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Phonological variation of the word-initial complex segments in Dzongkha: A sociolinguistic study

KINLEY DORJEE

Abstract

Dzongkha speakers produce two pronunciation variants of the words with complex initials segments like: spja 'monkey', bjag 'cliff', phjagsm 'broom', bj'ar 'summer', bja 'bird' etc. There are two variations in the pronunciation of these segment types: a simple consonant-vowel (CV) /ca/ 'monkey' and a complex consonant-consonant-vowel (C□CV) /p□ca/ 'monkey' type. The main aim of this study was to see if there existed any association between the above mentioned phonological variations and the speaker's gender, education level, age, and regional background. The sample size consisted of 600 Dzongkha speakers, having attributes of the entire above mentioned social factors. This study was conducted in the six Dzongkhags (Paro, Thimphu, Chukha, Punakha, Wangdi Phodrang and Ha), where Dzongkha is the first language (L1).The Pearson Chi-Square test results show that there is a significant association between the pronunciation of the Dzongkha initial complex segments and the speakers' gender, age, regional background, and education level (all the Chi-Square p value less than 0.005). Based on the findings, recommendations pertaining to Dzongkha language policy and Dzongkha education are also made.

Keywords: *Dzongkha, initial complex segments, phonological variation*

In all human languages, spoken and signed, we find examples of cases in which speakers have multiple ways of saying the same thing. Some variations are accidental and transitory; it may arise from the mechanical limitations of the speech organs, for instance, and may not be fully under the speaker's control. Other, more systematic variations represent options speakers may consciously or unconsciously choose (Coulmas,2005). A choice between two or more distinct but linguistically equivalent variants represents the existence of a linguistic variable. One such phenomenon, or variation, with Dzongkha speakers is the pronunciation of the words with complex initials segments like: spja 'monkey', bjag 'cliff', phjagsm 'broom', bj'ar 'summer', bja 'bird' etc. Complex initial segments are two consonant sounds (considered as one distinctive sound or 'phoneme') occurring together but not as consonant clusters. On the other hand, consonant clusters are two distinctive sounds or 'phonemes' occurring together without an intervening vowel in between them, as in English 'pl' cluster in /pli:z/ 'please'.
Dzongkha has two variations in the pronunciation of these segment types: a simple consonant-vowel (CV)/ca/ 'monkey' and a complex consonant-consonant-vowel (C□CV) /p□ca/ 'monkey'. Such phonological variations quite often become the source of debate and argument among the speakers. Such debates are quite often seen in the Dzongkha programs on the national television (BBS TV). The speakers are not cognizant of the sociolinguistic factors influencing the phenomenon.

So far, there is no sociolinguistic study conducted on such phonological variations in Dzongkha. Such investigations are crucial to resolving confusions and debates that prevail amongst the speakers. Furthermore, it also benefits in the process of standardisation of the national language, Dzongkha. Thus, the main aim of this study was to see if there existed any association between the above mentioned phonological variation and the speaker's gender, education level, age, and regional background. Hence, the following research questions are posed: Is the phenomenon of Dzongkha initial phonological variation random or is there an association between the phenomenon and the speaker's age, gender, education level and

regional background? What is the direction of the phonological change? Which variable contributes most to this phonological change?

Background to the study

In the context of Dzongkha, there is no literature in the field of sociolinguistics in general and phonological variation in particular. However, it is worthwhile mentioning about the historical background on the phonological variation of the initial complex segment in Dzongkha. Historically, the pronunciation of the words in the Proto-language (the ancestor language) of Dzongkha might have been much simpler to predict. The words might have been pronounced as they were written; in other words, Dzongkha was, once upon a time, more phonetic (pronounced as it was written with better correspondences between the letters and sounds) than it is now. The disparity between spelling and pronunciation is a result of the fact that languages undergo change, and in this instance, it is the phonological change. Most features of linguistic change go unnoticed because linguistic change is slow and gradual. However, the phonological variation of the initial segments is a change-in-progress in Dzongkha. This assumption is based on the fact that all initial consonant clusters in Dzongkha have changed into single consonants except the initial complex segments (Dorjee, 2011). The present study expects to explore the social factors involved in the change (in progress) of the initial complex segments into single (simple) segments in Dzongkha.

Review of Key Literature

The field of sociolinguistics in the early twenty-first century is a mature, confident and vibrant discipline. At its core is a concern for the observable facts of language variation and principled thinking about the reasons and consequences of this variation and change. The fact that language change is indisputable and inevitable, and it is this fact of change, spread unevenly across time and space that leads to linguistic variation. Sociolinguistic interest in variation and change can be drawn in a straight line back to the earlier traditional concerns of dialectology (the study of dialects)and philology (the study of language history and change),which described the different varieties that make up a language and traced the historical development of particular features of vocabulary and grammar.

Overtime, sociolinguistics has developed this dialectological core interest and expanded its field of interest. In the social sciences, rigorous awareness of the principles underlying exploration and explanation led to a highly developed critical theory which sociolinguistics has also drawn on. This has resulted in macro-sociolinguistic work in the consequences for language of globalisation and the multinational economy: politics, ideology and education policy have become key areas for sociolinguists. The principles of language variation and change determine the patterns of multilingualism and the shape of new language varieties, helping to define ethnicity and identity in general. Language is the means by which groups of people articulate themselves, and delineate themselves from others.

Until the formalization of the sociolinguistic variable in Labov's (1966) early work in the phonological variation of the rhotic (r) in the postvocalic (after vowel) position in the American English, much of the surface variation in speech and writing had been treated by the majority of linguists as random, unpredictable (free variation) that did not seem systematically to pattern with other factors. As an example, consider the use of postvocalic(r) in US English (the use of arhotic consonant following the vowel in words like car, turn and floors) is attributed to higher social class in American English (Labov, 1966).Since the pioneering work in sociolinguistic study by Labov (1966), sociolinguists have embarked upon the study of other levels of linguistic structure (phonetics, syntax, semantics etc.) and various other sociolinguistic factors (variables) were discovered. Some of the most common social factors influencing sociolinguistic variations are age, gender, social class, ethnicity and speech community, among others.

However, sociolinguistic studies in general and phonological variation, in particular, have never been done in Dzongkha.

Methodology

Theoretical framework

It is illuminating to begin a discussion of sociolinguistic method by considering two general issues which have implications for the field linguists at all stages of data collection, analysing and interpretation; these are the relationship of the investigator to data and the relationship between data and grammar. There are a number of ways in which an investigator might proceed in carrying out a piece of synchronic linguistic investigation. Descriptive investigations can be based either on introspection (the researcher as a speaker of the language), or on some sort of field investigation (the researcher collects data) (Milroy, 1987).

In sociolinguistics, although, the models produced are often felt in some sense to be closer to the database than those of other types of linguistic investigation, it is important to remember that a representation such as Labov's (1966) study of the distribution of the sociolinguistic variables in the variation of the rhotic (r) in American English is an idealized model of sociolinguistic structure; the figures (data) upon which it is based are the product of a long process of sociological, mathematical and linguistic abstraction. Idealised models of any kind, whatever the differences in method, theoretical goal and assumption which underlie them, bear an indirect relationship to data (Milroy, 1987). Labov (1972) argued that good methods and theories could best be developed by considering the important assumptions which linguists shared before examining those which divided them. According to Kibrik (1977), there are three crucial concepts in any conceivable descriptive linguistic activity: the subject of investigation, the object of the investigation and the product of the investigation.

Though descriptive and theoretical linguistic investigations follow theories and models quite distinct from other investigations in social sciences, investigations in sociolinguistics follow more or less parallel methods of investigation as in social sciences. Both qualitative and quantitative methods are used in sociolinguistic inquiry. This study was a quantitative investigation of the social factors in the phonological variation of word-initial complex segments in Dzongkha.

Sampling and sample size

A realistic discussion of sociolinguistic sampling needs to distinguish strict statistical representativeness from the rather weaker kind of representativeness in most sociolinguistic surveys (for example, in Labov's, 1966 study). According to Milroy (1987), it is not necessary that strict representativeness would necessarily give greater insights into sociolinguistic structure. What seems to be, then, important is that researchers decide which type of representativeness is sufficient or attainable for them.

Socially sensitive studies of language variation depend on good data (Milroy, 1987). This entails the provision of sufficient types and quantities of language, and also that the social context in which the language is gathered is taken into account. Thus, in sociolinguistic investigations, the notion of representativeness needs to be broadened to include different types of speakers. In a discussion of quantitative methodology, Sankoff (1980) notes that the need for a good data imposes on the researcher three different kinds of decision to make about sampling procedures. These are:

1. To define the sampling universe- That is to delineate, at least roughly, the boundaries of the group or community in which one is interested.

2. To assess the relevant dimensions of variation within the community- This involves constructing stratification for the sample. Thus, we must ask whether ethnic groups, sex or social class of the speaker might affect the kind of language used.
3. The sample size needs to be fixed.

On the sample size, Sankoff (1980) states, as do many linguists, that large sample size tends not be necessary for linguistic surveys as for other social surveys. This is apparently because linguistic survey is more homogeneous than many other types of social behaviour studies by surveys.

Following Sankoff (1980), a stratified random sampling was used for the study. This is specifically because of the objectives of the investigation, which is to determine the social factors responsible for the phonological variation. And the factors under investigation, as listed above, are gender, age, education level and regional accent. A survey questionnaire was used to collect data to find answers to the research questions.

The sample size consisted of600 Dzongkha speakers, having attributes of the entire above mentioned social factors. This study was conducted in the six Dzongkhags (Paro, Thimphu, Chukha, Punakha, Wangdi Phodrang and Ha), where Dzongkha is the first language (L1).

Data collection and analysis procedures

Data were collected using a survey questionnaire. The survey questionnaire had the following demographic information of the participants: gender, date of birth, the level of education and place of birth. Assuming that if a speaker had one variation of the pronunciation of the complex type of segments, for example, spja 'monkey' the speaker would consistently have the same pronunciation for all other words of the type, after eliciting the demographic details, the participants were shown a picture of a monkey and asked to name it in Dzongkha. Prior to the collection of data a pilot study was conducted with 20 speakers of Dzongkha in Paro to see if they had the (C□CV) variant of the word 'monkey', they also had the same (C□CV) for other words with the same initial complex segments, and vice versa; we found the results consistently positive. The literature also states that unlike other social behaviours, linguistic behaviour is more consistent and homogeneous (Sankoff, 1980).

Their responses were recorded based on two linguistic criteria: articulatory (observing the articulatory configuration of the speech organs) and perception (what the researcher hears). Their responses were recorded as one of the two variants, /ca/ (CV) or /pca/ (C□CV).

The data were analysed using SPSS. The dependent variable, which is the pronunciation variation, either (CV) or (C□CV) was quantified against the independent variables (age, level of education, gender and place of birth).

Results

Demographic details

Table 1 shows the demographic information of the participants. The study sample consisted of 600 participants, 100 participants from each Dzongkhag, with roughly equal number of males and females (47.2% and 52.8 % respectively). Roughly 70% of the participants were less than 30 years old and 30% were more than 30 years old. The maximum number of participants was primary school students (33.7%) and the least number from university graduates (14.5%).

Table 1: Demographic details of the participants

		FREQUENCY	PERCENT
Gender	Male	283	47.2
	Female	317	52.8
	Total	600	100.0
Age	Below 15	201	33.5
	16-30	216	36.0
	31-45	88	14.7
	45 and above	95	15.8
	Total	600	100.0
Dzongkhag (district)	Haa	100	16.7
	Paro	100	16.7
	Chukha	100	16.7
	Thimphu	100	16.7
	Punakha	100	16.7
	Wangdue	100	16.7
	Total	600	100.0
Education level	Nil	156	26.0
	*PS	202	33.7
	*HS	155	25.8
	*Univ	87	14.5
	Total	600	100.0

**PS – Primary School; *HS – High School; *Univ – University*

Descriptive result

Table 2 shows the percentages of the two variants of the pronunciation of the Dzongkha word /spja/ 'monkey' against the speakers' gender, age, Dzongkhag, and education level. While 69.3% of the male participants produced the C□CV variant of the word, roughly half (53%) of the female participants produced the same variant. All the participants belonging to different age groups produced the C□CV more than the CV variant, except the participants below age 15, who produced more of the CV variant (67.2%) than the C□CV. In terms of the speakers regional background it, is interesting to note that while participants from Paro, Haa and Wangdue produced more of the C□CV variant (78%, 86% and 78% respectively) Punakha Dzongkhag stood alone in producing the CV variant more (72%) than the C□CV variant. Thimphu and Chukha produced roughly equal number of the two variants (Thimphu, 51% C□CV and 49% CV; Chukha, 43% C□CV and 57% CV).

Table 2: Percentages and Std. Residual of pronunciation of C□CV and CV segment types against gender, age, Dzongkha, and education level

		C□CV (IN %)	STD. RESIDUAL	CV (IN %)	STD. RESIDUAL
Gender	Male	69.3%	1.9	30.7%	-2.3
	Female	53%	-1.8	47%	2.2
Age	Below 15	32.8%	-5.1	67.2%	6.3
	16 – 30	72.7%	2.3	27.3%	-2.8
	31 – 45	72.7%	1.5	27.3%	-1.8
	45 and above	81.1%	2.6	18.9%	-3.2
Dzongkhag	Haa	86%	3.3	14%	-4.0
	Paro	78%	2.2	22%	-2.8
	Chukha	43%	-2.3	57%	2.8
	Thimphu	51%	-1.2	49%	1.5
	Punakha	28%	-4.2	72%	5.2
	Wangdue	78%	2.2	22%	-2.8
Education level	Nil	72.4%	1.9	27.6%	-2.3
	Primary school	38.6%	-4.0	61.4%	5.0
	High school	65.2%	0.7	34.8%	-0.9
	University	82.8%	2.6	17.2%	-3.3

The Standardised Residuals of the two pronunciation variants are also presented in table 2. Standard Residual is the difference between the expected frequency and the observed frequency. This is important because of the fact that Standardised Residuals decompose what contributes to the overall association that the chi-square statistic measures, which has a direct relationship with the test statistic (Field, 2009).This is very useful (for the following section) because it means that just by looking at a standardised residual of the individual cells we can assess its significance.

Discussion

The Pearson Chi-Square test results show that there is a significant association between the pronunciation of the Dzongkha initial complex segments and the speakers' gender, age, regional background, and education level (all the Chi-Square p-value less than 0.005, as shown in table 3). What we mean by association is that the pattern of responses in the two variations is significantly different. In other words, whether the speakers would pronounce the initial complex segment as C□CV or CV would depend on the speakers' gender, age, regional background, and education level.This goes on to explain that all the four variables, gender, age, Dzongkhag, and education level contributed to the variation of theC□CV – CVinitial segments in Dzongkha.

Table 3: Pearson Chi-Square value, degree of freedom, and significance level for gender, age, Dzongkhag, and education level of the participants

Chi-Square Tests(Pearson Chi-Square)

	Value	df	Asymp. Sig. (2-sided)
Gender	16.569a	1	0.000
Age	100.228a	3	0.000
Dzongkhag	113.792a	5	0.000
Education level	69.331a	3	0.000

Further, turning back to our Standardised Residuals in table 2, we get additional details on the contribution of the different sub-variables to the significance of the overall result. If the Standardised Residual value lies outside of ±1.96 then it is considered significant at p <.05 (Field, 2009).Considering this fact, gender contributed to the significant difference of only the CV variant (male, -2.3; female, 2.2).

With age, except the age group of 31 – 45 (C□CV, 1.5; CV, -1.8), all other age groups contributed significantly to the variation in pronunciation. Furthermore, the age group of below 15 contributed the most to the overall significance. This is shown by the fact that the Standardized Residuals for this group are the farthest (from ±1.96) of all the other groups (C□CV, -5.1; CV, 6.3).In other words, the speakers below age 15 contributed the most in the production of the CV variant of the pronunciation (67.2%, against 29.3% and 18.9%).

The pronunciation of the initial complex segments also depended on the regional background of the speakers of all the Dzongkhags, except for Thimphu (C□CV, -1.2; CV, 1.5). Haa Dzongkhag contributed the most in the production of theC□CV (86%; 3.3) variant, while Punakha contributed the most to the production of the CV variant (72%; 5.2).

The education level of the all other groups contributed to the significance of the overall result, except the high school group (C□CV,0.7; CV, -0.9). While speakers with primary level qualification contributed the most to the production of CV variant (61.4%; 5.0) the speakers with university level educational background contributed the most in the production of the C□CV variant (82.8%; 2.6).

Turning back to the research questions, the study confirms that the phenomenon of Dzongkha initial segment variation is not a random phenomenon. Whether a speaker pronounces words with the initial complex segment as CV or C□CV would depend on the speakers' age, gender, qualification and regional background. The speakers from Paro, Wangdue and Ha are more likely to pronounce the complex segments with a C□CV while speakers from Punakha are more likely to pronounce such words with a CV. On the other hand the younger the speaker the more likely is the probability of pronouncing the words with the CV variant. The direction of this phonological change is from the complex segment C□CV to a more simple CV pronunciation, which is mostly influenced by younger speakers.

Conclusion

The goal of this study was to see if there is any association between the pronunciation variations of Dzongkha initial complex segments and speakers' age, gender, educational background, and regional background. The findings showed a significant association between the pronunciation variation and the other variables. What does this indicate? It indicates that such kind of pronunciation variations is not in free variation or random. There are sociolinguistic variables such as age, gender, educational background, and regional background in play.

Another indication of the study is the ability to predict the direction of the pronunciation change. Since variation means an indication of some kind of linguistic change in progress we

could show that the direction of change is from the complex segment(C□CV) to the simple or singleton (CV)segment, and the younger speakers are the main agents contributing to this change.

Policy and educational implications

This study has two main implications: policy and educational implication. The different stakeholders, in particular, the Dzongkha Development Commission (DDC) must be cognizant of the fact that there are systematic variations in language which are not random. The DDC must first take informed decisions on the standard variant of such variations and decide on one variant as the standard form. If the decision is made on the basis of preservation of the original or older form the complex (C□CV) should be the option. Any decision pertaining to Dzongkha must be a well-informed one.

Dzongkha educators and curriculum designers too must be cognizant of the systematic variations for Dzongkha education. A more practical approach would be a descriptive one where variations in pronunciations are justified based on systematic studies rather than intuitive knowledge which is idiosyncratic.

References

Coulmas, F.(2005) Sociolinguistics: The Study ofSpeakers' Choices, Cambridge: CambridgeUniversityPress

Dorjee, K. (2011). Dzongkha segments and tones: A phonetic and phonological investigation. The English and Foreign Languages University, Hyderabad, India.

Field, A. (2009). Discovering statistics using SPSS (Third). Dubai: Sage Publication.

Labov,W.(1966)TheSocial StratificationofEnglishinNewYorkCity,Washington,DC: Centerfor AppliedLinguistics.

Labov,W.(1972)SociolinguisticPatterns, Philadelphia,PA:UniversityofPennsylvania Press

Llamas, C., Mullany, L., & Stockwell, P. (2007). The Routledge companion to sociolinguistics. Routledge. Retrieved from http://books.google.com/books?hl=en&lr=&id=GOpnXteyK1oC&oi=fnd&pg=PR3&dq=the+routledge+companion+to+sociolinguistics,+llamas,+mullany+and+stockwell+2007+&ots=IuvXNmwN7j&sig=V_Fa-hZPCh_CIF4SscYz-rnpLRU

Milroy, L. (1987). Observing and analysing natural language: A critical account of sociolinguistic method. Oxford, OX, UK: Blackwell.

About the author

Kinley Dorjee, PhD, a lecturer in English and Applied Linguistics at the Royal University of Bhutan, Paro College of Education, holds a PhD in Linguistics from the English and Foreign Languages University (EFLU), Hyderabad, India, and masters in Linguistics from the North Eastern Hills University (NEHU), India. His areas of linguistic research include Dzongkha Borrowing, Dzongkha Tones and Segments, Dzongkha Phonological variation, among others. His research interests include English language education, dialectology, sociolinguistics, applied linguistics, and phonetics and phonology of the Tibeto-Burman languages. Email: kinleydorjee.pce@rub.edu.bt

Extroversion-Introversion MBTI Subscale as a Predictor of Psychological Wellbeing: Implications for Career Development and Education in Bhutan

RODRíGUEZ, A.I, DORJI, T., AND GONZáLEZ, R.C.

Abstract

The Myers-Briggs Type Indicator (MBTI), Self-Scorable Form M® (P. B. Myers & K. D. Myers, 2009) Extraversion-Introversion (E-I) subscale was used to predict Bhutan's Gross National Happiness (GNH) Domain of Psychological Wellbeing (PWB). Our E-I examination of all twelve quantitative indicators of the GNH PWB is the first of its kind. Research participants were 200 students at three higher secondary schools in Thimphu, Bhutan: 90 males, 110 females, mean age of 17.27 years, were administered the entire MBTI and the complete GNH Index of Nine Domains. Introversion significantly predicted Enjoyment of Life ($p = .008$), Meaning of Life ($p = .001$), Stress ($p = .001$), and Negative Emotion ($p = .03$). Chronbach's for E-I = .79. Practical data results produced unexpected philosophical/theoretical concerns that we include to stimulate discussion for education in Bhutan: (a) Students were unable to answer the MBTI in Dzongkha, impacting its cultural adaptability which implies introducing dual language Dzongkha/English education to restore future generations' bilingualism; (b) Use of the MBTI for career development among higher secondary Bhutanese school students; and (c) The advantage of explicitly teaching I students E skills.

Keywords- *Bhutan, Gross National Happiness Index, Myers-Briggs Type Indicator, Career Development*

Psychological Wellbeing (PWB) is one of the Nine Domains of the Gross National Happiness (GNH) Index, part of Bhutan's pursued national policy and developmental plans for the happiness of its people. Research conducted in the West shows that the personality factor of Extraversion (E) correlates with life satisfaction and positive affect (Cain, 2012). Introversion (I) correlates positively with negative affect (Costa, Jr. & McCrae, 1980; Harrington &Loffredo, 2001; Joshanloo & Afshari, 2011; Librán, 2006). However, these relationships have not been studied extensively in Bhutan regarding PWB specifically, and the remaining eight GNH Domains generally. Individual personality factors do not appear to be explicitly emphasized in Bhutanese research. "[T]he concept of personality is an expression of the Western ideal of individualism" (Hsu, 1985, p. 24, cited in Church, 2000).

Therefore, the main purpose of this study is to investigate the Myers-Briggs Type Indicator (MBTI) Form® subscale of Extroversion-Introversion (E-I) as a predictor of Bhutan's GNH Domain of PWB amongst 21st century high school students. In this research, we examine all twelve quantitative indicators of the GNH PWB, making this study innovative in its field. Thus, our current research questions are as follows.

1. What is the quantitative relationship between the MBTI's E-I with all twelve quantitative indicators of the GNH's Domain of PWB?2. How does E-I predict the twelve quantitative indicators of the GNH Domain of PWB?
   What are the theoretical and philosophical implications of our data results for Bhutanese education?

Psychological Wellbeing (PWB)

PWB is a complex construct. It concerns optimal experience and functioning (Ryan & Deci, 2001). "It is a dynamic concept that includes subjective, social, and psychological dimensions as well as healthy related behaviors" (Seifert, p. 1, 2005). Current research of PWB is

embedded in the philosophy of eudaimonia, which can be traced back to Aristotle (384 –322 B.C.E.; Stanford Encyclopedia of Philosophy, 2008). He articulated the eudaemonic view of PWB as the optimal wellbeing of happiness for human growth, in contrast to the hedonic view of subjective wellbeing (SWB) as a vulgar ideal, making humans slavish followers of desires (Fromm, 1981, cited in Ryan & Deci, 2001). In an academic debate, Ryff and Singer (1998) challenged SWB models of wellbeing as limited in scope. Ryan et al. (2001) state that differing definitions of wellbeing have led to quite different types of inquiry concerning the causes, consequences, and dynamics of well-being.

Holistic operationalisation of PWB that synthesize hedonist/eudaemonist dimensions is derived from Western thought (Bradburn, 1969; Diener, 1984; Erikson, 1950; Adler & Herschfeld, 2012; Jung, 1933; Keyes, Shmotkin, & Ryff, 2002; Maslow, 1968; Rogers, 1961; Ryff, 1989; Ryff & Keyes, 1995; Ryff& Singer, 1996, 1998, 2000, 2008; Schmutte & Ryff, 1997). These humanistic authors describe what it means to be psychologically well and healthy. More recently, psychoneurobiological research has made tremendous strides in delineating culture free, universal interrelationships of gender, immunological functioning and PWB that extend beyond intellectual disagreements (Brizendine, 2007, 2010).

Bhutan's concept of the GNH related to wellbeing and happiness is distinct from Western literature on PWB. GNH explicitly internalizes social responsibility for the collective wellbeing. Such internalization can be deeply experienced personally (Ura et al., 2012). PWB and happiness include subjective wellbeing, living in harmony with nature, and concern for other features conspicuously missing from Western PWB measures

Another variable usually excluded from PWB Western instruments is spirituality, especially Buddhist practice, one of the indicators of the GNH Domain of PWB. With relation to our research participants, the opening of our country outside world (Phuntsho, 2000, 2013) of ever increasing social media postmodern life, to which the Bhutanese have been exposed to within one generation, is a practically unprecedented development. Therefore, how applicable will a Western origin measure like the MBTI be in predicting an inevitably evolving Eastern spiritual practice? This inquiry helps answer research question number one presented above, and demonstrates the innovation of statistically norming the MBTI in Bhutan.

Bhutan's GNH indices of PWB are multi-dimensional and aim to expand upon more profound ways of measuring traditional socio-economic models of development. This approach literally stands uniquely atop the rest of the world that is largely focused in the pursuit of consumerism and material gain.

Extraversion and Introversion

Human personality is all about its gifts differing: ". . . its richness, its diversity, and its role in affecting career, marriage, and the meaning of life itself" (Myers & Myers, 1980;1993, p. xiii). Individuals are unique products of their heredity and environment. This doctrine of uniqueness cements the philosophy of individuality developed by psychologist Carl Jung [1875-1961]. Symmetry and asymmetry influence individuals' perception, observation and subjective experience in understanding the world and people around them (Zabriskie, 2001). Symmetry refers to stable and unchanging aspects of human existence, i.e., traits, such as right- or left-handedness; or for our research purpose here, extraversion (E) and introversion (I). Asymmetry refers to dynamic and evolving aspects of human existences, i.e., states of being that reveal themselves in marked changes of a person's neurocircuitry over time, from experiences such as new parenthood; traveling to a new place for the first time, including within the same village, city, or region; or even psychological trauma.

Jung (1921) described E-I as a symmetrical dimension of personality. Differences in human behaviors are based on peoples' natural preference to use their minds. E and I are two complementary orientations of life and, when the less natural preference is developed within a person, form a continuum, not a dichotomy. E's energy tends to flow outward. They

are enlivened by outer worlds of people and things; by interest in external environments; preferences for talking and doing rather than listening and reflecting: sociability; expressiveness; and possessing of a breadth of interests. High scorers on MBTI's E subscale affirm concepts like hearty, sociable, and lively (Francis, Craig, & Robbins, 2007). E's are apt to remember names, faces, and previous conversations with persons they meet again even after some time---inborn attributes excellent for social and political leadership. Such remembrances are likely to make others feel connected to E's.

I's energy tends to flow inward. They are enlivened by inner worlds of ideas; characterized by interest in internal environments; preferences for listening and reflecting rather than talking or doing: reserved; contemplative; and possessing a depth of interests. Thus, when circumstances permit, I's concentrate perception and judgment upon ideas. High scorers on MBTI's I subscale affirm concepts like quiet, detached, and calm. I's tend to get "peopled out" and, if allowed, can go several days happy in their own company. I's benefit from having mates and/or assistants who are E's, to help remember faces, names and persons whom they have met before, and to facilitate social support and interaction.

Time set aside for E's and I's to develop activities which are unnatural preferences can prove essential to optimal, multifaceted development. Both E's and I's best deal effectively outside their natural preferences especially when they are given advanced notice. Sudden demands to deal outside one's preferences can be startling and experienced as unwelcome. The E form of preferences is supremely prominent in the Western societies in which people skills, entertainments, corporate commercials and outer comportment receive much social currency. However, in recent years Western authors have responded with guides on how I's can contribute and be heard in an overwhelmingly E world (Buelow, 2012, 2015; Cain, 2012; Dembling, 2012; Harris, 2014; Helgoe, 2013; Houghton, 2010; Kahnweiler, 2013, 2016; Kozak, 2015; Lyubomirksy, 2013; Zelenski, Santoro, & Whelan, 2012). Psycho-educational guidance in Bhutan's schools can enable career planning and placement where high school students may find most satisfaction in occupations involving both E-I, thus increasing the likelihood that high school and college graduates will be happier if they pursue careers that lie mainly in the E-I preference in which they naturally feel most comfortable.

The Myers-Briggs Type Indicator

The Myers-Briggs Type Indicator (MBTI, Myers & McCauley, 1985), is the most popular and widely researched of the instrument designed to measure the personality as described by Jung (Girelli & Stake, 1993). Developed by Myers and Briggs (1962), the MBTI is based on Jung's theory of psychological types to help people understand each other and avoid destructive conflict, motivated by the sufferings and tragedies of World War II (Myers et al. 1996).

The MBTI is a robust personality assessment device: based on one of the classic statements of personality theory, it purports to measure traits rather than types and it is widely used to explain individuals' personality characteristics across all walks of life (McCrae & Costa, Jr., 1989). These distinctions have made the MBTI a popular personality instrument for organizational and industrial psychologists (Hirsh, 1985) and for high school and college students who wish to understand themselves better in selecting college majors and career decisions (Cain, 2012; Myers &McCaulley, 1985; Myers, McCauley, Quench, & Hammer, 2003). The MBTI has become the most trusted and widely used psychometric instrument for personality assessment both in U.S. and the world (Ring, 2008).To date, the MBTI applications spawned more than 1100 dissertations, 2000 research articles and papers, 800 books, hundreds of conferences, and thousands of psychological audio-visual tapes across North America, Europe, Asia and Australia (Ring, 2008).

Method

Participants

Exactly 200 students from three different higher secondary schools (mean age 17.27 years, □ = 1.334 years) participated in this study. The three schools in Thimphu, Bhutan represent various program streams (Science, Arts/Humanities, and Commerce). There were 90 males (mean age 17.63, □ = 1.502) and 110 females (mean age 16.98, □ =1.100). Participants were recruited through the Ministry of Education, Royal Government of Bhutan. Research participation was purely voluntary and anonymous. Afterwards, refreshments were served to the students in recognition of their participation and cash incentives were also provided to the participating schools. Students were given a serial number to protect their identity.

Instruments

Psychological wellbeing [PWB]

Participant's PWB was assessed by The Second Gross National Happiness [GNH] Survey Questionnaires April 2010 (Ura et al., 2012). These questionnaires were developed by the Center for Bhutan Studies (CBS), Thimphu, Bhutan. The PWB Domain of GNH entails three major indicators of Life Satisfaction, Emotional balances (positive and negative emotions), and Spirituality.

Five items of Life Satisfaction combine individuals' self-report of their Health, Occupation, Family, Standard of Living, and Work-Life Balance. Participants responded how satisfied or dissatisfied they were in these five areas on a five-point Likert scale (1= very dissatisfied, 2 = dissatisfied, 3 = neither satisfied nor dissatisfied, 4 = satisfied and 5 = very satisfied). Life Satisfaction responses were summed across the five areas. Scores ranged from a low of 5 (Low Satisfaction) to a high of 25 (High Satisfaction). The sufficiency threshold for the Life Satisfaction score is set at 19, and 83 per cent of Bhutan's national sample on the GNH (2012) enjoy sufficiency in Life Satisfaction (Ura et al., 2012).

Positive Emotion (PE) of calmness, compassion, forgiveness, contentment and generosity are rated on a four-point scale. Ura et al. (2012), in A Short Guide to Gross National Happiness Index, indicated the Likert scale was from 1 to 4. The PE indicator to which it refers actually had to be the scored from 4 to 1. Therefore, we reversed the scoring to fit the correct format.

Negative Emotion (NE) is divided into two categories. The first category consists of selfishness and jealousy, the second of anger, fear and worry. Both sets of Negative Emotions ask participants to rate to which they have experienced them during the past "few weeks" on a scale of four-point scale (1 = never, 2= rarely, 3 = sometimes and 4 = often).

Both the scores of Positive and Negative Emotions extend from 5 to 20 (from low to high incidence). The national sufficiency threshold for Positive Emotions was set at 15 with 58.8 per cent as being adequate. The national sufficiency threshold for Negative Emotions was set at 5 for the first category (maximum score of 8) and 7 for the second category (maximum score of 12), with 64.6 per cent as not suffering from Negative Emotions.

Spirituality addresses the frequency with an individual's self-reported spirituality level, considers karma, engages in prayer recitation, and in meditation. Karma refers to ". . . A general term used loosely for behavioral cause and effect" (Hopkins, 2002 cited in Ura et al., 2012). All four Spirituality indicators are rated on a four-point scale (1 = not at all, 2 = rarely, 3 = occasionally and 4 = regularly). Scores range from 4 to 16, with 16 indicating a greater degree of Spirituality. The national threshold has been set at 12, which implies that at least three of the four indicators must be rated 'regularly' or 'occasionally' for an individual to be defined as happy. The national sufficiency threshold identifies 53 per cent of people as adequate in terms of spirituality level (Ura et al., 2012).

Myers-Briggs Type Indicator (MBTI), Form M® (P. B. Myers & K. D. Myers, 2009)
The MBTI consists of four subscales: Extraversion-Introversion (E-I), Sensing-Intuitive (S-N), Thinking-Feeling (T-F), Judging-Perceptive (J-P). E-I refers to how our energy flows. Extraverts are energized by the outer world of people and things, introverts by the inner world of ideas. S-N refers to how we gather information from the outside world. Sensing people rely on their five senses: vision, auditory, olfactory, gustatory, and tactile. Intuitive people rely on a sixth sense, an inner voice, that helps them to see patterns and connections that sensing people do not. T-F refers to how we make decisions once we have gathered information from the outside world. Thinking people use impersonal standards and guidelines to make their decisions. This does not mean that thinking people do not feel, but they value feelings differently. Feeling people rely on subjective emotion that feels right for them when making decisions. J-P refers to how we prefer our outer world to function. Judging people prefer order, predictability, neatness, and structure. Judging does not equal judgmental attitudes. Perceptive people prefer spontaneity, going with the flow, and are comfortable with disarray and disorder. A person's four letter MBTI profile reflects how we are naturally and without self-consciousness in the world. One can develop attributes of the other end of the subscale through conscious effort and training.

Translation of MBTI into Dzongkha
Initially we translated the MBTI into Dzongkha; however, the translation was unexpectedly too complex for high school students. Phuntsho (2013) explains that Dzongkha is one of eight daily courses taught in the high school curriculum, the other seven courses taught in English. He further states that fluency in Dzongkha occurs among persons educated in traditional Bhutanese monastic studies. Thus, we used the English language MBTI for our high school population.

Procedure
UTEP's institutional review board approved the study. The GNH and the MBTI were administered to collect data at the three higher secondary schools. Responses were self-reported. Testing time ranged from 90 to 130 minutes. Participants completed the questionnaires in their respective school classrooms under the supervision of the second author. Students were informed about the purpose of the research. Parental consent was obtained for minor age students. Participants were assured that there were no right or wrong answers. Response rate was 100 percent. Scoring of the MBTI and GNH had an inter-rater reliability of 1.00.

Results

Descriptive statistics are presented in Table 1.
Correlation matrices are presented in Tables 2 and 3. All indictors of the GNH PWB were correlated with MBTI's E-I subscale using Pearson's r. These associations do not infer a cause and effect relationship. Regression analyses using MBTI's E-I subscales as independent predictor variables and GNH's PWB indicators as dependent outcome variables appear in Tables 8, 9, and 10.Inferential t-test statistics are presented in Tables 4 and 5.t-tests examined null hypotheses of no differences between E-I responses (1) to GNH PWB indicators and (2) by gender. Significant differences were found between E-I responses and Social Support. Significant differences were also found between gender and Negative Emotion 2.

X 2 using categorical variables are presented in Tables 6 and 7. X 2's investigated null hypotheses of no frequency distributions amongst various categorical variables. A significant difference in frequency distribution between E-I scores was found in the three higher secondary schools. No significant difference was found in frequency distribution between E-I and choice of educational major.

Regression analyses are presented in tables 8, 9, and 10. These analyses used E-I as independent predictor variables and GNH PWB indicators as dependent outcome variables. When the entire E-I spectrum of scores was used, significant results were found in the GNH PWB indicators (1) Enjoyment of Life, (2) Meaning in Life, and (3) Stress. E scores alone did not predict any indicators in the GNH PWB. I scores alone significantly predicted (1) Enjoyment of Life, (2) Meaning in Life, (3) Stress, and (4) Negative Emotion 2. The E-I spectrum and I regressions tended to predict spirituality ($p = .06$), and deserve special mention in the Discussion section below.

Discussion

The data results reveal several important articulations for each of the statistical outputs being analyzed in the study. Several themes were considered which relate to our three research questions and these themes is discussed directly proportionate manner which matches the order of our three research questions.

First, what does the Pearson r tell us about E-I and its relationship with GNHPWB variables? Second, what do the regressions tell us about the predictability among E-I and GNH PWB variables? Third, what do the X 2's tell us about education and career choice among high school students in Bhutan? This third question leads to a logical discussion on how the theoretical/philosophical implications of the MBTI can help guide Bhutan for further development of its educational and professional institutions. Finally, t-tests and descriptive statistics are provided in the end along with a section on outliers.

Pearson r Correlations

The correlation matrices show significant Pearson r's between E and I among many of the GNH PWB indicators. For instance, at $p = .01$, E had 16 significant correlations, I had 8 significant correlations. At $p = .001$, E had 30 significant correlations, with two in the 80s; I had 36 significant correlations, including four in the 70s and 80s. Due to the high amount of statistically significant data found among these correlations, and because the study focuses mostly on the predictability of the inferences provided by the regression being investigated in question two, tables two and three provide a detailed review.

One clear assumption that can be given due to the high amount of significant correlations found is that there seems to be a clear relationship between E-I and GNH PWB variables. However, these statistics are not predictive. The multicollinearity of variables within the both E and I matrices precludes the computation of multiple regression equations using the GNH PWB indicators as independent predictor variables.

Regression

Regression analyses for the E-I spectrum and Introversion predicted various GNH indicators. The E-I spectrum predicted enjoyment of life, meaning in life, and stress. Introversion predicted enjoyment of life, meaning in life, stress, and negative emotion 2with a much higher level of significance than the spectrum. No single predictive estimate was found between Extraversion and the GNH Indicators. Interestingly, much of our data supports previous research which indicates Introversion being associated with lower levels of happiness than that of Extraversion.

A logical inference can be made from this data indicating that the predictive power of the E-I spectrum lies within Introversion only within this sample. Therefore, special attention should be placed on the importance of crossing the E-I spectrums' threshold from Introversion towards Extroversion. This crossing threshold is the point where one is determined to be either Introverted or Extroverted based on either being one point below or above the middle point of a total score of 21 in the E-I spectrum. So, if a score total is 11 points for Introversion, then a person is more introverted as the score is exactly one point from the mid-point of the E-I spectrum. As our data indicates, once the threshold is crossed into Extraversion, the predictive

power diminishes towards non-significant increments. Therefore, any single extraversion point added to introverts is of significant consequence with greater implications towards achieving a happier life with regard to GNH PWB measures compared to single point increments obtained by extraverts. Through psycho-education, I's can learn E skills and therefore benefit from having more appropriate college major placement options were they be administered the MBTI in high school and, as a consequence, increase the potential for their own lifetime happiness.

Regression analysis predicted elevated stress with every E point added to I scores. These results support previous research studies which state that extraversion is a predictor of stress (Swickert, Rosentreter, Hittner, &Mushrush, 2002). E's, due to their tendency to impulsively seek high-level stimulation, might inadvertently increase their stress.

The regression analysis tended towards significance (p=.068) when predicting the relationship between Introversion and Spirituality. This means that with every E point added to an I score, spiritual levels could increase to a significant amount. Eysenck's personality dimensions shows that E is significantly positively correlated with all aspects of spirituality (Maltby& Day, 2001). This result suggests that spirituality reflects sociable, excitement seeking, carefree and optimistic personality traits that which are of the E type, and contradict Phuntsho's (2000, 2013) assertion that traditional Bhutanese monastic scholars' education was I in nature.

Spirituality is recognized as an important factor in positive psychology and has extended therapeutically into the world of psychological wellbeing (Emmons & McCullough, 2003; Seligman, 2003). That is, spirituality is uncommon in other Western psychological theories. Meditation, mindfulness and relaxation have been found to be pivotal interventions in helping people overcome psychological crises by cultivating loving and peaceful minds through the detachment of potential destructive thoughts and feelings (Symington & Symington, 2012). We add that consistent practice of spiritual exercises is vital for clinical interventions where spirituality is used to address client's concerns.

Education in Bhutan was I in nature due to its traditional monastic form in Dzongkha until the latter half of the 20th century, when modern education, which is E in nature, was introduced in the Kingdom (Phuntsho, 2000, 2013). Modern education relies mainly on extraverted skills in English for human development. This historical shift of educational reforms in Bhutanese education informs our approach to examining E and I as predictors of GHN indices of PWB among high school students, and raises the question if I's are currently at a disadvantage since the implementation of Bhutan's current educational system.

X^2

X 2's found differences in frequency distributions for E-I and tracking into three higher secondary schools, but not for that of major of choice or nature of school. The MBTI's most powerful utility is arguably its ability to match personality type and career path for students in order to increase long-term job satisfaction and productivity. It would be preferable to see significant differences in how E-I help to determine which majors are chosen among different Bhutanese high schools something that was not seen in the X 2 analysis. For example, according Holland (1996, cited in Baluku, Kikooma, &Kibanja, 2016), "the entrepreneurial role is particularly appealing to extraverts because it requires domination, adventure, pleasure-seeking, ambitiousness, impulsiveness and self-confidence, (p. 15). The ability to guide students based on E-I towards a career path where they are more likely have increased job satisfaction and productivity is a unique and powerful mechanism that could have mutual benefits for both GNH and economic growth.

t-tests

t-tests for gender differences found men have significantly higher scores for Negative Emotion 2 (NE2) than that of women. NE2 emotions consist of the items such as anger, fear, and worry. Gender differences and emotional experiences have produced conflicting research

results. For example, McLean and Anderson (2009) indicate that women tend to show higher levels of worry, fear, and anxiety than men. In contrast, Hyde's (2014) meta-analyses suggest that gender differences in the emotional experience of anger and fear have minimal, trivial differences. This conflicting research could indicate why only NE2 showed significant gender differences. Are our female research participants more compliant, adaptable, flexible, and accommodating to their curriculum than their male counterparts? Is the expression of negative emotion deemed a more appropriate gender role behavior for females than for males? We pose these questions because Bhutan's school curriculum has moved quickly in one generation to become more English-language colonized (Phuntsho, 2015). The link between gender differences and linguistics may, likewise, show ongoing conflicting research results.

Descriptive Statistics

Age

With an average age of 17.28 years among our 200 research participants, four outliers occurred who were above two standard deviations from the mean. All were male. Three research participants were twenty-one years-old; one research participant twenty-two years-old.

The first twenty-one year-old's I score was 15; with a Social Support score of 5 out of 21one standard deviation below the mean; a Spirituality score of 8not quite two standard deviations below the mean; a Quality of Life score of 4, within the normal range; and a Happiness score of 2.12one standard deviation below the mean.

The second twenty-one year-old's I score was 11; with a Social Support score of 3 out of 21two standard deviations below the mean; a Spirituality score of 14, within the normal range; a Quality of Life score of 3within the normal range; and a Happiness score of 7, within the normal range.

The third twenty-one year-old's E score was 11, with a Social Support Score of 16 out of 21within the normal range; a Spirituality score of 15one standard deviation above the mean; a Quality of Life score of 3one standard deviation below the mean; and a Happiness score of 0two standard deviations below the mean.

The twenty-two year-old participant's I score was 12, with a Social Support Score of 8 of 21, one standard deviation below the mean; a Spirituality score of 13within the normal range; a Quality of Life score of 4one standard deviation below the mean; and a Happiness score of 7within the normal range.

These four males' age cohort has probably graduated and begun college and/or work life.Three males have low Social Support scores, one has a low Spirituality score, two have low Quality of Life scores, and two have low Happiness scores. Such checkered results raise several questions. Are such oldest male high school students at risk of dropping out? Are there institutionalized alternative education programs to keep older male students engaged in high school studies? How common is it to have male students who are two standard deviations above their high school's mean age across the Kingdom? What are the occupational development ramifications for such overage male students?

Study Limitations

A test-retest reliability score on the MBTI's administered to our participants in this research as suggested by Caparo and Caparo (2002) was not feasible. Space limitations prevented our discussion of the other MBTI subscales and the GNH PWB Domain. That is for future research. Reliability and validity are at the heart of MBTI. It is widely used in education, career counseling, psychotherapy, management, leadership training, team building, education, learning styles, cognitive styles, multicultural applications, health, and stress and coping interventions (Ring, 2008). Nevertheless, the construct validity of the MBTI remains largely unexplored (Shi et al., 2009). Considerable reservation about the reliability and validity of various MBTI forms has

been stated; it does not represent a successful operationalization of Jungian concepts (Coan, 1979; Mendelsohn, 1965; Siegel, 1965; Sundberg, 1965). But the MBTI is strongly supported by research, and is continually reviewed and revised for psychometric improvement, while preserving the integrity of the instrument and its original purpose.

We were unable to process results with each participant. Discussing profile results with the MBTI test takers is crucial to ensuring that students see themselves as their profiles indicate. This dialogue often results in a change in one or more profile letters. Talking with each participant about their MBTI profile results would have been more of a mixed methods format, where participants are subsequently interviewed as a consequence of their profile results. Counselors who use online MBTI formats and simply hand printout results to students without taking the time to explore respondents' profiles do no favors to such students.

Students were unable to take the MBTI in Dzongkha. This fact was unexpected for us. Would statistical norming of the MBTI or any other assessment instruments conducted in English mean that research participants are being measured in a colonial language? The implications for research carried out in English on residents of Bhutan merit further consideration. Secular education in Bhutan (Phuntsho, 2013) may benefit for now by administering the English MBTI in Bhutan's schools to help students understand self-development and career choice.

Future Research Directions

Further investigations could examine Bhutanese high school populations in smaller cities and rural areas on the MBTI and GNH. Such investigative efforts could increase statistical norming samples beyond the capital.

Establishing convergent validity between GNH PWB and other PWB measures would be empirically useful. Such converging efforts could increase the reliability and validity of the GNH.

Adding a Holland (1997) career counseling instrument to the administration of the MBTI could potentially help high school and college students decide on course of study. The third author of this research was trained in such a manner at the Stanford University Career Planning and Placement Center. Seeing that there were no significant differences among E-I and major of choice in the X 2 analysis, perhaps implementing a suggested Holland instrument supplemented with the MBTI could potentially direct future students towards careers they find most fulfilling.

Implementing dual language Dzongkha/English instruction into Bhutanese education can rebuild a larger bilingually fluent population which could impact future MBTI and GNH results. Administrative and policy analysts in and on Bhutan might reflect on a 50/50 Dzongkha/English dual language program throughout the Kingdom so that the generation to be born now grows up bilingual.

References

Adler, J.M., &Hershfeld, H. E. (2012). Mixed emotional experience is associated with and precedes improvements in psychological well-being. PLoSONE 7(4), e35633.dol. 10.137/journal.pone.0035633.

Augusto-Landa, J. M., Pulido-Martos, M., & López-Zafra, E. (2011). Does perceived emotional intelligence and optimism/pessimism predict psychological well-being?
Journal of Happiness Studies, 12, 463-474.

Baluku, M. M., Kikooma, J. F., &Kibanja, G. M. (2016). Does personality of owners of micro enterprises matter for the relationship between startup capital and entrepreneurial success? African Journal of Business Management, 10(1), 13-23.

Barclay, E. (2012, July 31). The salt: Bhutan bets organic agriculture is the road to happiness. Washington, D.C.: National Public Radio. Retrieved from http://www.npr.org/blogs/thesalt/2012/07/31/157645902/bhutan-bets-organic-agriculture-i…

Brizendine, L. (2007). The female brain. Emeryville, CA: Potter/TenSpeed/Harmony.
Brizendine, L. (2010). The male brain. New York: Harmony.
Buelow, Beth L. (2012). Insight: Reflections on the gifts of being an introvert. Author.
Buelow, Beth L. (2015). The introverted entrepreneur: Amplify your strengths and create success on your own terms. New York: A Pedigree Book.
Cain, S. (2012). Quiet: The power of introverts in a world that can't stop talking. New York: Crown Publishers.
Caparo, R. M., &Caparo, M. M. (2002). Myers-Briggs Type Indicator score reliability across studies: A meta-analytic reliability generalization study. Educational and Psychological Measurement, 62(4), 590-602.
Church, A. T. (2000). Culture and personality: Toward an integrated cultural trait psychology. Journal of Personality 68(4), 651-703.
Coan, R. (1979). Psychologists: Personal and theoretical pathways. New York: Irvington Publications.
Costa, P. T., Jr. & McCrae, R. R. (1980). Influence of introversion and neuroticism on subjective well-being. Happy and unhappy people. Journal of Personality and Social Psychology, 38(4), 668-678.
Deci, E. L., & Ryan, R. M. (2008). Facilitating optimal motivation and psychological well-being across life's domains. Canadian Psychology, 49(1), 14-23.
Dembling, S. (2012). The introvert's way: Living a quiet life in a noisy world. New York: A Pedigree Book.
Demir, M., Jaafar, J., Bilyk, N., &Ariff, M. R. M. (2012). Social skills, friendship and happiness: A cross-cultural investigation. The Journal of Social Psychology, 152(3), 379-385.
Diener, E. (1984). Subjective well-being. Psychological Bulletin, 95(3), 542-575.
Emmons, R. A., & McCullough, M. E. (2003). Counting blessings versus burdens: An experimental investigation of gratitude and subjective well-being in daily life. Journal of Personality and Social Psychology, 84(2), 377-389.
Erikson, E. (1950). Child and society. New York: Norton.
Francis, L. J., Craig, C. L., & Robbins, M. (2007). The relationship between psychological type and the three major dimensions of personality. Current psychology: Development, Learning, Personality, Social, 25(4), 257-271.
Furnham, A., & Crump, J. (2005). Personality traits, types, and disorders: An examination of the relationship between three self-report measures. European Journal of Personality,
19, 167-184.
Girelli, S. A., & Stake, J. E. (1993). Bipolarity in Jungian type theory and the Myers-Briggs Type Indicator. Journal of Personality Assessment, 60(2), 290-301.
Hammer, A. L. (Ed.). (1996). MBTI applications: A decade of research on the Myers-Briggs Type Indicator. Palo Alto: Consulting Psychologist Press.
Harrington, R., & Loffredo, D. A. (2001). The relationship between life satisfaction, self-consciousness, and the Myers-Briggs Type Inventory dimensions. Journal of Psychology, 135(4), 430-450.
Harris, D. (2014). 10% happier: How I tamed the voice in my head, reduced stress without losing my edge, and found self-help that actually works---a true story. New York: Dey St.
Helgoe, L. (2013). Introvert power: Why your inner life is your hidden strength. Naperville, IL: Sourcebooks, Inc.
Holland, John L. (1997). Making Vocational Choices: A Theory of Vocational Personalities and Work Environments. Odessa, FL: Psychological Assessment Resources
Houghton, K. (2010). And then I'll be happy! Guilford, CN: Globe Pequeot Press.

Hyde, J. S. (2014). Gender similarities and differences. Annual review of psychology, 65, 373-398.

Joshanloo, M., &Asfari, S. (2011), Big Five personality traits and self-esteem as predictors of life satisfaction in Iranian Muslim university students. Journal of Happiness Studies, 12, 105-113.

Jung, C. G. (1921/1923). Psychological types: Or the psychology of individuation. London: Kegan Paul.

Jung, C. G. (1933). Modern man in search of a soul. London: Kegan Paul Trench Trubner.

Jylhä, P., Melartin, T., Rytsälä, H., & Isometsä, E. (2009). Neuroticism, introversion, and major depressive disorder: traits, states, or scars? Depression and Anxiety, 325-334.

Kahnweiler, J. B. (2013). Quiet influence: An introvert's guide to making a difference. San Francisco, CA: Berrett-Koehler Publishers, Inc.

Kahnweiler, J. B. (2016). The genius of opposites: How introverts and extroverts achieve extraordinary results together. San Francisco, CA: Berrett-Koehler Publishers, Inc.

Keyes, C. L. M., Shmotkin, D., &Ryff, C. D. (2002). Optimizing well-being: The empirical encounter of two traditions. Journal of Personality and Social Psychology, 82(6), 1007-1022.

Kozak, A. (2015). The awakened introvert: Practical mindfulness skills to help you maximize your strengths & thrive in a loud & crazy world. Oakland, CA: New Harbinger Publications, Inc.

Laney, M. O. (2002). The introvert advantage: How to thrive in an extrovert world. New York: Workman Publishing.

Librán, E. C. (2006). Personality dimensions and subjective well-being. The Spanish Journal of Psychology, 9(1), 38-44.

Lyubomirksy, S. (2013). The myths of happiness: What should make you happy, but doesn't, What shouldn't make you happy, but does. New York: The Penguin Press.

Maltby, J., & Day, L. (2001). The relationship between exercise motives and psychological well-being. Journal of Psychology, 135(6), 651-660.
Maslow, A. H. (1968). Toward a psychology of being.New York: Van Nostrand.

McCrae, R. P., & P. T. Costa, Jr. (1989). Reinterpreting the Myers-Briggs Type Indicator from the perspective of the Five-Factor model of personality. Journal of Personality, 57(1),
17-40.

McLean, C. P., & Anderson, E. R. (2009). Brave men and timid women? A review of the gender differences in fear and anxiety. Clinical psychology review, 29(6), 496-505.

Mendelsohn, G. A. (1965). The Myers-Briggs Type Indicator. The sixth mental measurement yearbook, 147-148.

Myers, I. B., &McCaulley, M. H. (1985). Manual: A guide to the development and use of the Myers-Briggs Type Indicator®. Mountain View, CA: CPP, Inc.

Myers, I. B., & Myers, P. B. (1980/1995). Gifts differing. Understanding personality type. Palo Alto: Davies-Black Publishing.

Negovan, V. (2010). Dimensions of students' psychosocial well-being and their measurement. Validation of a students' Psychological Well Being Inventory. Europe's Journal of Psychology, 6(2), 85-104.

Patrick, S. M. (2012, April 1). Don't worry be happy: The U.N. Happiness Summit Council On Foreign Relations. Retrieved from http://stwr.org/economic-sharing-alternatives/happiness-and-well-being-defining-a-n…

Poverty Analysis Report. (2007, December). Thimphu, Bhutan: National Statistics Bureau, Royal Government of Bhutan.

Phuntsho, K. (2000). On the two ways of learning in Bhutan. Journal of Bhutan Studies (Thimphu: Centre for Bhutan Studies) 2(2): 96–126.
Phuntsho, K (2013). The history of Bhutan.Nodia: Random House India.
Ring, B. P. (2008). Myers-Briggs Type Indicator: A research report. Personalityinstitute.tripod.com/mbtiresearchreport.htm.
Rogers, C. (1961). On Becoming a Person: A Therapist's View of Psychotherapy. London: Constable.
Ryan, R. M., &Deci, E. L. (2001). On happiness and human potential: A review of research on hedonic and eudaemonic well-being. In. S. Fiske (Ed.), Annual Review of Psychology, 52, 141-166. Palo Alto, CA: Annual Reviews/Inc.
Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. Journal of Personality and Social Psychology, 56(6), 1069-1081.
Ryff, C. D., & Keyes, C. L. M. (1995). The structure of psychological well-being revisited. Journal of Personality and Social Psychology, 69(4), 719-727.
Ryff, C. D., & Singer, B. (1996). Psychological well-being: Meaning, measurement, and Implications for psychotherapy research. Psychotherapy and Psychosomatics, 65(1), 14-23.
Ryff, C. D., & Singer, B. (1998). The contours of positive human health. Psychological Inquiry, 9(1), 1-28.
Ryff, C. D., & Singer, B. (2000). Interpersonal flourishing: A positive health agenda for the millennium. Personality and Social Psychology Review, 4(1), 30-44.
Ryff, C. D., & Singer, B. (2008). Know thyself and become what you are: A eudaemonic approach to psychological well-being. Journal of Happiness Studies, 9(1), 13-39.
Schmutte P. S., &Ryff, C. D. (1997). Personality and well-being: reexamining methods and meanings.Journal of Personality and Social Psychology, 73(3), 549-559.
Seifert, T. A. (2005). The Ryff Scales of Psychological Well-Being. Retrieved from http://www.liberalarts.wabash.edu/ryff-scales/
Siegel, L. (1965). The Myers-Briggs Type Indicator. The sixth mental measurement yearbook, 325-326.
Shi, R. & Yang, Y. (2009). Exploring the construct validity of the Chinese version of the Myers-Briggs Type Indicator-G®. Social Behavior and Personality: An International Journal, 37(5), 591-599.
Sundberg, N. D. (1965). The Myers-Briggs Type Indicator. The sixth mental measurement Yearbook, 322-325.
Swickert, R. J., Rosentreter, C. J., Hittner, J. B., &Mushrush, J. E. (2002). Extraversion, social support processes, and stress. Personality and Individual Differences, 32(5), 877-891.
Symington, S. H., & Symington, M. F. (2012). A Christian model of mindfulness: Using Mindfulness principles to support psychological well-being, value-based behavior, and The Christian spiritual journey. Journal of Psychology and Christianity, 31(1), 71-78.
U.N. News Centre. (2012, April 2). Interview with Prime Minister of Bhutan, Jigme Y. Thinley. New York City: Author.
Ura, K., Alkire, S., Zangmo, T., & Wangdi, K. (2012). A short guide to Gross National Happiness Index.Thimphu, Bhutan: The Centre for Bhutan Studies.
Zabriskie, B. (2001). Jung and Pauli: A meeting of rare minds. In C. A. Meier (Ed.), Atom and archetype: The Pauli-Jung letters, 1932-1958. (Translated by David

Roscoe.) Princeton, NJ: Princeton University Press. Retrieved from press.princeton.edu/chapters/s7042.html.
Zelenski, J. M., Santoro, M. S., & Whelan, D. C. (2012). Would introverts be better off if They acted more like extraverts? Exploring emotional and cognitive consequences of
counterdispositional behavior. Emotion, 12(2), 290-303.

Table 1
Descriptive Statistics

	n	M	□	Range	Minimum/Maximum	
Age	200	17.28	1.334	7	15	22
Happiness	199	6.78	2.120	10	0	10
Quality of life	200	3.68	.813	5	0	5
Enjoy life	200	2.87	.552	3	1	4
Life satisfaction	200	18.36	3.249	18	7	25
Meaning in life	200	14.74	3.213	26	0	26
Social support	200	13.01	4.819	21	0	21
Stress	200	26.80	6.216	40	7	47
Spirituality	200	12.17	2.097	11	5	16
Positive emotion	200	9.85	2.798	17	0	17
Negative emotion 1	200	5.90	1.679	8	0	8
Negative emotion 2	200	5.92	1.975	11	0	11
Negative affect	200	11.79	2.944	19	0	19
Extraversion	82	13.84	2.169	9	11	20
Introversion	118	14.44	2.908	10	11	21

Table 2
Correlation Matrix of Extraversion with GNH PWB Variables

	E	A	QL	H	EL	LS	ML	SS	St	Sp	PE	NE1	NE2	NA
E	1.00	-.24*	.074	.063	-.018	.013	.065	.101	.139	-.070	-.036	.018	-.105	-.032
A		1.00	-.155*	-.205*	-.081	-.24**	.041	-.237**	-.039	-.030	.153*	.150*	-.015	.071
QL			1.00	.305**	.299*	.365**	.169*	.236*	-.035	.113	-.149*	-.106	.088	-.004
H				1.00	.344*	.339**	.350**	.287**	-.301**	.195**	-.104	.142*	.154*	.183**
EL					1.00	.234**	.321**	.229**	-.213**	.068	-.029	.208**	.291**	.311**
LS						1.00	.310**	.282**	-.016	.235**	-.151*	-.032	.097	-.038
ML							1.00	.269**	-.193**	-.214**	-.184**	.111	.104	.127
SS								1.00	-.020	.057	-.175*	.055	-.008	.021
St									1.00	-.117	.066	-.194**	-.276**	-.286**

Sp												1.00	-.169*	
.010	.002	-.001												
PE													1.00	
.179*	.024	.118												
NE1														
1.00	.382**	.815**												
NE2														
1.00	.847**													
NA														
1.00														

Note.
E = Extraversion; A = Age; QL = Quality of Life; H = Happiness; EL = Enjoy Life; LS = Life Satisfaction; M = Meaning in Life; SS = Social Support; St = Stress; Sp = Spirituality; PE = Positive Emotion; NE 1 = Negative Emotion 1;
NE 2 = Negative Emotion 2; NA = Negative Affect.
**Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

Table 3
Correlation Matrix of Introversion with GNH PWB Variables

	I	A	QL	H	EL	LS	ML	SS	St	Sp	PE	NE1	NE2	NA
I	1.00	-.037	-.015	-.143	-.244**	-.058	-.300**	.118	.297**	-.168	.142	- .038	-.196*	-.156
A		1.00	-.155*	-.205**	-.081	-.235**	.041	-.237**	-.039	-.030	.153*	.150*	-.150	.071
QL			1.00	.305**	.299**	.365**	.169*	.236**	-.035	.113	-.149*	-.106	.088	-.156
H				1.00	.344**	.339**	.350**	.287**	- .301**	.195**	-.104	.142	.154*	.183**
EL					1.00	.234**	.315**	.229**	-.213**	.068	-.029	.208**	.291**	.311**
LS						1.00	.310	.282**	-.016	.235**	-.151*	-.032	.097	.038
ML							1.00	.269**	-.193**	.214**	-.184**	.111	.104	.127
SS								1.00	-.020	.057	-.175	.055	-.008	.021
St									1.00	-.117	.066	-.194**	.781**	.819**
Sp										1.00	-.169	.010	.002	-.001
PE											1.00	.179	.024	.118

NE1
1.00 .270** .752**
NE2
1.00 .838**
NA
1.00

Note.
I = Introversion; A = Age; QL = Quality of Life; H = Happiness; EL = Enjoy Life; LS = Life Satisfaction; ML = Meaning in Life; SS = Social Support; St = Stress; Sp = Spirituality; PE = Positive Emotion; NE1 = Negative Emotion 1;
NE2 = Negative Emotion 2; NA = Negative Affect.
**Correlation is significant at the 0.01 level (2-tailed).
*Correlation is significant at the 0.05 level (2-tailed).

TABLE 4

Independent Sampled t-test for Gender Differences in GHN Responses

	t-test value	Degrees of Freedom	p value
QL	.648	198	.626
H	.336	197	.380
EL	.971	198	.488
LS	.480	198	.882
ML	.825	198	.623
SS	.984	198	.951
St	.559	198	.955
Sp	.144	198	.933
	-1.298	198	.196
PE			
NE1	.017	198	.646
NE2	.989	198	.038
NA	.405	198	.078

Note.
QL = Quality of Life; H = Happiness; EL = Enjoy Life;
LS = Life Satisfaction; ML = Meaning in Life; SS = Social Support; St = Stress;
Sp = Spirituality; PE = Positive Emotion; NE1 = Negative Emotion 1; NE2 = Negative Emotion 2; NA = Negative Affect.

TABLE 5

Independent Sampled t-test for E-I Differences in GHN Responses

	t-test value	Degrees of Freedom	p value
QL	.052	198	.102
H	.036	197	.347
EL	.023	198	.083
LS	.725	198	.613
ML	.098	198	.251
SS	.252	198	.006
St	.164	198	.450
Sp	.921	198	.157
PE	-1.427	198	.155
NE1	.301	198	.646
NE2	.412	198	.876
NA	.541	198	.763

Note.
QL = Quality of Life; H = Happiness; EL = Enjoy Life;
LS = Life Satisfaction; ML = Meaning in Life; SS = Social Support; St = Stress;
Sp = Spirituality; PE = Positive Emotion; NE1 = Negative Emotion 1; NE2 = Negative Emotion 2; NA = Negative Affect.

TABLE 6

X2 Gender differences in frequency distributions

	X2	Degrees of Freedom	p value
NS	.505	1	.477
P	.368	1	.544

Note.
NS= Nature of School; P= Personality

TABLE 7

X2 E-I differences in frequency distributions

	X2	Degrees of Freedom	p value
NS	1.086	1	.297
HS	7.826	2	.020
M	3.706	2	.157

Note.
NS= Nature of School; HS= Higher Secondary School; M=Major

TABLE 8

Regression Analyses for E-I Spectrum

	R2	F-statistic	P value	β	95 % CI
QL	.013	2.534	.113	.112	[-.005, .046]
H	.000	.014	.905	.008	[-.063, .071]
EL	.037	7.644	.006	.193	[.007, .041]
LS	.003	.583	.446	.054	[-.063, .142]
ML	.033	6.737	.010	.181	[.031, .231]
SS	.017	3.323	.070	.128	[-.011, .290]
St	.019	3.924	.049	-.139	[-.195, .098]
Sp	.018	3.540	.061	.133	[-.003, .128]
PE	.020	4.053	.045	-.089	[-.176, -.002]
NE1	.000	.014	.905	-.008	[-.056, .050]
NE2	.004	.748	.388	.061	[-.035, -.089]
NA	.034	.223	.637	.034	[-.071, .155]

Note.

CI= Confidence Interval; QL = Quality of Life; H = Happiness; EL = Enjoy Life; LS = Life Satisfaction; ML = Meaning in Life; SS = Social Support; St = Stress; Sp = Spirituality; PE = Positive Emotion; NE1 = Negative Emotion 1; NE2 = Negative Emotion 2; NA = Negative Affect.

TABLE 9

Regression Analyses for Extraversion

	R2	F-statistic	P value	β	95 % CI
QL	.005	.441	.509	.074	[-.049, .098]
H	.004	.322	.572	.063	[-.142, .255]
EL	.000	.026	.873	-.018	[-.058, .049]
LS	.000	.014	.906	.013	[-.313, .352]
ML	.004	.342	.560	.065	[-.269, .493]
SS	.010	.831	.365	.101	[-.250, .673]
St	.019	1.576	.213	.139	[-.211, .933]
Sp	.005	.397	.530	-.070	[-.278, .144]
PE	.001	.102	.750	-.036	[-.348, .252]
NE1	.000	.027	.870	.018	[-.168, .199]
NE2	.011	.896	.347	-.105	[-.307, .109]
NA	.001	.083	.774	-.032	[-.366, .273]

Note.
CI= Confidence Interval; QL = Quality of Life; H = Happiness; EL = Enjoy Life; LS = Life Satisfaction; ML = Meaning in Life; SS = Social Support; St = Stress; Sp = Spirituality; PE = Positive Emotion; NE1 = Negative Emotion 1; NE2 = Negative Emotion 2; NA = Negative Affect.

TABLE 10

Regression Analyses for Introversion

	R2	F-statistic	P value		95 % CI
QL	.000	.024	.876	-.015	[-.059, .051]
H	.020	2.388	.125	-.143	[-.211, .026]
EL	.060	7.365	.008	-.244	[-.083, -.013]
LS	.003	.395	.531	-.058	[-.271, .141]
ML	.082	11.454	.001	-.300	[-.458, -.120]
SS	.014	1.648	.202	.118	[-.108, .506]
St	.080	11.181	.001	.297	[.274, 1.072]
Sp	.028	3.385	.068	-.168	[-.254, .009]
PE	.020	2.404	.124	.142	[-.037, .301]
NE1	.001	.171	.680	-.038	[-.122, .080]
NE2	.038	4.624	.034	-.196	[-.251, -.010]
NA	.024	2.888	.092	-.156	[-.329, .025]

Note.
CI= Confidence Interval; QL = Quality of Life; H = Happiness; EL = Enjoy Life; LS = Life Satisfaction; ML = Meaning in Life; SS = Social Support; St = Stress; Sp = Spirituality; PE = Positive Emotion; NE1 = Negative Emotion 1; NE2 = Negative Emotion 2; NA = Negative Affect

About the Authors

Alberto Ivan Rodríguez, has BSc in Psychology from College of Liberal Arts, University of Texas at El Paso (UTEP) and MEd in Guidance and Counseling from UTEP College of Education. Mr. Rodríguez is now a post-graduate Licensed Professional Counselor Intern, El Paso, Texas. Email: treblanavi@gmail.com

Tenzin Dorji has Master of Education in Guidance and Counseling from UTEP College of Education. Mr. Dorji is now a school counselor, Thimphu, Bhutan. Email: tdorji@miners.utep.edu

Roberto Cortéz González obtained PhD in Counseling Psychology from Stanford University, Palo Alto, California. González and has published refereed journal articles, book chapters, co-authored textbooks. He has presented at national and international professional conferences. He is a retired tenured Associate Professor in the UTEP College of Education and active as a Licensed Psychologist, Texas. Email: rgonzale@utep.edu

Phonological Processing, Reading Skills and Well-being in Repeating and Non-repeating Bhutanese Primary Students

PEMA WANGMO, KERRY DALLY, IAN DEMPSEY

Abstract

Previous research on reading has given much attention to the skills that young children need to become skilled readers (Kame'enui, Adams, & Lyon, 1996; August & Shanahan, 2006; Snowling & Hulme, 2007) However, less emphasis has been placed on examining reading difficulties in older children and those who are taught to read in English, but for whom English is a second language. The purpose of the study was to examine the reading skills of 120 primary aged Bhutanese including 40 fourth grade repeaters, 40 fourth grade first time and 40 fifth grade students. Students were assessed in the areas of phonological awareness, verbal working memory, and rapid naming as well as the reading skills of word recognition, word attack and reading comprehension. The study also explored whether grade four repeaters exhibited lower levels of subjective well-being than grade four first time and grade five students. The results revealed that the repeating students had comparable phonological skills at the same level as their current grade 4 peers; however, their reading comprehension skills were poorer than their peers. The repeating students were also generally less satisfied with school than were their current and previous peers.

Keywords **-** Phonological skills, Reading skills, Well-being, phonological awareness, verbal working memory, and rapid naming

Learning to read in the English language can be a problem for students whose first language is English and even more-so for students whose first language is not English. English has become the dominant international language and increasing number of children from non-English speaking countries around the world are now required to study in schools where English is the language of instruction. These students, who are being taught in English but for whom English is not their first language, are often referred to as English Language Learners (ELLs) (McCardle, et al., 2005), while students who live in English-speaking countries and come from English-speaking homes are usually referred to as native English speakers. Although, learning in a different language offers diverse prospects, it is not devoid of challenges. Some students struggle to overcome the language barriers and consequently face problems in literacy acquisition. In addition, while the research on the identification of, and interventions for, reading difficulties in native English speaking students is prevalent, the research on reading problems in ELLs (McCardle, et al., 2005) is limited (Rosenman & Madelaine, 2012).

In Bhutanese schools, English is the medium of instruction for the learning of all academic subjects. The only subjects not taught in English are Dzongkha and Environmental Studies for Grades PP-III, which are taught in the native and national language of Bhutan. Bhutanese students who have problems in speaking, reading and writing in English typically have problems in other areas of learning (Policy and Planning Division, MoE, 2010) Furthermore, in Bhutanese schools, below average performance and poor exam results are often interpreted by teachers as laziness on the part of the student rather than a language problem or learning difficulty. In most cases, if a student cannot achieve the expected level for a certain grade he or /she is required to repeat the same grade until the expected level is attained which can take one or sometimes several years.

A large number of students repeating grades and dropping out of school has emerged as a major concern for Bhutan (UNICEF Annual Report, 2016). Data from UNESCO (Singh & Pessoa, 2003) relating to grade retention in South and East Asia indicate that the countries with the highest repetition rates are Bhutan and Macao (11% each), followed by Nepal (9%) and the Islamic Republic of Iran (8%). Grade Four has the highest repetition and dropout rates

in Bhutan. In 2010, of the 16,363 students enrolled in Grade Four there were 1,347 repeaters and 460 who dropped out of school (Bhutan Annual Education Statistics, 2011). In other words, nearly 13% of grade four students did not graduate to the next level. It is commonly observed in native English speaking countries that reading difficulties are often identified in Grade Four as this is the time when reading demands become greater and children start to demonstrate more generalised learning difficulties in other subjects (Kame'enui, Adams, & Lyon, 1996). However, the concept of reading difficulties or learning disabilities is poorly understood in Bhutan, perhaps because this additional need is not as noticeable as physical handicaps, and so is unlikely to receive support of any kind. Although there has been some recent progress in achieving the goal of the Education Ministry of Bhutan's Tenth Plan to reduce grade repetition and school drop-out rates, repetition in grades Four and Seven remains undesirably high (Bhutan Annual Education Statistics, 2011), and no studies to understand possible reasons for the spike in repetition and dropout in Grade Four have yet been conducted.

Given the lack of professionally qualified teachers in Bhutan to deliver education to children with special needs, and lack of adequate curricula and specific skills programmes for children who have to repeat grades it is important to examine whether reading difficulties may be one of the underlying reasons for the high repetition rate among fourth grade students. The main aim of the present study is to examine the reading profiles of Bhutanese students who were repeating fourth grade to see whether they were experiencing greater difficulty with reading than their successfully graduated peers and their current classmates.

Conceptual Framework

The conceptual framework for this research is that reading comprehension is the ultimate goal of successful reading and is supported by two main types of word-level reading (word recognition and word attack), and that word-level reading is supported by phonological processing skills. This model has been established in both Native English speaking readers (Ehri, Nunes, Willows, Valeska-Schuster, Yaghoub-Zadeh, & Shanahan, 2001; Wagner & Torgesen, 1987) and ELLs (August & Shanahan, 2006).

Reading comprehension refers to the ability to obtain meaning from words and to interpret the meaning of sentences and longer texts (Neufeld, 2005). In order to understand a written text, the reader first needs to be able to identify the words and there is an abundance of research evidence confirming the relationship between word level reading and reading comprehension in English speakers (Betourne & Friel-Patti, 2003).

Word-level reading is comprised of two skills, commonly known as word recognition and word attack (Snowling & Hulme, 2006). Word recognition refers to the capacity to automatically retrieve the spoken equivalent of a written word that has been seen before and has been stored in a mental dictionary (or lexicon). Efficient word recognition allow readers to focus on the meaning of what they are reading, rather than overtaxing their working memory by trying to identify the words (Adams, 1990). Word attack, or decoding, is a skill that assists a reader to sound out unfamiliar words by making use of letter-to-sound (or alphabetic) knowledge (McNeil & Johnston, 2004). Word attack strategies help students decode, pronounce, and understand unfamiliar words. Inefficient word attack skills can impede comprehension because the extended time needed to decode single words increases the burden on working memory which impairs comprehension of the materials that have been read (Armbruster, Lehr, & Osborn, 2001).

Word recognition and word attack skills are dependent on phonological processing skills. Phonological processing refers to the capacity to hear, discriminate, manipulate, store and retrieve the sounds in words. Phonological processing skills include phonological awareness, verbal retrieval and verbal working memory, and all of these skills are related to reading development (Daly, Chafouleas, & Skinner, 2005; Torgesen & Mathes, 2000; Vukovic & Siegal, 2006; Wolf & Bowers, 1999).

Phonological awareness refers to the awareness that words are composed of individual sounds and involve the ability to perceive, understand and manipulate the sounds within words (Ehri, 2004; Storch & Whitehurst, 2002). Phonological awareness has been found to be the most potent predictor of the ease of initial reading acquisition and subsequent reading progress (Coyne, Kame'enui, Simmons, & Harn, 2004; Nichols, Rupley, Rickelman, & Algozzine, 2004). Many studies have shown that children with reading difficulties have a phonological awareness skills deficit (Dally, 2006; McCardle, et al., 2005; Torgesen, 2000; Wise et al., 2010). When students lack phonological awareness, they have little understanding about how the letters of the alphabets are mapped to the sounds within words. This understanding is essential to decode unseen words. In addition to poor phonological awareness, inefficient verbal retrieval processes is thought to be another source of reading difficulty (Wolf, Bowers, & Biddle, 2000). Verbal retrieval refers to the speed at which one can produce a verbal label for familiar visual stimuli (Uhry & Clark, 2005). This skill is typically measured by rapid automatized naming (RAN) tasks which require a person to name as quickly as possible visually presented familiar symbols such as letters, digits, colours, and objects (Lervåg & Hulme, 2009). This skill mirrors the efficient retrieval of phonological representations from long-term memory in reading (Denckla & Cutting, 1999; Lervåg & Hulme, 2009). Research show that children's performance on RAN tasks correlates with variations in early reading skills both concurrently and longitudinally, even after variations in phonological awareness, verbal IQ, and earlier reading skills have been accounted for (Compton, 2003; Parrila, Kirby, & McQuarrie, 2004; Schatschneider, Fletcher, Francis, Carlson, & Foorman, 2004). The third phonological processing skill, verbal working memory (VWM) is the ability to store, analyse, articulate and rehearse verbal material within a short period of time (Gathercole & Baddeley, 1993). Studies on reading have found that reading comprehension also depends on verbal working memory (Cain, Oakhill, & Bryant, 2004; Swanson, Howard, & Saez, 2006b). These studies suggest that verbal working memory play an important role because it holds recent processed information to make connections to the latest input of information and maintains the gist of information for the construction of an overall representation of text.

Aims of the Study

The first aim of the study was to determine whether Bhutanese students who were repeating Grade Four had poorer reading skills than their peers. This was achieved by comparing the reading skills of Grade Four Repeating students (Grade Four Repeaters) with their current peers who were in Grade Four for the first time (Grade Four) and previous peers (Grade Five students). The second aim was to determine whether Grade Four repeaters reported lower levels of wellbeing than students who had not been retained.

The specific research question was: Are there significant differences between Bhutanese Grade Four Repeaters and Grade Four and Grade Five students in phonological processing skills, reading skills and subjective well-being

Methodology

Participants

A sample of 120 students (40 fourth grade repeaters, 40 fourth grade first time students and 40 fifth graders) participated in the study. The students were recruited from eight public schools in Bhutan. All schools were located in semi-urban and semi-rural areas in Paro, a Western region in Bhutan. Most of the students came from rural backgrounds where English is not spoken at home and these students were likely to be disadvantaged when they started school because English was unfamiliar to them. The total number of public schools in Paro Dzongkhag (Western region of Bhutan) was 19, and the student population was 10, 678 (Policy and Planning Division, MoE, 2010). The researcher selected 8 of the 19 schools (42%) through stratified random

sampling. These eight schools were selected by employing a multistage clustering sampling method and random sampling (Fowler, 2009). The schools were organised into a middle secondary school cluster, a lower secondary school cluster and a primary school cluster. Then individual schools were randomly selected from within each cluster. Since some of the primary schools were located too far away for children to reach them each day, the primary classes in such areas are often attached to a lower and middle secondary schools in order to shorten the students' long trek to school.

The children in the study were selected by accepting all consenting repeating students, and the Grade Four and Grade Five students were chosen by random sampling to match the number of repeating students. Each fourth grade first time and each fifth grade individual was chosen randomly so that each individual had the same probability of being chosen (Best & Kahn, 2006). A sample size of 40 students in each of the three groups was sufficient to detect a moderate effect size in reading comprehension and word reading skills with power = 0.80 and = .05.

Research instruments

A battery of nine phonological processing tasks as well as three reading tasks and a scale measuring the subjective well-being of students was individually administered to each student in the study. In the study, phonological awareness was assessed by four tasks: letter names; onset-rime blending; phoneme blending and phoneme segmentation. Rapid naming was measured by four tasks: rapid naming of colours in English and Dzongkha and rapid naming of objects in English and Dzongkha. Verbal working memory was measured by one task - digit span.

Phonological awareness measures

In this study, phonological awareness was assessed using letter naming and three orally administered subtests adapted from the CIERA Early Assessment Battery (Taylor, Dewitz, & Pearson, 1997). The three subtests were onset and rime blending, phoneme blending and phoneme segmentation. For the letter naming task, children were shown a random sequence of the 26 letters of the English alphabet and were asked to name each one. The onset-rime blending task involved the children combining beginning (onset) and end (rime) sounds spoken by the researcher to make a word (e.g. What word would I have if I put together the sounds /sl/-/eep/? - sleep). For the phoneme blending task, children were required to connect single sounds (phonemes) to form words (e.g. What word would I have if I put together the sounds /l/-/i/-/d/?-lid). For the phoneme segmentation task, children were required to identify and isolate the beginning, middle, and end sounds in words (e.g. What are the three sounds in "sat"? - /s/-/a/-/t/). There were six test items and two practice items for each task.

Verbal retrieval and verbal working memory

Verbal retrieval was assessed in both English and Dzongkha through the administration of rapid naming tasks involved colours and objects. Measures of more general indicators of processing speed (i.e. colours and objects) were included in order to assess general name retrieval processes. The serial naming charts designed for the present study were based on those designed by Denckla and Rudel (1974). Verbal working memory was assessed using the digit span task which was a subtest from the Stanford-Binet Intelligence Scales, 4th Edition (Thorndike, Hagen, & Sattler, 1986). In the present study the children were required to repeat strings of digits of increasing length, from 2-digit strings to 9-digit strings, giving a total of eight items.

Reading measures

There were three reading measures. These were word recognition, word attack and reading

comprehension. All three reading measures were subtests from the Woodcock Reading Mastery Test-Revised (WRMT) (Woodcock, 1987). The Word Recognition Test required children to identify real words in isolation, the Word Attack Test required the child to read aloud single nonsense or pseudo words, and the Passage Comprehension Test measured a child's ability to comprehend a short printed passage and identify a key word missing from that passage.

Subjective well-being of students

The English version of the Children's Overall Satisfaction with Schooling Scale (COSSS), (Randolph, Kangas, & Ruokamo, 2009) was used to measure the subjective well-being of the students. The COSSS is a six item scale with a five point response option of strongly agree, somewhat agree, neither agree nor disagree, somewhat disagree and strongly disagree. For the purposes of the present study, pictures of five different facial expressions corresponding to the five point Likert-scale response options were provided. The scale items were: 1. School days are nice. 2. Learning makes me happy. 3. I like to go to school. 4. Learning is nice. 5. School is boring. 6. School lessons are fun.

Data analysis

First, descriptive statistics were examined for all of the variables. Second, one-way analyses of variance (ANOVA) and Scheffe post-hoc tests were conducted to examine whether there was any difference between groups on the phonological processing and reading measures and subjective well-being. Finally, effect sizes were calculated to examine the magnitude of differences between groups on all these measures. All analyses were completed using the Statistical Packages for the Social Sciences program (Norusis, 2009)(Norusis, 2009).

Results

The letter naming variable was not a discriminating variable because it was negatively skewed. The performance on this task was at ceiling level where the mean score was 25.88 and the maximum possible score was 26. No children scored below 24. This result is likely owing to the fact that the children would have learnt the names of the letters by the time they had advanced into their latter years of primary school and before the time they reached Grade Four. Therefore, the letter naming variable was omitted from further analysis.

The means and standard deviations for the phonological processing, reading and subjective well-being measures at each grade are reported in Table 4.6. As indicated in this table, the mean scores for Grade Four Repeaters were lower than the mean scores of Grade Four and Grade Five students on all of the above measures. Mean scores across the measures for Grade Five students were higher than Grade Four Repeaters and Grade Four students.

Table 1. Means and Standard Deviations for Phonological Processing, Reading and Well-being Measures for Each Group.

VARIABLE	MAX. SCORE	GRADE FOUR		REPEATERS		GRADE FIVE	
		M	SD	M	SD	M	SD
Phonological Awareness							
Onset-rime Blending	6	5.35	.83	4.75	1.50	5.78	.53
Phoneme Blending	6	4.23	1.58	3.88	1.47	5.35	.95
Phoneme Segmentation	6	1.63	1.98	.88	1.26	1.83	1.63

Rapid Naming (items per sec)							
Colours English (10 x 5) colours	NA	1.18	.23	1.09	.24	1.26	.21
Colours Dzongkha (10 x 5)	NA	.69	.23	.61	.21	.76	.20
Objects English (10 x 5)	NA	1.11	.25	1.07	.23	1.24	.25
Objects Dzongkha (10 x 5)	NA	.65	.16	.64	.17	.74	.18
Verbal Memory							
Digit Span	7	4.55	1.04	4.00	1.13	4.40	1.22
Reading							
Word recognition	94	46.40	13.45	39.60	10.11	56.63	18.63
Word attack	45	13.25	9.09	8.95	5.81	18.70	10.07
Passage comprehension	33	15.95	6.26	9.63	5.22	18.28	6.54
Student Wellbeing							
COSSS	30	24.50	4.81	19.13	4.22	25.68	2.92

Subsequent to the examination of means and standard deviations for phonological and reading measures for each group of students, ANOVAs with Scheffe post-hoc tests of difference were conducted in turn with each of the phonological processing skills, the three reading skills (word recognition, word attack, reading comprehension) and the measure of student well-being to determine whether there was any significant difference between the mean scores for each group of students.

Table 2. One -way ANOVA, Post-Hoc Scheffe Summary and Effect Sizes for Measures of Phonological Processing, Reading and Student Well-being for the Whole Sample

POST HOC SCHEFFE SUMMARY								
VARIABLE	**ANOVA**	**GRADES**	**M**	**SD**	**M DIFF**	**P**	**ES**	**95% CI**
Onset-rime	F=9.88 P<.001	Grade 4 First time* Grade 4 Repeaters* Grade 5*	5.35 4.75 5.78	.83 1.50 .53	-.60 Grade 4 > Repeaters -1.03 Grade 5 > Repeaters	.04* <.001*	0.50 0.92	-1.18 - 0.39
Phoneme Blending	F=12.84 p<.001	Grade 4 First time* Grade 4 Repeaters* Grade 5 *	4.23 3.88 5.35	1.58 1.47 .95	-1.48 Grade 5 > Repeaters -1.13 Grade 5 > Grade 4	< .001* .02*	1.19 0.86	-1.06 - 0.28
Phoneme Segmentation	F=3.67 p=.028	Grade 4 First time Grade 4 Repeaters* Grade 5*	1.63 .88 1.83	1.98 1.26 1.63	-.95 Grade 5 > Repeaters	.04*	-0.65	-0.90 - 0.13
Rapid naming colours								
English/sec	F=5.64 p=.005	Grade 4 First time Grade 4 Repeaters* Grade 5*	1.18 1.09 1.26	.23 .24 .21	-.17 Grade 5 > Repeaters	.01*	-1.09	-0.96 - 0.19
Dzongkha/sec	F=4.57 p=.012	Grade 4 First time Grade 4 Repeaters* Grade 5*	.69 .61 .76	.23 .21 .20	-.15 Grade 5 > Repeaters	.01*	-0.81	-0.90 - 0.13
Rapid naming objects								
English/sec	F=5.28 p=.006	Grade 4 First time Grade 4 Repeaters* Grade 5*	1.11 1.07 1.24	.25 .23 .25	-.17 Grade 5 > Repeaters	.01*	-0.71	-0.81 - 0.05

Table 2 Continued

Variable	ANOVA	Grades	M	SD	M diff	p	ES	95% CI
Dzongkha/sec	F=3.60 p=.030	Grade 4 First time Repeaters* Grade 5*	.65 .64 .74	.16 .17 .18	No significant difference between grades			-0.68 - 0.08
Verbal memory	F=2.53 p=.084	Grade 4 First time Reade 4 Repeaters Grade 5	4.55 4.00 4.40	1.04 1.13 1.22	No significant difference between grades			-0.80 - 0.04
Word recognition	F=13.99 p<.001	Grade 4 First time* Grade 4 Repeaters* Grade 5*	46.40 39.60 56.63	13.45 10.11 18.63	-17.03 Grade 5 > Repeaters -10.23 Grade 5 > Grade 4	<.001* .01*	-1.14 -0.63	-1.22 - 0.43
Word attack	F=13.16 p<.001	Grade 4 First time* Grade 4 Repeaters* Grade 5*	13.25 8.95 18.70	9.09 5.81 10.07	-9.75 Grade 5 > Repeaters -5.45 Grade 5 > Grade 4	< .001* .02	-1.19 -0.57	-1.22 - 0.43
Passage Comp.	F=22.02 p<.001	Grade 4 First time* Grade 4 Repeaters* Grade 5*	15.95 9.63 18.28	6.26 5.22 6.54	-6.33 Grade 4 > Repeaters -8.65 Grade 5 > Repeaters	< .001* <.001*	-1.10 -1.46	-1.65 - 0.83
COSSS	F=29.59 p<.001	Grade 4 First time* Grade 4 Repeaters* Grade 5	24.50 19.13 25.68	4.81 4.22 2.92	-5.38 Grade 4 > Repeaters -6.55 Grade 5 > Repeaters	< .001* < .001*	-1.19 -1.80	-1.89 - 1.05

**Only significant mean differences are reported (p<.05)*

The results indicate that the fourth grade repeaters were no different from the fourth grade first time students on any of the phonological processing skills apart from onset-rime blending. Also, there was no significant difference between these two groups of students on the two word reading measures of word recognition and work attack. On the other hand, Repeaters scored lower than their current classmates on reading comprehension and on the COSSS($F=29.59$),

$p<.05$).

Repeaters performed significantly poorer than the Grade Five students on most of the phonological processing skills (six out of eight variables). The only two variables that did not show any significant difference between the two groups were rapid naming of objects in Dzongkha and verbal working memory. There were also statistically significant difference on the three reading skills of word recognition ($F(2,117) = 13.99$, $p<.01$), word attack ($F(2,117) = 13.16$, $p<.01$), and reading comprehension ($F(2,117) = 22.02$, $p<.01$). The comparison of responses on the COSSS revealed that Repeaters exhibited lower levels of subjective well-being than their previous peers, i.e., the Grade Five students ($F(2,117) = 29.59$, $p<.01$).

The results of the ANOVA indicated that Grade Four first-time students were no different to the Grade Five students on any of the phonological processing skills apart from phoneme blending. On the other hand, Grade Four students performed significantly poorer than the Grade Five students on the word reading measures of word recognition and word attack. However, there was no statistically significant difference between these two groups of students on the reading comprehension variable. These findings indicate that Grade Five students were able to read and decode more words than students in Grade Four, but were not demonstrating greater comprehension skills.

Finally, to further differentiate between repeating students and their current and previous peers on their phonological processing skills and subjective well-being, effect sizes (ESs) were calculated using Cohen's d for calculating mean score differences. The effect size that is presented in Table 2 was computed by subtracting the mean of the repeating students from that of either the Grade Four or Grade Five group and dividing the mean difference by the pooled standard deviation. The formula for calculating the Effect Size was. The pooled standard deviation was calculated by the formula (Cohen, 1988). Cohen's interpretation was used to explain the effect sizes where $d = 0.20$ small, $d = 0.50$ moderate, and $d = 0.80$ large effect size (Valentine & Cooper, 2003).

When comparing Grade Four Repeaters to Grade Four students a medium effect size was found for onset-rime blending ($d = 0.50$), whereas a large effect size was obtained for passage comprehension ($d= -1.10$) and subjective well-being ($d = -1.19$). A large effect size for two of the phonological awareness skills, including onset-rime blending ($d=0.92$) and phoneme blending ($d=1.19$), and a medium effect size for phoneme segmentation ($d= -0.65$) was found between Grade Four Repeaters and Grade Five students. Likewise, large effect sizes for rapid naming of colours in English ($d =-1.09$) and Dzongkha ($d= -0.81$), and medium effect sizes for rapid naming of objects in English ($d= -0.71$) was found between Grade Four Repeaters and Grade Five students. Also, large effect sizes for word recognition ($d= -1.14$), word attack ($d=-1.19$) reading comprehension ($d = -1.46$) and subjective well-being (the COSSS) ($d = -1.80$) were found between the repeating students and their same-age peers who had been promoted to grade five.

Discussion

The ANOVA results revealed that the repeating students were able to recognise and decode as many words as their current class mates and had similar phonological skills, except for the phonological awareness task of onset-rime blending. On the other hand, the Repeaters were poorer at understanding passages of connected text than their current classmates. These findings suggest that despite similar levels of phonological skills and word reading ability, the

Repeaters did not comprehend what they read to the same extent as their current classmates. The current investigation of phonological processing, reading, and subjective well-being in Bhutanese primary students and the comparison of students who had been retained in Grade 4 with their Grade 4 and Grade 5 peers have provided insight into the reading profiles and educational experiences of a rarely studied population of ELL students. Findings from the study suggest the importance of three things: (1) targeting reading interventions that facilitate phonological awareness skills for repeating students, in particular, and reading comprehension across all groups of ELL children; (2) conducting future studies to see if interventions to improve the reading skills of Bhutanese students in the early years of school will reduce failure rates in Grade Four; and (3) providing a better daily school experience for students to bring about higher levels of subjective well-being.

Many studies with ELLs maintain that a structured approach to learning sound-symbol correspondence, including letter-sound relationships, help focus children's listening attention to speech sounds (Chiappe, Siegel, & Wade-Woolley, 2002). Implementing this as an explicit part of the instructional program can enhance the phonological awareness skills of beginning readers or for children for whom English is a second language (Justice & Pullen, 2003). This is evident from research showing phonological awareness as a significant contributor to word recognition and spelling within and across languages (Durgunoglu, 2002; Woolley, 2010). Further, in addition to blending and segmentation tasks, other phonological training activities designed to promote understanding of the concept of rhyme, such as, listening and repeating rhymes, finding words that rhyme and generating new words to rhyme with a given word, make it easier for children to recognize common letter patterns (e.g., hand, band, land) and read words by analogy (Westwood, 2008). Once the letter pattern /and/ can be read as a single unit and the concept of rhyming has been mastered, a beginning reader can quickly recognize words "by analogy" because they end with the same sound.

In order to support reading comprehension in ELL students a number of strategies could be implemented including engaging students in listening comprehension and inference generation tasks, regular comprehension monitoring, using contextual cues and building the syntactic and semantic knowledge of the students (Cain & Oakhill, 2007; Lesaux, Geva, Koda, Siegel, &Shanahan, 2008; Perfetti, 2007). These strategies are specifically recommended for middle and upper primary grades where students will encounter richer texts and require a higher level of text processing skills (Botting, 2007).

In conclusion, the results of this study show that compared to their current classmates, students who repeated grade four had similar skills in reading words but had poorer phonological awareness skills and comprehended significantly less of what they read. These findings suggest that specific remedial reading interventions may be required to ensure that repeating students make progress and "catch-up" with their peers. Compared to their previous classmates who were promoted to grade five, the repeaters had similar ability in verbal working memory but were poorer in phonological awareness, rapid naming, word reading and reading comprehension. These findings suggest that a specific reading difficulty, rather than generalized learning problems, could be a possible reason for these students failing end of year exams. This result, in conjunction with the present finding that repeating students were generally less satisfied with the school than both their present and previous classmates suggest that making failed students repeat a grade may be ineffective since repeating did not improve learning capacity (text comprehension) and may lead to decreased motivation (clarity needed). Rather than making grade retention the default option for under-achieving Bhutanese students, school policies should be revised by looking at more effective ways to help children, by targeting effective interventions and by creating a positive school climate where children not only feel safe and secure but also happy and satisfied.

References

Adams, M. J. (1990). Beginning to read: Thinking and learning about print Cambridge, Mass: MIT Press.

Armbruster, B. B., Lehr, F., & Osborn, J. (2001). Put Reading First: The research building blocks for teaching children to read. Washington, DC: National Institute for Literacy.

August, D., & Shanahan, T. (Eds.). (2006). Developing literacy in second-language learners: Report of the national literacy panel on language-minority children and youth. Mahwah, NJ: Lawrence Erlbaum.

Betourne, L. S., & Friel-Patti, S. (2003). Phonological processing and oral language abilities in fourth-grade poor readers. Journal of Communication Disorders, 36, 507-527. doi: 10.1016/s0021-9924(03)00035-2

Bhutan Annual Education Statistics. (2011). Annual Education Statistics. Thimphu: Policy and Planning Division, Ministry of Education, Royal Government of Bhutan.

Botting, N. (2007). Comprehension difficulties in students with specific language impairment and pragmatic language impairment. In K. Cain & J. Oakhill (Eds.), Students' comprehension problems in oral and written language: A cognitive perspective (pp. 81–103). London: The Guilford Press.

Cain, K., & Oakhill, J. (2007). Reading comprehension difficulties: Correlates, causes and consequences. In K. Cain & J. Oakhill (Eds.), Students' comprehension problems in oral and written language: A cognitive perspective (pp. 41–75). London: The Guilford Press.

Cain, K., Oakhill, J., & Bryant, P. (2004). Children's reading comprehension ability: Concurrent prediction by working memory, verbal ability, and component skills. Journal of Educational Psychology, 96, 31-42.

Chiappe, P., Siegel, L. S., & Wade-Woolley, L. (2002). Linguistic diversity and the development of reading skills: A longitudinal study. Scientific Studies of Reading, 6, 369-400.

Cohen, J. (1988). Statistical power analysis for the behavioral sciences (2nd ed.). Hillsdale, NJ: Erlbaum.

Compton, D. L. (2003). Modeling the relationship between growth in rapid naming speed and growth in decoding skill in first-grade children. Journal of Educational Psychology, 95, 225–239.

Coyne, M. D., Kame'enui, E. J., Simmons, D. C., &Harn, B. A. (2004). Beginning reading intervention as inoculation or insulin: First-grade reading performance of strong responders to kindergarten intervention. Journal of Learning Disabilities, 37, 90-104.

Dally, K. (2006). The influence of phonological processing and inattentive behavior on reading acquisition. Journal of Educational Psychology, 98, 420-437.

Daly, E. J., Chafouleas, S., & Skinner, C. H. (2005). Interventions for reading problems: Designing and evaluating effective strategies. New York: Guilford

Denckla, M. B., & Cutting, L. E. (1999). History and significance of rapid automatized naming. Annals of Dyslexia, 49, 29–42. doi: doi:10.1007/s11881-999-0018-9

Durgunoglu, A. Y. (2002). Cross-linguistic transfer in literacy development and implications for language learners. Annals of Dyslexia, 52, 189-206.

Ehri, L. C. (2004). Teaching phonemic awareness and phonics: An explanation of the national reading panel meta-analysis. In P. McCardle& V. Chhabra (Eds.), The voice of evidence in reading research (pp. 153-186). Baltimore: Paul H Brookes.

Ehri, L. C., Nunes, S. R., Willows, D. M., Valeska Schuster, B., Yaghoub-Zadeh, Z., & Shanahan, T. (2001). Phonemic awareness instruction helps children learn to read: Evidence from the national reading panel's meta-analysis. Reading Research Quarterly, 36, 250–287. doi: doi:10.1598/RRQ.36.3.2

Gathercole, S. E., & Baddeley, A. D. (1993). Phonological working memory: A critical building block for reading development and vocabulary acquisition? European

Journal of the Psychology of Education, 8, 259-272.
Justice, L.M. & Pullen, P.C. (2003). Promising interventions for promoting emergent literacy skills: Three evidence-based approaches. Topics in Early Childhood Special Education, 223, (3), 99-113.
Kame'enui, M., Adams, J., & Lyon, G. R. (1996). The challenge of learning to read. Retrieved from http://www.readingrockets.org/articles/
Lervåg, A., & Hulme, C. (2009). Rapid automatized naming (RAN) taps a mechanism that places constraints on the development of early reading fluency. Psychological Science, 20, 1040-1048. doi: 10.1111/j.1467-9280.2009.02405.x
Lesaux, N.K., Geva, E., Koda, K., Siegel, L.S., & Shanahan, T. (2008). Development of literacy in second-language learners. In D. August & T. Shanahan (Eds.), Developing reading and writing in second-language learners (pp. 27–59). New York: Routledge.
McCardle, P., Mele-McCarthy, J., Cutting, L., Leos, K., & D'Emilio, T. (2005). Learning disabilities in English language learners: Identifying the Issues. Learning Disabilities Research & Practice, 20, 1-5. doi: 10.1111/j.1540-5826.2005.00114.x
McNeil, A. M., & Johnston, R. S. (2004). Word length, phonemic, and visual similarity effects in poor and normal readers. Memory & Cognition, 32, 687-695.
Neufeld, P. (2005). Comprehension instruction in content area classes. The Reading Teacher, 59, 302-312. doi: 10.2307/747972
Nichols, W. D., Rupley, W. H., Rickelman, R. J., &Algozzine, B. (2004). Examining phonemic awareness and concepts of print patterns of kindergarten students. Reading Research & Intervention, 43, 56-81.
Norusis, M. (2009). PASW Statistics for Windows (Version 18.0) (software). Chicago: SPSS Inc.
Parrila, R., Kirby, J. R., & McQuarrie, L. (2004). Articulation rate, naming speed, verbal short-term memory, and phonological awareness: Longitudinal predictors of early reading development? Scientific Studies of Reading, 8, 3-26.
Perfetti, C. (2007). Reading ability: Lexical quality to comprehension. Scientific Studies of Reading, 11, 357–383.
Rosenman, S., & Madelaine, A. (2012). Predicting literacy achievement in young English language learners: A question of language proficiency or of learning difficulty? Australian Journal of Learning Difficulties, 17, 17-34. doi: 10.1080/19404158.2012.665376
Schatschneider, C., Fletcher, J. M., Francis, D. J., Carlson, C. D., &Foorman, B. R. (2004). Kindergarten prediction of reading skills: A longitudinal comparative analysis. Journal of Educational Psychology, 96, 265-282.
Singh, A., & Pessoa, J. (2003). South and East Asia regional report. Montreal, Canada: UNESCO Institute for Statistics.
Snowling, M. J., & Hulme, C. (2006). Language skills, learning to read and reading intervention. London Review of Education, 4, 63-76. doi: 10.1080/13603110600574462
Storch, S. A., & Whitehurst, G. J. (2002). Oral language and code-related precursors to reading: Evidence from a longitudinal structural model. Developmental Psychology, 38, 934-947.
Swanson, H. L., Howard, C. B., & Sáez, L. (2006). Do different components of working memory underline different subgroups of reading disabilities? Journal of Learning Disabilities, 39, 252–269.
Torgesen, J. K. (2000). Individual differences in response to early interventions in reading: The lingering problem of treatment resisters. Learning Disabilities Research & Practice, 15, 55-64.
Torgesen, J. K., & Mathes, P. (2000). A Basic guide to understanding, assessing, and teaching phonological awareness. Austin, TX: PRO-ED.
Uhry, J. K., & Clark, D. B. (Eds.). (2005). Dyslexia theory and practice of instruction(3rd ed.).

Baltimore, MD: York Press.
United Nations Children's Fund. (2016). 2015 annual report of the United Nations Children's Fund, Retrieved from http://www.unicef.org/publications/files/UNICEF
Annual_Report_2015_En.pdf
Valentine, J. C., & Cooper, H. (2003). Effect size substantive interpretation guidelines: Issues in the interpretation of effect sizes. Washington, DC: Clearinghouse.
Vukovic, R. K., & Siegel, L. S. (2006). The double-deficit hypothesis: A comprehensive analysis of the evidence. Journal of Learning Disabilities, 39, 25-47.
Wagner, R. K., & Torgeson, J. K. (1987). The nature of phonological processing and its causal role in the acquisition of reading skills. Psychological Bulletin, 101, 192-212.
Westwood, P. (2008). What teachers need to know about reading and writing difficulties: Chapter 2: Reading difficulties at word level (pp. 14-29). Victoria: ACER Press.
Wise, J.C., Sevcik, R.A., Morris, R.D., Lovett, M.W., Wolf, M., Kuhn, M., Meisinger, B., & Schwanenflugel, P. (2010). The relationship between different measures of oral reading fluency and reading comprehension in second-grade students who evidence different oral reading fluency difficulties. Language, Speech & Hearing Services in Schools, 41, 340-348A. doi: 10.1037/ 0022-0663.96.1.119
Wolf, M., Bowers, P. G., & Biddle, K. (2000). Naming-speed processes, timing, and reading: A conceptual review. Journal of Learning Disabilities, 33, 387-407.
Wolf, M., & Bowers, P. G. (1999). The double deficit hypothesis for the development of dyslexias. Journal of Educational Psychology, 91, 415–438.
Wolf, M., & Bowers, P.G. (2000). Naming-speed processes and developmental reading disabilities: An introduction to the special issue on the double-deficit hypothesis. Journal of Learning Disabilities, 33, 322–324.
Woodcock, R. W. (1987). Woodcock Reading Mastery Tests- Revised. Circle Pines: American Guidance Service.
Woolley, G. (2010). A multiple strategy framework supporting vocabulary development for students with reading comprehension deficits. Australasian Journal of Special Education, 34, 119-132.

About the Author

Pema Wangmo is a lead researcher in special education at the Ministry of Education, Bhutan. She is the first Bhutanese to receive a PhD in special education under the Endeavour Postgraduate Scholarship Award 2009 from the University of Newcastle. She holds a Master's Degree in Special Education from the same University and a Bachelor of Arts degree from the University of Lakehead, Canada. She is committed to engaging in research that addresses current educational issues and problems within schools.

Student Satisfaction in Higher Education: A Comparative Study of a Private and a Public College

RITA van DEUREN AND KARMA LHADEN

Abstract

Student satisfaction is a result of the perception of service quality delivered by the colleges. It is an important marketing concept for higher education institutes. Students being the main stakeholders, their satisfaction can be a sensitive issue. Thus, studying their perception on the services provided can help the colleges perform better.

This study is a comparative study conducted on two colleges (a state and a private college) in Bhutan offering business studies for bachelor's degree. The survey research was aimed at determining factors of student satisfaction in the private and the state college with an objective to provide necessary recommendations to the colleges.

The findings show both similarities and differences between the public and private college. Overall student satisfaction does not differ, but the perception of the quality of factors contributing to satisfaction differs. Some factors contribute to student satisfaction in both colleges, but other factors are only relevant for the private or for the public college.

Keywords: Student satisfaction, service quality, private college and state college

Massification, internationalisation and globalisation in higher education have contributed to marketization and increased competitiveness in the higher education sector (Hemsley-Brown & Oplatka, 2006; Newman & Jahdi, 2009; Brown, 2009). Marketization and competition are expected to contribute to the quality of higher education following the assumption students make rational and well-informed choices, thereby preferring high quality institutes and rejecting low quality institutes (Lowrie & Hemsley-Brown, 2011; Finney & Finney, 2010; Khan & Matlay, 2009; Naidoo & Jameison, 2005; Baldwin & James, 2000). Central to the concept of marketization is the conceptualization of students as customers of universities. As such, student satisfaction becomes increasingly important for universities to retain existing students and attract new students (Butt & Rehman, 2010; Gibson, 2010; Douglas et al., 2008). These developments have contributed to the development of student satisfaction and its determinants as an academic field of study.

Whereas massification started in developed countries it is now spreading to more developing parts of the world. Historically, in many of these countries, the state was the only provider of higher education. However, sharply increased demands for higher education combined with limited public resources have led to introduction and growth of private higher education institutes (Dickson, 2004; Beare & Slaughter, 1995). So, competition, the concept of student as customer and student satisfaction has also become relevant for higher education institutes in developing countries (Mazumder, 2013). Research on student satisfaction is increasingly taking place also focusing on students in the developing world (Ali, 2001; Chapper, Campani, Paiva, Assis, Garcia, & Abreu e Silva , 2007; Manzoor, 2013; Bekhet, AL-Alak, & El-refae, 2014). This research paper aims to contribute to the research on student satisfaction and its determinants. It does so by investigating differences in student satisfaction and in determinants of student satisfaction between undergraduate business students from a public and a private college in Bhutan.

Public and private higher education in Bhutan

The Kingdom of Bhutan in 2003 founded the public Royal University of Bhutan (RUB). With its establishment, existing public higher education institutions became colleges under the

umbrella of RUB. Currently, RUB consists of eleven different colleges and institutes (Ugyen & Čokl, 2010; Thinley, 2009). A limited number of students who have completed secondary education are selected based on their academic performance to undergo a bachelor's program at the colleges.The state-owned colleges in Bhutan under RUB used to be fully funded by the government (Thinley, 2009) providing all learning materials and free accommodation, food and other necessary facilities. In face of a growing need for higher education, the government also sponsored high achievers to pursue their higher studies in neighbouring countries. Thus, some parents were left with no choice but to send their children abroad (mainly to India and Thailand) for higher studies. In such cases, many students had to study in poorly performing universities worsening the quality of graduates seeking employments in Bhutan. Therefore, in 2009, RUB accepted the proposal of initiation of the first private college in the country. The private college in Bhutan is affiliated to the national university RUB in that its courses are guided and controlled by RUB. However, being a private college, students need to be self-funding. The private college also provides accommodation facilities for the students along with food and other necessary facilities. However, the student has to pay for all services from the college. Additionally, in 2011, RUB started admitting a limited number of students in the state-owned colleges under a self-funding scheme (Gross National Happiness Commission, 2011), again based on academic performance. It was further reported that the government has been able to increase the student enrollment from 1900 in 2009 to 3000 in 2013 with the introduction of private higher education and the self-funding scheme in public university.

Literature review

Student satisfaction

Shanahan and Gerber (2004)define satisfaction as a consequence of the fulfilment of needs and expectations of a specific service and the perception of the quality of that service. Therefore, an individual would derive satisfaction from the perception of service quality. Numerous authors suggest a relationship between student satisfaction and students' perception of the quality of education. Douglas et al. (2008) suggest that student satisfaction is related to perceived quality although the two are not equivalent. According to Sultan and Wong (2013), students perceive quality education from the emotional result of their view on various services that the school provides. Aldridge and Rowley (1998) make a distinction between quality and satisfaction by envisaging quality as a general approach and satisfaction as connected to a defined transaction. They further point out that the two are related and perceived quality leads to satisfaction. A similar view is stated by Dado et al., (2012)claiming that perception of quality would help in retaining students as it provides them satisfaction. Therefore, one may expect that an institute that provides quality services also ensure satisfaction of the stakeholders.

Factors influencing student satisfaction

Studies conducted by different researchers have suggested different factors influencing student satisfaction. This literature review focuses on teacher's role, curriculum, learning environment, support staff, future prospects and college facilities.

The role of teachers seems to be very important in determining student satisfaction (Shah, Nair, & Bennett, 2013; Butt & Rehman, 2010; Gibson, 2010). According to Fredickson (2012) student satisfaction is largely influenced by the support of faculty, curricular challenge, instruction, and academic advertisement. This opinion is also supported by Purgailis and Zaksa (2012)claiming that quality of academic faculty influences the content received by students hence maximising their satisfaction. They further concluded that "currently the most important elements in the provision of the study process are the academic staff that pass over their knowledge, study content and teaching methods, acquired skills and readiness for labour market" (Purgailis & Zaksa, 2012, p. 148). A qualified teaching faculty, who have

consistency in teaching and demonstrate adequate knowledge and skills are recognised by students (Douglas, Douglas, & Barnes, 2006) and is highly ranked as a determinant of student satisfaction in their study. The same is suggested in several other studies (Navarro, Iglesias, & Torres, 2005; Elliott & Shin, 2002). DeShields et al. (2005) also assert that students' perception of faculty will provide them with a positive learning experience and result in satisfaction. Hill et al. (2003) state that the role played by teachers in any institute determines the students' perception on quality education.

Studies also show that curriculum is an important factor in determining student satisfaction. Fredickson (2012) concedes that when the curriculum is challenging, students perceive positive service quality and thereby gaining satisfaction. Similarly, Purgailis and Zaksa (2012)reveal students expressed that study content results in the perception of quality. The course curriculum is not restricted to classroom learning from the textbooks and giving exams on completion of the subject. While exams are important to test how much students have learned, course work can be equally important in providing students with application of theoretical into the real business field. Indeed, DeShields et al. (2005) pointed out that relevance of courses with the real world, course scheduling, projects and cases influence students' positive college experience.

Universities must also ensure a safe and secure learning environment to safeguard student satisfaction (Bezuidenhout & De Jager, 2014; Butt & Rehman, 2010; Gibson, 2010). A supportive learning environment encompasses such aspects as psychological well-being of students, social integration, safety and security, respect for students, sense of belongingness and empathy. It has also been pointed out by Oldfield and Baron (2000) that there should be significant positive interaction between students, teachers, and other staff to provide a supportive learning environment. In addition, they stated that courtesy and sincerity can give satisfaction to students without any cost involvement for the institute. Shah et al. (2013) discussed that students are encouraged to enrol in a particular institute and derive maximum satisfaction when the environment comprises of small group and friendly people.

Administrative faculty is the college staff that organises and coordinates teaching and learning sessions. While teachers are important in delivering effective lessons in the class and keep in close contact with students, their functioning is conducted by the support of administrative faculty. Research shows that presence of supportive administrative staff may not necessarily lead to satisfaction of students, yet its absence would result in dissatisfaction (e.g. Purgailis & Zaksa, 2012; Fredickson, 2012; Gibson, 2010; Elliott & Shin, 2002; DeShields Jr., et al., 2005).

The factor 'future prospects' refers to how universities prepare students for their career after graduation. Some studies suggest that educational institutes should support the student in fostering intellectual growth and develop necessary skills to face the globalised world (Bezuidenhout & De Jager, 2014; Namgyel, 2012; Gibson, 2010; Elliott & Shin, 2002). DeShield et al. (2005) note that student gains cognitive skills, career progress and business skills through their experience in the college, which would help in retaining loyalty towards the college. Planned internship programs, conferences with professionals and international student conferences are used as variable under supplemental education dimension by Munteanu et al. (2010). In contrast, a study by Purgailis and Zaksa (2012) asserts that although students are aware of the importance of skills and readiness for the labour market, these factors do not lead to satisfaction.

College facilities can be broadly as classified academic facilities and non-academic facilities. Academic facilities include IT laboratory, library resources, and well-equipped classrooms. Non-academic facilities are dormitory rooms, facilities for games and sports, cultural activities and location. College facilities have been found to influence student satisfaction (Bezuidenhout & De Jager, 2014; Manzoor, 2013; Gibson, 2010; Douglas, et al., 2008). Furthermore, Shah et al. (2013) suggest the relevance of college location for students.

Student satisfaction in public and private higher education

Satisfaction in private higher education can be more sensitive than in public higher education since the budget of private higher education institutions depends completely on tuition fees paid by students (Khaldi & Khatib, 2014). Since students have to pay for the educational services themselves, expectations of students in the private higher education sector also might be higher. Recent studies focus on student satisfaction in private universities (Manzoor, 2013; Shah, Nair, & Bennett, 2013; Bezuidenhout & De Jager, 2014; Bekhet, AL-Alak, & El-refae, 2014). However, only a few studies looked into differences in student satisfaction between public and private and higher education. The results of these studies suggest students in private higher education are more satisfied than those in public higher education (Ali, 2001; Chapper, Campani, Paiva, Assis, Garcia, & Abreu e Silva , 2007; Mazumder, 2013). A study by Khaldi and Khatib (2014) found that students in public higher education in Kuwait had a more positive overall attitude towards their university, but had lower perceptions of the quality of factors influencing their attitude.

Methods

Instrument

In line with previous research on student satisfaction, this study used a survey approach (Gibson, 2010). For this purpose, a questionnaire was developed based on the results of the literature review measuring antecedents of student satisfaction and overall student satisfaction on a five-point Likert scale. In total 36 items were created in the categories teachers role (e.g. lecturers are well versed in the subject they teach), course curriculum (e.g. relevant assignments and project works are given to help us learn the subject), learning environment (e.g. the college environment is safe and secure place for students), college facilities (e.g. the college provides adequate IT facilities with internet connections in the hostel), administrative staff (e.g. the administrative staff responds to my needs promptly), future prospects (e.g. the college organizes guest speakers to help us be informed about job market), college location (e.g. the college is accessible to transportation) and overall satisfaction (e.g. I have gained a positive experience from this college). Furthermore, demographic characteristics of students were measured (gender, age, course, year, specialisation).

Population, sampling and respondents' profile

The population is defined as undergraduate students from both a public and private college in business education in Bhutan. Population sizes in the public and private college are respectively 1004 and 484. From each college a sample of 100 students was taken using stratified, multi-staged sampling using demographic variables gender, course year (1, 2 or 3) and course specialisation (marketing, accounting or finance). The response group consisted of 49 male students and 51 female students from the public college and 39 male students and 61 female students of the private college. Furthermore, respectively 42, 35 and 23 students from public college were in the foundation, second year and third year. Similar figures for the private college are 33, 38 and 29. Specialisation starts in the second year. In the public college, 7 students were from marketing, 19 from accounting and 32 from finance. In the private college figures were 14, 14 and 39.

Data-collection

Data collection took place in May 2013 during class hours. A survey administer, who has no affiliation with either of the colleges, was appointed to conduct the survey as both the researchers were out of the country. The list of sampled students was sent directly to the survey administer and both the colleges were not informed about the names of students selected to

maintain confidentiality of respondents. Students were allocated in small groups and filled in the questionnaire following instructions from the survey administer.

Data preparation and data-analysis

Cronbach alpha was calculated to test the reliability of the items. This analysis demonstrated satisfactory reliability for items under teachers' role (=0.83), course curriculum (=0.72), learning environment (=0.74), administrative staff (=0.80), future prospects (=0.72) and overall satisfaction (=0.83). However, reliability was lower for items under college facilities (=0.57) and college location (=0.49). Since there were only two items under college location, they were treated as individual variables. Principal component analysis was used to group the items into single variables for the purposes of data analysis. T-test was used to find out about differences in student satisfaction and influencing factors between the public and the private college. Furthermore, multiple linear regression analysis aimed at finding out about the factors influencing student satisfaction. Therefore, the following model has been proposed to compute the determinants:

$$\gamma = \beta_0 + \beta_1\chi_1 + \beta_2\chi_2 + \cdots \beta_n\chi_n + e$$

The equation describes the relationship between dependent variable 'Y' and several variables X1, X2,.....Xn and an error term 'e'. represents the coefficient of the independent variable, and e is the error term. The equation can be rewritten as below:

$$\begin{aligned} StudentSatisfaction &= \beta_0 + \beta_D Demographicfactors + \beta_{TR} Teachers' Role \\ &+ \beta_{CC} CourseCurriculum + \beta_{LE} LearningEnvironment \\ &+ \beta_{CF} CollegeFacilities + \beta_{SS} SupportStaff + \beta_{FP} FutureProspects \\ &+ \beta_{CL} CollegeLocation + e \end{aligned}$$

Multiple regression analysis was performed using data from all respondents, using data of the respondents from the public college and using data of respondents from the private college.

Findings and discussion

Differences in student satisfaction and influencing factors between public and private college

The results of the t-test (see Table 1) show students from the public college value variables related to the core processes of higher education significantly higher than students from the private college. First, students from the public college value their teachers when it comes to e.g. subject knowledge, didactical skills and encouragement to participate in class discussions. This may be related to characteristics of the teaching staff in both colleges. The public college in Bhutan mainly employs national academic staffs who use a teaching style students have been used to from secondary school. The private college largely employs international academic staff using a more diverse style of teaching students may not be familiar with and hence value lower.

Second, the results show students from the public college also value the course curriculum higher. More than students from the private college, they think assignments, project work and examinations are more relevant and fair. This may be related to the fact that the curriculum of both colleges is designed by RUB and the public college has more easy access to information from RUB on curriculum change where information and communication between the private college and RUB may be delayed.

Third, students from the public college put a higher value on future prospects. They feel better prepared for future jobs than students from the private college by e.g. arranging internships and inviting organisations and companies for campus recruitment. On the other hand, students from the private college value variables related to the physical characteristics of the college higher. College facilities and college location of the private college are perceived as significantly better. The private college has newly constructed buildings, far from the city noises and with spacious classrooms and adequate IT facilities, also in the hostel. Furthermore, the college provides both indoor and outdoor sports facilities. The public college occupies a building previously used by a government company and is located on one of the busiest highways in Bhutan. Furthermore, no significant differences were found in how students from the public and private college value learning environment, administrative staff and college transportation.

Finally, at the level of overall student satisfaction, students of the public college have a higher score, but this is not at a statistically significant level (5%). The results of this study are not in line with (limited) previous research on differences in student satisfaction between students from public and private higher education indicating students from private universities are more satisfied than students from public universities. This may be due to the relatively young age of the private college in Bhutan, which may be still in the phase of improving its service delivery to meet students' expectation. Another explanation could be that paying students to have higher expectations than those who avail services for free. Perhaps there also may be a difference in expectations of high academic achievers and low achievers.

Table 1: Results t-test testing for differences in student satisfaction and influencing factors between students from public and private college

VARIABLE	MEAN DIFFERENCE	T-VALUE	SIGNIFICANCE
Teachers role	0.77	3.23	0.00
Course curriculum	0.42	1.99	0.05
Learning environment	0.27	1.27	0.20
College facilities	-0.95	-4.97	0.00
Administrative staff	-0.02	-0.10	0.92
Future prospects	0.44	2.00	0.05
College transportation	-0.22	-1.55	0.12
College location	-0.43	-3.02	0.00
Overall student satisfaction	0.41	1.79	0.07

Factors influencing student satisfaction

The results of the regression analysis for all students (see table 2) show that a number of factors, but not all, contribute to student satisfaction. First, the results confirm the relevance of teachers' role as a determinant of student satisfaction, just like previous research (e.g. Purgailis & Zaksa, 2012; Fredickson, 2012; Douglas et al., 2006; Elliott & Shin, 2002). Also in Bhutanese undergraduate business education, the role of teachers matters. The second factor contributing to student satisfaction is the existence of a safe learning environment in which students feel the college environment is a safe and secure place for students with a sense of belongingness to the institute and with respect for students from faculty supporting staff and management. The significant contribution of this variable to student satisfaction also is in line with previous findings (e.g. Bezuidenhout and De Jager, 2014; Butt and Rehman, 2010; Gibson, 2010). The third factor significantly contributing to student satisfaction is administrative staff. Friendly and approachable administrative staff that responds to students' needs clearly

contributes to student satisfaction in this study. This seems to deviate from previous research showing that qualities of administrative staff may not necessarily lead to satisfaction of students (e.g. Fredickson, 2012; Gibson, 2010; DeShields et al., 2005; Purgailis and Zaksa, 2012). It might be because students in Bhutan are highly dependent on administrative staff that is responsible for any information that the student seeks regarding assignment submission, examination dates, availability of and appointments with teachers and information on results. The fourth determinant of student satisfaction in this study is future prospects. By providing opportunities for skill development, organising guest speakers, arranging for internships and other activities that contribute to preparation for the labour market, business education colleges in Bhutan contribute to a higher level of student satisfaction. Probably, students expect the colleges to prepare them well and ensure future employment opportunities. Previous research on the relevance of future prospects shows diversified results; the findings of this study support previous research by Munteanu et al. (2010) and contradict the findings of Purgailis and Zaksa (2012). Finally, the fifth factor influencing student satisfaction is college location, as was previously found by Shah et al. (2013).

It was also found some variables do not influence student satisfaction. First, this goes for the demographic characteristics of students that do not seem to influence student satisfaction. Second and contradictory to findings of previous research (e.g. DeShields et al., 2005; Navarro et al., 2005), course curriculum is not contributing to student satisfaction. Students have demonstrated their concern on entering the job market, but they seem less concerned about what and how they learn in the colleges. Also, the factor college facilities not contributing to student satisfaction contradicts previous research by e.g. Bezuidenhout and De Jager (2014), Douglas et al. (2007), Gibson (2010) and Manzoor (2013).

Table 2: Results regression analysis for all students; factors influencing student satisfaction

VARIABLE	COEFFICIENT	SIGNIFICANCE
College	-0.32	0.14
Demographics		
-Gender	-0.03	0.89
-Course	-0.03	0.95
-Year of study	-0.26	0.16
-Specialization	-0.13	0.62
-Age	0.44	0.07
Teachers role	0.20	0.01
Course curriculum	0.14	0.87
College facilities	0.07	0.13
Learning environment	0.18	0.02
Administrative staff	0.22	0.00
Future prospects	0.17	0.03
Transportation	-0.01	0.96
Location	0.24	0.01

Differences between public and private college in determinants of student satisfaction

Table 3 shows the findings of the regression analyses that were done separately for students from the public college and for students from the private college. From these results it becomes

clear demographic factors influence student satisfaction at the college level. The findings suggest that female students of the public college were less satisfied than the male students whereas at the private college female students were more satisfied than male students. It might be that the private college has policies in place that stimulate female students or an organisational culture that is friendlier for female students. Similarly, at the public college, first-year students were relatively more satisfied than second year and third-year students. However, at the private college students of the second and third-year students were more satisfied than foundation students. Marketing students of the public college were also significantly more satisfied than other specialisations. As there are only a few students pursuing marketing in their second and third year, it may be the college can become more responsive to their needs, thus resulting in higher satisfaction of students. However, at the private college, finance and accounting students were seen more satisfied than marketing students.

The findings also show the relevance of learning environment and administrative staff for student satisfaction in both colleges. However, where teachers role influences student satisfaction in the public college it does not so in the private college. And for students in the private college future prospects contribute to student satisfaction where this is not the case for students from the public college. This might be related to private investments made by students from the private college and the importance of finding employment as a return on investment.

Table 3: Results of regression analysis for students from public college and for students from private college; factors influencing student satisfaction

	STUDENTS FROM PUBLIC COLLEGE		STUDENTS FROM PRIVATE COLLEGE	
Variable	**Coefficient**	**Significance**	**Coefficient**	**Significance**
Demographics				
-Gender	-0.56	0.04	0.54	0.02
-Course	0.43	0.67	1.15	0.06
-Year of study	-0.59	0.02	0.07	0.76
-Specialization	-0.67	0.00	0.74	0.05
-Age	0.11	0.15	-0.07	0.83
Teachers role	0.33	0.00	0.09	0.45
Course curriculum	0.13	0.26	0.03	0.79
College facilities	0.14	0.11	0.05	0.68
Learning environment	0.33	0.00	0.20	0.05
Administrative staff	0.33	0.00	0.33	0.00
Future prospects	0.16	0.15	0.21	0.03
Transportation	-0.01	0.94	0.04	0.78
Location	0.22	0.07	0.06	0.68

Conclusions and recommendations

From the results of this study into student satisfaction in undergraduate business education students, a number of conclusions can be drawn.

First, the study shows no significant differences in overall student satisfaction between students from the public and the private university. However, significant differences exist in how students perceive the quality of factors contributing to satisfaction. In particular, the differences on teacher role, course curriculum and future prospects where students value the

public university higher than the private university. Since these factors are directly related to education and educational quality, it might be wise for the private university to engage in discussions with the public university to improve the quality of the educational services of the private university.

Second, although differences exist between the colleges, the study shows the relevance of five factors contributing to overall student satisfaction: teacher role, learning environment, administrative staff, future prospects and location. These findings are relevant for university leadership and management. Given the importance of teacher role and administrative staff, this indicates the importance of university human resource management both for academic and administrative staff. The relevance of future prospects suggests it is wise to include intra- and extra-curricular activities for students to help them in preparing for their future career. The relevance of learning environment and location for student satisfaction show that not only educational processes matter for students, but that they strongly value the physical and social environment in which education takes place. University management should take this into account in planning for further improvements in service delivery.

Third, the results of the study suggest gender influences student satisfaction. However, from the findings, it cannot be identified how gender influences student satisfaction. More research is needed to find out why the difference between male and female students exists.

As with all research, this study has its limitations. It is one of the first studies into student satisfaction in Bhutan and as such the findings cannot be compared with other studies in the Bhutanese context. The study focuses on undergraduate business students. Thus, no conclusions on overall higher education student satisfaction in Bhutan can be drawn. Additional research would be needed to get an extended understanding of student satisfaction in Bhutan. More specifically, potential future research could aim at repeating this study with different groups of students, from other fields of study, from different cohorts and students at master level. More in-depth qualitative research is suggested to explore the relevance of gender in student satisfaction and the difference between students from private and public colleges.

A better understanding of student satisfaction in Bhutan and its drivers will contribute to the growing body of research into student satisfaction in countries where higher education is in a growth phase, compared to countries with a longer tradition in higher education. More research could also contribute to better policy making at the level of universities and government in Bhutan and as such lead to improved performance of universities.

References

Aldridge, S., & Rowley, J. (1998). Measuring customer satisfaction in higher education. Quality Assurance in Education , 6 (4), 197 - 204.

Ali, I. (2001). The degree of student satisfaction in higher education: A comparative study between a public private university. Peshawar: Institute of Management Studies.

Anderson, D. R., Sweeney, D. J., & Williams, T. A. (2003). Essentials of Statistics for Business and Economics. Mason: Thomson Learning.

Athiyaman, A. (1997). Linking students satisfaction and service quality perceptions: the case of university education. European Journal of Marketing , 528-540.

Baldwin, G., & James, R. (2000). The market in Australian higher education and the concept of student as informed consumer. Journal of Higher Education Policy and Management , 22 (2), 139-48.

Beare, H., & Slaughter, R. (1995). Education for the twenty first century. New York: Routledge.

Bekhet, H. A., AL-Alak, B. A., & El-refae, G. A. (2014). Developing student satisfaction perception model for public & private universities in Malaysia. International Journal of Economics and Business Research , 7 (4), 404-418.

Bezuidenhout, G., & De Jager, J. (2014). Clients' service perceptions of private higher education institutions in South Africa: An importance-performance analysis for strategic managers. African Journal of Business Management , 8 (2), 55-67.

Blumberg, B., Cooper, D. R., & Schindler, P. S. (2011). Business Research Methods (Third ed.). New York: McGraw - Hill Education.

Brown, R. (2009). Role of the market in higher education. Higher Education Policy Institute.

Butt, B. Z., & Rehman, K. u. (2010). A study examining students satisfaction in higher education. Procedia Social and Behavorial Science , 2 (2), 5446 -5450.

Chapper, A., Campani, S. A., Paiva, V. S., Assis, C. A., Garcia, E., & Abreu e Silva , F. A. (2007). Comparison of student satisfaction in public versus private dental schools in brazil. Journal of Dental Education , 71 (10), 1363-1369.

Dado, J., Petrovicova, J. T., Cuzovic, S., & Rajic, T. (2012). An emprical examination of the relationships between service quality, satisfaction and behavorial intentions in higher education setting. Serbian Journal of Management , 7 (2), 203 - 218.

Dawson, S., Burnett, B., & O'Donohue, M. (2006). Learning communities: an untapped sustainable competitive advantage for higher education. International Journal of Educational Management , 20 (2), 127-139.

DeShields Jr., O. W., Kara, A., & Kaynak, E. (2005). Determinants of business student satisfaction and retention in higher education: Applying Herzberg's two factor theory. International Journal of Educational Management , 19 (2), 128 - 139.

Devore, J., & Peck, R. (1997). Statistics. The exploration and analysis of data. Pacific Grove: Brooks/Cole publishing company.

Dickson, T. (2004). Globalisation and higher education; the implications for private investment. In D. v. Dalen, The global higher education market (pp. 67-77). The Hague: Nuffic.

Douglas, J., Douglas, A., & Barnes, B. (2006). Measuring student satisfaction at a UK university. Quality Assurance in Education , 14 (3), 251 - 267.

Douglas, J., McClelland, R., & Davies, J. (2008). The development of a conceptual model of student satisfaction with their experience in higher education. Quality Assurance in Education , 16 (1), 19 - 35.

Eagle , L., & Brennan, R. (2007). Are students customers? TQM and marketing perspectives. Quality Assurance in Education , 15 (1), 44-60.

Elliott, K. M., & Shin, D. (2002). Student satisfaction: an alternative approach to assessing this important concept. Journal of Higher Education Policy and Management , 24 (2), 197 - 200.

Field, A. (2009). Discovering Statistics Using SPSS (3rd Edition ed.). London: SAGE publications.

Fierro, J. C., & Berdu´n, J. C. (2008). The role of school and university teachers as part-time marketers. Marketing Intelligence & Planning , 26 (5), 539-551.

Finney, T. G., & Finney, R. Z. (2010). Are students their universities' customers? An exploratory study. Education + Tranining , 52 (4), 276 - 291.

Fredickson, J. E. (2012). Linking student effort to satisfaction: The importance of faculty support in creating a gain-loss frame. Academy of Educational Leadership Journal , 6 (Special issue), 111 - 124.

Frees, E. W. (2010). Regression Modeling with Actuarial and Financial Applications. In E. W. Frees, International Series on Actuarial Science (First edition ed., pp. 1-10). Cambridge University Press.

Frost, J. (2013, May 30). Minitab: Software for quality improvement. Retrieved June 25, 2014, from A minitab blog: http://blog.minitab.com/

Gibson, A. (2010). Measuring business student satisfaction: A review and summary of the major predictors. Journal of Higher Education Policy and Managment , 32 (3), 251 - 259.

Greer , D. G., & Klein, M. W. (2010). A new model for financing public colleges and universities. On the Horizon , 18 (4), 320 - 336.

Gross National Happiness Commission. (2011). Royal Government of Bhutan. Retrieved Janaury 14, 2015, from Accelerating Bhutan's Socio Economic Development: www.gnhc.gov.bt

Gurung, A. (2012). Education and Teachers in Bhutan. GNH Highlights and Challenges . Kuensel Coproration.

Gyamtsho, D. C., & Maxwell, T. W. (2012). Present practices and background to teaching and learning at the Royal univesity of Bhutan(RUB): A pilot study. International Journal of Teaching and Learning in Higher Education , 24 (1), 65-75.

Hemsley-Brown, J., & Oplatka, I. (2006). Universities in a competitive global market. A systematic review of the literature on higher education marketing. International Journal of Public Sector Management , 19 (4), 316-338.

Hill, Y., Lomas, L., & MacGregor, J. (2003). Students' perceptions of quality in higher education. Quality Assurance in Education , 11 (1), 15 - 20.

Holland, S. M. (2008, May). Principal Component Analysis. Lecture Notes . Athens: University of Georgia.

Ilin, A., & Raiko, T. (2010). Practical approaches to principal component analysis in the presence of missing values. Journal of Machine Learning Research , 11, 1957-2000.

Khaldi, A., & Khatib, A. (2014). Students' perception of the learning environment in business education in Kuwait: A comparative study between private and public universities. Journal of Business Studies Quarterly , 5 (3).

Khan, H., & Matlay, H. (2009). Implementing service excellence in higher education. Education + Training , 51 (8/9), 769 - 780.

Lowrie , A., & Hemsley-Brown, J. (2011). This thing called marketisation. Journal of Marketing Management , 27 (11-12), 1081-1086.

Mai, L.-M. (2005). A comparative study between UK and US: The student satisfaction in higher education and its influential factors. Journal of Marketing management , 21, 859 - 878.

Manzoor, H. (2013). Measuring student satisfaction in public and private universities in Pakistan. Global Journal of Management and Business Research Interdisciplinary , 13 (3), 4-16.

Mazumder, Q. H. (2013). Student satisfaction in private and public universities in Bangladesh. International Journal of Evaluation and Research in Education , 2 (2), 78-84.

Moore, D. T. (2004). Curriculum at work. An educational perspective on the workplace as a learning environment. The Journal of Workplace Learning , 16 (6), 325-340.

Munteanu, C., Ceobanu, C., Bobalca, C., & Anton, O. (2010). An analysis of customer satisfaction in a higher education context. International Journal of Public Sector Management , 23 (2), 124-140.

Naidoo, R., & Jameison, I. (2005). Empowering participants of corroding learning? Towards a research agenda on the impact of student consumerism in higher education. Journal of Education Policy , 20 (3), 267-281.

Namgyel, S. (2012). Issues of quality in higher education: Some international perspectives and their relevance to the RUB. Bhutan Journal of research & Development , 1 (1), 69 - 83.

Navarro, M. M., Iglesias, M. P., & Torres, P. R. (2005). A new management element for universities: satisfaction with the offered courses. International Journal of Educational Management , 19 (6), 505-526.

Newman, S., & Jahdi, K. (2009). Marketisation of education: marketing, rhetoric and reality. Journal of Further and Higher Education , 33 (1), 1-11.

Oldfield, B. M., & Baron, S. (2000). Student perceptions of service quality in a UK university business and management faculty. Quality Assurance in Education , 8 (2), 85-95.

Oplatka, I. (2007). The context and profile of of teachers in developing countries in the last decade. A revealing discussion for further investigation. International Journal of Educational Management , 21 (6), 476-490.

Patrinos, H. A. (2004). The role of the private sector in the global market for education. In D. v. Dalen, The global higher education market. Nuffic.

Peldon, S. (2014, March 2). Kuensel online. Retrieved from kuenselonline website: www.kuenselonline.bt

Perry, B. P. (1995). Defining and measuring the quality of teaching. In D. Green, What is quality in higher education (pp. 31-38). Bristol: Open University Press.

Policy and Planning Division, M. o. (2012). Annual Educational Statistics. Thimphu: Policy and Planning Division.

Purgailis, M., & Zaksa, K. (2012). The impact of perceived serivice quality on student loyalty in higher education institutions. Journal of Business Management (6), 138 - 152.

Richardson, M. (2009, May). Principal Component Analysis. Mathematical Modelling and Scientific Computing . Oxford: University of Oxford.

Royal University of Bhutan. (2012). Royal University of Bhutan. Retrieved November 28, 2013, from RUB website: www.rub.edu.bt

Sahney, S., Banwet, D. K., & Karunes, S. (2004). A SERVQUAL and QFD approach to total quality education: A student perspective. International Journal of Productivity and Performance Management , 53 (2), 143-166.

Santos, J. R. (1999, April). Journal of extension. Retrieved from Journal of extension website: www.joe.org

Shah, M., Nair, C. S., & Bennett, L. (2013). Factors influencing student choice to study at private higher education institutions. Quality Assurance in Education , 21 (4), 402-416.

Shanahan , P., & Gerber, R. (2004). Quality in university student administration: stakeholder conceptions. Quality Assurance in Education , 12 (4), 166-174.

Stukalina, Y. (2012). Adressing service quality issues in higher education: The educational environment evaluation from the students' perspective. Technological and Economic Developement of Economy , 18 (1), 84-98.

Sultan, P., & Wong, H. Y. (2013). Antecedents and consequences of serivce quality in a higher education context: A qualitative research approach. Quality Assurance in Education , 21 (1), 75 - 95.

Tam, M. (2002). Measuring the effect of higher education on university students. Quality Assurance in Education , 10 (4), 223-228.

Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. International Journal of Medical Education , 53 - 55.

Thinley, K. (2009). Higher Education in the Kingdom of Bhutan. Thimphu: Royal Government of Bhutan.

Trow, M. (2005). Reflections on the transition from elite to mass to universal access: Forms and phases of higher education in modern societies since WWII. Working Papers , 1 - 66. Berkeley, California, United States of America: Institute of Governmental Studies.

Ugyen , & Čokl, U. (2010). The Education System in Bhutan & Austro-Bhutanese develppment and research cooperation. Wien: Commission for Development studies.

Vidalakis, C., Sun , M., & Papa, A. (2013). The quality and value of higher education facilties: a comparative study. Facilities , 31 (11/12), 489-504.

Yeo, R. K. (2008). Brewing service quality in higher education. Characteristics of ingredients that make up the recipe. Quality Assurance in Education , 16 (3), 266-286.

About the Authors

Rita van Deuren is Assistant Professor in Organizational Theory & Higher Education Management at Maastricht School of Management in The Netherlands. She has an academic background in organizational psychology (Tilburg University) and business administration (Rotterdam School of Management). She received her PhD from Delft University of Technology in the Netherlands with a dissertation on bachelor students' choice behavior. Her present research is concerned with capacity development in higher education institutions.

Karma Lhaden is a Lecturer for Business studies at Royal Thimphu College in Bhutan. She teaches Macroeconomics and Research Methods for Business students. Karma has obtained MBA with specialization in Finance and Accounting from Maastricht School of Management, the Netherlands and Post graduate Diploma in Teaching from Samtse College of Education. She completed her Bachelors of Commerce from Delhi University. Her interest in research areas is studying about affect of marketing higher education on quality of education in developing economies.

Short Communication

Role of Father Mackey in the Growth of Modern Education in Bhutan

RATNA PAUL

Father William Joseph Mackey, born in Canada in 1915 was the first westerner to establish a close bond with the people of Bhutan. After joining the Society of Jesus, he came to India as a missionary. He was invited to Bhutan in 1963 by the third King Jigme Dorji Wangchuck to develop a modern education system. Father traveled a lot through the kingdom on foot and horseback to develop a system of modern education though he himself pointed out that there had always been a system of monastic education in Bhutan. Father served as the head of Tashigang High School, Sherubtse Public School and Jigme Sherubling High School in Eastern Bhutan. Later he became the Chief Inspector of Schools and the Education Advisor to the country. In recognition of his exemplary service to Bhutan, he was awarded Druk Thuksey award by the third King. He was honoured with Bhutanese citizenship in 1985 and the fourth King Jigme Singye Wangchuck conferred on Father the highest civilian honorary medal, the Heart Son of Bhutan. People of Bhutan will always remember him for his love for the country and countrymen and his inspiring wisdom of a true educationist.

Father William Joseph Mackey, a Canadian born Bhutanese patron, was the first westerner to establish a close affinity with the people of Bhutan. He was instrumental in introducing modern education system in Bhutan in the 1960s. But until now, no serious attempt has been taken by any scholar to study the role of Father Mackey in the growth of modern education in Bhutan. There is only one book by Howard Solverson, which gives details about the life of Father William Mackey in the Himalayan Kingdom of Bhutan. Various issues of Kuensel, newspaper of Bhutan also throws light on Father Mackey's activities for the educational development in Bhutan.

It is fully an empirical research work. All the available sources on the topic are collected and presented in a systematic and consistent manner. A deep study has been undertaken to understand the role played by Father Mackey in developing country's modern education. Though the work is historical an interdisciplinary approach has also been applied to capture the overall development of the country in accordance with the educational development carried out by Father Mackey.

Early Life

Father Mackey was born in Montreal, Canada on August 19, 1915. He was christened William Mackey and was affectionately called Bill or Billy. Both his parents were immigrants from Ireland and his father was a Protestant and his mother a Catholic. Despite his father being a Protestant, Billy became a Jesuit priest in his adulthood suggesting a possible strong influence from his Catholic mother. In fact his entire early education was acquired in Catholic institutions, primary education at St. Michael's and then at St. Thomas Aquinas and secondary at Loyola High School in Montreal. Despite being a brilliant student and a good athlete, and having many worldly opportunities at his call, he still opted to be a priest being inspired by the thoughtful character and devoutness of the priests with whom he had come into contact during his adolescence.

By the time Billy Mackey entered his third year of schooling, he was considering joining not just the priesthood, but the Jesuits in particular. It seemed expected of him. In 1931, the final year at school, he approached the Father of the school expressing his yearning to join the Society of Jesus. He was subsequently interviewed by four Jesuits to their satisfaction. After his graduation in 1932 he was accepted as a novice by the Society of Jesus (Solverson, 1995). After two years of spiritual exercises he completed his Novitiate in 1934. He then went to Regis

College at Toronto for a three year programme in philosophy which he completed in 1939. The next step in the long process of becoming a Jesuit priest was called Regency. This was a period of teaching which normally continued for three years and Bill was posted to one of the seven Jesuit colleges in Canada. During his very successful three pedagogical years he even managed to earn a diploma in physical education. In 1942 Billy Mackey finished his Regency and entered into a programme in theology. On the 15th August, 1945, Billy Mackey was ordained by Archbishop Charbonneau in the Immaculate Conception Church in Montreal and he officially became 'Father Mackey' (Solverson, 1995). His educational/training period came to an end in 1946 with the completion of the programme in theology. He was now Reverend Father William Mackey, S.J., with Licentiate in Theology, Licentiate in Philosophy, Bachelor of Arts and Diploma in Physical Education (Solverson, 1995).

Father Mackey's arrival to and departure from India

The Jesuit Order, from its inception, has been a missionary organisation and expectedly he applied for a missionary work and was accepted for the Jesuit Mission in Darjeeling, India. In January 1947 he, in a group of five members, sailed for India. Father Mackey's first posting was at St. Paul's Parish, in the small town of Kurseong, located in the Himalayan foothills in the south of Darjeeling. Then he became the Headmaster of St. Alphonsus School. There for the first time he met Bhutanese students, who were boarding in the hostel. Virtually all of them went to India with Darjeeling district absorbing most of them. After about ten years he was transferred to St. Robert's High School, Darjeeling, in 1959 as the Headmaster (Kuensel, February 4, 1989).This school also had boarding facility and almost eighty percent of the boarders belonged to Bhutan. These boys were in Darjeeling at the behest of the Prime Minister, Jigme Dorji, who possessed great interest and enthusiasm in the education of his fellow citizens. He often visited schools and took great interest in all aspects of student activities. At about this time Father Mackey due to some factors gradually became unpopular with the local authorities and in spite of 17 years' service in the field of education he was ordered to leave the country in 1963.

Mackey's coming to Bhutan

At the same time the third King of Bhutan, Jigme Dorji Wangchuck, had begun taking the initiative to modernise Bhutan with special emphasis on education. Till 1963 Bhutan's secular education system consisted of only primary schools and the King undertook to establish the country's first high school in that year. In keeping with the King's vision, the Prime Minister JigmieDorji approached the Darjeeling Jesuits in March 1963 seeking help in setting up a modern school system (Tashi, 2012).The Prime Minister had already met with Father Mackey, knew his exemplary work, and so invited him to establish the first high school.

The process of getting Father to come to Bhutan took a protracted seven months and eventually, in early October 1963, Father arrived in Paro (Tashi,2012). He was subsequently followed by five other Jesuits- Father Coffey, Brother Quinn, Father Cherian, Father Perry and Father Paikedey (The Call, 2002). Father Mackey was sent to Eastern Bhutan to take the responsibility of establishing the country's first high school. He started working as the head of the Tashigang Elementary School and whenever time permitted, while on his visits to the primary schools in Eastern Bhutan, he toured places like TashiYangtse, Lhuntse and Mongar looking for a suitable school site. He was delightfully surprised that people were never really astounded to see him and they, in fact, gave him hospitality and accepted him as a person, regardless of the fact that he was the first European many had seen (Kuensel, February 4, 1989).Early in 1964, the Prime Minister came to Tashigang to select the new school site and solicited Father Mackey's opinion. The Father expressed his preference and Kanglung was chosen as the most appropriate site. But a temporary setback that shocked him came about on 5th April 1964, when JigmeDorji was assassinated at a guest house in Phuentsholing.

Father Mackey's role in the Growth of Bhutan's Modern Education

Father Mackey worked hard for the Tashigang School. Besides running the school as headmaster, he taught thirty-five periods a week, did his share of study supervision, took initiative in improving his staff, gave priority in obtaining science equipment and books for the school library, made several arrangements for the comfort of the boarders, organized and coached sports and games and having done all that he still had the time and energy to stage concerts and other functions. In all his works he was ably assisted by Brother Michael Quinn, who taught history and geography. In July 1965, a third Jesuit, Father Coffey, arrived and took charge of English lessons but some time later he moved to Punakha where he founded a high school.

One May morning, 1964, the King visited Tashigangschool and witnessed the tremendous progress made by Father Mackey (Solverson, 1995). He invited him to the royal palace at Decencholing to spend a month where he tutored the three royal siblings, Princesses Sonam and Dechen and Prince Jigme, a bit of English, French, Mathematics and Science. Before returning, he assured the King that all the children were intellectually sound.

The King showed a keen interest in Father Mackey's work and asked the Jesuit to establish a Bhutanese examination system. In keeping with the Royal command, Father Mackey started the Bhutan Matriculation System in Tashigang with his first sixth graders in 1964 (Solverson, 1995). The students and System would grow together, progressing one year at a time until the students appeared in their class ten examination. In November 1968, Bhutan's first matriculation examination was held and results came out in December. Out of the twenty students who appeared, one got a first class mark, eighteen a second class and one a third. Nobody had failed (Solverson,1995). But the examination system was neither affiliated to any university nor was recognised by India. The students were, therefore, unable to get admission into Indian colleges, so a few were sent to Australia and New Zealand on Colombo Plan scholarships. The Bhutanese authorities realising that they could not continue with the Bhutan Matriculation (class ten) sent Father Mackey to New Delhi to start the process of affiliating Bhutan's high schools with the ISC (class eleven) system in 1969. Later this system underwent a change into Indian Certificate of Secondary Education i.e. ICSE/class ten and the Indian School Certificate i.e., ISC/class eleven (Solverson, 1995).

The school faced a major problem of choosing the medium of instruction. The most widely spoken language was Sharchokpa but it had no written form. People from the south spoke Nepali while the official language was classical Choekey. Due to the lack of a popular written language amongst the majority speakers, a decision was taken to conduct primary education in Hindi. Father Mackey thought that English should be the medium since it was an international language and it was already being taught as a subject in Bhutan's schools. His view was supported by the Bhutanese leaders as the better schools they had seen in India were all English medium institutions.

During his early years in Eastern Bhutan, Father Mackey's chief partner in building the educational system was DawaTshering, the Director of Education and the future Foreign Minister. He and Father Mackey liked and respected one another and worked in random for the educational development of Eastern Bhutan. Before Father Mackey's arrival, Bhutan had little that could be described as an educational policy and during his tour of Eastern Bhutan in 1963, he was to discover that schools operated independently with no common syllabus. He discussed this with DawaTshering and in 1964 the two of them drafted Bhutan's first educational policy. Consequently, education administrators were recruited from India, other Jesuits arrived, more government officials were recruited and the wheels of education set into motion.

Mackey's role in the establishment of Bhutan's first high school

The building of a new school in Kanglung was a slow process. In January 1964, the Prime Minister asked the DANTAK (Indian Border Roads Organization), if they would build the school.

But Prime Minister's assassination in that year brought everything to a halt. In the following year, the King himself took up the matter with the DANTAK authority but a temporary stalemate intervened because the DANTAK also wanted to build a road north from Tashigang to Tibetan border. Laying of the foundation stone was done by Ashi Chhoki Wangmo, half-sister of the King, on 27 July 1966. The King chose the name, 'Sherubtse' meaning 'Peak of knowledge', and thus was born Sherubtse Public School. Ultimately DANTAK took the responsibility and new school was opened on May 26, 1968.

Sherubtse had all the facilities that a modern school needed. It was a showcase for both Bhutanese government and the DANTAK while for the Jesuits the school represented Father Mackey's real work since he was continuously involved in the progress of the institution from its very inception. When he moved to Kanglung in May of 1968, he still remained Principal of the Tashigang school. By that time it had blossomed into a high school and he visited it at least once a week while a teacher in charge ran the school on a day to day basis during his absence. Besides having administrative responsibilities, he taught class ten mathematics. Transportation was not always available for his Tashigang trips, so often he made the visit on foot. He would leave Kanglung after the second period on Friday, teach and do his other work that afternoon in Tashigang and on Saturday morning hike back to Kanglung (Solverson,1995).

In Sherubtse, Father Mackey worked tirelessly taking on multifarious responsibilities of handling day to day office work, teaching, dealing with the teachers and their problems, disciplining students and making sure that the support sides of the school including the kitchens, the dormitories, the school vehicle etc. were in good condition (Solverson,1995).

Father's role in the Development of Eastern Bhutan

The King visited Eastern Bhutan about once a year. He would always spend some time with Father Mackey and discuss the ways of improving the educational system. On the morning of 21st July 1972 Father Mackey received the sad news that His Majesty JigmeDorjiWangchuck had passed away. The Father had not just lost an enthusiastic supporter but also a great friend and the kingdom a benevolent King and a visionary. The Jesuit called an Assembly and talked about the late King's interest in books, his contribution in modernising the educational system, including the adoption of English as the medium of instruction. He also told of the king's friendship and support (Solverson, 1995).

Throughout his tenure at Sherubtse, Father Mackey enjoyed the full support of third King His Majesty JigmeDorjiWanchuck, fourth King His Majesty Jigme Singye Wangchuck, as well as of Dawa Tshering, the Director of Education and Ashi Dechen, the fourth King's sister. She had been appointed as the King's representative in the Ministry of Development when she was just seventeen years of age and the confidence and faith she had in the Father is evident from one of her letters where she wrote, "You have full permission to do whatever you think is good for the country" (Solverson,1995,p.241). While Father Mackey was at Sherubtse, Dzongkha, now the official language of Bhutan, was introduced as a subject. Before the 1960s, Dzongkha was a spoken language of western Bhutan.

The Department of Education began to think that Sherubtse was no longer a place for lower classes and so in May 1976, it was upgraded to Sherubtse Junior College commencing with class eleven that year and twelve in the next. In 1977 the lower classes from Sherubtse were transferred to Khaling, a new high school in eastern Bhutan. A year later Father Mackey and Brother Quinn left Sherubtse and joined JigmeSherubling High School at Khaling(Solverson,1995). Father Mackey translates Sherubling as "place of learning". He managed JigmeSherubling just as he had run Sherubtse by establishing a library, introducing all the programmes including sports, concerts and plays and thereby endeavoured to provide entertainment while simultaneously raising interest in education.

Father Mackey was happy as Principal of JigmeSherubling. But in 1982, when he was sixty-seven, the Bishop and the Jesuit Superior at Darjeeling visited Khaling and expressed

the idea of handing over the high school to a younger man with Father Mackey staying on as an assistant. They discussed the matter with NadoRinchen, the Director of Education, and with his agreement, Father Perry became the Principal of Jigme Sherubling in 1983 and Rev. Mackay continued to teach mathematics besides helping to guide Father Perry in running the school. Later that year, Father moved to Thimphu at the invitation of the Director of Education (Solverson, 1995). Father received grand farewell during the time of his leaving Eastern Bhutan.According to a report, "The staff and students of JigmeSherubling School in Tashigang on July 17 organised a special programme in honour of Father Mackey. Besides his friends and many of his well-wishers, hundreds of villagers from the nearby villages had also come to bid him farewell"(Kuensel, August 7, 1983). Such was his influence and acceptance in the social life of Eastern Bhutan.

Father's role as the Inspector of schools

At Thimphu, Father Mackey became the Secretary of the Bhutan Board of Examinations and soon after the Coordinator of Textbook and Syllabus Committee. At the end of 1985, he became the Chief Inspector, Inspectorate of Schools (Kuensel, May 14, 1988). This was a demanding job which included many hours on the road, time in the classrooms, time with teachers, time with students, full use of listening skills, assessment of the general academic level of schools to investigate the adequate physical facilities in the schools and possible problem-solving. He did all these with great enthusiasm. We can cite some examples from the reports of the Kuensel regarding the role played by Father Mackey as Chief Inspector of school:

a) A team of school Inspectors led by Chief Inspector Father W.J. Mackey, have been inspecting schools in Samchi district since June 10, 1990. According to Father, their visit is mainly to find problems, their solutions and to see general academic level. Their role is not to find faults but to see reality for the information of the Department (June 30, 1990, p.4).

b) All the schools and other Educational Institutes in Chukha have made steady progress and improvements in terms of their organisational skills, facilities and the most important buildings of the teams of dedicated and capable teachers, said Father W. J. Mackey, Chief Inspector of schools. He also said, facilities do not make up for good teachers, good teachers produce fantastic results despite the lack of facilities. He added that at junior and high school levels, the science and mathematical contents must be strengthened as Bhutan moves into the twenty-first century (July 14, 1990, p.5).

c) A team of school Inspectors, working in four groups, led by the Chief Inspector, Father W. J. Mackey, completed the inspections of schools under Thimphu dzongkhag. The main purpose of the inspection was to see if the NAPE (New Approach to Primary Education) system was being followed in the primary schools and how far it benefitted the school children. Further, the general academic levels of the schools were also assessed (August 10, 1991, p.5).

Bhutan's first Mathematics teachers' meeting was held at Jigme Sherubling school under the Chairmanship of Reverend Father William Mackey in the year 1991 where the matters were discussed relating to textbooks, the curriculum, syllabus, exam etc, attended by the Mathematics teachers from all high schools and junior high schools (Kuensel, November 9, 1991).In 1992, His Majesty the King elevated Father Mackey as an Education Advisor to the Department of Education, to be retained in government service for life in recognition of his exemplary service to the country.

Awards and Recognitions received by the Father

Besides many awards and recognitions which he received in all the places he worked, Father Mackey was awarded the prestigious medal, 'DrukThuksye' and recognised as a 'Son of Bhutan', in 1973 by His Majesty the Fourth King JigmeSingyeWangchuck. In 1985 he was granted Bhutanese citizenship and Father said that Bhutan had helped him to grow, "culturally, intellectually and spiritually"(Kuensel, June 13, 1992, p.6). In August 19th, 1989

Father Mackey turned seventy-five years old. More than 250 former students, well-wishers and friends organised a grand celebration in Thimphu to celebrate his birthday on 19 August 1989 as a token of affection and appreciation for his invaluable contribution to the nation (Kuensel, August 19, 1989). We can cite an about a birthday message to Father by a group of students from JigmeSherubling school in Khaling: Our grief lies in the feebleness of our attempts to express our devotion and gratitude to you, who have taken us at the high tide of our lives and opened for us the realm of knowledge and learning, and have let the sun of hope rise on the horizons of our young lives(Kuensel, August 26, 1989). Having been conferred the highest recognition as well as the citizenship by Bhutan, it was now the turn of the country of his birth to acknowledge the Jesuit's contribution. Just a few months prior to his 80th birthday i.e. on 25th May 1994, the University of Brunswick in Canada conferred upon Father Mackey the degree of Doctor of Letters for his distinguished and lasting contribution towards the development of education (Kuensel, May 28, 1994).

Passing away of the Father

At the age of eighty-one, following a brief illness, he passed away peacefully in October 1995. The then Deputy Minister for Health and Education, Dasho T.J. Rixin, described Father Mackey as one of the pioneers of modern education in Bhutan, under the guidance of King Jigme Dorji Wangchuck. He described Father Mackey as a person who "endeared himself to the people of Bhutan by his simplicity, sense of humour and exemplary dedication to his work as an educator." He further elaborated, "His sensitivity to and appreciation of the ancient Buddhist culture and traditions of Bhutan was one of his remarkable qualities" (Kuensel, October 21, 1995,p.1). Actually, Father Mackey was never an ordinary missionary and in his 32 years in Bhutan, he never converted a single Bhutanese to Catholicism and even admitted that he had been influenced by Buddhism. As a priest, he often said that "God is at work in all religions, He loves every man and woman born into this world and is at work in every one of our lives" (Kuensel, October 1995, p.3). As a teacher, he asked his students to "grow and develop to be able to play a mature role as citizens of the country, to become solid individuals, ready to take up your responsibilities in family and government" (Kuensel, October 21, 1995,p.3).For Father, children have been one of the delights of his many years in Bhutan. He said " The kids are so self-reliant, they're out in the jungle much of the time. If parents in other countries saw a kid sitting on the edge of a 3,000 ft cliff looking over, they would die but with the kids here it is no problem. They are more down to reality than kids in developed countries" (Kuensel, February 4, 1989, p.3).Because of his universal spirituality and social versatility, Father was a lovable man to all. His fellow priests described Father Mackey as a man ahead of the times and an example to his colleague.

Conclusion

In summary, one can safely declare that Father Mackey played a stellar role in the development of Bhutan's secular education and in its dramatic expansion. During three decades after his arrival in Bhutan, he crisscrossed numerous high mountains and deep valleys on foot, on horseback, in a jeep when available, and on a motorcycle for the sake of education in Bhutan. In his pioneering endeavour of building a sound secular education system in Bhutan, he was never found wanting in enthusiasm and energy. It was well known that he loved every one of his long tough treks across the kingdom and every association with his close friends who included members of the royal family, shopkeepers, drivers, government officials, students, soldiers, little toddlers etc. In all his years in Bhutan, a country he came to love and adopt as his own, he showed equal care, compassion and concentration to his students whether rich or poor, royal or menial. His reflection of the years in Bhutan, in 1992, clearly manifests his profound love for the country and the people: "I feel honoured that I spend the last days of my life in a country I respect and among people whom I appreciate and love, and with whom I have

spent 29 years of my life (Kuensel, June 1992, p.6).
The Bhutanese response is equally affectionate and appreciative and one native essayist writes of the pioneer as a man "opening the eyes of Bhutanese children" ... "compelling love and affection of a caring father" … "the inspiring wisdom of a true educationist, and the warmth of a children's true patron (Namgyel, 2008, p.90).

References

All schools in Samchi inspected. (1990, June 30). Kuensel, Vol. V, No. 26, p.4
Centre for Educational Research and Development (2002), The Call, Stories of Yesteryears, Department of Education, Paro, Bhutan, p.5
Father Mackey, the Chief Inspector. (1988, May 14). Kuensel, Vol. 3, No. 19, p.2
Father Mackey-26 years of service to education. (1989, February 4). Kuensel, Vol-IV, No.3, p.3
Father Mackey turns 75. (1989, August 19). Kuensel, Vol. 4, No.31, p.2
Father Mackey receives Degree. (1994, May 28). Kuensel, Vol. IX, No.21, p.12
Father Mackey passes away. (1995, October 21). Kuensel, Vol. X, No. 41, p.1
Farewell for Father Mackey. (1983, August 7). Kuensel, Vol. XVIII, No 31 & 32, p.6
Farewell, Son of Bhutan. (1995, October 21). Kuensel, Vol. X, No.41, p.3
Inspection tour sees steady progress. (1990, July 14). Kuensel, Vol. V, No. 28, p.5
Inspection. (1991, August 10). Kuensel, Vol. VI, No. 31, p.5
Mathematics teachers meet. (1991, November 9). Kuensel, Vol. VI, No. 44, p.3
Well organized fun for Father Mackey. (1989, August 26). Kuensel, Vol. IV, No. 32, p.3
Son of Bhutan recognized for exemplary service to Bhutan. (1992, June 13). Kuensel, Vol. VII, No.23, p.6
Namgyel, Kezang (2008), Father Mackey, The Jesuit on a Mission, in Dr. Tenzin Dorji (Ed.), Trailblazers, From the pages of history, Thimphu, Bhutan, Bhutan Times, p.90.
Solverson, Howard (1995).The Jesuit and the Dragon, The life of Father Mackey in the Himalayan Kingdom of Bhutan, Outremont, Quebec, Canada, Robert Devies Publishing, pp. 34,44,47,126,153,180-181,185,210-211,219,228,241,243,267.
Tashi, Tshering (2012, December 1), Where do the boys go for further studies, Kuensel, p. 18.

About the Author

Ratna Paul is an Assistant Professor at N.B.S.Mahavidyalaya, Jaigaon, West Bengal. She has a Master's degree in History from VisvaBharati Central University, Shantiniketan, West Bengal and M. Phil Degree from the University of North Bengal. Since joining the college in Jaigaon, she has developed a keen interest in Bhutan and has a PhD on 'The Growth and Development of Modern Education in Bhutan, (1907-1997 A.D.)'. She was also the convener in holding an International Seminar on Indo-Bhutan affairs in her College.