculty members with doctorate degree to publish papers in research journals. The inverse of EXP (B) i.e 1/0.209 is 4.78 which we can say that a faculty who has doctorate degree is 4.78 times more likely to publish papers than the faculty with masters.

Similarly, the probability of publishing papers for faculty members who attend research conferences and seminars is 3 times larger than those who did not attend. The EXP(B) showed positive sign indicating positive relationship between the papers being published in research journals and attended research seminars and conference.

Step2	В	S.E.	Wald	df	Sig.	Exp(B)
qualif			13.835	2	.001	
Qualif(1)	-4.246	1.179	12.977	1		.014
					.000	
Qualif(2)	-1.566	.621	6.363	1	.012	.209
iv3new	1.158	.404	8.212	1	.004	3.184
Con-	969	.942	1.059	1	.304	.379
stant						

Table 6 Variables in the Equation

The two significant variables; qualifications of the faculty members and their lack of participation in research seminars and conference were therefore the two major contributing factors for lesser research papers being published in research journals. Improving the qualification level of the faculty members and allowing them to attend more seminars and conferences would let them carry out more research and publish papers in research journals. The qualification is integral for any academic successes and in the RUB, not even 10 percent of faculty members have doctorate degree. The achievement of high academic qualifications and vigorous research involvement would stimulate greater influence on research contributions as well as production in the universities.

The existing literature suggests that research conference and faculty meetings among others are the important factors that support research culture. Participating in the research conferences and faculty meetings are often considered to be great ways of promoting research in the established universities. They provide platforms for researchers to share their work where novice researchers could learn. They are the bottom rung for research presentation that can lead to refereed publications (Maxwell, 2006). In the RUB and its member colleges, an effort has been made to organize the research conferences and seminars both at the international and national level, however, the regularity of organizing such events are still minimal. The university and its colleges also lack the capacity to allow its faculty members to participate in the research forums outside of the country. Thus, higher the opportunities to participate in the research forums and meetings; there could be higher probability of presenting their research productivities.

Model 2: Presented Papers in Research Conferences and Seminars

The response variable for this model is papers presented in research conferences and seminars. It is a binary variable coded Yes=1 if faculty members have presented papers and No=0 if they have not. Thus, binary logistic regression with stepwise method was used to model this response variable. The explanatory variables are binary as well as ordinal which includes qualification, attended research conferences and seminars, attended research trainings and workshops, received fund for conducting research, and aware of the procedures for application of research grants. All other variables were found insignificant while analyzing univariate analysis and were discarded from the model. There were three steps in the process and two variables were removed from the model in which the step selection was terminated at step three.

	5		
	Chi-square	df	Sig.
Model	79.547	4	.000

Table 7 Omnibus Tests of Model Coefficients

step	-2 Log	Cox & Snell	Nagelkerke R
	likelihood	R Square	Square
3	163.895 ^b	.354	.480

A full model was considered to be statistically significant and reliable (x^2 (4, N=228) =79.547, p<.001). The model accounted for between 35.4% and 48.0% of the variance. The prediction overall success was 79.1%. For the papers presented 81.7% were predicted. However, 77.5% of the predictions for the non-presenter were accurate. The Wald statistics showed that three variables; qualification (p=.010), attended research conferences and seminars (p=.001), and attended research trainings and workshops (p=0.20) made significant contribution to prediction. All others are not significant predictors.

Observed			Predicted			
			presented papers in conferences and seminars	Percentage Correct		
Step 3	presented papers	no	86	25	77.5	
in conferences ye and seminars			13	58	81.7	
	Overall	Perce	ntage		79.1	

Table 9 Classification table

In table 10, the sign of the coefficient of Qualif(1) is negative (doctorate degree as reference category) which implies that the probability of faculty members with bachelor's degree to present papers in conferences and seminars is lower than faculty members with doctorate degree. The EXP value of Qualif (1) was 0.024, implying that faculty members with bachelor's degree had probability to present papers in conferences and seminars 0.024 times lower as compared to faculty members with doctorate degree. If we calculate the inverse of EXP (B) here, i.e. 1/0.024 = 41.6, we can say that a faculty who has doctorate degree is 41.6 times more likely to present papers than faculty members who just has bachelor degree. The EXP (B) value of Qualif (2) was 0.035 implying that faculty members with master's degree had probability to present papers in conferences and seminars 0.035 times lower than faculty members with doctorate degree. The inverse of EXP (B) i.e 1/0.035 is 28.57 which we can say that a faculty who has doctorate degree is 28.57 times more likely to present papers than the faculty with masters.

When faculty members attend research conferences and seminars, the probability to present papers in conferences and seminars is 8 times greater than the faculty members who did not attend. When they also attend research trainings and workshop, the probability to present papers is 3 times greater than the faculty members who did not attend research trainings and workshops.

Step2	В	S.E.	Wald	df	Sig.	Exp(B)
qualif			9.303	2	.010	
qualif(1)	-3.729	1.229	9.210	1	.002	.024
qualif(2)	-3.361	1.165	8.322	1	.004	.035
iv3new	2.097	.456	21.144	1	.000	8.141
iv5new	1.045	.450	5.400	1	.020	2.843
Constant	-2.396	1.369	3.062	1	.080	.091

Table 10 Variables in the Equation

Thus, to encourage the participation of the faculty members to present their papers in research conferences and seminars, besides improving their education level, they should also improve their participation not only in attending research conferences and seminars but also in attending research trainings and workshops.

Describing the factors that support research culture, Robinson (2005) has stated that an adequate training and experience is necessary to be able to conduct research. He has also pointed out that specialist skills are necessary and these vary depending upon the demands of each discipline or profession. For most of the faculty members at RUB, research has been a new phenomenon and lacked necessary skills and trainings to carry out research. This indicates that RUB requires to conduct regular trainings to develop research skills of the faculty members.

Conclusion

From the analysis of the above two model, it is clear that qualifications and research education were highly significant to both the response variables (published papers in research journals and presented papers in research conferences and seminars). It showed that majority of the faculty members who had qualification of bachelors or master's degree did not have much research experiences. While the faculty members who obtained doctorate degree on the other hand was very minimal. The university should continue to expand the qualification of faculty members so that they are fully exposed to the intellectual as well as research environment. For faculty members with doctorate degree, opportunities must be created to revitalize their knowledge and skills so that there is a continuous generation of research output. It would build their confidence and enthusiasm for renewed involvement in research activities.

The faculty members in the university also lacked opportunities to participate in research conferences and seminars as well as the trainings and workshops which are the important avenues required for enhancing and exchanging research know how. Faculty members must be encouraged to participate more often in attending such forums. The university should also hold more professional conferences and meetings so that the space for faculty members to bring up their research works is being created. The study showed that low research productivity at the university was not because of heavy teaching hours of the faculty members, large numbers of modules handled or large numbers of students taught but it was other infrastructure and support factors which were causing greater effect. However, all these supports alone are not enough if RUB wishes to excel in research and development attempt, RUB should strive forward to both internalize as well as pressurize its faculty members to take up research.

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ૡ૾ૺઞ'ૡર્ઢૈબ'વર્ને'અ'વેંદસ'મ'ભુ' ગાંતુ૬'ર્નેત્વર્ન'મી'ર્થેગા'ભુ'લેન'વર્ઢૈબ'ન્નુ'ર્સેઅ'સે'વન૬'ત્રેવે'ર્નેત્ ભુ' શૅં'નદદ્રન'ગ્રૈ'લેન'વર્ઢૈબ'નર્સુઅ'રુગ'વન૬સ'ભર્સ' લેન'વર્ઢૈબ'ગાત્તનઅ'સૂક્'સાંવેંદપ્પદ' સુ'ર્સે' ટ્રેંદ્રાયમા'ગારુગા'ભુ'ગાલે'નલગા'સ્ટ્રે'વરન૬'ર્બે૬'પવે'ાયર' લેન'વર્ઢૈબ'ઘનઅ'ભઅ'ર્ફુ'ભર્સ' ગાદસ' વર્સેબ'ઘનઅ'ભેસ'ન્નુદ&'રુગા'ભુ'ગાર્કે''ર્વે'નર્સુદ'સ્ટ્રે' ગાત્તસ'સૂક્'નેનસ્ટ્રુ'ભેત્ન'વર્ન-'વર્ન૬સ'બૈત્તુ

ন্দনা'বের্ট্রন। নির'ক্টর'ঝাদনে'বের্য্রা।²

શ્વર્ગે દેરાવવા ગોઅત્વાર્વે ત્સપ્યું દેરાવ દ્રત્ય જેવ સુદ્ર ગાય છે સંગાય વર્ષે સુવા બગા બેવ શે ગાવ જ છે દ્રાપ્ત ગાય સુદ્ર

^{2.} ดินารักสามการการกา มารักสามรักรมสัตมา

^{1.} ณิฑฺฆฺา๛คๅาม ซฺารังคฆฺาริฑฺามธิ์าริฆาลัญมาฆฺๅ

 त्रेष्ठन द्वींग्यंते नगार क्रुंगवर क्षे रदुगा

جَّغَمَ (Introduction)

- ૢ ૱ ૹૻૡૼઽૹૻઽૻૡૢૻૻૻઌૢૻૻૻઌૢૻ૱ઽ૾ૢૼૡૻૻૡઽ૾૾ૺૹ૽૿ૻૹૼૼૼૺૼૼૼૼૼઌૡૢૻૺ૾ૡ૽૿૱ૡૹૼૼૡૻૡ૱ૡ૾ૻૡ૾૽ૡૼૡ૽૿૱ ૹૡૹૻૹૢઌૹૻ૱ૢ૾ૢૢૢૢૢૢૢૢૢઌ૱ૡૢૻ૿૾ૡૡૢ
- 4. શ્વેન સુચ્ચ ન ન પ્રાથ માં મુખ્ય મુ મુખ્ય મુ મુખ્ય મુખ્ય મુખ્ય મુખ્ય મુખ્ય મુખ્ય મુખ્ય મુખ્ય મુખ

र्नेव' खु' क्षेत्र

<u>ଽୖ</u>୲୴୶୲ୖୢୢୄୢୄୢୄ୷୵ୄୖ୴୴ୄ୵୵୲ଌୄୣୄୣ୷ୖ୶ୄୠ୵ୖୄୠୡୖୄ୵ୠୄୖ୲୷ୄ୶୷ୄୠ୵ୄୖୠ୲୷ୄ୶୷୶୲ୡ୕୲ ર્ફેન્સ્ટ્રન્ણુ વાલેગ્વર્ડુવાયાવવન્નેર્પેર્પેન્સીવને સુવાબયાં સુગ્વસ્નેન્વવન્નેને સેન્પ્પન્ એયયા

ଌୖ୶ଌୖ୕୶ୄୖ୕ୄୢ୴ୄୢୠ୶ୖ୳୕୶୶୳ୄୢଽ୵୵୶୲୵୳୵ୄୖୡ୶ୄୢୄୢୄୄ୶୰୶ଌୖ୕୶୲୕ୖ୶୶୰୳ୡୖ୲୳ୢୢୡ୵୴୶୵୵୵ दच्चे ते से न म कि त सभा (www.dzongkha.gov.bt).

1.ฉุลุุฑาณูารัฐานาณฑาณสายาสาาเลรา

᠊ᡷᢅ᠋᠗ᡃ᠋᠊᠋ᡭ᠋᠋᠋ᡎ᠂ᡆᢢ᠋ᠴᢙᢆᡆ᠈᠋ᡆᡲ᠂᠆ᠵᡃᡆ᠋ᢒ᠊ᢂ᠋ᢣᠺ᠅᠋ᡍᢩᠬ᠉ᡅᢅ᠆ᢂ᠋᠂ᡬᡘᡎ᠋ᡎᢄᡬᠴ᠋ᡎ᠈ᠺᡭ᠂᠆ᡪᠴᡃ᠍᠖ᠣ᠈ᡪ᠆ᠵᡏᠮ᠆ ૹ૾૾ઽૢૢૢૢૹ੶ઽઽઽૹઌૹ੶ઌૹ੶ਗ਼੶૱ૼૻઽઌૹૹૹૡૢਗ਼੶ਗ਼੶૾ઽૺઌ૱ૢૹૡૢ૾ૺ૾ૹૢઽૼ૾૾ૹ૽૽ઌ૽ૻૼૼૼૡૻઌૺઌૻ૽ૡ૽ૼઽઽૡૺઌ૿ૡ૽૿૽૽ઽ૽ૼૼૼ૱ ณฑ. ร้ารราวสิณาจริงสิมาร์จาสู่ ๆเร็าพราษีจามาสู่ๆพ

ર્કેંચ મેંગ નજીન લેન ગી મેં શેની

ईंबःदेग'न्झुनःविन| (Literature review)

 \exists રાગવે'ર્ડાગ્નર્સું'ગોં \int ં'ને'લેગ'વર્સેવ'વનર્પો

শ বেষন'র্ম্ঝ?

A

ૻ૾ૣૼઽ[ૢ]ૹૡ૽ૺૼૻૹૢૺૼૢૻઌ૾ૻૡૻૻૡૻૻ૱ૡૻૹ૾૽ૡૻ૽ૡૡૻૹૡૻૡૡૻ૱૱૱ 끼

ૹૢઽૹ[੶]ઽ૾ઽૡ૽૽ૼૡ૿ઌ૽ઙૢ૽ૺ૾૾૽૽ૹ૾ૼઽૡૡૺઌૻૹ૽૿ૢૡૹૹૣૢૡૢૼૼૼ૽ઽ૾ૺૹૠૻૡૡ૾ૺ૱ૢૻ૾ૹ૾ૄ૿ૢ૾ઌ૽ૼૼ૾_{૮૯૯૮}ઌૻ૾ૹ૱ૹૡૹ

মন্ধা (র্মিনায়নর্মা, প্রম)

Driem (1994) มิ่ารุกราวสุมุทรฐณาทุญมานามธิ์ทุาทิมา มีราวรามุทนาวกรา พรา ૹૄૢૢૢૹૻ[ૣ]୩ૢઽઽૹ઼ઽૹ઼ૡૢૻઽૢૼ૱૿ૹૣૹૻૹ૽ૻઌ૾૾ૺૼ*ૡૡઌ*ૡૢૻૻ*ૻ૾ૡૼૡ*ૡ૱ૻૡઽ૾ૺૹૄઌૻૡૻઽૹૹૣઽઌ૿ૹૻૻૡ૱ઽૻૻૼૹૻ दर्धेव प्रयन् गवन् सुगा र्हेन्यवरे यह गलुर पार्श्वर्या (१९९०) प्रदुग कुण प्रयन्त राष् अन् รารพราริทุณานิ:คาพีรานสิขาณณฑา สีกานา มูณาพักณาบิเพราพิทานกรา รัณานยีสา าสมลามิสานา รูลารานูญาณลาสูญาตา หรือรา มิติเตทีา เอง เล่ารูลา ณฑาระ หมีารามหิรระราญคิพารระชพาบิ สูงสสสารราหมิณาระหมูรราหิ คิพา

2.ภูณาพิรพามิราฮูพ

ૡર્વે નર્જુ મુશ્ર જે ત્યાં આ પ્રાંથ પ્રસંગ મુખ્ય પ્રાપ્ત પ્રાપત પ્રાપ્ત પ નર્જુળયાર્પેનર્ડન વર્ધવેન્ડન્પ્ર્યૂળાવે જું છેન્સ્નન્ડન્ કેવર્ડવેર્ધેળાયુયાળર્ફેળયા દેનાય ઽઽૼૡૼૼૼૼૼૼૼૹૻૹૢઽૻૹ૽ૼૼૼૼૼૼૼૼૼૼઌૢૻૢૻ૾ૻૡ૾૾૱ૻૡ૾૾ૼ૱૾૾ૡ૾૽ઌ૾ૻ૾૾ૡ૾ૺઌ૾ૻ૾૾ઌ૾૾ઌ૾ૻ૾૽ૡ૾ૺઌૻ૾ૡ૾ૻ૱ૻ૾ૡ૾ૻઌ૾ૻૡઌ૱ૻ ੶ ૼૹ੶ᡅੇੑੑੑੑਫ਼੶ਗ਼ੑਫ਼ਫ਼ਸ਼੶੶ਸ਼ਲ਼੶ਜ਼ੑੑੑੑੑੑੑੑੑੑਫ਼ਸ਼੶ਫ਼ਗ਼੶੶ਖ਼ੑਖ਼੶ਖ਼ੑਗ਼੶ਗ਼੶ਖ਼ੑਖ਼੶੶ਗ਼੶ਸ਼੶੶੶ ਫ਼ਗ਼੶ਗ਼੶੶ਫ਼ਗ਼੶ਫ਼ਗ਼੶੶ਖ਼ੑਗ਼੶ਖ਼ੑਖ਼੶੶ਖ਼ੑਖ਼੶ਖ਼ੑਖ਼੶ਖ਼ੑਖ਼ੑਗ਼੶ਖ਼ੑਖ਼ਖ਼੶ਖ਼ੑੑਗ਼੶ਖ਼੶੶ *ખર* ફેંદાવર્ડ્ડ કેવ્યું છે. આ પ્રાંગ પ્રા પ્રાંગ પ્રા પ્રાંગ પ્રાય પ્ર પ્રાંગ પ્રાંગ પ્રાંગ પ્રાંગ પ્ર ઙેંગ' ઽઽ૾ૹ૾ૢૢૼઽૹ'઼઼઼઼ૣૣૹૡૹ૾ૣ૾ૻૡઌઽૢૻૹૣૡ૾૾ૺૻૡઙૢૼૹૣૹૻૻૻ૾ૹૻૻૻ૾ૼૼૼૻૻૹ૾૾ૢૻૼૻૼૻ૾ઌૻ૾ૡૻ૽ૼૻ૾ૢૹૻ૾ૡ૾ૺઌૹૡ૾૽ઌૻૹ૾૽ૡ૽૾ૡ૽૾ઌ૽ૻ૱૱૱

A comparative study: reading and writing practics in english/dzongkha language under Paro Dzongkhag

Driem (1994) ને બશ્ચ છે લેવે ભાર્સ્સિંગ્ સે ગાય છે. સ્ટ્રાન્સ સ્ટ્ર સ્ટ્રાન્સ સ્ટ્રાન્સ સ્ટ્રાન્સ સ્ટ્રાન્સ સ્ટ્રાન્સ સ્ટ્ર સ્ટ્રાન્સ સ્ટ્ર સ્ટ્રાન્સ સ્ટ્ર સ્ટ સ્ટ્ર સ્ટ્સ્ટ્ર સ

Driem (1994) ຖື ຈິ ພື້ງເຊົ້າເຈົ້າຖື ລິ ເຊັ່ງເຊື້ອນ ເຊິ່ງ ເຊິ່ງ ເຊັ່ງ ເຊິ່ງ ເ

ૡ૱ઽૺ૱ૻૣૼૼૼૼઽૻૡૡ૽૾ૺ૽ૼઽૻૹૣ૽ૼૼઽૻ૽૱ૻૹ૾૾ૺ૾૿૱ૼૡૺ૾ૻૡ૾ૺઌૺૡૺૡૺૡ૱૱ૡૹ૱ૻૡ૾ૼ૱ૡ૱ઽૡૡૼ૱ૡ૱૱૱ ૢૡઽઌૡ૽ૼૡૢૺ૾૽૾ૢૼૼૼૼૼૼૼૼૺૹૻૻ૱૾ૻ૱ૼૺ૱ૼ૱૾ૺ૱૱૱ૡૺૡ૱૱૱૱૱૱૱ ૡૢૺ૾૽૾ૣૼૼૼૼૼઽૡૡૼૺ૱ૡૡૼ૱ૡૡ૾ૺ૱૱૱૱૱૱૱૱૱૱૱૱૱૱૱૱૱ ราวสุลิณาาริสา ๆสุมาณี₄₀₀₄ ยิเสาวส์กรา โราหลิเกาหารา ณๆาณิสาวยารมาสรา 1,60,000 ને દેશ ખેતમાં ગોતિ સુથા વર્ત વન્દ્ર ન ન સે જ સાય વન્દ્ર સંસ્ ાવવૈષાયભ્ભારત્રા ત્યાયા પ્રાથય છે. મુખ્યાવય સાથવર તે સું આવ્યું છે. આ ગામ સાથવર તે સું આ ગામ સાથવા સાથવા સાથવા સ ૹૢૢૢૢૢૢૢૢૢૢૢૢૡૹ૽ૹૼૣઌૻૹૢ૾ૡૺઌૻઽૢૻ૾ૻૡૻૹ૾ૻૡ૾ૢૻૡૹૻૻૡ૽ૢૢ૽ૡૹૻૻૡ૽ૻૡૢ૾૱ૻૡ૽૾ૢૢૢૼૡ૾ૻઌ૾૾ૡ૾૾ૡ૾૾ૡ૾૾ૡ૾૾ૡૻૻૡ૾ૻૡૻૻૡ૾ૻૡૻૻૡ૾ૻૡૻૻૡ૾ૻૡ ୖୖୖ^ୠ୵୶୶ଽ୷ୄ୶୲୶୶୰୲୕ୄ୶୶୶ୖ୷*ୄ୶*୵୶ୄୖଽୖୢୖୠୡୄ୕ୖୢୄୖ<mark>୷</mark>୰ୖ୰ୖୡୄଽୢୖୖୖୠୡୄ୰୵୶ (۲۷) ๚ติ่า หาสรา สูญาพิรสาชิ้าลาณุรูวิ่า นยูลามิเซิ่มสาช โรกา ที่ราวมิณาทุรรรท์ યલે સ્નેંત્ર ખાશ્ર ગ્રેંશ પ્રસૂધ ખેંગ રે ખેંગ રે ગ્રું જ પ્રે પ્રત્ય ત્ર સુશ્ર શે ખા ખુ ગોશ દે દા પ્ર ખા ના . . બેઠ્ર શે ર્સેન્ડ બ્રાહ્ય સેન્ડ સુસાન ન બાર બાય છે. આ પ્રાપ્ત પ્રાપ્ત છે. બાય પ્રાપ્ત પ્ aुगा(र्विगःशन्त्रान्त्रान्त्रान्त्र) क्षेत्रान्तुत्तः नःद्वेतिग्नन्तन्त्राध्याः दग्वताद्याः उत्राम्चीःधीगाः कन्दनः कीर्नेकाः ૡૢૼૻ૾ઌ૿૾૱ૻઌૢૢૻઌૻઌૻૻૡૡ૱૱૾ૡૢૼૻ૽ઌ૽૿૾ૼૢૼૼઽઌૹૻૻ૾ઌઌૻૻઌ૽ૺ૱૱ઽૡૢૻ૽ઌૢૢૻૼૼૼૼૼૻઌૻ૾ૢૼૼૼૼૼૼૻઌ૱ૻૡ૽ૼઌ૱ૻૡ૽ૼઌ૱ૻૡ૽ૼઌ૱ૻ ૹ૾ૣૼૺ૱ઐૻ૽ઌૹૢ૽ૺઽઽ૽ૼૼૼ૾ૻઌ૾ૼઽૣૼૠૻૹ૾૱ૠૹૣ

୵୵ଽୄ୩ୄୖୢୄୢୄୄଈ୕୵ଽ୵ଽୖ୶ୖଽ୶୲୳୵ଽ୵ଽୖ୶ୖ୶୲୴୶୲୴୶୵୴୲ୠ୲ୖଡ଼ୡ୶୲୴୶୲ୖ୲ଊ୵ୢୢୠ୵ୖୠ୶୲୴ୖୡ୲ୄୄୖୄୢୖୄ୴୲୴ୖ୶

هٖ^ڝ۬ڗۿۿٙ؞؞ڗڝڂ؆ؾڰ؆ۛٵؚ[ؚ]ؿڰٙٵؚ (Procedure)

ๅमें. र्ह्त भेष म्हरू (Sampling)

णवर्षः सुन न्वसु त्येव में स्वार्ये कर्मा (Data Collection Tools)

ดิจารสั้จารจจางจุป(Methodology)

लेन रहें त्र में राषे राषे हीं द स्वायालया (Research Ethics)

য়ঀয়৽ৼয়ৢৢৢৢৢৢৢৢৢৢৢৢৢৢৢঀৢৼ৽ড়৾য়৾য়৾ড়৾৽ড়৾৾৻ড়ৼড়৾য়৽য়৾৽ড়৾য়৾৽ড়৾য়৽৻spss) য়য়৽৾য়৾ঀয়য়য় য়ৢ৾৽ঀ৾৽ঀ৾৾৾ঀৼ৽ড়য়৽য়৾য়৽ড়৾য়৾ঀ৾ঀ৾৾য়৾য়ৢ৾৽য়ৢ ড়৾ঀ৾য়৾৽ঢ়৾৽ৼৼ৾৾৽য়ৢয়৽ঀয়য়৾য়ৼ৾য়ড়ৢ৾য়ৠয়৾ঢ়৽ড়৾ঀ

ઽૺૻૹૻૐૼૢૻ૾ૡ૿૽ઌૻૡૼૺૼૼૼૼૼૼૹૻઌૼ૾૾ૡઌૼૻઌૡ૽ૺૼૹૣ૿ઌૹૻૹૻૹૺઌૡૺૹૺૻૹ૽ૻઌ૽૾ૼ૱ૡ૽ૻૡૺ ૡૺૹ૾ૼૼૼૼૼૼૡ૽ૻૹ૽૿ૺ૾ૺૹૼૼૢૡૺૼૡૼૡૢૻૡઌ૽ૼૺૢઌ૽ૼૡૺૡ૱ૻૹ૽ૡૼૺૼઽૹૻઌૺૡૢૻ૾ૡૼૺૹૼૡૻૡૼૺ૿૽ૡ૽૿ૡૺૡ૽૿ઌ ૡૺૹ૾ૼૼૡૡઌ૱ૢૼૹ૾૾ઌ૾ૺૼૢૻૼૠઙ૾૾ૡૼ૾ૻ૱ૺૼૡૢૼૼ૾ૻઌ૽૿ૡૡૼૹઌૹ૾ૡૢૺૢૼૼ૱ૹ૾૾ઌ૾૾ૹ૾૾ઌૡ૱૱ૡૢૼૼૡઌ૾ઌ૽ૼૺૼૼૼૺૺૺૡૺૼૼૼૺૡ

୩ଵ୶ୄୢୄ୫ୄ୵୲୕୳ୄୄୄୢ୫ୄ୲ୖ୴ଵ୲୕୕୕୕ୖୖ୶୕୳ୖଵଵ୶୵ୖୄୖଽୖଌ୕୩୲ଵ୵୕୴ୢ୕ୢଽ୕୩୶ୖୖୄୠ୕ୖ୕୕୕୩ଵୄ୶ୄୢୄୢୄୢୄୢୄ୫ୄ୵୲ୖୄଌୄ୲୵ଌୄ୳ୖ୲୶୲ ୵ୄୖଌ୕୵ଌୄ୳ୄୢୢୢୢୢୢୡ୶ୄ୕ୄଵୄୄୖୢୄୣୄ୵ୄ୵୕୵ୡୖୢ୲ୖୖ୴ୖ୲୵ୢଌୖ୴୕୵ୡୢୢୢୢ୕ୢ୕ୖ୶୴୲ଵ୵୕୴ୢୄୢଽ୕୶ୖଵୄୄଵ୶୲୴୶ୖୖୄୖୖୖୖୖୄୄଽୄୢୖୄୖୖ୕୷ୄୖୄଌ୵୲ଌୄୣୣୣ୷ ୄୢୡ୕୲୴ଽ୕୴୵ୗ୕୵ୖ୵ୄୢୢୢୢୢୄୢୢଌ୶ୄଵୢ୲୕ୡ୴ୄ୵ୖ୴୲

- म हॅन्याय दरभुग ते न्य के लेख के ल
- ण हॅरावदेः अन्यधेषा पन् गादहेव प्रधन न्वीय परु गाय?

ୖଵ[ୄ]ୖୣୣ୷୳୷ୢୖୄଈୄ୷୳ୄ୷୷ୄଌୖ୲୷

ดิจ หลัง ซิ ส์ร หรัง (Limitations)

	য়ঀয়ৼৢৢৢৢৢৢৢৢৢৢৢৢৢৢৢ	ন্দ্রী.প	হ ৰ [:] শ ^{্র্} শ
1.	<i>ૻૣ૾ૼ</i> ઽૻૻૻૻઌ૽૾ૺૺૼૼૼૼૺૹૻૢ૾ૢૢૢૢૢૺૼૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢ	87.2%	12.8% न्दन्ग'दह्ते दन्नन'दर्वेग्य'केद'की
2.	<i>ૻૣ૽</i> ઽાવ વે લે લું સું ગવરુ ୩	51.3%	48.7% વર્ષે વે ભુ ર્શે વ સેન્ સા
3.	<i>દ્વેંદ્રાવ સુ</i> ષ[ત્રે સુર્યું ગ વર્ડુ થ]	56.4%	43.6% સુષા તે ભુર્જ્વા ગે છે. એન ઐ
4.	ၛ [ႄ] ၯၛႜၴႜၜၖႜႜႜႜႜၛၭႜ႞ႜၟႜ႞ၛၣ႞ႜႄၴႍႜႍၣႃၜၯၛႃၨၛႜၛၛႜၛႜၯႜ႞ၛၴၭႜ	28.2%	71.8% વ્યમુ'ત્યે ન ્સ' વ્રથન-સા
5.	ၛ [ႄ] ၯႜၛႜၴႜႜၜႜႜႜႜႜၛၭႜ႞ၛၭႜႜၛၣၯႜႜႜၛၣၯႜၛ႞ၛႜႜႜၛႜႜႜႜႜၛႜႜႜၛႜႜႜႜၛႜႜႜႜႜၛႜႜႜႜၛ	61.5%	38.5% બગ્રા ભેત્ર. વન્નગર્સ
6.	য়ૡૢઽૡ੩૽ૡૡ૾ૡૻૻૡૻઌૻૡ૽૿ૡ૿ૡૻૡૹૢૡૡૢૼ૽ૼૼૼૻૼઽૡૡઽૡઽૡૡ ૡૺ૱ૡૹ૱ૡ૾ૻૼૼૼૼૼૡ	20.5%	79.5% ભગાભે ਰ .અ. વન્નગગ્ગ
7.	য়৻ঀৢ৾৾৾৴৻ঽয়৾ঀ৾৾৽ড়৾ঀ৾৾৾৾ড়৾ঀ৾৾৽য়৾ঀ৾ঀ৾৾৽য়৾ঀ৾৾৾ড়৾৾৽য়৾৾ঀ৾৾৾ড়৾৾৽য়৾৾ঀ৾৾৾য়৾৾৽ য়য়৾৽য়৾৾য়ৢ৾৾য়৾৾য়৾৾য়৾৾য়৾৾য়৾৾য়৾৾য়৾৾য়৾৾য়৾৾য়৾৾য়৾	74.4%	25.6% વ્યગ્ન'ભેઠ્ર'અ' વ્હ્વન્ન'શ્રે
8.	ૹ૾ૢૺ૽ૻૣ૱ૺઌ [ૣ] ઌૹૻૻઽૺૡૢ૽ૼૡૢૼૼૼૼૼૼ૱ૻૼૼૼૼૼઽૻ <i>ૡૼઽૡ</i> ૡૺૡૻૹ૱ૡ૽ૼૼૼૼૡૻ૽ૢૡૼૡૢૡ ઌ૾ૻૼૢઌ	56.4%	43.6%व्य'झ्रेग्'ઐ
9.	ૹ૾ૢૢૺ૽ૣૻૣૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢ	92.3%	७.७%ह्य:झुग्रास्त्रे।
10.	ૹ૾ૢૺ૽૱ૺૢઌૻૻ [ૣ] ઌૹૻૻૻૼૼૢૻૡૢૼૺૼૼૡૼૹૼૻ૽ૼૼૼૼૺૻૣ૽ૼૻૼૼૻૻૡૡ૽ૺ૽ૻ૽૽ૺૺ૽ઽૺૺૺૺૺૺૻૡ૽ૢૼૡૢૻૹૻૻ ૡ૾ૼૼઽૣઌ	61.5%	38.5% ^{&} "झुग"र्से

धैगाख्य.01

णवश्वःश्चन्नग्र्डन्र्नेवाणीःभ्रेणाख्य (overview) देवाणीभ्रेषाख्यादने णवश्वःश्चनग्वश्वायेवादवन्न्नेर्धेनन्यदे इत्यारेन्द्रेन्ववानुदेवायुद्धे अक्रयानर्थेययादवन्ने वज्जुः कवन्त्यवयानेर्धेन्यदेणवयाश्चन्यदे इत्यारेन्द्रेवाण्डीभ्रीयाख्याक्षेवा

য়ৢৢৢৢৢৢৢৢৢৢৢৢৢৢৢৢৢয়ৢ৻ঀৢৢৢৄ (Findings)



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11.	ૹ૾ૢૢૺ૽ૻૣ૽ૢૢૢૢૢૻૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢ	89.7%	10.3%¤'સુग'સે
12.	ૹ૾ૢૢૺ૽ૻૣ૽ૢૢૢૢૢૻૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢ	20.5%	79.5%ઢાપ્ય વસ્ત્ર 1 ગેં ^{[ચા} ચ સુત્
13.	ૹ૾ૢૢૺ૽ૻૣ૽ૢૢૢૢૢૻૢ૽૽૱ઌૡ૱ૻૻૻૡૢ૽ૼૡૢૼૼૼૼૼૼૡૻૹ૾૾ૺૼૻૹ૾૾ૻૹૢ૾ૻૡ૽ૻૡૡૻૻૻૡૡૢૻૻૡ૽૽ૡ૽ ૱૿ૺઌ૽૿૾ઌૢૻૻૡ૽૱૾૾ૺઌૼૼૡૻૻૹૼૡઌ૿ૺૺૺ	71.8%	28.2%མ་པ་ལམ་འཐི་ དགོཔ་མ་བྱུང་།



ณิရ' အာ် အာ်

^{642,41}ईग्रेश,471

ୖୣୣୖୖ୵୲୴ୄ୕ୢୠ୶ୄୖୄୢୖୄୖୢୖୠ୲୕୳୲ଵୄୢୖୄୖୠୄୖ୰୴ୄୄୖୄୄୢୖୄୖ୴୷ୄୖୄ୰୷ୄୢୗଽ୷ୢୖୠୄ୰୷ୄୢୄୡଽୄ୲୷୲ୠୄ୵ ୲ୣୄୄ୶୲୴୲ୖୄ୶ୠ୲୵ଽଽ୴ୄଽଽ୕୲ୖଊଽୣଽୠୄ୵୲ୠଽ୕୴ୄୢୄୠ୲ଌ୲୴୶୲_{୶ଢ଼୲ଢ଼}% (ଊଽ୕୕୴୲ୄୢଌ୕ୣ୩୶୲_ୡ୴୲)୩ୗ୶୲୴୴୲

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 \hat{f} 'བ੩ৣམ'ឱ្ឋ Namgay Thinley ཀྱི'ལོ'ལུ'ਘ<ढि्म'འཆོལ'འབད'མི' རྒམ་རྒྱུམ'ឱ্রҳ་ལམ' གྱིམ'ཐིམ'མི' འཐूག'ད<་ཐའི'ལན'གྱི'ལག'ལན'ཐི<་པག'ལན'ཐི<་པའ<

གི་དབ་སྒུན'འབད'འབདཕ' བརྒྱུ་ཆ་རྒྱ<'

མོས་ད<པར་གརྒྱུན'འབད'འབདཕ' བརྒྱུ་ཆ་རྒྱ<'

མོརག<-ད<པོ་གྱི་མོ་ག<

མོ<

མོ་ག<་རོརྒྱུན'འབད'འབདཕ' བརྒྱུ:ཆ་ҳ<

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মহ্র্যা'নন্থু| (Conclusion)

मुनःहेवःन्येःम् (Reference)

 \widetilde{E} દાય પૈદાયલેલા સુવ દૈયાથી (૧૦૦૧) \widetilde{E} દાયલે પદ્દ યાલુ પાયસ્ય ગો બેચ પો દ્વે સુવ ભાષા છે. તે સુવ ભાષા સુવ ભાષા છે. તે સ

Thinley, N (2002). Language use in Thailand: A comparative study to the case of Bhutan, online Retrieved May 13, 2013, from: www.dzongkha.gov.bt/research/.../Lan guage_use_Thailand-Bhutan.pdf

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শ্ভন শ্ভুশাশ্খ(Appendix)

ૡ૱ૣਗ਼૱ૢૢૢૢૢૢૢૢૢૢૢૢૢઌૻૡૻૺૼૼૼૼૢૡૻૹૢ૾ૼૼૼૼૼૼૼૼઌૻૡ૽ૼૡૻ૱ૡૻૢ

<u>ૹ</u>઼ૠૼઌૺૹૠૼ૫ૻૹ૽ૼૠૼ૱ૹ૾ૣૼૺૼૼૼ૱ૹૣ

শ্বৰু স্থুন ই শ্বিশা



୬/গ্রুনস্দদস্যমারশ্ব জ্বিথ ૡ૽ૼૡ૽ૼૡ૾૾ૼૡ૽ૼ૱ 1.1 ર્સ.

(**//**)

- (୩) અન્દઃર્વેશ્વઃજીવુઃસ્નનુઃભગાભેવુઃવદ્યન્વઃજીવા
- (ๆ) ผระศิฆษัฐรานาณๆาณิสาวสมาติสุ
- (ग) हॅन्याय कु मा मुन्य भाषा यो का यहा मा कि का
- ३.१ वग्य देंग्रय कुं वृत्राय कुं.
- عد المعارضة المعارضة العربي المعارضة المعارضة المعارضة المعارضة المعارضة المعارضة المعارضة المعارضة المعارضة ال

र्हेन्द्रायः बन्द्रभूमाः	ঝ'ম'ណঝ'	ષ્ય જે રે.	মুন'র্ম'	र्श्वे ^{का.}	णवव्यःबेन्रस्यःबेन्
ब.स.ह्यून	ঝेৰ'ন্দেনুগা	તર્ી હો	কৃষ'দেষা		दर्जुगा
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१.३

ૡૻૼઽૻૡૻૻ૱૱ઽૡૼૼૺ ૱૾ૺૡૢૻૹૣ૽ૼૺૻઌ	શ્ર'મ્'ભશ્ચ' શ્વે <u>ત્</u> તર્ુંग	ष्णःञ्चःन्रेः तर्नुगा	କ୍ଷୁମ୍ଦ ଶିଂ ଦିଷଂଘଷ୍ଟା	સ્ફેં ^{અ.} الم	म् बर्भ्स बर्भ्स बर्
	2	٩	લ	و	ષ

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हिंदगयदे आदि भीता यन गा पहेंद्र प्रध्य ने गीया	୶୲ୖୖ୷୲୶୶ ଅଶ୍ୱାଦ୍ୟୁମ୍ବା	ૹૻઙ૽ૺૼ૽ૼ૨૽ૺ ૡઽૢૢૣ૾ૣ૾୩	କ୍ଷମ୍ବାର୍ଯ୍ୟ ସିକ୍ଷୀୟକ୍ଷା	र्झेब्ग [.] दर्नुगा	য়ঀয়য়৾৾য়৾ য়৾৾৾ঀ৾৽ঀ৾ৢয়৾ঀ
	1	٩	3	و	ષ

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લ.વ	শালুনা	ૡ૽૽૱૿૿ૡ૾૾ૡૻ૾ૡ૾ૻૡ૾ૻૡ૽૿ૡ૾૾ૡ૾૾ૡ૾૾ૡ૾૾ૡ૾૾ૡ૾૾ૡ૾૾ૡ૾૾ૡ૾૾ૡ૾૾ૡ૾૾ૡ૾૾ૡ૾૾	
	(/])	<i>ૻૣૣૢૼ</i> ઽૢૢૢૢૢૢૢૡઌૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡ	
	(PI)	๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛	
	(শ্ব)	ૹઽઃૼૡૼૹૻ <i>૽૾ૣૼઽ</i> ઽૡૡ૽૾ઙ૽ૼૼૼૼૼૼૼૼૼૼૡૹૡૻઌૡૡૻૡ૿૾ૡૢ	
	(শ্ব)	^{૱ઽ} ૽ૡૼૺૼૼૼૼૼૼૹૻૻ૽૿૾૾ૡૻૺૼૹૢૻૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૡૻૹ૽૿ૡૢૻૺૻ૾ૢૻૡૻ૽ઌ૿ૻૡૻ૽ ૡૻઌ૾૿ૡૻ૾ૡૻ૾ઌ૾૿ૡૻ૾ૡૻ૾ઌ૾૿ૡૻ૾ૡૻ૾ઌ૾૿ૡૻ૾ૡૻ૾ઌ૾૿ૡૻ૾ૡૻ૾ઌ૾૿ૡૻ	
ৰ:ৰ্ঘ্ৰ:ন্ন	19 ²³ 2013	ૻઽૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૡૢૼૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢ	
	(/T)	हणःसुःस्टञ्च्याःडे	
	(PI)	ૡૡઌૡૡઌૻૹૢૣૣૣૣૢૢૢૢૣૢઌૹૡૢઌૢૻ૾૱	
	(শ্ব)	ଌ୕୕୕୵୕୴ୖୖୖୖୖୖୖ୶୴ୖଌୄ୲	
	(5)	ൕ൳൚ഀഀഀഀഀഩ഻഻๛൳൞൙ൢഩൄ	
ৰ:৫খ্ৰি:ন	. ⁵ ম.অ৵	[ૢ] ૾ૻૡૢૻૼૼૼૼૼૼૼ૱ ^{ૹ૾} ૼૹૢૻ૾ૻઌ૿૽ૺ૾ૻૹ૾૾૱ઌ૽ૼૼૼૼ૱	
	(៕)	^{કૃષ} 'નું ન્ડ્સુથ છે	
	(٩)	रसंजायसंजाञ्चीयक्षा.श्रु	
	(শ্ব) ব	£ح:ग्रेगःस्रुगः३।	
	(5) a	६२:गठेगाःधरःवःक्षुगा	
ય.પદ્યેં સું	1 ⁷ 1.1121	ૻૼૼૡૢૻૺૼૡૢૼૼૼૼૼૼૼ૱ૻ <i>ૻ૾ૣૼૼૼૼૼૼૼૼૼૼૻૻ[ૢ]ૡૼૼૼૼૼૼૼૡ૽ૼૡૼૼ૽</i> ૼઌૻ૽ૺૼઌૻૺ	
	(ग)	ॺऻऄॺऻॱ୴ॸॱॺॱख़ॖॺऻ	

	(PI)	गठेगाः झुगाः ठै।	
	(শ)	गठेल:स्नग:ठे	
	(5)	ષાસુસ ભાષા અન્સ સુષા ઉ	
ર્સ.(J	ধ্ৰ নি গ	^ઌ ૾ઌૹ [੶] ઽ૾ૢૢૢૢૢૢૺૼૡૢૼૼૼૼૼૼૼૼૼ૱૿ [ૢ] ૹ૾૾ઽૻૹૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૹ૽ૺ૾ૺૢ૽ૼૺઌ	
	(ጣ)	གञ्चैमाप्प८न्त्रःझुमा	
	(PI)	गठेग'झग'ठे।	
	(শ)	गहिरू:झग:डे	
	(5)	થાસુચાળચાચારચાસુથા ઉ	
ર્સ.થ	ধ্ৰীনী গ	^৸ ৽৸য়৽৾৾ঀৼৢ৾৽৻৻ড়ৢ৾৾ঀ [৽] ৻য়৾৾৾ঢ় [৽] ৾ৼৄ৾৾ঢ় [৽] য়য়৾৾ঀ৾৾ঢ়৾৾৽য়৾৾য়৾	ભાસું ભારતું.
	(ग)	ঀয়৾৾ঀ৾ঀ৾৸৾৾৾য়৴য়৾৾ঽয়৾৸ড়৾য়৾৾য়৾৾য়৾৾য়৾৾য়৾৾য়৾	
	(P1)	क्र रःण्डेण ⁻ र्घेत ⁻ प्पे	
	(শ)	ক্র ম্বজ্ঞ স্থ্রির আঁ	
	(5)	ૹૻૻૻઽ૾૾ૻૡ૾૾ૡૻ૾ૡૻ૾ૡૻ૾ૡૻ૾ૡૻ૾ૡ૾ૻૡ૾ૻૡ૾ૻૡ૾ૻૡ૾ૻૡ૾ૻૡ	
ૡ ∙ન	মুনা গ	^ઌ ઼ઌૹ [ૢ] ઽૼૡૢ૽ૼૼૼૼૼૼૼૼ૱ૼૹ૾૾ૼૼૼૼૼૼૼૼૢૻ૾૾ૼૼૼૼ૾૾ૡ૿૾ૡૼૻૹૢ૾ઽૼૡૼૻૹ૿ૡૼૻૻૼૼૡૼૻ	ર્લ્વેત્ય શું ખે . શું
	(끼)	ঀঀ৾৾৾ঀ৾ঀ৾ঀ৾৽য়৾৾৾য়৾য়৾৾য়৾ঀ৾৾য়৸ড়৾য়৾৾য়৾য়৾য়৾৾য়৾	
	(P1)	ፚ፞ጙॱगऄऀगॱਖ਼ੑੑੑੑਫ਼ੑ੶୴	
	(শ)	ઢં ત્ર:ગઉુરુ:'ર્વે વ :થે	
	(5)	ธ์	

د/ 3	শ্বন'ম্পশ্	'ସି'ସ୍କି'ୟଅୁୟା	
C.1	Ě	रायते र्वेगाप्पसः गाः ईःदच्चेः नुर्गेमः दर्वे तः दुनः	
	(끼)	ૡ૽૾૱ૡૢ૾ૼૼૼૼૼૼૼૼૼૼૡૻ૾ૡ૾ૻૡૻ૾ૡૻૡૻૡૻૡૻૡૻૡ૾ૻૡૻ૱	
	(FI)	ૡૢ૾ૼૼૼૼૼૼૼૼૼૼૼૼૼૼૼૼૼૡૻૻૡૻૻ૱ૻૺઌૻૺૼૼૼ	
	(শ্ব)	ૡૢ૾ૼૼૼૼૼૼૼૼૼૼૼૼૼૼૼૼૼૼૣૡૻ૱ૡૻૻૡૻ૾ૡૻૻૡૻ૾ૡૻ૾ૡૻ૾ૡૻ૾ૡૻ૾ૡૻ૾ૡૻ૾ૡૻ૾ૡૻ૾ૡ૽ૻૡ૾૾ૡૻ૾ૡ૽ૻૡ૾૾ૡ૽ૻૡ૾૾ૡ૽૾ૡ૾૾ૡ૽૾ૡ૾૾ૡ૽૾ૡ૾૾ૡ૽૾ૡ૽૾ૡ૾૾ૡ૽૾ૡ૾૾ૡ૽૾ૡ૾૾ૡ૽૾ૡ૾૾ૡ૾	
	(5)	हगा-यु:गालव-(२ु:-रेगाश गॅा	
C.9	જાર	ૡૹૢઽૻૹ૽૾ૺ૾૽ૹ૽ૼૼૼૼૼૼૼૼૡૻૻૹ૾ૻ૾ૻઌૹ૽ૻ૾ૡ૽૿૱ૡ૽ૻ૱ૻૡ૽ૼૡૼ૱૱	
	(끼)	ૡ૽૾૱ૢૢૼૼૼૼૼૼૼૼૼૼૡ૾ૻૡ૾ૻૡૻ૾ૡૻૡૻૡૻૡૻૡૻૡૻૡ૾ૻૡૻ૱	
	(P1)	ૡ૽૾૱ૡૢ૾ૼૼૼૼૼૼૼૼૼૼૡૡૡ૾ૺૡૻૺૡ૾ૻૡ૽ૻૡૡૡ૽ૻૡ૽ૻૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡ	
	(শ্ব)	୵ୖୖୣଈୄୄୠ୕୕୶୶୳୳ୖୖ୶ୢୢଽ୶୶୲ୄୢ୶୳୰୶୲୶୲୶୶ୡ୲୵ୄୗ	
	(5)	ૡ૱૾ઽૣૣઌૼૡૻૡૢૼૻૢૢૢૢૢૢૡૢૢૢૢૢૢૡૢૢૢૢૢૢૡૢૡૢૡૢૡૢૡૢૡૢૡ	
6.3	Ě	रायते र्वेगाप्पसः गाउँ भुगा न गेंपि पर्वे त.रू.	
	(끼)	ૡૢઌૢૡૢૼઌૡૡૡ૽ૡ૽ૺૡૢૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡ	
	(17)	ૡૢ૰ <u>૫</u> ૡૢ૾ૼઌૡૻૻ [ૢ] ઌૡૻૺૡૢૻૡૡૡ૽ૻૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡ	
	(শ্ব)	ૡૢૢૢૢૢૢૢૢૢૢૢૢૢૢઌૢૢૢૢૢૢૡ૱ૣૢૢૢૢઌ૱૱૱૱ૡ૱૱	
	(5)	ૡૢ૰ૢૢૢૢૢૢૢૣઌૢૻૻૡૼૢૢૢૢૢૢૢૢૡૢઌૢૢૢૢૢૢૢૢૢૢૢૡૢૡૢૡૢૡૢૡૢૡૢૡૢૡૢ	

ୖ୶୳୵୵ଌୖୖ୕୶୰୵ଽୖ୳୵୳ଽ୳ଽୄଽ୳ୖଽ*ୖ*ଽ୶୶ୖଽ୶୲୴୶ୖଌ୕୳ୖଽ୶ୄୢୠୖ୷୳ୣୢ୴ୖୖୡ୵୰ୢଵୢୄ୵୕ୖୖ୷୳୶ୖ୰୶୶୲୰୶ୠ୵୳୲୳ୖ୶୵ ᠊᠋᠋᠋᠋᠋᠋᠋᠋᠋᠋᠋᠋᠋᠋᠋ᢂ᠆ᡎᠯ᠋ᢂᡧ᠋ᢩᢂ᠆ᠴᡱᢅ᠋᠋ᡭᡬᠯᢋ᠆᠋᠊᠋᠋᠋ᠴᡬᡎᢂ᠂ᠺᠴ᠋᠋᠋᠋ᢩ᠆ᡅᡬ᠋ᢅᡗᠴᡘ᠓᠆ᡸᢆᡛ᠓᠕᠋ᡎᢂ᠂ᠴᡐ᠋᠋᠋᠆ᡘ [ੑ]ਸ਼ୖୖ[৻]୲ॺ୵ॱॸॸॖऺग़ऻॱऄॖॖॖ॔ॸॱॺॏॺॱग़ॺॺॱॷॖॖॖॖॸॱॸॷॖॱॸॸॱढ़ॻॖऀॱॺॖऀऀऀऀय़ॱग़ॺॸॱॸॸॱॸ॔ॺॱऀ॓ॺॱॺऀग़ॺॺॱॸॺॱऀऀ ୖଵୣୖୖୖ୴୲୵ଽୖୖୖୖଌ୕ୣୄ୶୲୰୳୵ୠୖୄୢଽଽୄ୵ଽୖୖଽୡ୕୲ଌୖୡ୲୶୲୴୵୲୵ଌୖୢୖ୲୲୳ୖୄୠ୶ୄୖୢୄୄ୴୶ୖୢୖ୩ୣ୶୲୵ଽ୶୲ୄ୵୵୲୴୶ୄୖୢଌୡ୲୕୩ୡ୵ ଈୖ*୲*୩୕୲୵୲ୄୄୄ୶୲୴୲ୢୖ୩ୡ୲ୄୣ୵୩୵୲ୖୖଈ୕ୖ୕୷ୄୖୠ୵୲୰୶୲୷୵

নশীন'নশান'র্টিশ।(Acknowledgement)

- (Π) $\mathfrak{g}_{\eta}^{\eta} \mathfrak{g}_{\eta}^{\eta} \mathfrak{h}^{\eta} \mathfrak{h} \mathfrak{h}^{\eta} \mathfrak{h}^{\eta} \mathfrak{h}^{\eta} \mathfrak{h}^{\eta}$ (๚) ผูฑาสู์ฑุณานั่วผู้ทุณามูกาณานาณณณิ झ्रेग'र्न्ग'र्स्, हेग'र्नु'र्न्ग'विन'र्सु'र्नगरू'र्न्गो (5)
- (η) ભુગ \mathfrak{F}_{η} ગ \mathfrak{F}_{η} \mathfrak{F}_{η}
- ۿۄ:ᡵᢩᡪᡪᠭᢧᢆᡃᡱᢆ᠋᠋ᡎᡅᡧ᠂᠋᠊᠋᠋᠋᠋᠇ᢃᡃᠭ᠍ᡎ᠋᠋᠋᠋ᢋ᠋ᠮᢆᠴᡃᠬᡘᡱ᠋᠋ᢅᡆᡃᠼᠵ 6.6

ૡુશ્વ સ્વર અર્થે ન્યવે મુવે નન

ইন্থ্র্বা

নমঝ[্]যাদূর ঝন্নমন্ট্রিবা¹

<u>ૻ</u>ૼૼૼઽૻૻૻૹૻૹ૾ૣૻઌૻૻૡ૾૾ૺૼ૱ૡ૽૾ૺૡ૾ૺૼૻઌૺૡ૾ૢ૾ૺૼૼૹૻૻઌ૽૿ૡૢૻૺૼૻૻઌૻૻૡૢૻૻૡૺ૱ૻૡૼ૱ૻૡૺ૱ૻૡ

૨. ૨૨૨૫૫.ૡઙ૾૾ૢૺૼૼૼૡૢૻૡૻૻૹૢ૾ૡૻઌ૽૿ૺૹ૽ૢૻૡૻૡૢઽૹૹ૾૾ૢૼૼઽૡૡૢૢૹૣ

য়ঀৢৼ৾৾ঀঀ

- સ્વાગ્યતે સ્વચ્ય સુ
 સ્વગ્ સ્તુ ગ્રથ્ સ્ટ્રા ચે સ્
- લ્વી મહે સ્ટ્રીન જ છે. સે માં છે. છે. મું મું સાથ છે. છે. સે મું સાથ છે. છે. સે મું સાથ છે. સે મું સે મું
- ^{ભ્યત્ર}'ર્નેષ] • ટ્વેંદનાય સુચ વેંગ્દન પ્રદ્યો વેં ગાઉ શ્વ છુન પ્યમ ગાઉ ખેંદ્દ માં છોવા વા દેંશ પ્રદેવા હું ગાય વે

ร้. สีฆ.ชสูส.ตูป

(Pema, 1971) รูฬ ۲ ସ୍ୟ ୬୬ ୟ ଶ୍ରିଭି ୨৫୨७ ୩ ଭିଂଲ୍ୟ ସ୍ୟୁ୩ ଶିଂଭିଦ୍ୟ ୠୢ ସମ୍ପଦର୍ଶ୍ୱ ସମ୍ପଶ୍ଯ ଅଧିକ ଶ୍ରି ସ୍ଥା ଅଂଶ୍ୱର୍ଥି ଭିଂଶ୍ୱ କ୍ୟ ଅନ୍ଥର୍ଥ ଅନ୍ଥରେ ଅନ୍ଥରେ ଅନ୍ଥରେ ଅନ୍ଥରେ ଅନ୍ଥରେ ଅନ୍ଥରେ ଅନ୍ଥ ଅଭିତ୍ୟ କ୍ଷିଣ ଭାଷରେ ଅନ୍ୟାନ୍ଧ ଅନ୍ୟର୍ଦ୍ଧ କ୍ୟ ଅନ୍ୟା ଅନ୍ୟୁମ୍ ଅନ୍ଥରେ ଅନ୍ଥରେ ଅନ୍ଥରେ ଅନ୍ଥରେ ଅନ୍ଥରେ ଅନ୍ଥରେ ଅନ୍ଥରେ ଅନ୍ଥରେ ଅଭାତ୍ୟରା ଅନ୍ତି ଓ ଅମ୍ବାର୍ଥ୍ୟ ଅଣ୍ଟ ଅନ୍ଥରେ ଅନ୍ୟୁମ୍ ଅନ୍ୟୁମ୍ ଅନ୍ୟୁମ୍ ଅନ୍ଥରେ ଅନ୍ଥରେ ଅନ୍ୟୁମ୍ ଅନ୍ଥରେ ଅନ୍ଥରେ ଅନ୍ୟୁମ୍ ଅନ୍ୟ ଅଭାତ୍ୟରା ଅନ୍ୟୁମ୍ ଅନ୍ୟୁ ଅଭାତ୍ୟରା ଅନ୍ୟୁମ୍ ଅନ୍ୟୁମ୍

 \tilde{k} ຊາງາ ເພື່ອມາມູ່ອາເພື່ອມີ. ແລະ ແລະ ເພື່ອມາຍູ ເພື່ອມາຍູມູ້ອມຍູມູ ເພື່ອມາຍູມູມູມູມູມູ້ອມາຍູມູມູ້ອມາຍູ

સદ્મ ગુસુઅર્સેગુસ વસુગાગે મુભાયન ગ્રું.વર છું. તુન ૩૦ ૧ ૧ સુચ ગ્રું અર્ગુ અર્ગુ અર્થુ ગુસ્ સેંસેંભુ વજ્ઞદ્મ અવદ્મ બેંદ્ર વ્યું અન્ય તુરુ દેશ્વાદ્મ કેંબેંદ્ર ચાલ્ય વ્યું ગુસ્ બેંદ્ર દેવરા વર્ષા બાદ્ય (DDC, 2002, p. 2)

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ngેશ્વાપત્ર દેવાયાવરી સુવાયલે સુવશ્વાયું શેર & માં રાયદેવાય રે સે ગલે and and ar

દેંદનાય વર્ડ ત્વાર્ગ્રથી ગયત્ર સુવગ્ય તે સુવર્ય છે. સુંવિઝેટના વન્ટ જ્વલા વેલે દેવા બના ายาานลินี้เข้าระว่าเลิสายิริตาลล์ ซู้เขาระล่า อาร์รับเส้าระลยู่สุดเริ่า ૨૮ભુ:નક્રૂશ્ન:વર્કેશ:વર્ચ-'લે'ર્સુ'વર્ચુન્થ:બેઠ્યા ને'વર્ચનક્ષ:બશ્ચ: ન્યા'યાવેશ:ન્યા'મવે สู พรณาสิลสามพา ายิเกายาารี่ ๆาารๆราการสารสารสีนาเพิ่ม

2. สี้ราส สามพาลูรานสิลุกพาญ ธรรรศ์านสิเตรรัสม

นามธิ์ๆ มิเวาวานสู้ๆ มิญามส์ขางมชิ้าไปสา มิตาเกาะราวารารารุ पनन् कप्रहेंगागवनः श्रेः अन्तमुर्श्वप्रकन्तगविदेश्यश्वर्म्यात्रवन्त्युः र्हेनायः भेगार्भेगाः भेग ભુ' તર્ક 'ન ર્વે ' મંત્ર' શ્રે ન ' છુ અ' ન સઅય (DDC, 2002) શું ખેં ' 1001 બાય' વર્વે ' ર્ડ્. વર્ક્ષેશ્વગ્યાર્થે જાગ્યુ હરાયમાલ. અશુ વર્ષે અશ્ર કે નાયુ જ ત્યારે ખૂડ્ય વર્ષે વર્ષે ને દે ^ૹ૽ૢૼૼૣૻઌૹૣૢૣૹૻૻઙ૾૾ૼૼૼૼ^ઌૻઌૼ૽ૻૢૼૼૼૼૼૼૼૼૼૺૻ૾ૡ૽ૼૢ

รัฐาน พิฑาซ์ฑาญ สุราวสาพาญ ธรารทั่างสาตราชิง

ગસુચપ્પરઃ ર્સ્ને સ્ચુવપ્પતિ સ્નુવસપ્યુઃ ર્સ્વે 'ગૈ'વર્ન્ટર્ને વ'ન્દરપ્વસ્નુવપ્પતિ ખુસરન્દઃ ગર્ને દ્વી' કચાવશુરા ને ખર્ચચી ગાર્ને 'ગૈ'વર્સવાપ્વ ર્સ્તુઃ ભગાળે વાવવાર્યને 'ખેચ' ગાળ છે વારૂ ગાર્સુ ગાય નૃત્ર ગાર્ને દેવે 'ગે' કચાવશુરા ને 'ભર્ચ અગાર્ને 'ગી' વર્સવાય પ્રસ્તુ 'ભગા' ભેવ' વ્રથવા ચારે વ ને 'ગે' સ્થાવશુરા ને 'ભર્ચ અગાર્ને 'ગે' વર્સવાય ક્લું ભગા ભેવ' વ્યથવા ચારે વ ને 'ગે' સુધાય સુધાય કે 'ગે' વર્ત્તે '' અન્ય 'ભેગા' વર્સવાય ક્લું 'ભગા' ભેવ' વ્યથવા ચારે '' તે '' ગેયુ 'સુધાય 'સુધાય 'મું 'ગે' વર્ત્તર '' 'ભે વ્યુ' '' અન્ય 'ભેગા' સે '' ભેગાય '' ભેગાય વ્યુ' '' બેગાય '' બેગ '' '' બેગાય '' બેગાય '' બેગાય '' બેગાય '' બેગાય '' બેગાય ''

ગસુઅપ્પસ્ વદ્દગ્વાલુત્ગાં સ્વનુવ્વને રહું ાવબ્યસ્યુવપ્યત્વે સ્નુવસ્યાયુ વગ્રુઅસ્યે વસ્યુ સ્વે એવપ્પસ્ કેવબ્યઅગા બિવઅન્દ કંદ્ર સાવવદ્વ વ્યક્તિ કેવા કેવ્યુ સ્વે સ્વ સ્વસ્યાયું સન્વસ્યુ સ્વે સ્વર્ગ્સ્ટ્ર સ્ટ્રે સ્વાર્ગ્સ્ટ્ર સ્ટ્રે વ્યવ્ય લુન્ સ્ટ્ર સ્ટ્ર સ્ટ્રે સ્ટ્રવ્ય વ્યવ્ય સ્ટ્રવ્ય સ્ટ્રાર્થેન્ પ્યતે દેવ સ્ટ્રાય્ટ્ર સ્ટ્રે સ્ટ્રવાર્ગ્સ્ટ્ર સ્ટ્રે સ્ટ્રવ્ય સ્ટ્ર સ્ટ્ર સ્ટ્રાય્ટ્ર પ્ર્ય સ્ટ્ર સ્ટ્રાર્થેન્ બેવર્ડ્ડ્ વ્યક્રે સ્ટ્રવાર્ગ્સ્ટ સ્ટ્રે સ્ટ્રવાય સ્ટ્ર વસ્ટ્રાર્થેન્ બેવર્ડ્ડ્ વ્યક્રે સ્ટ્રવાય સ્ટ્ર સ્ટ્રે સ્ટ્રવાય સ્ટ્ર સ્ટ્ર સ્ટ્ર સ્ટ્ર સ્ટ્ર સ્ટ્ર સ્ટ્ર સ્ટ્ર સ્ટ્રાર્થેન બેવર્ગ્સ્ટ્ર સ્ટ્રવર્શ્વ સ્ટ્ર સ્

આવસ'ન્પન્ડન્વો'લ્ડુ્ર્વાર્સ્વ ઢેવ'લપ્પ્સ'ગ્રીશ ધેવા'ગાગ્રુગાસ'બેવાસ'બેન્ડ્સર્શેગાસમ' નંદા ક્રિગા'ઢન'એન'&ન'નગામ'ક્રી બિગાસ'અર્શેગાસ'નગા'ગાસુસ'ઢન્પ્વશુપ્ત'વા |ને' બ'આવસ'યવે'શગાયમ'ર્થના | (n.d. p. 352) કેમ્ડાગાસુંત્સ'નેપંદ્ર'ને'પગ્રુસ'ક્ષે ગાલવ'ક્ષ્યુગા'સે'ર્સુંગીસ'બેગાસ'ર્બેસ'વર્ચન' ક્ષુગાર્સુંગાસ'ર્વે'નન્દ' નબ'પ્તન્સ'વસુન્ર્સુંગાસ' વેવે'ર્ને વ'બસ' નન્પ્પર'ધેવા'વર્કે'વન્ન' બેગાસ'ર્બેસ'વર્ચન'ક્ષુન્ય'વર્ચન'નું વિધા'લેવ ઌ૾ૼઽઽઌૹૹ૾ૻૡ૽૽ૼ૱ૡ૽ૺ૱ૡ૽ૺૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡ

ૹ૽૾ૺૹૻૹૢ૾ૼઽૼૢઽૼ૱ૡૢઽૻૹ૽૿ૡૻૻૢ૱ૡ૱ૡ૱ૡ૱ૡ૱ૡ૱ૡ૱ૡ૱

4. ଜ୍ୟାର୍କ୍ଷ୍ୟୁସଂଶ୍ୱିମ୍ମ ଭିଷ୍ୟାହିସ୍ୱାର୍ଥ୍ୟୁଦ୍ୟି ସହିହିମ୍ଦ୍ୟୁର୍ବ୍ଧି ଅନ୍ତି କ୍ରାପ୍ତି କ୍ରାପ୍ତ

অশাস্থ্রনা	यत्र दें द्वारा यते हें दुः ह्या	२४८:२४२:२४ गुम्मुका गुका द्वर २०२३ - २४ में २४४
ຒຒ	ໜາຍ	พาณา
नी भी इ	ສົາສີ 	ຣົ າຟີ ສຳພ
์ ค'ะม		ર્વે ના મુર્ચે ના ચુર્ર
นสุนา	นสัม	थेंत्री भग

ୖ ^ଈ ୩'ୖୣଈୖୖ୕ୖ୕୕ ୠ୕ଽୄ୲ଌୢୖୖ୕୕୴ୖ୶ଽୖଐୠୖ୶	ଭିଷ୍ଟ ଝ୍ଟିସ ମୁନ ଅଷ୍ଟୁଣ ସମ୍ପର୍ଦ୍ୟ ମୁନ ଅନୁସ ଝିନ ଭିନ ଷ୍ଠା
T T T T T T T T T T T T T T T T T T T	้ สัสั
ਕ ੇ ' ਨ ੇ'।	ลิรัส
सुगाःसन्त	स्वमा ब'व्यद्रला
জি নান	<u> </u>
ીસળાયર્ઉેન	ન્યભ્યવાલ્વુંન
ભુઃલ્વનઽઽદેઃગ્નુઃબેઠ્ય	ભૂંભ્વન્ડ્ સુંભેષ
र्गे त्यः र्ग्ये दा हे . र्भेग	गेंग्यः मुंत परी मेंग

न्येन्तरम्

4.2 ฐารารสุมารุษิ: จุษามารุษาจณิตรานราสิ

ધ્ધેષા સેવા	धुरःमहरम्भगःस्वार्ग्रहर्माः हेन् भ्री	Ĕſ到
ସ୍ଥା	٤'	an
ઝી	6'	เลินไ
ર્જો ^ૠ 'ર ¹¹ 4]	ર્જ્ઞે ^{ત્} 'મેંગ્	સેં*'સે]
٦٤٠٦٢	قَسَرا	Reinch
यो	र्वे]	الياله
ઽૣ <u>૱</u> ૢૺૡૢૼૺૼૼૼૼૼૼૼૣ	ଽ୶୲ୖ୶୶ୄ	<u>ક્</u> યાં માં

ભાભચાસુવાયતે સુવચાલું અન્ય હું અન્ય સુવગ્ત સુવગ્ત સુવગ્ત સુવગ્ત સુચાને છે. વસુચાને છે જે સ્વર્ગ્સ સુવગ્ત છે સુ તરી બારું પ્લરાયસ્ય સુચાલવર્ સુવગ્ત મેં સુવગ્ત મેં સુવગ્ત મેં સુવગ્ત સુચાને છે. સુચાને સુચાને સુચાને સુચાલ સુચા કુદ્યું તે સુચાલ સુચાલ સુવગ્ત સુવગ્ત સુવગ્ત સુવગ્ત સુવગ્ત સુચાલ સુચાલ સુચાલ સુચાલ સુચાલ સુચાલ સુચાલ સુચાલ સુચાલ ભાષા સુચાલ સ સુચાલ સુ આ સુચાલ સુ સુચાલ સ

ଽ୩ୖ୩୩୩୩୬୩୪୪୪ କ୍ଷମ୍ୟୁକ୍ୟୁକ୍ୟୁକ୍ୟୁକ୍ୟୁକ୍ୟୁକ୍ୟୁକ୍ୟୁକ୍ୟୁକ୍ୟୁକ	૿૾ઌ૾૾ૣ૾૾ૻૡ૽૿ૻૡૢૺૻૡ૽૿ૻ૽૱ૡ૽૾ૺૻૻૢૢૢૢૢૢૢૢૢૢૢૢૢૻૡ૽૿૽૽ૡ૽૿ૻ ૡૢૺ	સ્વ- ગા રે ગ સુભ જાવ વા
ૡ૾૽ૼૼૼૼૼૼૼૻ [ૣ] ૼૼૼૼૻૻ૽ૻૣ૽૽ૺૼૻ૽ૺૼૼૼ૽ૣ૽ૼૺ૿૽ૼ૽ૼૼૺ ૡ૿ૢૢૺ૱ૻ૱૽ૺ૾૾૾૾ૼૼૼૼૼૼૼૼૼૼૼૻ૽ૢ૾ૼ૱ૻ૽ૼ૾૽ૼૻ૽ૼ૾૽ૼૼૼૼૼૺ૾૾ૢૻૼૺૼૼૼૻ૽ૢ૽ૼ૾ૺૼૻ૽ૼ૽૽ૼ૾ૺૼૻ૽ૢ૾ૼૺૼૼ૾ૺૻ૽ૢ૽ૼ૾ૺૼ૽ૼૻ૽ૢૺૼ૾૾ૢૻૼૺ૽૽ૼૺૻ૾ૢ	ૡ૽ૼૼૼઽૢૢૢૢ૽૽ૼ૱ૻ ૡ૽ૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢ	૩ ેઽૻૹૣૻ [ૣ] ૠૢૻૻ
શે:ર્રેગ;દ્ધુ ત્વ્વગદ્ધંદ્યુગ શે:ર્રેગ;ર્નેશ:સ: ગ્ર:૬	ଈୖୖୖଌ୩୕ୠୢ୕୶୕୕ୖ୕ୖ୕ୖ୕୕୷୶ୖ୳ୗ୶୕ୖ୕ୖ୕୕୶ୢୠ୕୩ ଈୖୖୖୖୖଌ୩୕ୖୖୣ୵୶୕୶ୖ୳ୗ୶୕ୖ୕୕୕୕ଽୄୠୄ୩	
୴୕ଽୖଈ୕୵୕୕୕ୖ୕ଵୄୡୄୗ ଞୄୖଈ୕୶ୡ୕୵ୄୄୄୄ୳୕୵ୡୖୄୄୄୄୖୄୄୖ୕ୄୢ ୖ୶୕୩	୴୕ଽୖୖ୕୶୵ଽୄୖୡ ^୲ ୖ୳ୄୄଔ ୢୖୄଔ୶୲୶୵ୄୠ୲୵ୠୖୄୄୄୗ୕ୖୄୢୄୖୄୠୖୖୄୖୖୢୖୖୄ୴ୖୢୄ ୖୄ୶୩	क्षुमान्दरुषान्कु न
२४.२२२, ह्रें [.] ३२४.२ग ^{र्वि:} ५२ ^३ .४ [:] ८%	^ۥ ؽٳ۬ۥڒؾڂڔ؉ؖڋ ؿڗ ؽڗ؞ (ڎٛ/ٵٛ)ڂڗ؞ڡۿڟ	୵ୠୣୖ୶୲୵ୠୄୢ
ส์เลิรรับกราษีรุ	สั (นิ/ขิ) มีรรับกระพัร	त सं ७ ।
^{શ્} સુરુપ્તર્ગ ત્રથાવત્તા ^{તે} ર્શ્વેત્ત્તા ^{ર્ત્ર} સુવા ત્રથેઃવેશ્વા	શું સું ત્રજે, ૨. (૪/ૡુ) ગુલના ^{મિ.} (૪/ૡુ) ર્શ્વેનિંની એ (૪/ૡુ) સુના નસે વેશા	ભર્'ર્નેલ'ન્મ્સુ'ન

4.3 จารเลสสม ซิเม ซิรารา ครซิเซานา

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ૹૢૣૣૣૣૢૢૣૣૢૣૢૢૣૢૢૣૢૢૢૣૢૢૣૢૢૣૢૢૣઌૹૻૡૢૢૻ: ૡૻ૾ૣૣૣૼૼૼૼૼૢૼૹૣૣૢૻૻૹૻૻઙ૽ૺૼ૽ઽ૽ૺ ૡઽૻઌૹૣૢઽૻઽૢૡ૽ૼૼૡૢ	<u>ક્ષ</u> નુ'ગ [્] રુ'ન્ર્સુભ્ર'®ેેેેેેેેે સુ
9 111	
ૡ૽ૼૼૼૼૼૼૼૼૼૼૼૼૼૼૼૼૼૼૼૼૼૼૣૻ૾૾ૻૻ૽ૼૼૻ૽ૼૺૼૼૼૻ૽ૣ૽ૼૹ૽ૺૼ૾ૺૹ૽ૼૺ	ଌୖୣ୕ୣୣଽୢୖଈ୲୵୶ୄୢୄୡ୕୲୵୲
ष्ट्रिय'ये'देश' कॅग'र्शेन्द्रग	C C
શ્ર રુંગ રહુલુય વન્ન છે સુગ	
ลิ:डेगा:र्नेव:वाद: च:र:तुग	
બર બેંદર્વે વક્ષ	ଞୁଣ୍ୟ ଅନ୍ୟ ଅନ୍ଥି ଅ
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ঝর্রুমা'নস্থা

પક્રે દિશ્વી દેશ સાહ્ય ત્યાર ત્યાર (n.d) શ્વ સે સાહ્ય સાહ્ય સાથ્ય સાથય ત્યા સાથય ત્ય ત્યા સાથય ત્ય ત્યા સાથય ત્યા ત્યા સાથય ત્યાય ત્યાય ત્યા સાથય ત્યાય ત્યા સાથય ત્યાય ત્યાય ત્યાય ત

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RABSEL – the CERD Educational Journal Guidelines for Manuscript

RABSEL – the CERD educational journal

The CERD Educational Journal is published twice a year in spring and autumn by the Centre for Educational Research and Development, Paro College of Education, Royal University of Bhutan. The Journal welcomes contributors which promote the exchange of ideas and rational discourse between practicing educators, researchers, planners, administrators, educational thinkers and practitioners, learners and policy makers from Bhutan and abroad. To this end the Journal publishes articles on empirical and theoretical studies, research reports, commentaries and scholarly reviews that attempt a systematic analysis or synthesis of educational processes and systems from different viewpoints and approaches.

Notes for Contributors

Manuscripts are considered for publication with the understanding that they are original material and have not been submitted elsewhere for publication. Submission of a paper to a professional journal is considered to be a definite indication of the author's commitment to publish in that journal. A paper submitted to this journal while it is under review by another journal is regarded as unacceptable. Submitting an already published manuscript is considered to be unethical. The author should consult the Editor if he or she has any questions to whether or not the paper is suitable for publication.

Editorial Procedures

CERD Educational Journal is a research journal. All papers considered appropriate for this journal are reviewed anonymously by at least two outside reviewers. The review process usually takes one to two months. Papers are accepted for publication subject to nonsubstantive, stylistic editing. The Editor reserves the right to make any necessaryminor changes in the papers, or request the author to do so, or reject the paper submitted. A copy of the edited paper along with the first proofs will be sent to the author for proofreading. They should be corrected and returned to the Editor within 10 days. Once the final version of the paper has been accepted, authors are requested not to make further changes to the text.

MANUSCRIPT SUBMISSION GUIDELINES:

The CERD Educational Journal is a multidisciplinary publication presenting research and scholarly reviews related to education. Guidelines specified herein were prepared for the convenience of authors, reviewers and publishers.

Types of articles

Three types of manuscripts are appropriate for submission to CERD journal (a) Reports of empirical research, (b) Scholarly reviews (c) Project reports

Reports of empirical research

Reports of empirical research are descriptions of research studies. These studies must have clear and important implications for education and/or research. CERD considers research representing diverse methodologies, including group design, single-subject research, case study etc. The major criteria for publication are quality of design, implementation, and writing, as well as importance to the field.

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Scholarly papers take the form of essays that represent well-developed arguments on philosophical, theoretical, or practical problems in the field of education. They are not required to adhere to an empirical research design (i.e., methods, data collection, and data analysis). Instead scholarly papers pose analytical or conceptual frameworks.

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These articles will be shorter and more preliminary reports about interesting educational projects (innovative courses, learning communities, etc.). Several of these reports could be published in each issue. The focus of a project report is on the progress or outcomes of an academic innovation that addresses issues in education.

PREPARATION OF MANUSCRIPT

1. The complete title of the paper, the names of the author(s), institutional affiliations, e-mails, and other identifying material should be typed on a separate sheet/the title page only to assure anonymity in the review process. The first text page of the article should have the complete title of the manuscript, but not the names of the author(s).

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4. Articles should be double spaced and 12-point, Times New Roman font. Do not use forced section, page breaks, or automatic footnotes.

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