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CONTENTS

PAPERS

Social Work: Meaning, History and Context from a Bhutanese

Perspective

Dechen Doma 1

Quiz in a Virtual Learning Environment as a Tool for Assessing Students'

Learning: Perception of Royal University of Bhutan Lecturers

Chenga Dorji, Pema Drukpa and Bijoy Hangmo Subba 12

How can I Improve my Teaching Strategies for Class Twelve

Students to Score Better in the Merchant of Venice?

Jigme Dorji 24

Mathematical Ideas in Mat Weaving: Connecting Ethnographic

Field Study and Classroom Teaching

Jaya Bishnu Pradhan 36

Using Handouts in the Bhutanese Classrooms: Its Effectiveness and

Limitations in Teaching Learning Economics

Tshewang Dorji 52

Television and Vocabulary Development in a Child

Kesang Wangmo 66

BOOK REVIEW

Durkheim's Suicide: A Study in Sociology

Dorji Yangzom 76

PAPERS

Social Work: Meaning, History and Context from a Bhutanese Perspective

Dechen Doma

Abstract

The purpose of this article is to provide the readers with an overview of social work in Bhutan and explain how social work is guided by the timeless wisdom of compassion. Providing social service is Bhutanese society's most profound intangible culture that influences the social relationships, the value of help and reciprocity, wellbeing and happiness in the society (Choden, 2003). In order to understand social work in Bhutan, people need to be clear at the outset on the influence of religion which has been the foundation of the history and development of social work. Social work in Bhutan is guided by the timeless wisdom of helping others in the form of volunteerism. Volunteerism has always been at the heart of the Bhutanese cultural ethos and everyday life since time immemorial. These values continue to influence the practice of social work in Bhutan. The essence of social work in Bhutan is based on the ancient profound wisdom of compassion for all sentient beings. Therefore, action that one commits is driven by volunteerism and guided by the concept of karma.

Keywords: social work, compassion, civil society, volunteerism, social change, wellbeing

A Brief History of Social Work in Bhutan

Social work education was formally taught by Zhabdrung Ngawang Namgyel in 1637 to a group of 30 monks in a monastery known as Cheri, located in the north of Thimphu. The institution of social work in Bhutan was established in the monastic setting. Monks and nuns were trained in meditation, embroidery, painting, sculptures, and Buddhist philosophy to provide service to all sentient beings (Khenpo Bumden, personal communication, 28th September, 2017). However, there is a dearth of literature to support most of the social work concepts and practices which are passed down orally from one generation to another. The essence of Buddhism still permeates into the social fabric and has the dominating

influence in shaping traditional values and culture and psychology of the Bhutanese people. Religious rites and prayers are considered essential parts of everyday life (Dorji, 2008; Pelzang, 2010; Wangyal, 2001). Bhutanese seek advice from Buddhist monks and nuns in matters related to: sickness, marriage, business, construction, career and naming babies.

Durjardin (2000) states that, in Bhutan, religion is the mediating factor that unites and integrates all aspects of culture into a distinct whole which becomes clear and definite in material culture (p.152). Social services in Bhutan existed since ancestral time, but the concept was formalized in the 1980s in the form of 'civil society' (Dorji, 2017). During the ancestral time, contributing labor, kind, and materials based on principles of reciprocity and rotational obligations linked the people to each other in the rural isolated communities. Such traditional practices are still prevalent today in the villages to cater for communal needs such as management of irrigation and drinking water, organizing community rituals, taking care of the village temples and footpaths (Dorji, 2017: Phuntsho, 2017). These strong norms and values of caring, trust, and cooperation have enabled the communities to overcome natural calamity and labor shortages. Resource sharing and managing conflicts have contributed to the development of altruism and a sense of volunteerism as one of the key components of social work in the past (Galay, 2001). In the same tone, Dorji (2013) claims that these social values were built upon the idea of reciprocity, known as *drinlen jelni* (repaying kindness) and *loteg hingteg* (trustworthiness), and are implemented through *pham puencha* (parents and relatives), *ngen nghew* (kith and kin), and *cham thruen* (networks and friends). These values and ethos are the basis of social work, which is enhanced through a social network, norms of reciprocity, and trust in people. Such values are further enhanced through Bhutanese values such as the joint family system, a tradition of gift giving and extending support to disadvantaged relatives through education of their children and care of the elderly (Wangyal, 2001).

Most of the social work during ancient time was based on religion, education, and art. In Bhutan, all religious objects such as statues and paintings are considered as the body of Buddha, books, his words and stupas, his mind (Pommaret, 2015). The literature of any religion encompasses helping mankind. It is evident that even before the professionalization of the social work, there were individuals around the globe addressing the need of the vulnerable people in difficult times (Mathew, 1992; Nanavatty, 1997). According to Dzongsar Jamyang Khyentse, the Third Druk Gyalpo was a visionary social worker who gave voice to the population by involving them in decision making, abolishing slavery and capital punishment and instituting National Assembly, National Library, national archives, dance, painting, music, and sculpture and introduced modern education to Bhutan. His holiness further mentioned, "Bhutan is the only country that has

yogi and practitioner who chant mantra on the payroll, and this was very much because of the Third Druk Gyalpo (Khyentse, 2015, para. 9). Although Bhutan is progressing and evolving in all spheres of lives, despite the wind of materialistic seeping into the society, the culture of volunteerism, giving charity, serving people in need, are still prevalent and timeless (Phuntsho, 2017). The cultural institution known as *Kidu* (welfare) was established by His Majesty the King Jigme Khesar Namgyel Wangchuck in 2009 as royal prerogative to look after the well-being of the people.

Buddhist Monasteries Engaged in Social Activities in Bhutan

The *Zhung Dratshang* plays a significant role in the lives of Bhutanese people. The three major key areas of social service they provide are on the three wheels; (i) the wheel of meditation; (ii) the wheel of studying and teaching; and (iii) the wheel of activities. The first two wheels are basically for the monks and nuns to prepare them to fulfill the *Jangchupsem gei dompa* (Bodhisattva vow), a vow taken by Mahayana Buddhist to liberate all sentient beings. The third wheel of activities guides the monks and nuns for the social welfare activities for all sentient beings (Bumden, personal communication, 28th Feb, 2018). According to Dorji (2016) most of the social work provided by the *Zhung Dratshang* or private monasteries is related to religious activities. The main function of the *Zhung Dratshang* is to exercise religious traditions, rituals services, and social services, institutions for education and administration, finance and religious disciplines. Some of the social work activities under the wheel of engaging activities include providing scholarships to poor, orphan and disabled children for their education, provide shelter and food to elderly people. The monks and nuns also provide spiritual guidance and services, visit household to perform rites during birth, marriage, sickness, death, construction of houses, consecration ceremonies, promotions, and inaugural ceremonies. Besides providing services to the community, the monasteries also make several contributions to Bhutan trust fund, to support free health service to the public, participate actively in fundraising activities and take the lead in preserving culture and language (Dorji, 2016). The current *Je khenpo* (chief abbot) of the *Zhung Dratshang* travelled across the country and conducted twenty-one *Moenlam Chenpo* (mass gathering teachings) with the pure intention to bring the minds of the people towards dharma.

Similarly, Chokyi Gyatso Institute in the eastern part of Bhutan, founded by Dzongsar Khyentse Rinpoche has a unique approach to social work. The institute offers training and involves the community to promote organic farming, youth engagement, creates an opportunity for the youth to meaningfully engage and cultivate a sense of volunteerism. The institute is one of the first monastic institutes to successfully initiate zero waste policy in the country. The institute also provides

opportunities for the farmers to go on study tours and organizes mindfulness meditation for the Bhutanese educators, and others (Gyeltshen, 2018).

Social Work in Bhutan

Social work (*Mi dhey Drelwa*) in Bhutan is unique and has its own approach and principle guided by *Jangchup Sem*, the Buddhist philosophy of compassion. According to Dorji (2017) the institution of social work in Bhutan was established in the monastic setting and social work is profoundly based on *Jangchup Sem* and to be of service to all sentient beings. The core philosophy of compassion is also aligned with the philosophy of Gross National Happiness, and the spiritual practice of compassion is authentic and undiluted and the practices are embedded in the culture and tradition of the country (Thinley, 2017). The literature of any religion encompasses helping mankind. It is evident that even before the professionalization of the social work as a profession, there were individuals around the globe addressing the need of the vulnerable people in difficult times (Mathew, 1992; Nanavatty, 1997). Literature shows that religion played a significant role in the birth of social work in the early 20th century. Most of the charity givers were religious volunteers or affiliated with religious institutions (Dudley, 2016). The concept of volunteerism is noticeable in almost every part of Bhutanese community. For example, in one of the remote communities of Ngangla Trong in the Kheng region, there is a local tradition of engaging and holding the three main tribes such as *Brela*, *Lhamenpa* and *Bjarpa* together. Each tribe takes turns to take care of the temple and organize the annual festival. Such traditional practices are basically passed down orally from generation to generation, which contribute to unity and peaceful coexistence within the communities (Phuntsho, 2013). Traditionally, youth in the village grow up observing the roles played by the elders. They observe and participate with their elders in conducting religious and funeral ceremonies and providing voluntary services in kinds and labor for the development of the whole community. Such practices help youth to appreciate and preserve traditional values, practices and skills and knowledge from the older generation (Phuntsho, 2017).

Social work in Bhutan is deeply influenced and grounded in its traditional religious belief system of understanding that one must care for the wellbeing and happiness of all sentient beings without any expectations in return. It is considered profound and practiced at the different level (Choden, 2003; Galay, 2001; Phuntsho, 2017; Thinley, 2017). These understandings laid the foundation for the profound culture of volunteerism in Bhutan (Thinley, 2017). During the first Five Year Plan in 1961, Bhutan opened its door to the establishment of the schools, health centers, and irrigation channels, where the government provided the money and materials, while people in their respective community provided free labor

(Asian Development Bank, 2013). Similarly, in the early 1990s, few graduates offered to serve as volunteers to teach in the remote parts of the country (Dorji, 2017).

Even today religious piety, volunteerism and giving still flourish in Bhutan (Phuntsho, 2017). Askeland and Dohlie (2015) describe religion as a cultural aspect, which influences people and society, creating common values and ethics, and rituals in the society. Religion is a component of self-understanding of a society and cannot be treated as an isolated factor (p.264). According to Phaholyothin (2017), charity or donation in Thailand is influenced by Buddhism and driven by the concept of Karma, which means good actions for the accumulation of good deeds, which determines the kind of rebirth in the next life (p.187). Similarly, in Bhutan, the act of volunteerism is influenced by the concept of compassion and accumulating good karma. Such acts of volunteerism are carried beyond the individual or personal level. For example, there are some traditional practices where the elderly people, lay practitioner, and retired people in the community would intervene and provide guidance to people who need support in marital disagreements, land disputes, alcohol issues or extramarital affairs (Galay, 2001).

Fast-forward to twenty-first century, Bhutan has officially endorsed the Civil Society Organization (CSO) in 2010. Currently, Bhutan has about 42 registered civil society organizations catering to various social needs of the people in the country. However, some of the civil society organizations like the Youth Development Fund (which was a brain child of the Fourth King Jigme Singye Wangchuck) was one of the first Non-Governmental Organizations established in 1999. Its mandate is to address youth related issues such as drug addiction, rehabilitation, special education and empowerment of youth through skills development programmes (BCMD,2017). Similarly, Tarayana Foundation was established in 2003 by Her Majesty the Gyalum Ashi Dorji Wangmo Wangchuck with its core value of compassion to serve the most vulnerable people in remote villages (BCMD, 2017). Similarly, Respect, Educate, Nurture and Empower Women (RE-NEW) was established by Her Majesty Gyalum Ashi Sangay Choden Wangchuck in 2004 with the vision to create gender-based violence-free happy society in Bhutan. Similarly, Chitheun Phendhey Association (CPA) was established in 2007 funded by His Majesty the King Jigme Khesar Namgyel Wangchuck with the vision to create a drug and alcohol-free society in Bhutan. Her Majesty Gyaltsuen Jetsun Pema Wangchuck is the patron of Bhutan Ability Society, with the vision to empower individuals with diverse abilities to live independently and with dignity within the Bhutanese society. Likewise, the Bhutan Nun Foundation (BNF) was founded by Her Majesty Gyalum Ashi Tshering Yangdon Wangchuck in 2009, with the vision to empower nuns through education and economic self-sufficiency.

Although Bhutan is progressing and evolving in all spheres of lives, despite developing into a materialistic society, the culture of volunteerism, giving and charity are still prevalent and timeless (Phuntsho, 2017). People working in the civil society organizations are recognized as social workers, although they do not possess formal education qualification in social work. For example, Baikady, Cheng and Channaveer (2016) in their study on *Social Work Students' Field Work Experience in Bhutan: A Qualitative Study* report that Bhutan has no social work education and trained social workers. However, social workers are experts in providing services especially in the field of rehabilitation and disability services. Currently, every individual is of the view that she/he is a social worker in Bhutan. Social workers are more recognized as voluntary workers, and volunteers can be from government agencies, lay people, monks, housewives, counselors, teachers, religious teachers, and the list is endless. The perception of offering service for the welfare of others is embedded in the culture. Most Bhutanese people are not aware that social work is a profession mainly because there is no job cadre assigned in the Royal Civil Service Commission, the only employing agency in Bhutan. However, people who are working in the civil society organization are paid and recognized as a social worker. According to Tshering Dolkar, Director of the Bhutan Board Certification Counsellor, trained counsellors working in the rehabilitation centres, hospitals, civil society organization and schools are more valued as social workers (personal communication, 14th March, 2018). Bhutan is yet to open its door towards instituting Social Work Education.

Recently, Samtse College of Education (SCE) of the Royal University of Bhutan (RUB), with support from the United Nation Children's Fund (UNICEF), Bhutan introduced the first certification course in social work. This certification course was based on the philosophical idea of right view (*Ita-ba*), right contemplation or understanding (*Sgom-ba*) and right action (*Spyod -pa*) leading to right fruition (*Bras-bu*). According to UNICEF's representative, Rudolf Schewenk, UNICEF has been working with SCE since 2016 to develop social work programmes, based on 'service to others', which is one of the most profound cultural components of the Bhutanese society. This positivity influences social relationships, the values of help and reciprocity, community vitality, sustainable well-being and happiness (as cited in Zangmo, 2018, para 4). The main purpose of offering the certification course to the existing social workers working in various civil society organization is to upgrade and prepare them for the Bachelor Social Work Education, which was offered from 2019. Currently, most of the social workers working in various civil society organizations are graduates from various disciplines and some of them do not have a graduate degree, but have abundance of experiences. In order to make them eligible, short trainings are offered by Samtse College of Education. The Bachelor of Social Work Education is developed in partnership with: UNICEF, Asian Research Institute for International Social

Work, Shukutoku University, and Don Bosco University, Guwahati. The degree is underpinned by the core Buddhist philosophical view of *Ita-ba*, *Sgom-ba* and *Spyod-pa* and *Bras-bu*.

Who are the Social Workers?

While the term Social Work has been developed in the context of Western societies, the concept of social work practice exists in Bhutan. There are a number of Bhutanese expressions that mirror the form of social values. For example, Bhutanese often use the term *Tha damtshi*, which denotes moral values such as trust, honesty, respect, loyalty, kindness, and gratitude. Similarly, *Jangchup Sem*, denotes compassion, showing kindness, affection, a sense of obligation for the benefit of all sentient beings (Thinley, 2017).

The range of social work types is well established including the continuum of practice from micro to macro, numerous fields of practice and diverse approaches to practice. Social workers in Bhutan encompass of volunteers working in the Government agencies, civil society organizations, monasteries, policy makers, police and army personnel, *De Suung* (Guardians of Peace and Harmony) and individuals from all walks of life. All these people are actively involved in providing social services without monetary benefit but fundamentally guided by the philosophy of compassion (Phuntsho, 2017; Thinley, 2017).

Based on the description of Social Work in Bhutan, Choden (2003), Galay (2001) and Thinley (2017) define social work as a traditional act of generosity and understanding that one must care for the wellbeing and happiness of all sentient beings.

From the western perspective, Social Work means recognized practice setting, licensing board and procedures, accredited training and education, professional association and research within the professional called social work, historically founded in the Western world and articulated in the International Federation of Social Work (IFSW), International Association of Schools of Social Work (IASSW) and American Association of Psychiatric Social Workers (AAPSW).

In the West, Social Work is defined as per the definition approved by the International Federation of Social Work (IFSW), and the International Association of Schools of Social Work (IASSW), (2014) which states:

Social Work is a practice-based profession and an academic discipline that promotes social change and development, social cohesion, and the empowerment and liberation of people. Principles of social justice, human rights, collective responsibility and respect for diversities are central to social work. Underpinned by theories of social work, social sciences, humanities and indigenous knowledge,

social work engages people and structures to address life challenges and enhance wellbeing. However, the definition may be amplified at the national and/or regional levels. (as cited in www.ifsw.org).

Whereas in the Bhutanese context, social work means the practice of voluntary service, which includes traditional elements such as neighbourly helping, Buddhist intervention and practices, guided by the philosophy of compassion, and tasks carried out by counselors, health practitioners, layperson, civil society organizations, Bhutanese civil service organizations and Buddhist monasteries, in response to the need of the people of Bhutan. Bhutanese social workers are individually defined as a Bhutanese person who works in the country whether a lay person or professional, engaged in providing voluntary service, to all sentient beings, guided by the philosophy of compassion, without expecting anything in return. In the context of this paper, social work means an act of generosity which is provided through voluntary service, with an intention to help others in need selflessly.

In other words, Social work is defined as practices-based profession, infused with academic discipline and skills that promotes social change, cohesion and empower people to address life changes and enhance wellbeing (DuBois & Miley, 2013). In addition, social work is recognized as professional social work if executed by a professional with a certificate from a well-established social work institute. Therefore, in Bhutan, the essence of social work is based on the ancient profound wisdom of compassion for all sentient beings, and action driven by volunteerism and guided by the concept of karma. Bhutan's social work is unique and has a religious and philosophical origin and it is contextual (Choden, 2003; Thinley, 2017).

Conclusion

Social work in Bhutan is indigenous and unique in nature, and different from Western professional work in several ways. Social work in Bhutan has not managed to transcend the boundary of prescribed social relations, belonging and not belonging to the norms of Western social work. However, it also shares similar fundamental belief and goals of Western social work like promoting wellbeing and happiness, recognizing that every individual has basic inherent goodness thus bringing social change, development and empowering individual to live a happy life. One major difference which makes Social Work in Bhutan unique is its non-academic nature, where the emphasis is based more on time tested Buddhist values of compassion, driven by the motivation of serving others in the form of volunteerism. This is similar to the Pacific social work, which is drawn from its indigenous values and practices, that has been developed over hundreds of years (Mafile'o & Vakalahi, 2018). Another distinction is that social work in Bhutan is

not taught as an academic discipline, relatively learnt through observation and participating in the culture and tradition as practiced in the family system (Thinley, 2017). In Bhutan, the essence of social work is based on the ancient profound wisdom of compassion for all sentient beings, and action driven by volunteerism and guided by the concept of karma. Bhutan's social work is unique and has a religious and philosophical origin and it is contextual (Choden, 2003; Thinley, 2017). The highlights of the unique approaches are visible and practiced even today (Phuntsho, 2017). Thus, in Bhutan, the approach to social work is unique and distinct, as Bhutan's first priority is to preserve its age-old tradition and culture, which is the strength of the country. Thus, it defines Bhutan as a sovereign and independent country against all the giant countries that neighbor the small kingdom.

References

- Asian Development Bank. (2013). *Civil society briefs Bhutan*. Retrieved from <https://www.adb.org/sites/default/files/publication/30296/csb-bhu.pdf>
- Askeland, G. A., & Døhlle, E. (2015). Contextualizing international social work: Religion as a relevant factor. *International Social Work*, 58(2), 261-269.
- Baikady, R., Cheng, S., & Channaveer, R. (2016). Social work students' field work experience in Bhutan: A qualitative study. *Asian Journal of Development and Governance (AJDG)* 2(2), 65 -82.
- Bhutan Centre for Media and Democracy. (2017). *Celebrating civil society: The third sector outside the government, corporate, and private sectors*. BCMD.
- Choden, T. (2003). *Traditional forms of volunteerism in Bhutan*. The Centre for Bhutan Studies. Retrieved from <http://www.bhutanstudies.org.bt>
- Dorji, C. (2008). *Bhutanese health care reform: a paradigm shift in health care to increase Gross National Happiness*. Retrieved from http://www.laguna-publishing.co.jp/pdf/Bhutanese_Health_Care_Reform.pdf
- Dorji, G. (2016). Zhung Dratshang: The central monk body of Bhutan. *The Druk Journal* 5(2). Retrieved from <http://www.drukjournal.bt/journal-issues>.
- Dorji, L. (2013). *Bhutan's case: Social capital, household welfare, and happiness* [Monograph]. National Statistics Bureau.

- Dorji, L. (2017). Emergence of civil society in Bhutan. *The Druk Journal*.5 (3). Retrieved from [http://www.drukjournal.bt/emergence of civil-society-in-Bhutan](http://www.drukjournal.bt/emergence%20of%20civil-society-in-Bhutan)
- DuBois, B. L., & Miley, K. K. (2013). *Social work: An empowering profession*. Pearson Higher Ed.
- Dudley, J. R. (2016). *Spirituality matters in social work: Connecting spirituality, religion, and practice*. Routledge.
- Galay, K. (2001). *Bhutanese context of civil society*. Retrieved from <http://www.bhutanstudies.org.bt>
- Gyeltshen, Y. (2018 January, 6-13). 4th winter mindfulness camp for Bhutanese educators and others. Samdrup Jongkhar Initiative (SJI) and Chokyi Gyatso Institute (CGI), Dewathang
- Khyentse, D.J. (2015). *King Jigme Dorje Wangchuck of Bhutan*. In Patron King Series. Retrieved from <http://khyentsefoundation.org>.
- Mafile'o,T., & Vakalahi, H. F. O. (2018). Indigenous social work across borders: Expanding social work in the South Pacific. *International Social Work*, 6 1(4), 537-552.
- Mathew, G. (1992). *Introduction to Social Case Work*. Tata Institute of Social Sciences
- Nanavatty, M. C. (1997). Professional associations of social work: An analysis of literature. *Indian Journal of Social Work*, 58, 287-300.
- Pelzang, R. (2010). Religious practice of the patients and families during illness and hospitalization in Bhutan. *Journal of Bhutan Studies*, 22, 77-97.
- Phaholyothin, N. (2017). Moving beyond charity to philanthropy? The case of charitable giving in Thailand. *Austrian Journal of South-East Asian Studies*, 10 (2), 185-203.
- Phuntsho, K. (2013). *Twilight cultures tradition and change in four rural communities in Bhutan*. SHEJUN
- Phuntsho, K. (2017). *Yakchoe: The grand festival of Ura village*. Retrieved from <https://texts.shanti.virginia.edu/content/yakchoe-grand-festival-ura-village>

- Phuntsho, K. (2017). Civil society, change, challenge, and change. *The Druk Journal* (3). Retrieved from <http://www.drukjournal.bt/civil-society-change-challenge-and-chance>
- Pommaret, F. (2015). Devotion, culture, and social work: Royal patronage in Bhutan. *The Druk Journal*, 5(1). Retrieved from <http://www.drukjournal.bt/journal-issues>
- Thinley, D. (2017). Proceeding. In exploring the Buddhist social work building the Asian Buddhist social work research network (Ed.). *Buddhist Social Work in Bhutan* (pp34-38). Asian Research Institute for International Social Work: Shukutoku University
- Wangyal, T. (2001) 'Ensuring social sustainability: can Bhutan's education system ensure intergenerational transmission of values?', *Journal of Bhutan Studies*, 3(1), pp.106–111.
- Zangmo, R. (2018). *20 participants complete social work certificate course*. Retrieved from <http://www.kuenselonline.com>.

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Quiz in a Virtual Learning Environment as a Tool for Assessing Students' Learning: Perception of Royal University of Bhutan Lecturers

Chenga Dorji¹, Pema Drukpa² and Bijoy Hangmo Subba³

Abstract

Technology integration in education has been a priority in universities across the world now. Virtual Learning Environment (VLE) is one such technological tool the Royal University of Bhutan (RUB) colleges have integrated as a learning platform to enhance teaching and learning. A cross-sectional descriptive study was carried out among RUB lecturers to investigate their perceptions towards VLE quiz to assess students' learning. A total of 154 lecturers (48.1%) from VLE quiz users and 80 (51.9%) from VLE quiz non users participated in the study. The data were analyzed statistically. The results from the VLE quiz users indicated that the use of VLE quiz makes marking easier, improves quality of assessment for students and also influences other lecturers to use VLE in their assessment. Furthermore, the results indicated that, it is convenient to supervise the test and students also find it easy to use VLE. Moreover, the results also indicated that VLE quiz allowed lecturers to conduct the test easily and also measured students' ability. Quite interestingly, the study also highlighted that the VLE quiz non users have positive attitudes towards VLE quiz to assess students learning though they did not use due to lack of competency, impeding working conditions and weak ICT connectivity in the RUB colleges. Generally, there is a strong belief among RUB lecturers that VLE quiz can enhance assessment processes.

Keywords: e-assessment, computer based test, VLE quiz, VLE quiz user, VLE quiz non users, RUB colleges, paper-pen based assessment

Introduction

Use of technology has been a priority as an engaging tool in the teaching and learning process in this 21st century. Virtual Learning Environment (VLE) is one such educational technology that provides diverse functions to enhance and enrich learning. The quiz is one important function embedded within VLE as a part of e-assessment. Considering the enormous potential and benefits of VLE, Royal University of Bhutan (RUB) has formally introduced it in April 2011 by issuing policy to the colleges (Kinley et al., 2013). Thereafter, some RUB lecturers have started to use quiz to assess students' learning as part of VLE usage in some of the modules they offered to the students. Prior to this new shift (quiz), paper-pen based assessment was prominent over the past decades to assess

students' learning, particularly the summative assessment part. But paper-pen based assessment has increasingly faced problems in providing timely and constructive feedback to the students' work due to the increase in teaching workload, students' enrollment and programmes offered by the colleges (Utha et al., 2018). To address such issues, an emphasis has been given to review the assessment practices in the colleges over the past few years using various assessment tools and technique. For example, draft assignment submission was implemented by Samtse College of Education (SCE) to improve the quality of assignment feedback given to the student's work. Anecdotally, this did help in improving the quality of assessment practices but increased the amount of work for the lecturers. Now with the integration of technologies in education, assessment using web tools, also known as e-assessment has been widely used to assess student learning across universities and school and it has also been the subject of several studies (as cited in Cohen & Sasson, 2016). Many studies have focused on e-assessment in science education, especially in higher education, while others have focused on the subject of physics (Cohen & Sasson, 2016). The study by Ogunlade, Oyeronke and Oladimeji (2014) recommended to encourage lecturers to constantly use computer based tests (CBT) while conducting their tests and examination to promote efficiency of the students' learning assessment and to improve the credibility of the test and exam. Similarly, (Dammass, 2016) has investigated students' attitudes towards computer based test (CBT) and inferred that students in general are becoming more interested in the use of this new method of e-assessment.

Quiz in a VLE

Quiz in a VLE enables a teacher to create quizzes comprising of various question types including multiple choice, short answer and numerical. When the teacher create the quiz, the number of settings can be customized such as time limit, attempt allowed, grading method, shuffle within questions, provide specific and general feedback to the students among others. The teacher can use this quiz to assess the ongoing progress of the students or it can be used to grade the students in the tests and course exams. Cohen et al. (2016) found out that, students' attitudes towards quizzes were generally positive which demonstrates formative assessment in higher education. Similarly, Jiscinfonet (2016) revealed that assessment tools including quizzes assist timely feedback and also provide a wealth of feedback for students' work. Despite numerous advantages and benefits, there are also challenges inherent in using online quizzes. According to Choeda, Penjor and Dukpa (2016), adequate training should be given to use VLE by the RUB lecturers.

Therefore, this study investigated the lecturers' perceptions of online quiz to assess student learning in RUB colleges. This study focused on the following two questions:

- i. How do lecturers (*VLE quiz users*) perceive the usefulness, ease of use and credibility of a VLE quiz in assessing the students work?
- ii. What are the lecturers' (*VLE quiz non users*) perception towards VLE quiz in assessing students work?

Methodology

A cross-sectional descriptive study was conducted from August to October 2018, among RUB lecturers. Random sampling method was used to select the participants from the population. All the lecturers who are currently in the college campus were included as study subjects and those staff who are out of the campus were excluded for the study. Data were collected either through printed or on-line questionnaires designed in Google forms. The questionnaire included details about demographics, perception of the *VLE quiz users* and also perception of *VLE quiz non users*. A researcher-designed survey questionnaire entitled "Lecturers' perceptions of computer-based test in Nigerian universities (LPCBTNU)" was adapted for the collection of data from the *VLE quiz users* because of the similar nature of the research study. The *VLE quiz users* survey part constitute of three categorized themes namely: perceived usefulness, perceived ease of use and perceived credibility consisting of 14, 16 and 15 items respectively using Likert scale (1-5) indicating the degree they perceived i.e. strongly disagree, disagree, neutral, agree and strongly agree. For the *VLE quiz non users*, there were five open ended questions to determine the perceptions of not using VLE quiz to assess students' learning. In order to analyze quantitative data, separate numeric codes were assigned to the data for each participant. Then, the data were entered in statistical package for social sciences (SPSS) and did the data screening, missing value analysis and recoding for some categorical items. After that, the coded data were analyzed using descriptive statistics and principal component analysis to determine the perceptions from *VLE quiz users*. For the *VLE quiz non users*, the raw data were coded and categorized into various themes for the interpretation by adopting a thematic approach (Creswell, 2007; Tesch, 1990).

Results and Discussions

Demographics Characteristics

A total of 154 RUB lecturers participated in this study, which constitutes of 119 (73.3%) male and 34 (22.1%) female. Most of the lecturers were from ages less than 30 years or 31-35 years category which constitutes a total sample 98 (63.7%). In terms of qualification, the majority of the lecturers have a master qualification 108 (70.1%), with the remaining either a Bachelor or PhD qualification. The demographic representation of lecturers from the RUB colleges is shown in Table 1 below.

Table 1*Demographic Representation of Lecturers*

RUB Colleges	Frequency	Percent
College of Natural Resources(CNR)	25	16.2
College of Science and Technology(CST)	10	6.5
Gaeddu College of Business Studies(GCBS)	26	16.9
College of Language and Cultural Studies(CLCS)	23	14.9
Jigme Namgyel Engineering College(JNEC)	2	1.3
Paro College of Education(PCE)	18	11.7
Samtse College of Education(SCE)	23	14.9
Sherubtse College(SC)	27	17.5

Table 1 shows that there was a relatively equal distribution of participants from the RUB colleges except from CST and JNEC which have low representations of 10 (6.5%) and 2 (1.3%) respectively. The RUB lecturers were grouped into two depending upon whether they use VLE quiz or not. There were 74 (48.1%) *VLE quiz users* and 80 (51.9%) *VLE quiz non users*. For ethical reasons, each participant is anonymously numbered as 1,2,3.....154 out of which participants 74,75,76.....154 were *VLE quiz non users*.

Results of the VLE Quiz Users

This section presents the results of the *VLE quiz users*’ perceptions to assess students’ learning under three categorized themes namely: perceived usefulness, perceived ease of use and perceived credibility.

Perceived Usefulness.

To answer perceived usefulness of a *VLE quiz users*, a principal component analysis was conducted on the items in order to delete all non-performing items and to produce a refined solution, the final solution for a number of items produced three valid components. Component one comprised of 4 items, component two comprised of 3 items and component three comprised of 2 items. These three components accounted for a substantive 60.1% of the variance in the items and each component demonstrated acceptable reliability as shown in Table 2 when the lower limit reduced to 0.50 since the measurement scales have been adapted.

Table 2*Reliability Statistics of Perceived Usefulness*

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	No of Items
0.514	0.522	3

The descriptive analysis was conducted on three valid components to examine perceived usefulness of a *VLE quiz users*. The Table 3 indicated perceived usefulness of a VLE quiz in terms of a) easy marking, b) enhance assessment processes, and c) influence other lecturers to use VLE quiz. The perceived usefulness of *VLE quiz users* on easy marking has a mean score ($M=4.47$; $SD=.989$), indicating on the highest side of the five point Likert scale with less variability as compared to the other two components. This could be due to VLE quiz using model answers to mark students work, resulting in easy marking for the lecturers. Another perceived usefulness of *VLE quiz users* was the enhancement of assessment processes with the mean scores ($M=4.16$; $SD=1.187$), indicating too on the higher side of the five point Likert scale but scores seem to vary among lecturers most as compared to other two components. The reasons could be due to the availability of VLE quiz features such as statistics, charting, graphing which gives the lecturers greater control over the assessment work. The other perceived usefulness of *VLE quiz users* was on influencing other lecturers to use VLE quiz with the mean score ($M=3.94$; $SD=1.021$), indicating also on the higher side of the five point Likert scale item but the score seems to vary among lecturers. The reason could be due to lecturers' competency to use VLE quiz in their course. In addition, it is mandatory for lecturers to integrate VLE technology in their teaching and learning.

Table 3*Descriptive Statistics of Perceived Usefulness*

Composite	No	Mean	Std. Deviation
PUVQ_influence_others	73	3.94	1.021
PUVQ_Easy_Marking	73	4.47	0.989
PUVQ_enhances_assessment	73	4.16	1.187

Perceived Ease of Use.

For perceived ease of use of *VLE quiz users*, principal component analysis was conducted and produced two valid components. Component one comprised of 3 items and component two comprised of 2 items. The two components accounted for a substantive 69.38% of the variance in the items and each component

demonstrated acceptable reliability when the lower limit reduced to 0.40 as shown below.

Table 4

Reliability Statistics of Perceived Ease of Use

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	No of Items
0.401	0.408	2

The descriptive analysis was conducted on two valid components to examine perceived ease of use of a *VLE quiz users*. The Table 5 indicated perceived ease of a VLE quiz in terms of a) convenient to supervise, and b) find it easy to use by the students. The perceived ease of use of a *VLE quiz users* on convenient to supervise has a mean score ($M=4.30$; $SD=1.154$), indicating on the highest side of the five point Likert scale item but the score seemed to vary more compared to the other components. The reasons may be due to the question behavior setting where questions can be shuffled within question and every question can be shown in a new page to minimize malpractices. The other reason was of the quiz time setting in which students can attempt the quiz at different timing within the open and close timing with the given specific time limits. The other perceived ease of use of *VLE quiz users* was that the students find it easy to use with the mean score ($M=3.97$; $SD=0.928$), which was also found on the higher side of the five point Likert scale with little variability as compared to the earlier perceived convenient to use. This was due to navigational features and precise instructions given which allows students to attempt it without any difficulty.

Table 5

Descriptive Statistics of Perceived Ease of Use

Composite items on Perceived ease	No	Mean	Std. Deviation
PEVQ_convenient_supervise	73	4.30	1.154
PEVQ_Ease_By_Students	73	3.97	0.928

Perceived Credibility.

To answer perceived credibility of a *VLE quiz user*, again principal component analysis was conducted and produced two valid components. Both the components comprised of 4 items each with two components accounted for a substantive 59.28% of the variance in the items and each component demonstrated acceptable reliability when the lower limit reduced to .50 as shown below Table 6.

Table 6*Reliability Statistics of a Credibility*

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	No of Items
0.642	0.644	2

The descriptive analysis was conducted on two valid components to examine perceived credibility of *VLE quiz users*. The credibility of a VLE quiz in terms of a) effective course evaluation of student's work, and b) measurement of student's ability to communicate with the lecturers is indicated in Table 7. The perceived credibility of a *VLE quiz users* on effective course evaluation of student's work has the mean score (M=4.27; SD=0.818), indicating on the highest side of the five point Likert scale with low variability. This was due to elimination of the double marking which allows course evaluation by the lecturers, opportunity for reusing the question and reduces the time dedicated to marking. The other perceived credibility of a VLE quiz was measurement of student's ability to communicate with the lecturers with the mean score (M=3.67; SD=.860), which was also found on the higher side of the five point Likert scale item, again without varying the scores much. This may be due to the lecturer's ICT competency and VLE quiz gradebook management features which enables lecturers to know the detailed knowledge of students' progress.

Table 7*Descriptive Statistics of a Credibility*

Composite items on credibility	No	Mean	Std. Deviation
PCVQ_Measure_StudentsAbility	73	3.67	0.860
PCVQ_Evaluation_effective	74	4.27	0.818

Results of the VLE Quiz Non Users

The *VLE quiz non users*' perceptions towards VLE quiz to assess students' learning is presented under two themes namely; Opportunity themes and recommendation themes which were derived from the analysis.

Opportunity Themes.

Many benefits and positive attitudes were observed among *VLE quiz non users* towards VLE quiz to assess students' learning and below are descriptions and evidences provided.

Opinion on Enhancement of Students' Assessment for Learning

The data revealed that *VLE quiz non users* in RUB colleges, in general were of the opinion that VLE can enhance students' assessment for learning. These opinion was expressed by many participants relating to timeliness, transparency, and fair feedback as the correction is done by the system (Participants 100, 126, 128, 146 & 148). Furthermore, use of the VLE quiz would help students to manage time as they have to answer within a time frame as indicated by participant 100; and, saves resources, as it helps to go paperless (Participant 143). Other participants were also of the opinion that the use of VLE quiz will enhance students' assessment for learning. On the other hand, a small group of participants were not certain that VLE quiz would enhance students' assessment for learning because students could easily indulge in proxy practices despite the tutor's monitoring (Participant 91, 98, 113, & 116).

Interest to Use VLE Quiz to Assess Students' Learning

About 53% of the participants (n=80) expressed their deep interest to use VLE quiz but lacked competency to use VLE quiz. For instance, Participant 100 expressed that it is difficult to create questions with options. The other reasons were related to time constraints and more teaching workload (Participants 103, 110 & 129). On the other hand, some participants remarked that they were not interested to use it, as it poses credibility issues such as a) it test only the elementary knowledge and skills of the students, b) it all depends on internet and computer which is not promising as technical glitches and system crashing could lead to complete loss of data leading to double work (Participants 110 & 143). Furthermore, some other participants are also not interested to use this instrument as their subjects require extended responses which VLE quiz normally limits.

Recommendation

Study finding also suggested ways to promote the use of VLE quiz in the colleges, referred to as recommendation in this study.

Training and Workshops

Most of the participants have expressed that they have not used VLE quiz as they do not have knowledge and skills to prepare. Even if they have received training, it is mentioned that they are not feeling competent enough to use it. Even those who have been using VLE, it is limited to uploading assignments and teaching materials. So it is felt that training or workshops should be organized for the college faculty members on preparation and use of VLE quiz. Thereafter, VLE quiz can be used as a basic tool for assessment.

It is mentioned that awareness should be created regarding benefits of using VLE quizzes. Some of the participants expressed that preparing VLE quiz is time consuming. Considering the work load in the college, it has been felt that it cannot be practiced. However, VLE quiz has many benefits: it eases correction, takes less time to correct, marks and feedback can be shared instantly. The assessment is fair since correction is done automatically by the system. Providing immediate feedback which is crucial in assessment process is by far easier and convenient than that of paper based assessment. Moreover, the use of VLE and ICT can be made compulsory as these are considered as the integral part of 21st century teaching pedagogy.

Internet Connectivity

It has been expressed that strong internet connectivity is essential for VLE use. Some of the participants expressed that they have not been able to use VLE as the internet connection is either erratic or slow. It has also been expressed that internet connectivity should have a wide range coverage, such as in hostels, in all working places of the college so that VLE is accessed anytime and anywhere within the college premises.

VLE as a Learning Platform

One possibility of promoting the use of VLE is by making use of VLE mandatory both for tutors and students. Students would be required to use VLE when the tutors make it as part of teaching and assessment process. So it is expressed that management needs to reinforce the use of VLE and monitor constantly.

Discussions

The study determines lecturers' perceptions on the use of VLE quiz to assess students' learning in RUB colleges. When *VLE quiz users* were asked about their perceptions in terms of usefulness, the result indicated, VLE quiz makes marking easier, improve quality of assessment for students and influenced other lecturers to use VLE in their assessment. Similarly, when asked about their perceptions in terms of ease of use, the result indicated, it is convenient to supervise and students find it easy to use. The other perceptions asked was in terms of credibility, the result indicated that VLE quiz allows course evaluation by the lecturers to be undertaken more easily and also measure student's ability to communicate with the lecturers. Quite interestingly, the findings revealed that more than 50% of the *VLE quiz non users* are also of the opinion that VLE quiz will enhance students' assessment for learning. This finding is consistent with the finding (JSC, 2016), who reported that online quiz assist timely feedback and provide a wealth

of feedback for students work. Although *VLE quiz non users* also expressed their interest to use VLE quiz to assess students' learning but they are not able to use due to lack of VLE competency and weak internet connection in their colleges. This finding is consistent with the finding by Choeda et al. (2016) that indicated adequate training should be given to the lecturers to use VLE in addition to the establishment of adequate ICT infrastructure and connectivity in the RUB colleges.

Conclusion

The views expressed by 154 lecturers enabled the researcher to conclude that there is a strong belief among RUB lecturers that VLE quiz can enhance assessment processes by measuring the student's ability, assist timely and providing constructive feedback to the students' work. There is a keen interest expressed among RUB lecturers to use VLE quiz to assess students' work. Besides many advantages of VLE, there are also challenges such as poor internet connectivity, lack of training availed to the lecturers on ICT front. Therefore, there is a need to increase internet connectivity and provide training on ICT competency in general, and also make the VLE mandatory for lecturers to use in the RUB colleges.

References

- Choeda, Penjor, T., & Dukpa, D. (2016). The state of integration of the virtual learning environment and ICT into pedagogy of the Royal University of Bhutan: A descriptive study. *International Journal of Education and Development using Information and Communication Technology*, 12(1), 71-88.
- Cohen, D., & Sasson, I. (2016). Online quizzes in a virtual learning environment as a tool for formative assessment. *Journal of Technology and Science Education*, 6(3), 188-208.
- Creswell, J. W. (2007). *Qualitative inquiry and research design: Choosing among five approaches*. Sage.
- Dammas, A.H. (2016). Investigate students' attitudes towards computer based test (CBT) at chemistry course. *Archives of Business Research*, 4(6), 58-71. doi:10.14738/abr.46.2325
- Espasal, A., & Meneses, J. (2010). Analyzing feedback processes in an online teaching and learning environment. *An exploratory study*, 59(3), 277-292.

- Evans, Carol. (2013). *Making Sense of Assessment Feedback in Higher Education*. Retrieved from <http://rer.sagepub.com/content/83/1/70/full.pdf>
- Jiscinfonet. (2016). Effective use of virtual learning environments (VLEs). Retrieved from <http://www.jiscinfonet.ac.uk/whole-infokit/?infokit=4306>.
- Kinley, K., & Zander, P., Georgsen, M., & Choeda, C. (2013). The Usage of ICT for Teaching at a Bhutanese College.
- Leah, D., Sarah Z., & Ryan K. (2017). Designing computer-based assessments: Multidisciplinary findings and student perspectives. *International Journal of Educational Technology*, 4(3), 20-31. Retrieved from <http://education-technology.net/ijet/>
- Ogunlade, O. O., & Olafare, F.O. (2014). Lecturers' perceptions of computer-based test in Nigerian Universities. *Global Medial Journal, A publication of Al-lama Iqbal Open University, Islamabad, Pakistan*, VII(II),5-7. Retrieved from https://aiou.edu.pk/SAB/gmj/PastIssue_Fall_2014.asp
- Royal University of Bhutan. (2012). *Staff and students statistics October 2012*. Retrieved from <http://www.rub.edu.bt/index.php/annual-statistics/143-annual-statistics-2012>
- Royal University of Bhutan. (2016). *Programmes of study*. Retrieved from <http://www.rub.edu.bt/index.php/teaching-learning/programmes-of-study>.
- Tesch, R. (1990). *Qualitative Research: Analysis Types & Software Tools*. The Falmer Press.
- Utha, K., Tamang, R.S., Namgyel, N., Gyeltshen, S., Doma, D. and Wangmo. (2018). Impact of lecturers' feedback on student learning: A case study in Samtse College of Education. *Bhutan Journal of Research & Development*, 7(1), 3-13.
- Wang & Victor C.X. (2013). *Advanced research in adult learning and professional development: tools, trends, and methodologies*. Retrieved from <https://books.google.bt/books?id=0uSWBQAAQBAJ&dq>

About the Author

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How can I Improve my Teaching Strategies for Class Twelve Students to Score Better in The Merchant of Venice?

Jigme Dorji

Abstract

During the 2018 Mid-Term Examinations, Class Twelve students of Phuentsholing Higher Secondary School scored relatively lower in *The Merchant of Venice* in comparison to short stories. Action research, thus, was undertaken with the research question ‘How can I improve my teaching strategies for Class Twelve students to score better in *The Merchant of Venice*?’ thirty Class Twelve science students of Phuentsholing Higher Secondary School participated. Data was mainly gathered through students’ Mid-Term Examinations marks. Questionnaires were also used to identify and analyse the preferred learning styles of students and to obtain insight into students’ beliefs and attitude towards learning the play. Baseline data was collected and analysed followed by a practice of preferred learning styles suggested by students and informed by literature. After three months of the intervention process, data was once again collected and compared with the baseline data. The result showed noteworthy improvement in the students’ overall score.

Keywords: The Merchant of Venice, examinations, preferred learning styles, teaching strategies, genres

Introduction

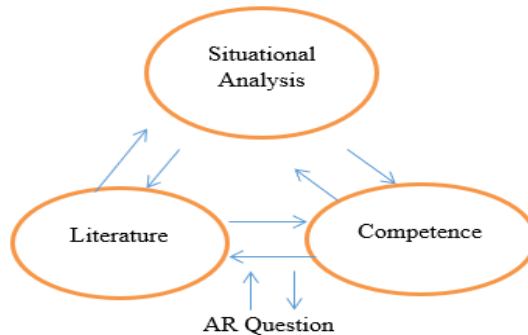
Ever since the reintroduction of Shakespearean play, *The Merchant of Venice*, in English Curriculum of Bhutan for classes eleven and twelve in 2017, the question the researcher has been asking was not whether the play was worth the reintroduction but how the play must be approached. O’Malley (2000) admits that although he had been teaching Shakespeare for approximately twenty years, he had never theorized what it was that he was trying to do in teaching a Shakespeare’s class. Since different approaches appeal to different students, the teacher must understand and identify which student needs a simple reading of the text and which student wants acting the play out, and implement the strategies accordingly. Strategies considered as feasible and applicable by the teachers may not be students’ preference, and thus, students would not be motivated to learn the play. It is from this very issue that this study came into limelight.

Reconnaissance

Reconnaissance in this action research cycle involved an examination of the situation of the identified problem along with the competence of the researcher and participants, and reflection of relevant literature.

Figure 1

The Reconnaissance after Maxwell (2003) (Cited in Royal Education Council, 2018, p. 8)

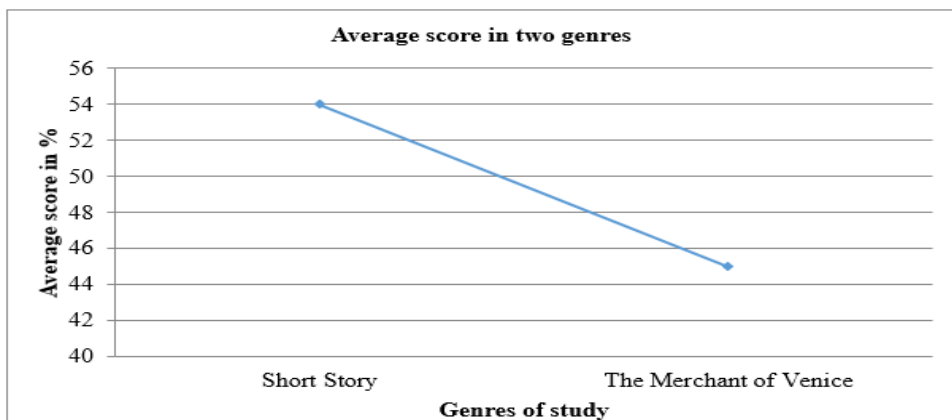


Situational Analysis

The participants in this study were one section of Class Twelve science students. Out of 30 students, 17 were girls and 13 were boys. Both the researcher and the students acknowledge that students perform better in short stories as compared to The Merchant of Venice. This was further validated during the 2018 Mid-Term Examinations.

Figure 2

Average Scores in Two Genres



Though there is no vast difference between the marks students have scored in the two genres, the scores (average score in %) for *The Merchant of Venice* is comparatively lower than the marks (average score in %) in short stories. Therefore, it was quintessential to understand the preferred strategies and to adopt them accordingly. Comparison is made between *The Merchant of Venice* and short stories as both are seen texts.

Competence

Following an extensive four-day refresher course on *The Merchant of Venice*, the researcher has been teaching the play for classes eleven and twelve in Phuentsholing Higher Secondary School since its reintroduction in 2017. Moreover, the researcher had studied the same play when he was a student. Despite his interest and experience in teaching English, the researcher not only wanted to analyse students' preferred learning styles but also their beliefs and attitude towards learning the play.

Students know English is their main subject in order for them to move to the next grade and the play is as important as short stories, yet the phenomenon of scoring lesser in the play continues to prevail.

Literature Review

Flanders (1970) defines teaching behaviour as an act by the teacher which occurs during the interaction in the classroom. Classroom interaction eventually is one important factor which contributes to students' score during the tests. Students' scores during the tests is a fundamental evaluation to validate how much a student has learn. In order for students to learn meaningfully, teachers adopt varied strategies, but which strategy suits which individual student is difficult to thrash out. It is, hence, the mutual understanding of scholars for the need to understand students' preferred learning styles and to identify the teaching strategies adopted by teachers that are most likely to enhance students' performance during their examinations.

Renz (cited in Gibson, 1942) contents that Shakespeare has written plays for stage and that the students in schools must enact them. Similarly, O'Malley (2000) shares that he emphasizes on students' collective performance through the theatrical talents of students.

In the words of Wright (2001), in his *Preparing Teachers to Put Drama in the Classroom*, the sequence of teaching strategies in the United States, proceeds from "sensory/concentration activities" to "movement/pantomime, dialogue, characterization and improvisation/story playing", with some variations though (p. 206). Dowdy & Kaplan (2011) claim that while for some teachers

drama is about theatrics or stunning performance but for some, it is about enriching learner's life by making content accessible and memorable through active, hands-on, collaborative exploration of ideas.

Madsen (2001) conducted a research to examine the strategies used by the teachers in teaching Shakespearean plays and the strategy most liked by the students in learning the plays. 80% of students liked performing in the classroom and 70% of respondents disliked reading activities. Therefore, the researcher recommends the teachers to place more emphasis on performance teaching strategy.

Similarly, Batho (2006), in his *Shakespeare in Secondary Schools*, involved 60 secondary school English teachers. In his study, reading the play around the class was a popular practice (80% of the teacher respondents). He recommends that teachers must look for imaginative ways for tackling the language difficulty with Shakespearean texts of pupils and that memorising lines from Shakespeare should be "once a common practice in English classrooms" (p. 168).

Using a qualitative research approach, employing semi-structured interviews, Sutton (2016) studied strategies used by two Shakespearean educators. The result indicated that students learned Shakespeare better in a collaborative and creative classroom environment. He commends creating an exciting and lively atmosphere while teaching Shakespeare using methods such as "group learning and dramatic techniques to engage students" (p. 64).

Rocklin (2005) stressed that for teachers to incorporate a performance dimension into their literature courses, students must analyse, cast, rehearse, and perform parts of the play, as well to observe, respond to, and learn from these performances.

In his action research, Stoneham (2013) evaluated an approach to teaching a Shakespearean play to 24 boys from Class 10. He made no attempt to read or cover the play but "lead students into the play at such a point where they might be able to make sense of the play without my telling them what it was about" (p. 2). With his open-ended approach in making students write essays on relevant topics, 19 of the 24 essays submitted were awarded an A on the English Department's marking scale.

Leah (2016) conducted interviews and observed lessons of four Secondary English teachers to understand the Pedagogical Content Knowledge (PCK) of teachers teaching Shakespeare to second language learners in South Africa, to establish the beliefs of these teachers and to identify the ways in which these beliefs influence the practice of teachers. The socio-economic constraints of learners, the fact that most were not English home language speakers, influenced the development of teachers' PCK.

Although there are studies conducted by researchers to analyse the strategies of teaching Shakespearean plays, there is hardly any study piloted in Bhutan. This is probably because Shakespearean play was reintroduced in the English Curriculum of Bhutan in 2017. Action research, hence, is practical to examine which strategy suits individual learner so that they learn better and score high during the examinations.

Research Problem – Action Research Question

Despite various strategies adopted by the researcher, which strategies best cater to individual student's learning can partly be known by their scores during the examinations. The Mid-Term Examinations result of 2018 indicated that students had scored lower in *The Merchant of Venice* than in short stories. The issues of interest for investigation, therefore, were:

- Students' beliefs and attitudes towards learning the play.
- Students' preferred learning styles in learning the play.

Action Research Question

With the aforementioned argument as a basis to address the issue, the following question was developed.

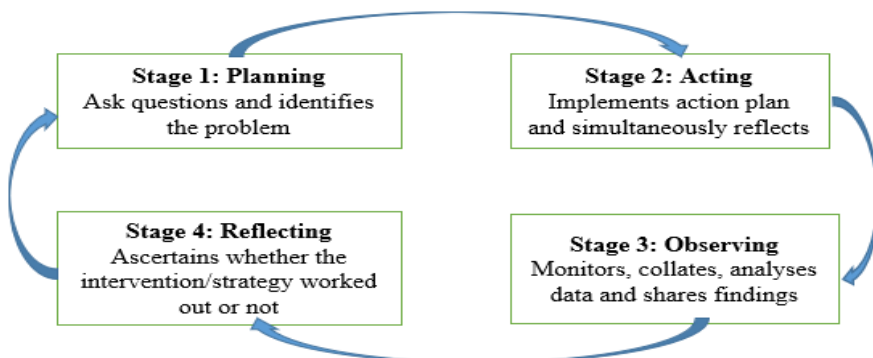
How can I improve my teaching strategies for Class Twelve students to score better in *The Merchant of Venice*?

Research Plan

The theoretical framework and action research plan adopted in this research are “a cyclical and spiral four-stage process, namely planning, acting, observing and reflecting” (Royal Education Council, 2018).

Figure 3

Action Research Process (Royal Education Council, 2018, p.5)



Procedure

This action research was conducted with one class of science stream. The participants were provided with a questionnaire each to be filled up, and their mid-term examinations marks were compiled during the reconnaissance (refer *Pre-Intervention* section). As soon as the baseline data was collected from the participants, intervention actions were put into practice (refer *Action Intervention* section). Finally, during the post-intervention stage, the participant's individual marks were collected once again and compared with the baseline data and investigated the effects of intervention actions (refer *Post Intervention* section).

Data Collection

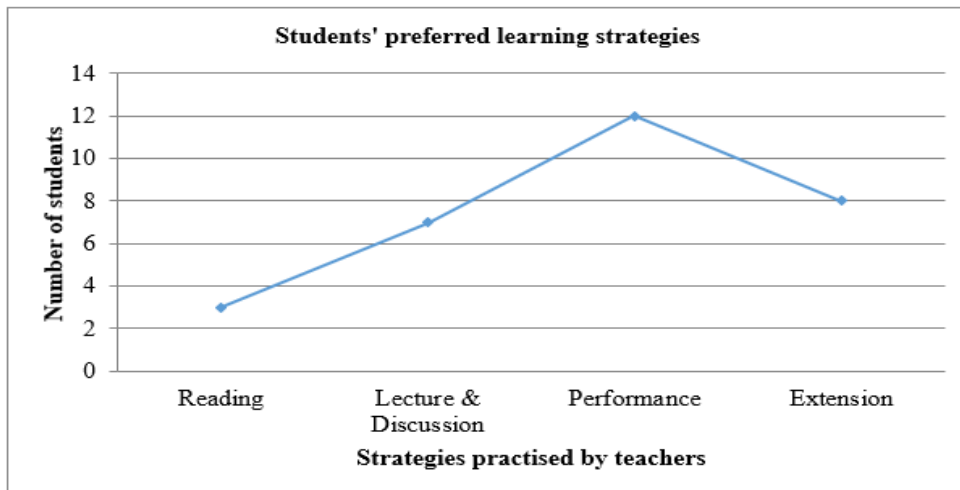
A quantitative method was used in this research. Questionnaire and examination results of the individual participant were used as data collection techniques. Ethical approval was sought from the school vice-principal. Participants were provided with a questionnaire each to be filled up, if interested, at home and returned the next day. This was done anonymously to seek genuine information from the interested participants. The return rate of the questionnaire was hundred percent.

Pre-Intervention: Baseline Data

Data was collected in two ways. Firstly, Mid-Term Examinations marks were collected (see *Situational Analysis*). Secondly, the first section of the questionnaire sought students' general beliefs and attitude towards Shakespearean play to analyse their readiness. While teacher's teaching strategy is vital, student's beliefs and attitude to the text is equally important. Language of the play is found to be the biggest challenge for all 30 respondents, yet slightly over 83 percent of the students have positive attitude to learning the play. 100 percent of respondents recommend for the reintroduction of Shakespearean text in classes nine and ten as well. The second section of the questionnaire intended to study students' preferred learning styles. It was broadly divided into four areas.

Figure 4

Students' Preferred Learning Strategies



40 percent of students prefer *Performance* the most while a contrasting 10 percent like *Reading*. Within the category, 80 percent of respondents like *Acting Scenes & Declamation* while none of the respondents dislike *Watching scenes on video tapes*. On the other hand, 15 percent and a little over 3 percent of respondents dislike *Lecture*.

In the last section of the questionnaire, respondents were asked to give short opinionated answers to the questions. Many students have called for power point presentation. One student has written thus:

I prefer learning when teachers teach using power point presentations.

Another respondent has called for performance.

If we can act for every scene, we can understand clearly and remember during the examinations.

One more participant has suggested the same strategy.

If drama competitions are held between different sections, students can understand the text better and we will be able to remember it for longer duration.

In general, students have called for interactive sessions with more focus on performances and power point presentations.

Actions – Intervention

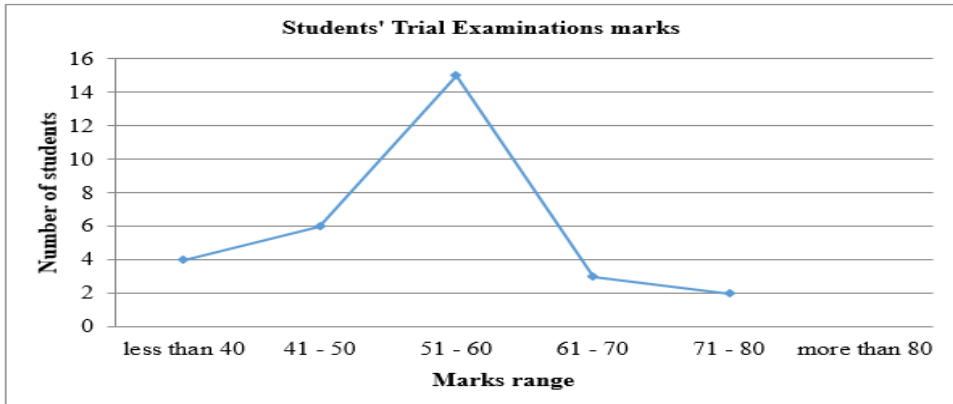
After careful analysis of students' preferred learning styles collected from the questionnaire (see *Pre-Intervention: Baseline Data* section) suggested in the literature, the researcher adopted the following strategies to discuss the play for around three months, beginning from August till October (until Trial Examinations).

- Debate
- Role play
- Declamations
- Guest speakers
- Group discussion
- Games and puzzles
- Summary of scenes
- Power point presentations
- Reading some related texts
- More of competency based questions
- Skit competition among the teams within the class
- Translation of scenes into modern English in their own words
- Listening and watching scenes on audio and video tapes respectively

Prior to the lesson, students were provided with a certain portion of the play to read and discuss accordingly. Teacher cleared the doubts in power point presentation if students had any and different versions of movie on *The Merchant of Venice* were shown. Depending upon suitability, students were called for declamation wherever possible. At the end of every scene, students were asked to dramatize the scene. In order for students to be fully engaged, the researcher held drama competition in teams.

Post Intervention

After the intervention stage, individual student's Trial Examinations score in *The Merchant of Venice* was collected. Similarly, Mid-Term Examinations score was once again referred to compare and analyse the data.

Figure 5*Students' Trial Examinations Score*

While none of the students scored more than 80% in *The Merchant of Venice*, the figure above shows that a little more than 13 percent of respondents have scored 40 or less than 40%. With 50 percent, maximum numbers of respondents are decked in the category of 51-60% aggregate marks in *The Merchant of Venice*.

Data Analysis and Results

The following figure illustrates the comparison between the baseline average score and the post-intervention average score.

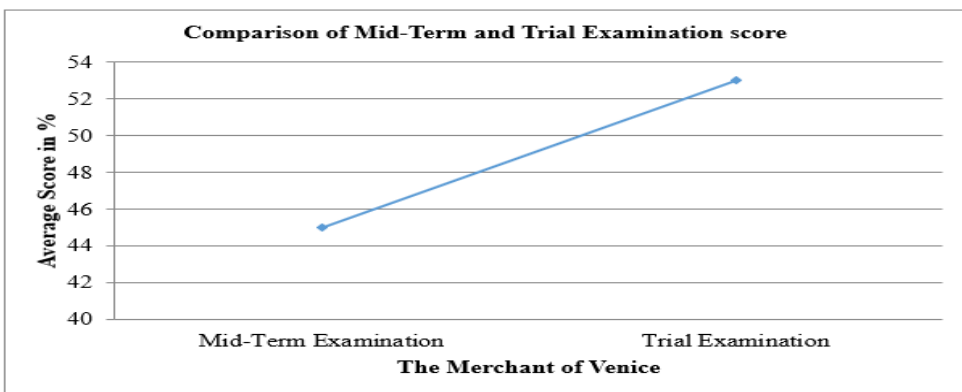
Figure 6*Comparison of Mid Term and Trial Examinations Score*

Figure 6 shows the comparison between the average mean score of the baseline data and the final data regarding the average score in *The Merchant of Venice*. The graph shows an increased trend. The average score has increased from 45 to 53 after the intervention process indicating the effectiveness of the same.

Conclusion

The author concludes that this study was carried out successfully and implemented on time most importantly, numerous strategies which were fundamental in enhancing students' performance were explored and adapted accordingly.

The following conclusions could be drawn from this action research.

1. There is a strong relationship between what students need and what teachers apply. Thus, understanding students' preferred learning styles is imperative for teachers to improve students' score.
2. It is vital for teachers to use varied strategies of teaching, depending upon individual student's needs, to enhance students' performance during their examinations.
3. Teachers must move from lecture to performance-based teaching so that the play is not perceived as an intimidating subject.
4. During the course of study, both teachers and students must actively engage to make the learning of play an exciting process.
5. Teachers must use ICT in enhancing better learning.
6. The behaviour of teachers in the classroom is decisive in enhancing students' ability to think critically, develop confidence and speaking skills, contribute towards collaborative learning and develop self-esteem (Dukpa, 2010) thereby performing better during their examinations.

Limitations

There are some notable limitations to this study such as restricted sample size. The result would have been much authentic if the participants were selected from different schools.

The author could not take on a critical friend to authenticate the data due to time constraint. Therefore inadequate time span considered for the research can also be questioned. Since the research suggests that a lot more could be explored, the researcher intends to do further research with more participants from different schools to ascertain the preferred strategies of students to perform better during their examinations.

References

- Batho, R. (1998). Shakespeare in Secondary Schools. *Educational Review*, 50(2), 163-172. doi:10.1080/0013191980500207.
- Dowdy, J. K., & Kaplan, S. (2011). *Teaching Drama in the Classroom: A Toolbox for Teachers*. Sense Publishers.
- Dukpa, D. (2010). How can I improve my behavioural strategies in the class room to encourage students' participation? *RABSEL – the CERD Educational Journal*, XIV, 65-85.
- Flanders, N. A. (1970). *Analysing Teaching Behaviour*. Addison–Wesley Publishing Company, INC.
- Gibson, C, M. (1942). On Teaching Shakespeare. *The English Journal*, 31 (7), 548-551.
- Kemmis, S., & McTaggart, R. (1998). *The Action Research Planner (Third ed)*. Deakin University Press.
- Laban, M, L. (2016). *Teaching Shakespeare: Exploring the Pedagogical Content Knowledge and Beliefs of Teachers of English*. Unpublished master's thesis, University of Kwazulu-Natal.
- Madsen, V. (2001). *Strategies for teaching the Shakespearean Drama*. Unpublished master's thesis, University of Lethbridge Research Repository.
- Maxwell, T. (2003). Action Research for Bhutan. *RABSEL – the CERD Educational Journal*, 3, 1-20.
- O'Malley, S, G. (2000). Reading Shakespeare in the Heterogeneous Classroom. *The Radical Teacher*, 58, 16-20.
- Rocklin, E. L. (2005). *Performance Approach to Teaching Shakespeare*. National Council of Teachers of English.
- Royal Education Council. (2018). *A Guide to Action Research: Enhancing Professional practice of Teachers in Bhutan*. Royal Education Council.
- Stoneham, S, J. (2013). ACTION RESEARCH @ Scots: Doing Shakespeare Differently. *The Scots College, Sydney, Australia*.
- Sutton, L. (2016). *Teaching Shakespeare in the Secondary English Classroom: Engaging the “flat unraised spirits.”* Unpublished master's thesis, Ontario Institute for Studies in Education, University of Toronto.

Wright, Lin. (2001). Preparing Teachers to Put Drama in the Classroom. *Theory into Practice*, 24(3), 205-210.

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Mathematical Ideas in Mat Weaving: Connecting Ethnographic Field Study and Classroom Teaching

Jaya Bishnu Pradhan

Abstract

Mat weaving is one of the common activities performed in different communities, generally in the rural part of Nepal. Mat weavers practice mathematical ideas and concepts implicitly in order to perform their job. The teaching and learning of school mathematics can be enriched if the concepts are taught based on students' experiences and practices. This study was intended to uncover the mathematical ideas embedded in mat weaving that can help teachers and students in the teaching and learning of school mathematics. Ethnographic methodology was used to uncover and describe the beliefs, values, understanding, perceptions and attitudes of the mat weavers towards mathematical ideas and concepts in the process of mat weaving. A total of 4 mat weavers, 2 mathematics teachers and 12 students from grade level 8-10, who were used to participating in weaving, were selected for the study. The whole process of the mat weaving, classroom observation and in-depth interview were taken with the participants with the help of an interview guide and an observation checklist. The mathematical activities in different sectors of their lives, their ways of understanding the natural phenomena, and their ethnomathematical knowledge were analyzed with the notions of pluralism. From the field data, it was found that the mat weaver exhibited sophisticated geometrical ideas in the process of construction of frame and mat. The possibilities of incorporating these cultural activities and the pedagogical techniques were observed in the mathematics classroom. It is argued that it is possible to use mat weaving activities in the teaching and learning of school mathematics.

Keywords: culture, ethnomathematics, ethnography, indigenous knowledge, weaving

Introduction

Mathematical ideas and thinking are embedded in every environmental activity of a group of people. However, the mathematical ideas they possess in order to perform their everyday job remains largely hidden. The cultural activities of the human being invented some mathematical knowledge and concepts. Every culture has developed some mathematics practices consistent with their needs and interest for everyday activities. Naturally, it is not surprising that extremely prac-

tical concepts such as numbers and counting have arisen in all cultures. There is a lack of evidence regarding the exact date the people of the world started to weave their items. For thousands of years, people have weaved baskets, hats, mats and other items. Different cultures have carried out weaving using different materials like grass, leaves, clothes, feathers, paper and other local materials.

Bishop (1991) stated that mathematics is a cultural product, which has developed as a result of various activities, and that counting, locating, measuring, designing, playing, and explaining are all part of that cultural product. Everyday life is impregnated in the knowledge and practices of a culture. At all times, individuals are comparing, classifying, quantifying, measuring, explaining, inferring, generalizing, and evaluating, using material and intellectual instruments that belong to their culture (D'Ambrosio, 2006).

The term ethnomathematics is coined with the different perspectives. Numbers of scholars define it in different ways. Ascher and Ascher (1997) defined ethnomathematics as the study of the mathematical ideas of non-literate people. Others believed that it is the methodological postures used in the teaching and learning of formal mathematics (Ferrerira, 1989). Ethnomathematics helps to conceptualize the abstract mathematical ideas by connecting children's everyday activities. In D'Ambrosio's (2006) view, ethnomathematics is a research program about the history and philosophy of mathematics and it is also the program of the way in which cultural groups understand, articulate and use the concepts and practices, which is described as mathematical, whether or not the cultural group has a concept of mathematics. Thus, ethnomathematics is relatively new as a field of research. It may be described as the study of mathematical ideas and activities as embedded in their cultural context. Further D'Ambrosio (2006) defined ethnomathematics as "the mathematics which is practiced among identifiable cultural groups such as national-tribe societies, labor groups, children of certain age brackets and professional classes" (p. 44).

Ethnomathematics can be described as the way people from a particular culture have as common systems for dealing with quantitative, relational, and spatial aspects of their lives (Barton 1996). It follows what Knijnik (1997) describes as an ethnomathematical approach, one that is characterized by the investigation of the traditions, practices, and mathematical concepts of a subordinated social group and the pedagogical work, which was developed in order for the group to be able to interpret and decode its knowledge (as cited in Alangui, 2017).

The ethnomathematical ideas of the group of people have generally been excluded from discussions of formal and academic mathematics. Rosa and Gavarrete (2017) also viewed that their mathematical knowledge and learning approaches are not taken into consideration in the formal school mathematics curricula. The

mathematical ideas from the group of working class culture, the acknowledgment of their ways of knowledge generation and transmission, students' experiences should be blended with formal mathematics in the classrooms (Pradhan, 2017). In attempting to create and integrate mathematical materials related to different cultures and that draw on students' own experiences in an instructional mathematics curriculum, it is possible to apply ethnomathematical strategies in teaching and learning mathematics (Rosa & Gavarrete, 2017).

Pradhan (2012) conducted a study to explore the knowledge generation of *Chundara* and compare and contrast the ways they learn and teach in their everyday activities from the school pedagogy. The main finding of the study was that *Chundaras* teaching and learning activity involved participatory and cooperative approaches in which they learn with the help of their parents. Their ways of teaching and learning approach is similar to the Vygotsky's theory of Zone of Proximal Development. Millroy (1992) found a group of carpenters who used the concept of tacit knowledge of mathematical ideas. This concept of tacit knowledge implies that most people know more than they can tell. Tacit knowledge manifests itself through human activities, and is not necessarily expressed or expressible in written or spoken form. According to Millroy (1992), "the physical act of designing and building furniture would involve tacit mathematical knowledge" (p. 13). Millroy's study seeks to uncover and describe the beliefs, values, perceptions, understanding and attitudes towards the mathematical ideas in their everyday activities (Merriam, 2009). This study revealed that all cultures have basic counting, sorting and deciphering methods, and that these have arisen independently in different places around the world. This can be used to argue that these mathematical concepts are being discovered rather than created. However, others emphasize that the usefulness of mathematics is what tends to conceal its cultural constructs.

Research Questions

The main objective of this study was to explore the ethnomathematical ideas embedded in the activities in mat weaving in the rural settlements of Nepal.

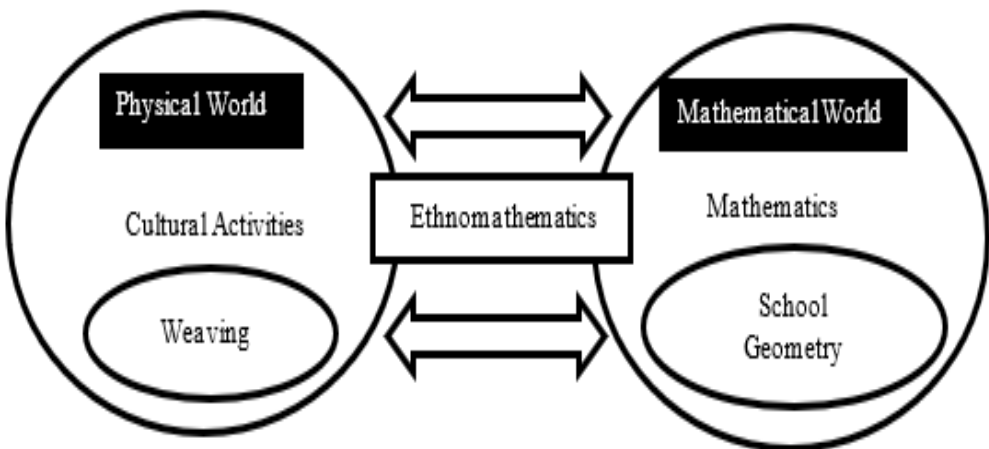
- What mathematical ideas are embedded in the mat weaving activities?
- How does weaving activities facilitate teaching and learning of school mathematics?

Conceptual Framework

The primary goal of the research objective was to connect the learners' out-of-school mathematical ideas and knowledge with the school mathematics. The conceptual framework of this study is based on the theoretical framework of the Bourdieu's cultural capital and sociocultural theory of Vygotsky. The framework developed in this research study shows how the cultural activities of weaving mats can be a mediated tool for the teaching and learning of school geometry based on a constructivist learning environment. The mathematics practiced in different cultures implicitly is known as the ethnomathematics. Ethnomathematics refers to a form of mathematics that varies as a consequence of being embedded in cultural activities whose purpose is other than doing mathematics (D'Ambrosio, 2006). People practice mathematical ideas in the process of weaving mat without knowing formal mathematics. This framework puts the ethnomathematics at the centre of two domains of physical and mathematical worlds. My argument in this study was that ethnomathematical ideas embedded in the weaving activity can be mediated to the understanding of school geometry. The mathematical understanding is important for everyone and they are using mathematical ideas and knowledge to perform everyday work. The mathematical knowledge and ideas are implicitly used in out-of-school culture.

Figure 1

Ethnomathematics: Connecting Cultural Activities and Mathematics



The learner's culture and everyday activities regarding ethnomathematical ideas is an integral part of education in general and learning mathematics in particular. This model highlighted the integration of the mathematical concepts and practices originating in the learner's culture with those of school mathematics (Adam, 2004; Alangui, 2017). It is believed that classrooms and other learning environments cannot be isolated from the communities in which they are embedded, and students come to school bringing with them values, norms and concepts they have acquired from their culture and environment. The students' home culture and ethnomathematical ideas and knowledge provides opportunities to connect to the formal mathematics. Figure 1 depicts a conceptual framework to connect the students' out-of-school knowledge, embedded mathematical ideas in their cultural activities to school mathematics. This framework allows for a wider set of student' cultural activities, which has possibility for application of formal mathematical ideas. It suggests that it is possible to connect the school mathematics without-of-school context through the ethnomathematical ideas.

Methods and Procedures

This study was intended to explore the ethnomathematical ideas in the activities of group of people and their ways to knowledge generation and distribution to their generations. To fulfil my research objective, I resolutely situated myself as a qualitative researcher. I only needed to determine the specific type of qualitative research methodology as I began to design this study. The reflective process of choosing the most appropriate methodology led to mathematical idea and practices in mat weaving activities of group of people as a sociocultural process (Taylor & Bogdan, 1998). Ethnography can be a primary methodology for collecting empirical data from the field regarding the mathematical ideas, knowledge, and practices in their activities. I used ethnography to describe, interpret, and reveal the meaning of cultural activities regarding ethnomathematical ideas embedded in mat weaving. While conducting this research, I continuously addressed the questions of interest involving mathematical ideas embedded in the process of weaving mats and their ways of teaching and learning in their cultural settings. During the study of implicit mathematical ideas and thinking of mat weavers, I positioned myself to engage within the ethnographic research techniques. I chose ethnography as a research methodology because my study was intended to explore their mathematical ideas from the perspective of mat weavers (emic) and from the eyes of western mathematical perspective (etic).

The process of data collection in ethnography is extensive. Ethnography emphasized the importance of listening and asking appropriate questions, observing the day-to-day lives of the people in natural setting. Although the main data

gathering was accomplished through participant observation, interviews were also an important part of the research, with the opportunities for interviews many times occurring as a natural event, not having to be scheduled (Flick, 2006). To obtain the answer of my research questions, I purposively selected four mat weavers from the rural area of Tanahun district near a public secondary school. A total of two school mathematics teachers and 12 students, who participated in weaving activities, from basic level of education were selected for the study. The data regarding the mathematical ideas embedded in mat weaving process were collected through the observation of their activities, listening and asking appropriate questions to the group of people in natural setting. This was done with the help of interview guidelines and observation checklist. With regard to the data recording, the researcher records behavior and activities of the group of people in natural setting through field notes. The field notes included paper-pencil, photographs, video or audio recorders with the consent of the research participants. I carefully recorded all the possible conversations with the help of the video camera and took field notes as much as I could. I collected the data from the multiple sources during the course of my study. I reviewed all of the data gathered from the multiple sources of data and then organized them into categories or themes that cut across all of the data sources (Creswell, 2014). I transcribed the conversations and interviews into manuscripts so that I could easily analyze and interpret them.

After observing the data, I linked them with many possible theories to interpret them. I triangulated the data, and the theoretical closures and gave meaning to my findings. In this process, I tried to produce the accurate descriptions of the contents. Interpretation involved attaching meaning and significance to the analysis, explaining descriptive patterns, and looking for relationships and linkages among descriptive dimensions. In my study, the cultural activities in the student's community and their ways of understanding the natural phenomena, and their ethnomathematical knowledge were analyzed with the notions of pluralism. In this study, the analysis of the data was validated and made more reliable by triangulating the statements among the research participants, their ways of presenting the text in the several times of data collection periods.

Mathematical Ideas in Mat Weaving

Weaving mats is one of the common activities in the rural part of the different communities in Nepal. The weaving of both sitting mats and sleeping mats reflect the cultural values and identities. Handloom (*hataso*) is a major tool employed to weave a mat. It is rectangular parallelepiped in shape and approximately $2\frac{1}{2}$ (*haat*) length (a *haat* = 18 inch, *amal* = 1 inch approximately), 3 (*amal*) breadth and 4 (*amal*) height. There are odd numbers of holes in handloom (*hataso*) and maximum number of holes is 15. The distance between the holes is approximately

4 *amal*. They fix a frame for the mat with the length of 6 *haat* and the breadth of the mat is flexible as the number of holes used in the handloom (*hataso*). The mat weavers make a mat with different sizes. The size (breadth) of the mat (*Gundri*) is called '5 *Ghare*', '7 *Ghare*', '9 *Ghare*', '11 *Ghare*' etc. As per the number of holes such as 5 holes, 7 holes, 9 holes, 11 holes used in handloom (*hataso*). The breadth of the mat depends upon the length of the paddy bushes available and the length is determined on the basis of purpose of the mat weavers.

Figure 2

Villagers Weaving Mat Using Mathematical Concept



The best time to weave the mat is winter season, as it is right after the harvest of the paddy fields and the people feel free from the busy days of farming and other household chores. The women of the rural community are engaged in weaving mats because it is considered that weaving a mat is a female activity and responsibility. The weaving of a mat is a multi-step process. First of all, they make the frame in a rectangular shape with four poles. The mat weaver starts by taking four poles and two beams. The two poles are to be laid on the ground at a distance just longer than the length of the handloom (*hataso*). And these two poles are tied together with the beam. The third pole is laid as per the length of mat required to be woven and the fourth pole is moved to form the close of a quadrilateral. The distance between the first and third pole is measured with the help of a rope. The fourth pole is further adjusted until the distance measured from the second pole become equal and the third pole and fourth pole are tied together with the beam. The mat weavers follow certain pattern and ways to weave through a straw. The strips of straw are used to weave from left to right and then from right to left parallel. Each time a strip is completely woven into the mat, it is pushed up against the previous weft strip.

The pattern is continued with each strip until all of the strips are used and then resulting mat is tight and firm.

The various mathematical ideas and thinking are inherited in the process of constructions of the mats. Indigenous people have implicit mathematical knowledge with the ability to perform a task but without the ability to explain their deeds (Pradhan, 2017). This implicit mathematical knowledge is embedded tacitly. Mosimege and Lebeta (2000) also reported that the indigenous people use different mathematical concepts like estimation, and tessellations, and symmetry in the construction of the traditions artefacts and cultural activities. Chundara people use lots of mathematical concepts and knowledge in their everyday activities. Their knowledge without sufficient justification for the rule they have been using are consistent (Pradhan, 2012). In recent years, it is generally observed that most of the cultural activities are degrading. It is because of the rapid development of science and technology and globalisation. The similar type of plastic mat and carpets, produced in a cheap costing, is on the verge of replacing the use of traditional handmade mats. The artefacts that the community members developed for their everyday use and for survival is redundant. The modernization replaces the cultural art and artefacts.

The process of construction of the mat provides opportunities to work with various geometrical concepts like measurements and pattern concepts. The knowledge they practised in the process of construction of a net of the sleeping mat is equivalent to the theorems in Euclidean geometry. The process of constructing rectangle is adjusting four corners and is termed as making *Chaukon* as the vertices. The following are the theorems embedded in their activities.

T_1 : A parallelogram with equal diagonals is a rectangle.

T_2 : A quadrilateral with congruent diagonals that intersects at their midpoint is a rectangle.

T_3 : Opposite sides of a rectangle is equal and parallel.

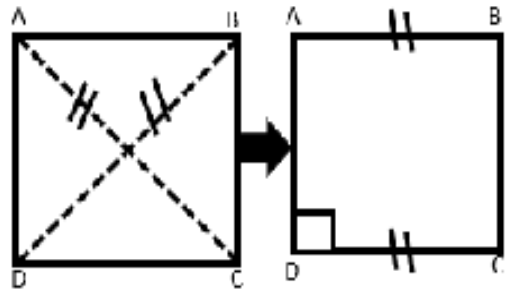
In the construction of frame to weave a mat, the mat weavers formulate the rectangle axiom: In quadrilateral ABCD, if $AC = BD$ then it is a rectangle. The activities across the different cultural villages are largely the same as most of the indigenous people are culturally homogenous (Barton, 2008). In this regard, Gerdes (1999) mentioned that the traditional Mozambican house builders also used the similar knowledge as used by the mat weavers.

The use of x-test is to find the four points of the rectangle where they can make their pole stand for the swing. When they finish step three, they take one rope and draw a diagonal measurement of the rectangle. Whatever the length is, they mark that length and use it from the next corner. When they measure the length AC, they use the same length from B to D. Now they have, A, C and B and need to fix D as they consider three points (A, B, C) as fixed points and just to

determine the last point (D). When they do it, the problem is solved. At this time, the x-test is applied. The mat weavers do not really care about the vertices: A, B and C. They just want to fix the vertex D. They already have taken $AB=CD$, now they just have to make sure the x-test ($AC=BD$) is there. Once AC becomes equal to BD, they determine the four corners of the swing. The mathematics ideas used by mat weavers in their activities could be an ample opportunity to connect school mathematics.

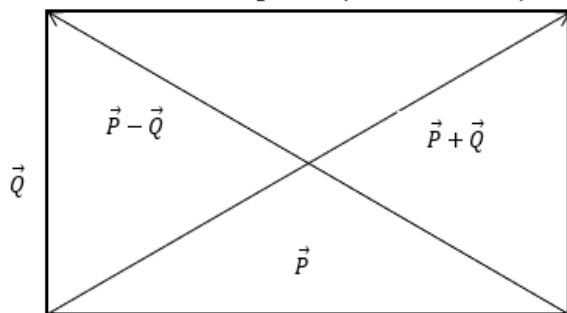
Figure 3

Constructing Frame of Mats Applying the Concept of Vector Geometry



The mathematical thinking and methods are quite different in different cultures (Gerdes, 2005). The mathematical ideas hidden in the process of constructing the frame to weave a mat in the rural community in Nepal is mostly equivalent to the methods that the Mozambican peasantry used methods of constructing the rectangular bases of houses (Gerdes, 1999). Further, Gerdes (1997) explored that the construction techniques of the house builders facilitate to formulate the rectangle axiom. From the observation of the different process of mat weaving, it was found that it includes a lot of mathematical ideas in the mat weaving activities. It is argued that it is possible to use indigenous mat weaving in the teaching and learning of mathematics at different levels from primary to a higher level.

The knowledge involved in the above methods for the construction of the rectangular form of the net of the mat weaving can be linked with vector geometry. Vector is an important and fundamental concept of modern mathematics. It is a useful tool to communicate different areas of mathematics like algebra, geometry, trigonometry and calculus. The knowledge involved in the methods for the construction of the rectangular frame for weaving a mat can be



related deeply to vector geometry. In vector geometry, for two vectors \vec{P} and \vec{Q} , $|\vec{P} + \vec{Q}| = |\vec{P} - \vec{Q}|$ if and only if \vec{P} is perpendicular to \vec{Q} .

It is easy to prove this proposition, $|\vec{P} + \vec{Q}| = |\vec{P} - \vec{Q}|$

$$\Leftrightarrow (\vec{P} + \vec{Q})^2 = (\vec{P} - \vec{Q})^2$$

$$\Leftrightarrow \vec{P}^2 + 2\vec{P}\vec{Q} + \vec{Q}^2 = \vec{P}^2 - 2\vec{P}\vec{Q} + \vec{Q}^2$$

$$\Leftrightarrow 4\vec{P}\vec{Q} = 0$$

This gives \vec{P} is perpendicular to \vec{Q} .

It is equally applicable to the vectors $|\vec{R}| = |\vec{S}|$ if and only if $|\vec{R} - \vec{S}|$ is perpendicular to $|\vec{R} + \vec{S}|$.

It is easily proved,

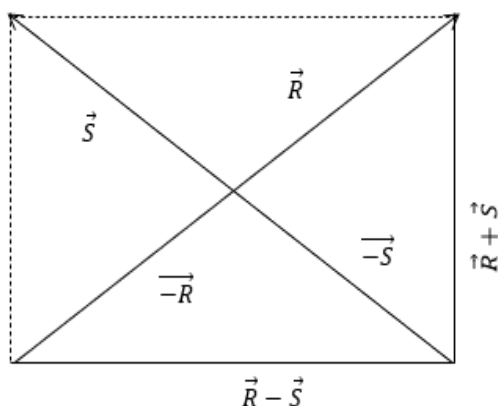
$$\text{for } |\vec{R}| = |\vec{S}| \Leftrightarrow (\vec{R})^2 = (\vec{S})^2$$

$$\Leftrightarrow (\vec{R})^2 - (\vec{S})^2 = 0$$

$$\Leftrightarrow (\vec{R} + \vec{S})(\vec{R} - \vec{S}) = 0$$

This gives, $(\vec{R} + \vec{S})$ is

perpendicular to $(\vec{R} - \vec{S})$.



In a cultural village of Nepal, a rectangular form of sitting or sleeping mat may be rolled up when it is not in use. Some people use sleeping mats as a larder for the purpose of reserve paddy. It then takes approximately the form of a cylinder. From the observation of the situations, this cultural experience provides an opportunity for students to obtain an idea of the calculation of the curved surface area, the total surface area, and the volume of a cylinder. The finished product is analysed to assess the embedded mathematical ideas in the mat and other cultural artefacts. We have a mat ABCD of length L and breadth H . Let us transform the mat ABCD into a cylinder by rolling up such that AC and BD are just in contact.

Figure 4

Rolled up Mats that can Provide Ideas to Calculate Area and Volume of Curved Surfaces



Here, Area of initial mat ABCD = Surface area of the cylinder = $L \cdot H$
 It is evident that the circumference of the base of cylinder (C) = L

This implies that $2\pi R = L$ gives $R = \frac{L}{2\pi}$

Let A be the area of the cross-section area of the circular cylinder, $A = \pi \left(\frac{L}{2\pi}\right)^2$

Also, $V = A \times H = \frac{L^2}{4\pi} \times H = \left(\frac{L}{2\pi}\right)^2 \pi \cdot H$. It gives, $V = \pi R^2 H$

Connecting Cultural Practices and School Mathematics

The cultural artefacts and activities possess lots of mathematical ideas. It is argued that it is possible to use indigenous mat weaving in the teaching and learning of mathematics at different levels of education. How does weaving, a cultural activity, help students in the learning process of some concepts of school geometry, was one of the objectives of this study. Weaving is a collaborative activity, which requires teamwork, but mostly it is concerned with the female adults of a family. Still, in the process of construction of the frame for mat weaving, support of other family members is needed. Most of the children engage and participate in this collaborative work. However, the mathematical ideas embedded in the process are largely hidden for these people. Regarding the mathematical ideas they possess in the process of frame construction, I recorded a conversation of teacher participant with his students:

Teacher: Has someone assisted his/ her mother in the process of construction of frame of mat?

Students: Yes Sir, we have.

Teacher: S1, how many times have you helped your mother?

S1: My sister helps her most of the time, I am novice sir!

Teacher: So could you find any geometrical ideas in that process?

S1: Hummm...

Teacher: And S2, how many times have you participated in it?

S2: Sir, I am used to it!

Teacher: Okay, could you observe any geometrical concept in the process?

S2: Hummm... I don't have much idea sir!

Both the students did not utter a single word regarding geometrical ideas embedded in the process though they practise them implicitly. Various study found that out-of-school knowledge familiar to the students are the sources for the teaching and learning of school mathematics. However, it was found that the making of connection between two conceptual domains is difficult. The teacher participant also agreed that the cultural artefacts and daily activities of the students are useful for the teaching and learning of school mathematics.

The incorporation of weaving activities in the process of teaching and learning enhance mathematical understanding of the students. The teacher, in his classroom, connected this concept by measuring the dimensions of the mat and rolling it to conceptualize the concepts of curve surface area, total surface area and volume of the cylinder formed. Then I conducted a post-class interview with the students. I asked the students how they felt about the teaching with an activity

based pedagogy. Regarding the effectiveness of introducing cultural activities in mathematics classroom, one of the student participants said, “I have learnt most of the mathematical concepts through rote and memorization just with an aim to solve problems and score good marks without any level of understanding. Now, the abstract concepts and ideas of curve surface area, total surface area and volume of a cylinder was visualized easily through these activities”. From the interaction of my student participants, I came to know that, the students’ everyday activities and experience play a vital role in the development of mathematical concepts. One of the student participants replied, “Before the use of this teaching model, we were just made to memorize the formula for purpose of solving common problems. Later, when this model was taken in action for teaching, we could easily visualize the abstract concepts and visualize it as a mathematical object”.

Another student said, “After this class, I was surprised to know that mathematics could even be linked with the cultural activities that we were performing just for a household job. Now, I think that everything that we study can be linked with the cultural activities making even these boring classes interesting. This lecture really proves it.”

The use of cultural artefacts and everyday activities of learners in classroom teaching seems to be really appealing and the outcome of the understanding as per the students was quite appreciable.

Conclusions

Weaving is one of the common cultural activities in different rural communities in Nepal. The weaving of textiles, sitting mat, sleeping mat, basket and other stuffs, reflect the cultural values and identities. The various mathematical ideas and thinking are inherited in the process of the construction of the mats. It was observed that the mat weaver exhibited sophisticated geometrical ideas in the process of construction of the net for the mat. It is argued that it is possible to use indigenous mat weaving in the teaching and learning of mathematics at different levels of schooling. The incorporation of ethnomathematical ideas of mat weavers with school mathematics enhances the elaborate meaningful connections between the mathematical ideas of two different world (home and school) where the children live and learn simultaneously. The teaching and learning of school mathematics can be enriched if the concepts taught are based on students’ experiences and practices.

References

- Adam, S. (2004). Ethnomathematical ideas in the curriculum. *Mathematics Education Research Journal*, 16 (2), 49-68. State University of New York.
- Alangui, W. A. (2017). Ethnomathematics and culturally relevant mathematics education in the Philippines. In M. Rosa, L. Shirley, M. E. Gavarrete & W. V. Alangui (Eds.), *Ethnomathematics and its Diverse Approaches for Mathematics Education* (183-208). Springer.
- Ascher, M. & Ascher, R. (1997). *Ethnomathematics*. In A. B. Powell and M. Frankenstein (Eds.), *Ethnomathematics: Challenging Eurocentrism in Mathematics Education* (pp. 25- 50).
- Barton, B. (1996). Making sense of ethnomathematics: *Ethnomathematics is making sense*. *Educational Studies in Mathematics*, 31, 201-233.
- Barton, B. (2008). The language of mathematics: *Telling mathematical tales*. Springer
- Bishop, A. (1991). Mathematics education in its cultural context. In M. Harris (Ed.), *Schools, mathematics and work* (pp. 29-41). Falmer Press.
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative and mixed methods approaches* (3rd.ed.). Sage.
- D'Ambrosio, U. (2006). *Ethnomathematics: Link between traditions and modernity*. UNICAMP.
- Ferreira, E. S. (1989). *The genetic principle and the ethnomathematics*. In Keitel, C., Damerow, P., Bishop, A., & Gerdes, P. (Eds.), *Mathematics, education and society* (pp.110 -111). Division of Science and Environmental Education.
- Flick, U. (2006). *An introduction to qualitative research*. Sage Publications.
- Gerdes, P. (1997). *On culture, geometrical thinking and mathematics education*. In Powel A. B.; & Frankenstein, M. (Eds.). *Ethnomathematics: Challenging eurocentrism in mathematics education* (pp. 223-247). State University of New York.

- Gerdes, P. (1999). *Geometry from Africa: Mathematical and educational explorations*. The Mathematical Association of America.
- Gerdes, P. (2005). *Ethnomathematics, geometry and educational experiences in Africa*. *Africa Development*, 30(3), 48-65.
- Knijnik, G. (1997). *An ethnomathematical approach in mathematical education: A matter of political power*. In A. B. Powell & M. Frankenstein (Eds.), *Ethnomathematics: Challenging Eurocentrism in Mathematics Education* (pp. 403–410). State University of New York Press.
- Merriam, S. B. (2009). *Qualitative research: A guide to design and implementation*. Jossey-Bass.
- Millroy, W. L. (1992). An ethnographic study of the mathematics of a group of carpenters. *Journal for Research in Mathematics Education Monograph 5*. National Council of Teachers of Mathematics.
- Mosimege, M., & Lebeta, V. (2000). *An ethnographic study of mathematical concepts at the Basotho cultural village*. In S. Mahlomaholo, M. Nkoane, & K. Smit (Eds). *Proceedings of the 8th Annual Conference of the Southern African Association for Research in Mathematics and Science Education*. University of Port Elizabeth.
- Pradhan, J. B. (2012). Mathematical knowledge generation and distribution of Chundaras: *Communalities and disparities from school pedagogy*. University Grants Commission.
- Pradhan, J. B. (2017). Mathematical ideas in Chundara culture: *Unfolding Nepalese teaching and learning system*. In M. Rosa, L. Shirley, M. E. Gavarrete & W. V. Alanguí (Eds.), *Ethnomathematics and its Diverse Approaches for Mathematics Education* (125-152). Springer.
- Rosa, M., & Gavarrete, M. E. (2017). An ethnomathematics overview: *An introduction*. In M. Rosa, L. Shirley, M. E. Gavarrete & W. V. Alanguí (Eds.), *Ethnomathematics and its Diverse Approaches for Mathematics Education* (3- 19). Springer.

Taylor, S. J., & Bogdan, R. (1998). *Introduction to qualitative research methods: A guidebook and resources (3rd ed.)*. John Wiley & Sons.

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Using Handouts in the Bhutanese Classrooms: Its Effectiveness and Limitations in Teaching Learning Economics

Tshewang Dorji

Abstract

The researcher have used handouts in teaching learning Economics for the last 13 years. So far, no study has been done to examine the usefulness of handouts in the teaching learning process. The purpose of this study was to examine the perception of students on the use of handouts and to find ways to improve the handouts for future use. The data was collected through a structured survey questionnaire with 28 students (11 boys and 17 girls) of class XE of Dechencholing Higher Secondary School under Thimphu Thromde. Open ended questions were included in a structured survey questionnaire to further enrich qualitative responses. Focus group interview with 8 students (4 boys and 4 girls) were carried out to get views and opinions about handouts. The focus group discussions were analyzed using the process of emerging themes. The survey questionnaire data of the close-ended questions were analyzed using SPSS version 24 and open-ended questions in the survey questionnaire were analyzed using axial coding. Analysis of the study revealed that handouts were useful for teaching relevant, useful and important topic areas, especially where class size is large. Suggestions from students to improve the quality of handouts included increasing the font size, having enough space in the handouts for students to write their own notes, use of relevant tables, diagrams and graphs, and including suitable examples to enhance their understanding of topics. Handouts should be distributed in the class at the end of a lesson so that students are not distracted by reading handout during the lesson.

Keywords: handouts, teaching-learning, economics

Background

Teaching is a noble profession done by applying various teaching skills and teaching strategies in accordance with age level of students, availability of learning materials, background of students and the nature and scope of subjects (Subba, 2018). There are various skills, strategies, and techniques to teach economics in secondary schools. Teachers are free to use a variety of skills, strategies and technique based on their ability, interest and experience (Sharma, 1985). One of the strategies or techniques to teach economics for secondary school was through the use of handouts among others. About two to three decades ago, the

use of handouts was relatively rare (Race, 2010). Today a majority of the students use handouts in addition to textbooks to improve their academic performance. In many schools teachers use handouts to provide additional information on the topics taught in the class. Teachers believe that handouts help students understand complex topics, ideas, diagrams and equations on their own and from discussions with friends after school hours.

Although the use of handouts as an additional teaching learning material has much been debated among educationists, handouts are still used in making learning happen and to achieve a high learning outcome (Race, 2010). I have found handouts to be a useful strategy in teaching economics, but it is not yet clear if it is a successful strategy. Therefore, I felt it is important to evaluate the benefit of using handouts, especially in teaching learning Economics.

The researcher have used handouts as a strategy or technique to teach Economics in secondary school for the last thirteen years. Handouts were distributed before the topic or lesson. Handouts containing solved questions from past papers and questions and learning activity from textbooks and question and answer notes were distributed to the students at the start of a chapter or topic to support and supplement the content of teaching session or to cover the omitted points from the teaching session. It is intended to provide additional information and highlight important points on the topics taught. Many topics and concepts, which are difficult to be explained during the regular classes can be read from the handouts.

Significance of the Study

There is not a great deal of study done on the use of handouts in teaching-learning process. The use of handouts in the teaching learning process is not new in Bhutanese classrooms. Today, handouts have an increasing importance in teaching a large class size (Race, 2010). Handouts are also used as one of the important means of teaching and learning in schools.

This study was carried out to explore the Bhutanese students' perception on the use of handouts and find ways to improve the handouts and its use in the teaching learning of Economics. The findings from this study will be useful in preparing and modifying the existing handouts.

The Objective of the Study

This study aimed to explore and investigate the perceptions, problems and challenges faced by students while using handouts in teaching learning. An understanding of suggestions and recommendations from students will be helpful in understanding how handouts can be best used to teach economics in secondary school.

Research Question

This study attempts to answer the following research questions:

1. What are the views and perceptions of students on the use of handouts in studying Economics?
2. How can I improve the quality of handouts that I use in teaching learning of Economics?

Literature Review

Literature shows a variety of definitions for handouts by different scholars. However, the definitions are found fundamentally similar in nature and scope. According to McIntosh (2013, p. 706) “handout is a document given to students or reporters which contains information about a particular subject”. In many cases, handouts contain short notes so that students can remember or understand the key points of the lesson (Race, 2010). More detailed information can also be provided in handouts if necessary (McIntosh, 2013).

Literature shows that handouts can be a very useful tool to enhance teaching-learning process. Race (2010) states that students regard handouts as a method of supplementing their reading rather than replacing it. With more detailed information in handouts, students can perform better in assessment and test (Russell, Caris, Harris & Hendricson, 1983). Handouts are a useful tool to engage and enrich the learning process in the classrooms. Handouts help teachers cover more topics in a lesser time, and it helps to increase the instructional time for other learning activities in the classroom (Race, 2010).

Blight (1998) argues that handouts are used to accomplish three goals, firstly to ensure that students have the same basic background knowledge to guide students through difficult lectures and activities; and secondly to save time, deliver more content, and provide more room for students to ask questions. Similarly, handouts became increasingly important in the context of large group teaching and made available to the class after lectures. Children who missed teaching session, teacher tone of voice, body language, facial expression and class participation can cope with the help of handouts. The handouts are more of adjunct to the intended learning (Race, 2010).

In the study by Mikits (2009), handouts are a form of technology, which allows children to gather, process and retain information swiftly. As a result, handouts increase instruction hours and cover a lesson within a short period of time. Similarly, handouts allow children to listen to a lecture and contribute to discussions and look at what the speaker is talking about instead of taking notes. Use of handouts may help increase the attention of a student to spend time and effort in

establishing the understanding of topics taught. Race (2010) outlined that handouts are useful as study guides, referencing and resources.

According to McIntosh (2013), it is important for teachers to distribute or give handouts after the presentation. Students thus are not distracted by the urge to read handouts during presentation or lesson, but are attentive and interactive during the lessons. When students have handouts with them during the lesson, they tend to answer questions asked by teachers referring directly to the handouts, and without actively thinking for answers. Literature shows handouts are important for teachers to use if students demand it for active learning. Most often students demand handouts for additional information and ideas to understand complex topics, process and constructs (Race,2010).

Research Methodology

This study used a quantitative and qualitative approach to collect data. Since the study was exploratory in nature the data was based on a structured survey questionnaire (Appendix A) and focus group discussion. All structured survey questionnaire was piloted with a small group of students before the main study to assess the value, validity and reliability (Bradford University School of Management, n.d.). The study included 28 students (11 boys and 17 girls) of class X E of Dechencholing Higher Secondary School under Thimphu Thromde. One student could not participate in the survey questionnaire due to some unavoidable reasons.

Students of class X E were targeted because they were taking Economics as one of their subjects in the school. Handouts were used as teaching-learning material with them. Structured survey questionnaire was used to find their perception and views on the use of handouts and to explore challenges and issues they might have faced as a result of using handouts. Open-ended questions were included in structured survey questionnaire to enrich the qualitative responses.

Focus group discussion with 8 students (4 boys and 4 girls) through a non-probability convenient sampling technique was carried out to get in depth views and opinions about the usefulness or effectiveness of handouts in teaching learning process from a selected group of students. Focus group discussion can also be a useful way of bringing issues to the surface that might not otherwise have been discovered (Bradford University School of Management, n.d.). The length of the focus group discussion was around 20 minutes.

Data Analysis and Interpretation

Data collected through the structured survey questionnaire was entered, cleaned, coded and analyzed using SPSS version 24. The quantitative data was analyzed using simple descriptive analysis such as frequency and percentage.

Open-ended questions in the structured survey questionnaire and focus group discussions were analyzed using axial coding. The focus group discussions were recorded and then transcribed. Themes were generated based on the common responses of the student participants. The students' participants were coded as 001 for the first student for anonymity and confidentiality.

Result and Findings

Structured Survey Questionnaire

The analysis of the structured survey questionnaire are as follows:

Table 1

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	11	39.3	39.3	39.3
	Female	17	60.7	60.7	100
	Total	28	100	100	

Of the 28 students surveyed, 11 (39.3 percent) were boys and 17 (60.7 percent) were girls.

Table 2

Students Rating on the Importance of Handouts

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all Important	1	3.6	3.6	3.6
	Important	10	35.7	35.7	39.3
	Very Important	17	60.7	60.7	100
	Total	28	100	100	

In general, 60.7 percent of students rated that they found handouts very important, while 35.7 percent of students rated handouts are important in teaching and learning Economics. Six students noted that handouts provide more information and are easier to understand than textbooks. The handouts helped students to understand economics concepts easily.

Overall it is evident from Table 2 that the majority of students seem to find the handouts very important in teaching and learning Economics.

Table 3

How Often do you Read These Handouts?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	1	3.6	3.6	3.6
	Rarely	1	3.6	3.6	7.1
	Sometimes	22	78.6	78.6	85.7
	Always	4	14.3	14.3	100
	Total	28	100	100	

Table 3 shows the percentage of students reading handouts. 78.6 percent of students responded that they read handouts sometimes and 14.3 percent of them have read handouts always. Two students (006 and 008) remarked it is because students need time and preparation for other subjects. Some students prefer textbooks than handouts. In addition, Dechencholing Higher Secondary School is a day-school, upon reaching home, students are forced to run domestic errands for their family besides having to complete homework, projects assigned in other subjects.

Table 4

How Useful are These Handouts?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Useful	1	3.6	3.6	3.6
	Useful	11	39.3	39.3	42.9
	Very Useful	16	57.1	57.1	100
	Total	28	100	100	

As shown in Table 4 above 57.1 percent of students responded that they found handouts ‘very useful’, and 39.3 percent of them found it ‘useful’ to read. One student mentioned that handouts contain more information than text books. Two students remarked, “handouts contain brief, understandable and insightful information”.

Table 5*Do Handouts Help Score More Marks in Examinations?*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	1	3.6	3.6	3.6
	Yes	27	96.4	96.4	100
	Total	28	100	100	

Table 5 above indicates that 100 percent of students scored more marks in the examinations because of handouts. Some of the responses given by students are handouts are easier to comprehend than text books. More than 70 percent of questions comes from handouts during midterm examination. Handouts contain more information than Economics text books.

Table 6*Which of the Following is More Helpful to You?*

		Frequency	Percent	Valid Percent	Cumulative Percent
	Others	1	3.6	3.6	3.6
	Text Book	6	21.4	21.4	25
	Question Answer Handouts	21	75	75	100
	Total	28	100	100	

To this question, 75 percent of students found handouts being more helpful than just using textbook. Overall most students prefer handouts than Economics textbook. Some reasons they stated are that the Economics textbook is loaded with too many information and that it is bulky to read and follow. Some languages in the textbook are difficult to understand. Whereas handouts, they say contained key points and are easy to understand. Handouts are said to save time for examination preparations, give confidence to students during examination when intervals between exams are too short for full revision from the textbook.

Table 7*Which of the Following do you Read More?*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Others	1	3.6	3.6	3.6
	Text book	7	25	25	28.6
	Question Answer Handouts	20	71.4	71.4	100
	Total	28	100	100	

Table 7 indicates that 71.4 percent of students read handouts more than the textbook and 25 percent of students read Economics textbook more than the handouts. One student remarked “my parents discourage me from using the handouts. My parents encourage me to use textbook for better learning and understanding of the topic”. Overall most students prefer and read handouts more than textbook.

Table 8*Handouts Are Understandable and Student-Friendly*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all Agree	1	3.6	3.6	3.6
	Agree	14	50	50	53.6
	Strongly Agree	13	46.4	46.4	100
	Total	28	100	100	

On the understandability and student-friendliness of handouts, 46.4 percent and 50 percent ‘strongly agree’ and ‘agree’ respectively that the handouts were understandable and friendly. However, 3.6 percent of students reported that the handouts were not understandable and student friendly. Students reported that the language used in the handouts was of a high standard and some spelling and grammatical errors were also spotted. Some sentences are complicated and answers are too long for the questions.

Table 9*Do you Want Handouts in the Next Higher Class?*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Sure	1	3.6	3.6	3.6
	No	3	10.7	10.7	14.3
	Yes	24	85.7	85.7	100
	Total	28	100	100	

85.7 percent of student responded ‘yes’ to the question meaning all participating students wanted such handouts in the next higher class. One student mentioned “handouts make us lazy and more dependent. Handouts should be discouraged because it does not promote creativity nor fosters student’s competency in the 21st century”.

Table 10*How is the Layout of the Handouts as a Whole?*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Need Improvement	1	3.6	3.6	3.6
	Good	6	21.4	21.4	25
	Very Good	14	50	50	75
	Excellent	7	25	25	100
	Total	28	100	100	

It is impressive to find that 3.6 percent of students felt that the layout of handouts needed improvement.

10. To whom do you recommend the use of handouts?

Almost 70 percent of students recommended the use of handouts for higher classes, XI and XII. 15 percent of students recommended it to other schools and five students recommended for other teachers to use such handouts in teaching. Three students recommended handouts for students who undertake board examinations (Bhutan Certificate of Secondary Examination). Three students recommended handouts to other Economics teachers because it is easy to read and understand handouts. 2 students recommend handouts to class IX who study economics for the first time.

11. In your view, how can handouts be improved?

Around 10 percent of students suggested having space beside the answer to add their own notes. 6 percent suggested providing more relevant tables, diagrams and graphs, and suitable examples to be included to enhance their understanding of the topics. 5 percent of students suggested the handouts to be kept shorter and only on selected topics. 2 percent of students suggested narrowing down the subject content so that everything on the handouts can be regarded as important. 3 percent recommended the language to be made simpler and letter fonts bigger. They also suggested to avoid long and dense handouts but to keep them as concise as possible for easy reading. 30 percent of students suggested that the distribution of handouts should be done after a topic or lesson in the class. Such practices will help students to pay more attention to the class.

Focus Group Discussion

Upon analyzing the focus group discussion with eight students (4 boys and 4 girls) three major themes were drawn. The following were the three major themes from the focus group discussion:

1. Help to understand economics subject

The majority of student participants responded that handouts as one of the major factor in understanding economics concepts. Three students (003, 005 and 008) out of eight students responded that they cannot understand all concepts taught in the classroom. With the help of handouts they can make up the class. One student (002) said, “after going through the handouts, I understand economics concepts more easily”. Handouts also help students to understand the economics textbooks easily. The question answer handouts enhances better understanding of concepts.

2. To cope with missed classes

All participants agree that handouts help them to overcome their absences in the school. Students who missed regular teaching session can cope with the help of handouts. Student 007 said, “I missed many classes due to unavoidable reasons still then, I can make up my classes with the help of handouts, friends and teacher”. Handouts provide another platform for the student who missed regular classes. Students can also explore more information from question answer handouts.

3. Improve academic performance

Most teachers in Bhutan teaching classes X and XII prepare handouts and give to students to help students score higher marks in the examinations. Five

students (001, 002, 004, 006 and 008) out of 8 students responded that handouts enhanced academic performances. 004 students said “I am very happy with the handouts. I am able to do well in the exam due to handouts. I am good at memorizing and I can remember everything in the handouts”. Use of handouts has positive relation with academic performance if handouts are prepared well. The focus group discussion supported the Russell et al. (1983) with more detailed information in handouts students perform better in assessment and test.

However, students faced a number of problems while reading handouts. Four students (005, 007, 003 and 001) said, there are irrelevant tables, diagrams and graphs, not suitable examples outlined in the handouts to enhance their understanding of the topics. One student (001) remarked, “It’s frustrating. Letter front is too small. Since I am a visually impaired student I face difficulty in reading handouts”. 3 students (007, 005 and 001) suggested that “Competency Based Question should be included in the handouts. More than 30 percent of board examination: Bhutan Certificate of Secondary Examination question paper consist of Competency Based Questions”. After the focus group discussion, I felt focus group discussion was very important for me to take into account and plan well for the future.

Conclusion and Recommendation

Overall findings from this study indicated that students are more interested and prefer handouts. The students responses show that they value the use of handouts. Review of students’ ratings indicates handouts were considered important, relevant, useful, and helpful in improving teaching learning process. The responses were mostly positive with few suggestions for future improvement. Therefore, I have come to the conclusion that where class sizes are large, handouts are highly relevant and meaningful to the students. When there are more than 29 students in a class, interacting with every child is not possible and teaching is mostly subject centric than child-centric.

Gauging student’s perception, such handouts are more of an adjunct and lifeblood to the intended learning for student who missed the class or who would not follow the teaching. One advantage of such handouts is to help genuine absentees to cover up the topic. It also provides a reference to other student who wishes to understand difficult concepts or to further modify notes.

By going through the suggestions given by students on the layout of the handouts, the researcher would like to incorporate all their feedback to make the handouts more relevant and user friendly for students. The researcher has also learned that researcher should also add some higher order questions and activities, Competency Based Questions for student to explore on their own or to prepare for

Bhutan Certificate of Secondary Examination.

Although it is burdensome for teachers to prepare handouts, Race (2010), recommends that the handouts should look interesting and relevant. Simple, useful, informative and relevant handouts can be used to enhance teaching learning. By narrowing down the subject content so that everything on handouts can be regarded as important and students will be further encouraged to invest time and energy on subject matter in addition to textbooks.

In future, researcher would like to make handouts more interesting to study and read by presenting information in simple and understandable manner, including useful and important aspects of the content, using relevant illustrations to support explanations, using appropriate font and layout and give student a feel that some of their work is already done (Race, 2010). Researcher will distribute handouts after a topic or lesson or presentation. Such practice will help students to focus more on issues and teaching learning become interactive during the delivery of the lesson or topic (Mcintosh, 2013). If handouts are distributed before or during class, the students get distracted by reading handouts during the lesson.

Limitations of the Study

This study was conducted with 28 students (11 boys and 17 girls) of class X E of Dechencholing Higher Secondary School under Thimphu, Thromde. The findings cannot represent enough to truly depict a whole scenario. The study was carried out to see the usefulness, effectiveness and relevance of the use of handouts by a single teacher. It was also a one-time study and it does not show any trends. Although the findings from this study are convincing in using handouts to improve students' achievement, the use of it by teachers depend on many factors. There is no single blueprint to promote effective teaching and effective learning (Cohen, Manion, Morrison & Wyse, 2010). The findings should not be used as it is. Every teaching methodology has got its own merits and demerits (Sharma, 1985). More study needs to carry out at the national level to validate the current results and findings. Further study can also be done in other schools of Bhutan and results can be compared. Another limitation of this study was the limited access to the literature available for review.

References

- Annis, L. (1981). Effect of preference for assigned lecture notes on student achievement. *Journal of Education Research*, 74, 179-182.
- Bligh, D. (1998). What is the use of lectures? Retrieved from https://books.google.bt/books/about/What_s_the_Use_of_Lectures.html?id=l-xxxqZX-UU8C&redir_esc=y.

- Boreham, N., Lilley, J., & Morgan, C. (1998). Learning from lectures: The effect of varying the detail in lecture on note-taking and recall. *Applied Cognitive Psychology*, 2(2), 115-122.
- Brazeau, G. (2006). In the classroom: Is note taking a lost skill? *American Journal of Pharmaceutical Education*, 70(2), 1-2.
- Bradford University School of Management. (n.d.). *Effective Learning Service: Introduction to Research and Research Methods*. Bradford University School of Management.
- Caris, T., Harris, G., Hendricson, W., & Russell, I. (1983). Effect of three types of lecture notes on medical student achievement. *Journal of Medical Education*, 58(8), 627-636.
- Cohen, L., Manion, L., Morrison, K., & Wyse, D. (2010). *A guide to Teaching Practice (5thed.)*. Routledge.
- Hartley, J., & Davies, I.K. (1978). Note-taking: A critical review. *Programmed Learning & Educational Technology*, 15, 207.
- Hartley, J. (1976). Lecture and student note-taking. *Innovations in Education and Teaching International*, 13(2), 58-64.
- Hartley, J., & Marshall, S. (1974). On notes and note-taking. *Higher Education Quarterly*, 28(2), 225-235.
- Kiewra, K.A. (1989). A review of note-taking: The encoding storage paradigm and beyond. *Educational Psychology Review*, 1(2), 147.
- Kinchin, I. (2006.). Developing PowerPoint to support meaningful learning. *British Journal of Education Technology*, 37(4), 647-650.
- Kroenke, K. (1991). Making the lecture portable. *Medical Teacher*, 13(3), 199-203.
- Mcintosh, C. (2013). *Cambridge Advanced Learner's Dictionary. (4thed.)*. Cambridge University Press.
- Makits, J. (2009). The use of classroom handouts. Retrieved from https://www.usma.edu/cfe/Literature/Mikits_09.pdf.
- Russell, I.J., Caris, R.N., Harris, G.D., & Hendricson, W.D (1983). Effects of three types of lecture notes on medical student achievement. *The Journal of Medical Education*, 58, 627-636.

- Race, P. (2010). *Making learning happen* (2nded.). SAGE.
- Sharma, R.C. (1985). *Modern Science Teaching*. D.R. Printing Service.
- Sidhu, K.S. (2003). *The teaching of Mathematics* (4thed.). Sterling.
- Subba, P.B. (2018). Andragogy and Pedagogy Working Together in Shifting Balance: An Evaluative Study of the Teaching- Learning Process in Samtse College of Education (SCE). *Bhutan Journal of Research and Development*, 8(1), 3-23.

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Television and Vocabulary Development in a Child

Kesang Wangmo

Abstract

Television is assumed to help young children in developing their vocabulary in general, however, there is less research on the development of vocabulary through this media among young children for whom English is a second language. Therefore, in absence of a large-scaled empirical study, some writers have been content to accept both the positive and negative effects of television on a child's vocabulary development. This research uses a case study to find out whether or not watching English television programmes help a child from a non-English ethnic background acquire English vocabulary. The case study used here is a four-year-old boy from Bhutan without any English language background. An unstructured interview and naturalistic observation methods were used to gather data. The findings indicated that there was an enhanced development of vocabulary from watching television and movies. The key factors contributing to such development were viewer's (a) age (b) immersion; and (c) imitation. The study concludes that while a general relation may exist between vocabulary development and viewing television, more research is needed to ascertain the exact nature of this correlation.

Introduction

A child learns and masters his or her first vocabulary without any deliberate effort with age. In fact, it is subconsciously acquired as a result of the exposure to vocabulary from the parents, friends, and from play (Harmer, 2007). Similarly, children incidentally learn vocabulary while watching television during leisure hours. The incidental effect cannot be denied, as Kuppens (2009, p. 66) stated, "It is not only useful for intentional language learning but also for incidental language acquisition." The opportunities available to the child can have a significant effect in developing a child's vocabulary. For this, children need to be exposed to situations where they can hear and use the target language.

There is no doubt that television provides a massive amount of first language (L1) input (Webb, 2009). However, there is less research examining the relationship between vocabulary development and television viewing of second language (L2) learners. The aim of this study is to observe the influence of television on the vocabulary development of a young Bhutanese child.

Television in this study would be understood as English language-based television

programmes such as animation movies, videos, and children's shows.

Research Question

This paper investigates the question "Does a four-year-old child incidentally develop vocabulary from watching television?" It is also to test the hypothesis that when a child is allowed to view animation and cartoon programmes in English, this tends to develop the child's English vocabulary more effectively.

Literature Review

Many empirical studies have indicated the positive relationship between watching television or video and incidental vocabulary development. Laufer and Hulstijn (2001) defined incidental vocabulary learning as "learning words without deliberate decision to commit information to memory" (p.11). Rice and Woodsmall (1998, as cited in Webb & Rodgers, 2009) found that children who watched a 12-minute cartoon with a narration that featured 20 unknown target words had higher scores on a picture recognition task that measured knowledge of those words than children who watched the cartoon with a narration in which the target words did not occur. The findings also showed that five-year-old learned more words than three-year-old. Further, Oetting, Rice, and Swank (1995) used the same video and target words with normal and specific language impaired children of six to eight-year-old. They also found that both groups of children demonstrated significant L1 incidental vocabulary gains though the specific language impaired children made a small gain than the normal children. The above studies suggest that there is a positive influence on incidental vocabulary learning from television.

Besides, Pavakanun and d'Ydewalle (1992) studied the effects of watching a 12-minute cartoon on vocabulary learning on two groups of language learners: English native speakers learning Dutch and Dutch native speakers learning Spanish. It was found that the group who watched the movie in the target language had higher scores on a multiple-choice test measuring recognition of meaning. All of the target words were spoken on the programme at least five times. So, they concluded that watching television in a foreign language may lead to large incidental vocabulary learning. And in their study with foreign language vocabulary acquisition with primary children, Koolstra and Beentjes (1999) found that young children who watched a 15-minute English language documentary had higher scores on a multiple-choice test that involved matching the L1 meaning with the L2 target vocabulary than the controlled group children who did not watch the programme.

With pictures on primary school children. The result showed that those

who watched short video clips in the target L2 (French) achieved higher on a comprehension test than learners who heard the teacher read a transcript of the video and saw four pictures relating to the context. Their finding suggests that the use of video improved comprehension more than pictures as it is more effective at creating the link between L2 form and L1 meaning.

Increasingly, studies show how watching television can be effectively used as a medium for learning foreign language skills. For instance, Kuppens (2009, p.65) cited in Vanderplank (1998) argued that television provided learners with appealing samples of authentic language to reinforce their confidence and language proficiency. Bahrai (2011, p. 261) supported this claim stating that “through exposure to television news, children acquire the knowledge, structures, strategies, and vocabularies they can use in everyday situations.”

A study conducted by researchers at Lancaster University, Northern England, studied 52 children aged four to six to find out any educational benefits from exposing them to Harry Potter movies. The children were formed into two groups, with the first group being shown magical scenes from the movie, which included talking animals, wizards and spells. The second group watched non-magical scenes from the same movie. It was found that the first group performed better than the second group in creativity tests which included pretending to be a rabbit and thinking of different ways to put plastic cups into the trash bin. The result suggested that watching movies about magic might aid to explain children’s imagination and creatively (“Watching Harry Potter,” 2012). Therefore, it can be argued from this study that watching English movies and television has potential to influence the viewers in learning foreign words. Linebarger’s (2004, p.20) study on the potential language benefits of television programmes for children aged above two years supported this claim where his study findings revealed positive outcomes relating to children “vocabularies and expressive language abilities.” Although television can be used as an effective language learning material, yet, Clark and Clark (1977, cited in Evans, 2004, p.23) contest that, “television is a passive medium and children need to be interactive users to learn language”. From the Interactionist theory (Vygotsky, 1985, as cited in Blankson et al., 2015) proposes that children need to interact with others to learn vocabulary. If children need to interact, then watching television would not enable them to learn a language. Wright et al. (2001), in his two longitudinal investigations, also found that children who watch more general education programs at 2–5 years of age have lower vocabulary receptive.

Research Method

A case study is understood as a “qualitative approach in which the investigator explores a bounded system (a case) or multiple bounded systems (cases) over time, through detailed, in-depth data collection involving multiple sources of information and reports a case description and case-based themes” (Creswell, p.73). In conducting a case study, the case being studied may be an individual, several individuals, an event, or an action, existing in a specific time and place. For this research, a single instrumental case study (Stake, 1995, as cited in Creswell 2007) is chosen for the investigator to focus on “an issue or concern, and then selects one bounded case to illustrate the issue” (Creswell, p.74).

Thus, this paper adopted a case study method to provide an in-depth observation and understanding of the case – the incidental development of English vocabulary through watching television of a four-year-old boy.

Informant

There was only one informant involved for this case study, a boy named Karma (pseudonym used for the protection of the child’s identity and for ethical reasons). Karma is four year old and had come to Australia from Bhutan with his parents. He had not yet been to pre-school in Bhutan and his home language is Tsangla, a dialect spoken by the people in the eastern part of Bhutan.

Code-switching is common phenomenon in Bhutan and is the capability of a bilingual to substitute naturally between two languages (Bullock & Toribio, 2009). Not only could language dominance play a role (Gollan & Ferreira, 2009; Gross & Kaushanskaya, 2015, as cited in Bosma & Blom, 2019), but also the situation of language use. Thus, both parents speak English as they have been educated in an English medium school in Bhutan. They speak English, Tsangla (Karma’s mother tongue), and Dzongkha (national language of Bhutan) interchangeably with Karma at home. Karma did not have much contact with any native English-speaking children of his age at the time of this study. Thus, his language environment mainly of Bhutanese people and interaction with peers of his age who spoke mostly his own mother tongue (Tsangla) and Dzongkha (the national language of Bhutan).

Research Data and Analysis

The data for this paper derives mainly from four sources to ensure triangulation and validity (Creswell, 2007). One source is the data from seven unstructured interviews with the informant. Each interview took around 10-15 minutes. All interviews were conducted in his native language. I conducted nine weekend observations of the informant. I visited the informant's home every Saturday and Sunday and observed for an hour on each visit. I observed how often he watched television and how he imitated and used the language heard on the television or video.

It proved difficult to personally check if Karma picked up any vocabulary from the television watched during my visits and observation. To counteract this difficulty, I developed an observation checklist to be filled in by his parents whenever they observed Karma using a new word or a phrase. I also had informal conversations with Karma's parents seeking their observations about Karma's vocabulary development. These data were analysed following grounded theory procedures to identify salient themes (Strauss & Corbin, 1998).

Findings

Vocabulary

Karma acquired a number of English words and phrases and his ability to use words in English had increased at a steady and impressive pace during the period of this study. He had acquired 283 words (Table 1) in nine weeks, but some words were repeated in his phrases. There was a vast improvement in his vocabulary between the first week and the last week (Table 2). For instance, in week four, Karma named five more animals such as dinosaur, donkey, horse, bunny and rat besides the names of the five animals asked in the interview. He used short phrases that were in movies and television shows to talk with his toys and parents - phrases like "what is that?" from the children's show *Dora the Explorer* and *big monster* from the animated movie *The Ice Age*. In the first week, Karma seemed worried about the inadequacy of uttering even a single English word that I asked. In fact, he hardly spoke any English word concentrating his attention to the cartoon and his parents. By the end of the observation, he had become comfortable with my presence and quite confident of his ability to answer my questions. He often used vocabulary like "okay, no, yes, thank you, sorry, see you" in our informal conversations. I observed he greatly enjoyed trying his newly acquired words while playing with the toys.

Table 1*Total Words Acquired*

Words/ phrases uttered by the informant
Red, blue, green, yellow, orange, Mummy, daddy, no, 4. yes, ok, gun, car, book, spoon, plate, outside, hi, up, rain, baby, come, eating, going, cow, dog, cat, rooster, monkey, here, run, my car, baby sleeping, come, no going, there, up, boy, naughty, big monster, put this, my cat, don't do that, swimming, story time, not here, go there, yellow leaf, toy, my toys, mummy angry, food, yellow leaf, my best, story, paper, you, come on, fight, see you, I am good, not that, look aeroplane, running, give, horse, donkey, hippo, camel, zebra, lion, tiger, rat, dog, bird, duck, butterflies I know, snow, alright, go out, say, listen, jump, fly, hungry, sleep, water, sorry, thank you, please, new shoe, raining, sunny day, daddy, mummy, Fire, dinosaurs, elephant, acorn, big monster, me too, towel, bucket, hat, sun, swim, sandcastle, rainy day, umbrella, thunder, lightning, I go outside, listen me, jump high, look airplane is flying, baby sleeping, I sleep, yes, I hungry, I'm sorry, give me water please, baby's new shoe, no shoe, no playing fire, , look raining, elephant is big animal, you big monster, my dinosaurs, quiet, baby towel, my hat/cap, put sun-screen, baby, go swimming, look sandcastle, car, gun, airplane, train, boat, , helicopter, orange, cherry, mango, banana, grapes, I want to drive, do like that, I like that, don't go, stay here, come on, here, there, what happened?, this way, that way, say sorry, try again, my things, my head, just wait, I want to pee, toilet, I want to eat, wake up, get up, sit down, hold on, too hard, bedroom, kitchen, I will be back, not sharing, don't say that, what is that sound?, I am cold/hot, color, white,

Table 2

	Researcher observation	Parents observation
Week1 (March 3-4, 2012)	Karma's Vocabulary	Karma's vocabulary
	Blue, red, yes, mummy,	Mummy, baby, dog, gun, monkey, boy,
Week 9 (April 28-April 29)	Big monster, thank you, my best, not sharing, colour, sit down, no going, come here, go there, look raining, my gun, towel, naughty, quiet, baby towel, I go outside, come on.	elephant is big animal, say sorry, story time, hungry, you, I am cold/ hot, look airplane is flying, yellow leaf, I am good, sleep, going, baby no shoe, don't say that, what is that sound?

Multiple Words

Another striking observation of Karma's vocabulary development was his ability to use multiple words. His single word "fire" developed in the earlier week was added with other words such as "You, fire!" or "Come on, fire me" while playing with his toy gun. These lines were imitated from the movie *Toy Story*. Vocabulary development had clearly increased. For instance, at the beginning of the first few weeks, Karma could hardly speak or name the few colours that were asked on the television show *Wurrah*. At the end of the observation week, he could understand, enjoy, and almost accurately tell the meaning of the words and name the things in English when asked about them in his native language.

Pronunciation

Impressionistically, Karma's pronunciation of the words he acquired was nearly native. He articulated the words like "monster, dinosaur, no, kind" clearly. The sound /th/ /t/ /k/ of his words was very distinct. His intonation was noticeably better than most Bhutanese children whom I had taught earlier in Bhutan.

Discussion

The development of vocabulary of young children is unique and it is estimated that their receptive vocabulary often is four times greater than their expressive vocabulary. A few thousand words account for 90 percent of the spoken vocabulary anyone uses or hears on a regular basis (Hayes & Ahrens 1988, cited in Jalongo & Sobolak, 2011). From regular television viewing and videos Karma had developed a good percentage of vocabularies within the short observation period though he could not express all the words that were acquired. His success in acquisition of vocabulary can be attributed to his age, immersion, high integrative motivation to use the words learnt, imitation and the learning context. Therefore, I conclude the hypothesis by stating that the incidental development of vocabulary from watching television is effective.

There are number of ways in which one might attempt to explain this conclusion. It is possible that Karma's young age might be the most influential factor in developing his vocabulary very fast. For those who view younger as better for second language acquisition (Krashen, Long & Scacella, 1979, cited in Schmidt, 1983), this is a positive factor. For instance, I have observed my six year-old son using English words that are far beyond his age sometimes and when asked, he would say that he learnt them from the Cartoon Network channel or other movies he watched on television. Occasionally, he would ask the meaning of some words he heard on television or movies and then use them in his communication with others. This is also in consistence with Rice and Woodsmall (1998, as cited in Webb & Rodgers, 2009) findings that five-year old learned more words than

adults did. A longitudinal study on the effects of television exposure on children between six and 30 months of age by Kirkorian, Wartella and Anderson (2008, p.48) showed television viewing at three years and beyond of programmes such as *Dora the Explorer* and *Blue's Clues* had positively linked with subsequent vocabulary and expressive language development.

Karma was highly immersed in movies and motivated to use the new words in playing with his toys and that must have had a considerable influence in his developing multiple words. He often talked to the television characters and frequently engaged in situation-related actions and dialogues. There is clear evidence of incidental development of vocabulary from watching television. Television viewing can help develop contemporary communication skills (Flood & Lapp, 1995). Moreover, Evans (2004) strongly supported television as a fun way of learning language and as medium that introduces a variety of language teaching items for children. Though contested by the Interactionist claims that television lacks interaction in helping children develop a new language, viewing does serve as a useful tool for vocabulary development in a young child at least in the Bhutanese context.

Another aspect of Karma's ability may be imitation that reflects one characteristic of television influence. Karma's parents reported that Karma was very good at imitating the characters' dialogue and used phrases with them such as "put me up" from the animated video *Happy Two Feet* to ask his father to pick him up. Linebarger (2004) claimed that young children are more likely to use those words and grammatical phrases to which they are exposed. Thus, the language heard and seen on television and animated movies act as a fundamental support for early vocabulary development. Viewing television shows guide children in their learning and provide "an important forum for development awareness of the pragmatics of language" (Dockrell, Stuart & King, 2004, p.16).

Conclusion

This study demonstrates beneficial of viewing television in the child's vocabulary development. It also indicates of having potential for language development in young children. Though, case studies provide useful empirical data but in this study the data was limited to only one case study, so any attempt at generalisation is challenging. Although, there is evidence of enhancement of vocabulary in a child from watching television, more research is required to form a comprehensive data and research finding on television viewing and vocabulary development in young children.

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References

- Bahrai, T. (2011). The role of audiovisual mass media news in language learning. *English Language Teaching*, 4(2), 260-266.
- Bidha, S., & Dorji, T. (2010). Building students' oral Fluency: Perspectives on the use of spoken English in Bhutanese classrooms. *RABSEL the CERD Educational Journal*, 14(1), 11-34.
- Blankson, A. N., O'Brien, M., Leerkes, E. M., Calkins, S. D., & Marcovitch, S. (2015). Do hours spent viewing television at ages 3 and 4 predict vocabulary and executive functioning at age 5? *Merrill-Palmer Quarterly*, 61(2), 264–289.
- Bosma, E., & Blom, E. (2019). A code-switching asymmetry in bilingual children: Code-switching from Dutch to Frisian requires more cognitive control than code-switching from Frisian to Dutch. *International Journal of Bilingualism*, 23(6), 1431–1447.
- Bullock, B.E., & Toribio, A.J.T. (2009). Themes in the study of code-switching. In B.E. Bullock, & A.J.T. Toribio (Eds.), *The Cambridge handbook of linguistic code-switching* (p1-15). CUP.
- Chomsky, N. (1972). *Language and Mind* (2nd ed.). Harcourt Brace Jovanovich.
- Creswell, J. W. (2007). *Qualitative inquiry and research design: Choosing among five approaches* (2nd ed.). Sage Publications.
- Crosser, S. (2008). *Enhancing the language development of young children*. Retrieved from <http://www.earlychildhoodnews.com>
- Dockrell, J., Stuart, M., & King, D. (2004). Supporting oral language skills. *Literacy Today*, 40 (1), 16-17.
- Denscombe, M. (2003). *The good research guide for small-scale social research projects* (2nd ed.). Bell & Bain Ltd.
- Dzongkha Development Commission. (1991). *Report on the first Linguistic survey of Bhutan*. DDC.
- Evans, R. (2004). Is anyone out there listening? *Journal of Education Media*, 29(1), 7-23.

- Flood, J., & Lapp, D. (1995). Television and reading: Refocusing the debate. *The Reading Teacher*, 49(2), 160-163.
- Kirkorian, H.L., Wartella, E.A., & Anderson, D.R. (2008). Media and young children's learning. *Project muse-Standard Collection*, 18(1), 39-61.
- Kuppens, A.H. (2010). Incidental foreign language acquisition from media exposure. *Learning, Media and Technology*, 35(1), 65-85.
- Linebarger, D. (2004). Young children, language and television. *Literacy Today*, 40(1), 20-21.
- Merriam, S. B. (1998). *Qualitative research and case study applications in education*. Jossey-Bass.
- Namgyel, S. (2003). *The language web of Bhutan*. KMT publisher.
- Schmidt, R. (1983). Interaction, acculturation and the acquisition of communicative competence. In N. Wolfson & E. Judd (Eds.), *Sociolinguistics and language acquisition* (p.137-174). Newbury House.
- Strauss, A. & Corbin, J. (1998). *Basics of qualitative research: Techniques and procedures for developing grounded theory*. Sage Publishers.
- Watching Harry Potter. (2012, March). HeraldSun News. Retrieved from: <http://www.heraldsun.com.au/>
- Wright, J.C., Huston, A. C., Murphy, K. C., Peters, M. S., Piñon, M., Scantn, R., & Kotler, J. (2001). Relations of early television viewing to school readiness and vocabulary of children from low-income families: The early window project. *Child Development*, 72(5), 1347-1366.
- Yin, R. K. (2003). *Case study research, design and methods* (3rd ed.). Sage publications.

About the Author

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BOOK REVIEW

Durkheim's Suicide: A Study in Sociology

Dorji Yangzom

French sociologist Emile Durkheim published *Suicide, a Study in Sociology*, in the year 1897. Durkheim made a major impact on sociological studies by publishing *Suicide*, which is considered both a theoretical and methodological exemplar (Appelrouth & Edles, 2012). His interest in the study of suicide and the discourses surrounding it was influenced by the suicide of one of his very own close friends (Luke, 1973). As a sociologist, Durkheim proceeded to explore links between causes of suicide and various social factors. His approach to the suicide phenomenon was a polar opposite to suicide being predominantly regarded as a solitary act of an individual. The analysis of suicide rate between societies and certain time periods, and among various segments of the same society helped Durkheim establish that individual pathologies are dependent on social conditions (Appelrouth & Edles, 2012). This allowed Durkheim to exhibit how sociologists can study social behaviour using scientific methods, which he considered to be an instrument to approve of sociology as a viable scientific discipline. The current article reviews Emile Durkheim's study of suicide in terms of its methodological approach, conceptual and subjective understanding.

To establish a proper understanding of Durkheim's study on suicide, it is crucial to assess his objectives behind it. Suicide had been treated as a moral problem in the eighteenth century and ever since then it had been raising a widespread debate (Luke, 1973). However, in the nineteenth century, suicide escalated as a social problem requiring an explanation in terms of social variables. There were several statistical analyses and interpretative works examining the differences in the suicide rate in order to explain suicide as a social problem. Thus, one of the fundamental objectives of Durkheim's study was to synthesize the theories of earlier ideas and findings that regarded suicide as a social phenomenon (Luke, 1973). In his book, Durkheim demonstrates the fundamental principles of social interpretation in action (Simpson, 1951). Durkheim seeks to explain the basic theme that suicide is a phenomenon linked to an individual who in fact is influenced by the social structure and its ramifying functions (Simpson, 1951).

The book persistently elucidates suicide as a social fact and hence explaining its causes in terms of other social facts. The suicide rate of a given society was considered a mere social rather than an individual act of suicide. The suicide rate, as revealed by the statistics, constituted the social fact that helped explain itself as a consequence of a disparity in the social structure. Durkheim (1897) defines suicide as “the cases of the death directly or indirectly resulting from an appositive or negative act of victim himself, which he knows will produce this result” (as cited in Thompson 1982, 110). He also contends that such act of self-destruction occurs in different frequency in various populations, and that it depends on two social variables namely social integration and social regulation (Johnson, 1965).

In the above arguments presented by Durkheim, he clearly takes no consideration of suicide as an outcome of individual choice. He rather emphasized on the suicide rate of a society in order to demonstrate that it is essentially related to the social environment. In doing so, Durkheim dismisses that suicide results from psychological instability, organic-physic factors such as race and hereditary, physical environment such as temperature and climate, and the psychological phenomenon of imitation (Lukes, 1973). However, many critics refute Durkheim’s stance on suicide as sole social phenomenon. For instance, Giddens (1965) posed that even though some variation in suicide rate can be insignificantly related to social and economic changes, such changes play a very small role in aetiology of suicide. Further, it is argued that since suicide is statically trivial in relation to the total population of a society, social factors cannot influence its aetiology (Giddens, 1965). Similarly, Travis (1990) argues that Durkheim’s denial of organic-physic causes of suicide is invalid because a study has shown that the enormous population of suicide is caused by physic terror, loneliness and social isolation. Hence, defining suicide in a sum of generally acceptable biological, psychological and sociological causes could eliminate the validity of Durkheim’s interpretation of the concept.

The book classifies four types of suicides as; egoistic, altruistic, anomic, and fatalistic suicide. Egoistic suicide is an outcome of weak integration of social groups, which leads to feeble attachment of the individual to his group (Besnard, 2005). Conversely, altruistic suicide results from too strong an integration with the group, which leads to minimal individualization. This kind of suicide is evident in primitive society and in modern society, the military (Besnard, 2005). Durkheim also introduces the concept of anomie, which was the consequences of social change causing a diminution of social regulation, and hence anomic suicides are due to the absence of norms guiding the objectives of human action. The last type of suicide, so-called fatalistic suicide can be characterised “as the impossibility of internalising norms which are too constraining or illegitimate” (Besnard 2005, p.71). However, if we consider the above-mentioned classification

of suicide, Durkheim fails to give a clear-cut distinction amongst the types of social conditions that lead to suicide. Many critics have often observed this lack of distinctiveness in the Durkheim classification of social conditions, and mentioned that Durkheim is often vague about the concepts of social integration, excessive individualism, and anomie, making it difficult to measure them (Travis, 1990).

On introducing anomic suicide, Durkheim states that there is a relation between how regulative action is run in a society and the social suicide rate. He then established that an economic crisis has an aggravating effect on the suicidal tendency. Durkheim had provided the suicide rates data that was seen increasing in times of financial crisis, such as bankruptcy over a period of time. According to him, if the increase in suicide rate attributed is to economic crisis then the number of voluntary death should perceptibly diminish as the society saw economic prosperity. To examine this hypothesis, Durkheim studies the rate of suicides in nations with varying economic conditions considering suicides per million inhabitants. He found out that high poverty did not necessarily result in higher suicide rate. In fact, he found out that there was very little suicide in Ireland, Calabria and Spain, where poverty existed (Durkheim, 1897). Durkheim also explains that poverty may actually protect against suicide because it is a restraint in itself. He concludes that an industrial or financial crisis does not increase the suicide rates because it leads to poverty. Since the economic prosperity saw the same results in the suicide rate, it is rather due to the crisis of change that creates a disturbance of the collective order. Therefore, every disturbance of equilibrium, despite the fact it leads to greater comfort or improved general vitality, acts as a contributor to voluntary death (Durkheim, 1897).

Although Durkheim derives his conclusion from his meticulous analysis of statistical data obtained from different nations, there are several reasons why those data cannot be completely reliable. According to Douglas (1996), Durkheim had not necessarily focused on scientific methods of determining and analyzing because he was already preoccupied on what to prove out of his study of suicide. Furthermore, Selvin (1965) noted that Durkheim lacked adequate statistical equipment leading him to theoretical contradictions in several occasions. Douglas (1996) argues that Durkheim should have carried out a meticulous study of official statistics in terms of its validity and reliability. Another criticism is that the way Durkheim treats the statistical interaction and theories related to it are inconsistent (Selvin, 1965). Durkheim establishes that poverty is not linked to economic crisis and suicide. He argues that poverty “tends rather produce the opposite effect. There is very little suicide in Ireland, where the peasantry leads to wretched life. Poverty-stricken Calabria has no suicide at all; Spain has a tenth as many as France” (Durkheim, 1897). Selvin (1965) criticizes that Durkheim had attributed the link between groups and individual behaviour to only one aspect of the group

that is poverty. He had failed to judge the group on rest of the similar aspects that group shared and unnecessarily singled out poverty as the cause of lower suicide rate in those regions (Selvin, 1965). Thus, it shows the problem of reducing a description of a group in terms of a single variable. Selvin (1965) suggest that such problems can be reduced by holding the rest of the group characteristics constant by cross tabulation similar to what one does with individual characteristics. Durkheim classifies nations or provinces according to their rate of suicide. This analysis is based on large aggregates and we cannot tell for certain if these recorded numbers are actual incidences of suicide. Durkheim's contextual analysis begs questions about how the individual characteristics relate to influence behaviour (Selvin 1965). "Durkheim lacked adequate statistical techniques, he occasionally led into theoretical contradictions" (Selvin, 1965, p. 118).

In conclusion, although the current statistical materials are far more advanced and extensive, and sociological methods are better functioning compared to that of Durkheim's, his work on suicide provided a vital basis to suicide as a study of in sociology. The impact of Durkheim's study should not be neglected because it is still a prototype of the methodological approach that guides modern sociology. Despite the criticisms about overall validity of his study, his work can still be considered remarkable, as it was a breakthrough study in sociology incorporating scientific methods. Durkheim's Suicide is a successful study in terms of providing an important framework to identify patterns of suicide and its relation to the social facts (Hassan, 1998). Although Durkheim has considerably inclined on suicide as a social phenomenon and not an act of an individual, it could be understood as his way of bringing the focus on elucidating how social facts play role in determining the rate of suicide. Durkheim's endeavor to bring forward a highly comprehensive study devoted to the serious social phenomenon of suicide had helped in the understanding the sociology of suicide. His efforts to explain suicide as a social phenomenon has become a trailblazer for many of current scholars, who study this phenomenon for the betterment of the society as a whole.

References

- Appelrouth, Scott A., & Laura Desfor Edles. (2012). *Classical and Contemporary Sociological Theory*. Pine Forge Press, an Imprint of SAGE Publications, Inc.
- Besnard, Philippe (2005). "Durkheim's square: types of social pathology and types of suicide." In *The Cambridge Companion to Durkheim*, by Jeffrey C. Alexander and Philip Smith, 70-79. Cambridge University Press.

- Douglas, Jack D (1966). "The Sociological Analysis of Social Meanings of Suicide." *European Journal of Sociology* 7.
- Durkheim, Emile. (1897). *Suicide: A Study in Sociology*. The Free Press.
- Giddens, Anthony. (1965). "The Suicide Problem in French Sociology." *British Journal of Sociology* 4(16). p. 3-18.
- Hassan, Riaz. "One hundred years of Emile Durkheim's Suicide: A Study in Sociology." *Australian & New Zealand Journal of Psychiatry*, 1998.
- Johnson, Barclay D. "Durkheim's One Cause of Suicide." *American Sociological Review* 6, no. 30 (1965): 875-886.
- Lukes, Steven. *Emile Durkheim, His Life and Work*. Middlesex: Penguin Books Ltd., 1973.
- Selvin, Hanan C. "Durkheim's Suicide: Further Thoughts on a Methodological Classic." In *Emile Durkheim*, by Robert A. Nisbet. A Spectrum Book, 1965.
- Simpson, George. "Introduction ." In *Suicide: A study in sociology*, by Emile Durkheim. The Free Press, 1951.
- Thompson, Kenneth. *Emile Durkheim* . Sussex: Ellis Horwood Limited , 1982.
- Travis, Robert. "Halbwachs and Durkheim: a test of two theories of suicide." *The British Journal of Sociology* 41, no. 2 (June 1990): 225-243.

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IN THIS ISSUE

PAPERS

Social Work: Meaning, History and Context from a Bhutanese Perspective

Dechen Doma

Quiz in a Virtual Learning Environment as a Tool for Assessing Students' Learning: Perception of Royal University of Bhutan Lecturers

*Chenga Dorji, Pema
Drukpa and Bijoy Hangmo
Subba*

How can I Improve my Teaching Strategies for Class Twelve students to score better in the Merchant of Venice?

Jigme Dorji

Mathematical Ideas in Mat Weaving: Connecting Ethnographic Field Study and Classroom Teaching

Jaya Bishnu Pradhan

Using Handouts in the Bhutanese Classrooms: Its Effectiveness and Limitations in Teaching Learning Economics

Tshewang Dorji

Television and Vocabulary Development in a Child

Kesang Wangmo

BOOK REVIEW

Durkheim's Suicide: A Study in Sociology

Dorji Yangzom

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