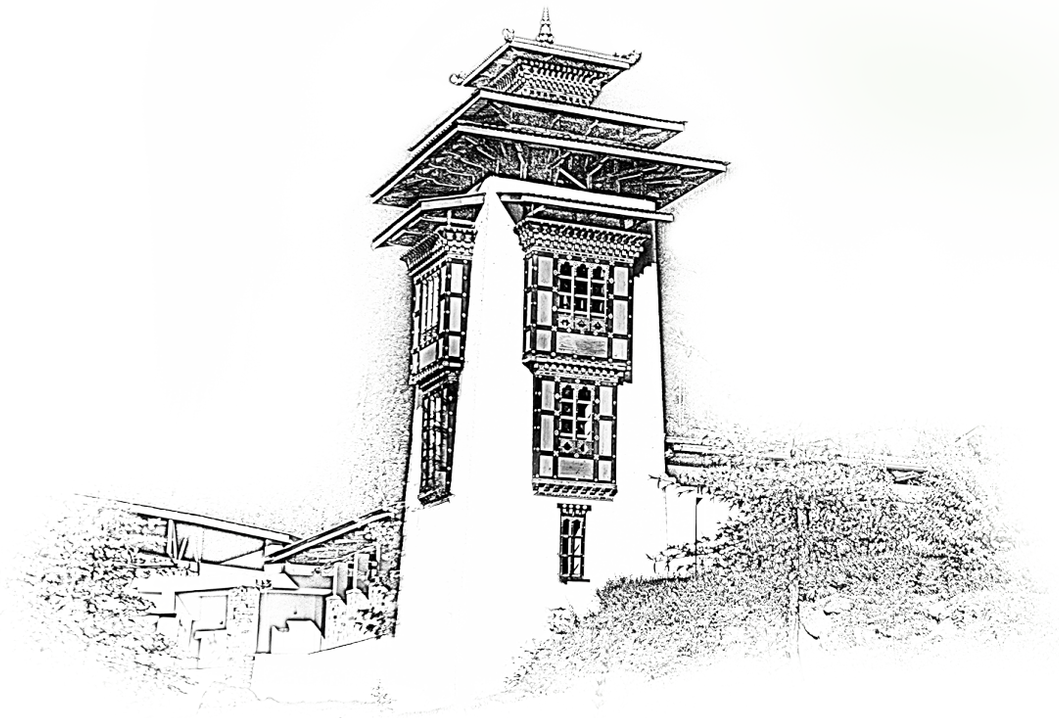

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ISSN 2708-1850

9 772708 185006

ISSN 2708-1869

9 772708 186904

རིག་འཚོལ། Rig Tshoel - Research Journal of the Royal Thimphu College Volume 5 Number 1 Autumn 2022

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Rig Tshoel

Special Edition on Higher Education of Bhutan

Research Journal of the Royal Thimphu College

Volume 5 | Number 1 | Autumn 2022

རིག་འཚོལ།

Rig Tshoel: Research Journal of the Royal Thimphu College
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A Royal Thimphu College Publication.

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Rig Tshoel – Research Journal of the Royal Thimphu College is an open-access peer-reviewed journal intended to align with a key mission of Royal Thimphu College "to be a crucible of new ideas and knowledge that serves to enrich people's lives and enhance the welfare of society". The journal aims to issue at least once a year and invites contributions on a wide range of subjects. Authors are encouraged to develop their own scholarship in areas of general relevance to Bhutan, submit work that advances knowledge in their fields, and is written in a broadly accessible manner. High-quality original articles in English and Dzongkha including theoretical and empirical research, commentaries, editorials, and reviews are welcome.

Contents

Editorial

The first-ever national conference on higher education in Bhutan, titled *Higher Education Teaching-Learning in Bhutan: Innovations, Adaptations, Opportunities, and Challenges*, was held on the 4th and 5th of July, 2022 at the campus of Royal Thimphu College (RTC), co-hosted by the RTC, Paro College of Education (PCE), and Samtse College of Education (SCE) in partnership with Department of Adult and Higher Education, Ministry of Education. This special issue of *Rig Tshoel–Research Journal of the Royal Thimphu College* is dedicated to the papers presented at the conference. The conference had 4 keynote speakers, 19 paper presenters, and a panel discussion on '21st Century Bhutanese Graduates'.

The main objectives of the conference were to:

1. Consolidate actual on-the-ground experiences and data on higher education;
2. Provide a platform to share innovations, adaptations, and challenges in higher education in recent years;
3. Create a space for academics to engage in creative thinking on teaching-learning in higher education as a continuous curriculum enhancement and innovation process; and
4. Discuss ways forward for the adoption of innovative and adaptive practices.

Although the conference covered a wide range of topics from teaching-learning, plagiarism, peer observation, PCK, student and faculty research experiences, learner autonomy, online teaching, inclusive education, higher education management and quality assurance, and performance of higher education institutions in Bhutan, only six papers have made it to the final selection through a rigorous double-blind peer review process. Therefore, this special issue contains these six conference papers briefly highlighted below.

First, *A case study of social science and humanities undergraduate research in Bhutan* by Dolma Choden Roder, Kencho Pelzom, Vanlallawmkimi, and Mohan Rai of RTC describes the research experiences of both students and faculty at RTC. It is interesting to note how students' research experiences support them to become more independent learners. This is crucial for Bhutanese undergraduate students as prior research have shown that they lack independent learning skills. The paper also discusses how students can gain a sense of ownership, confidence, and agency through such research experiences. However, it is also reported that it was challenging for both students and faculty in terms of managing their time and workload.

Second, *The degree of learner autonomy among university students* by Chimi Dema and Kezang Yuden, both Associate Lecturers of Gyalposhing College of Information Technology, presents an outcome of the one-group pretest-posttest quasi-experimental study where 'Learning by Doing' pedagogy was implemented in their first-year students (n=62) to promote self-directed learning. Having found this pedagogy useful, these authors suggest educators incorporate this pedagogical tool to enhance learner autonomy among higher education students.

Third, *Attitude towards plagiarism among Sherubtseans* by Chogyal Dorji, Jamyang Chophel, and Tashi Chophel presents discussions on how some of the major factors such as demanding schedules, inadequate reading, language, and writing skills, and economy of effort lead Sherubtse College students to plagiarize their work. Interestingly, they report that both students and lecturers do not take instances of plagiarism seriously. As a result, these authors suggest instilling the concept of integrity and teaching students academic writing and time management skills.

Fourth, *Peer observation as a professional development tool for higher education in Bhutan: An instrumental case study at RTC* by Tshering Lhamo Dukpa, Senior Lecturer at RTC, presents how peer observation and feedback support enhancement of student-centered teaching-learning practices. She argues that peer observation is more effective and favored by higher education educators because of its non-evaluative nature. It benefits both the observed and the observers. Subsequently, suggestions are made to make use of peer observation and feedback as a tool for professional development in higher education settings.

Next, *Qualitative research training in a Bhutanese context: Opportunities and challenges* by Brent Bianchi, former Head Librarian at RTC, reports the outcome of a training (a combination of both virtual and face-to-face sessions) in qualitative research methodology. The training was provided to some selected faculty of the four project partner colleges as a part of the ERASMUS project known as HAPPY—Higher Education Teaching APProaches for SustainabilitY and Well-Being in Bhutan. The paper presents both opportunities and challenges of doing qualitative research in a Bhutanese context.

The final article on *Pedagogical Content Knowledge (PCK) in higher education in Bhutan: A case study at Royal Thimphu College* by Kencho Pelzom and Kuenga Norbu of Royal Thimphu College explores Lee Shulman's concept of PCK amongst the RTC faculty members through a mixed methods approach. While faculty members rated themselves high on content knowledge, they concluded that students generally did not show an adequate level of self-directed learning skills. The findings also point to how structural issues related to curriculum requirements and rigidity in institutional policies affect quality teaching at the higher education level.

Although the conference saw a variety of papers being presented and discussed, we have included only six in this special issue. We would like to thank all the authors and co-authors of this special issue for their consistent effort in revising and finalizing the manuscripts. We sincerely hope that all will contribute to future conferences and publications.

Happy Reading and Tashi Delek!

Kezang Sherab
Dean, Research and Industrial Linkages
Centre for Educational Research and Development
Paro College of Education

Speech by Hon'ble Sherig Lyonpo at the National Conference on Higher-Education Teaching-Learning in Bhutan– Innovation, Adaptations, Opportunities, and Challenges, July 4, 2022

Hon'ble Sherig Lyonpo (Minister of Education), Jai Bir Rai

Dear Friends of the Academia,

A very good morning to all of you! I must say, what a wonderful way to start my Monday morning, reflecting on a very sublime, yet burning issue of Higher Education Teaching and Learning. I think that this conference is very timely given the fact that the world is coming back to normalcy after the COVID-19 pandemic, and many emerging issues that were never thought of before can now be topics of discussion in this conference.

The COVID-19 Pandemic taught us many lessons, but the one that I find the most significant is the vulnerability of the human race. We are aware of the fact that the stability and confidence of years of innovation and investment in Health and Medicine, Governance and Education, and Business and Economics throughout the world became feeble and insignificant in front of a virus, and countries and governments around the world watched helplessly as millions died due to a virus. Is this not a distinct demonstration of our vulnerability?

We learnt in our history lessons that wars do not provide solutions and are barbaric but isn't it shocking to witness a war even in the 21st century? Were we not proud of diplomatic capabilities and international relationships?

What lessons do these major shifts teach us and how can we design a better future? The most important function of the university is that it plays the roles of a seer, a guru, a prophet. We know for the fact that whenever there have been major changes in any society, it was on the advice and direction of the guru, the vision of the prophet, and the direction of the teacher.

Today, not only in Bhutan, but universities around the world face this challenge of being a true prophet who will provide trailblazing solutions to these emerging world issues. Some of the issues I would like to highlight are: political and geo-political issues, environmental and cultural sustainability, human capital movement and brain drain, family and social disintegration, economic equation and business skills of the 21st century, STEM and STEAM implementation challenges and opportunities, the nature and future of jobs, and educational innovation and human empowerment.

I am sure these will be some of the topics of debates, discussions, and deliberations of this very important conference.

Last but not the least, the University must be intelligent enough to balance economic sustainability with its values and principles unlike some of the universities we see elsewhere. I am talking about the currency of your knowledge, the quality of your wisdom, and the responsibility of your vision.

I wish you very pragmatic, futuristic, and altruistic discussions and deliberations as outcomes of this conference.

Tashi Delek.

Address by The Vice-Chancellor, Royal University of Bhutan, at the Panel discussion at RTC on 21st Century Bhutanese Graduates, July 5, 2022

Hon'ble Vice Chancellor, Nidup Dorji

Ladies and Gentlemen,

I thank the organizers for the opportunity to participate in this panel discussion on 21st century Bhutanese Graduates.

The Royal University of Bhutan has existed for almost 20 years and as good universities which have been around for centuries have, we also stand to serve as:

- engines of social mobility
- drivers of the economy
- guardians of our culture
- foundations of democracy
- generators of new ideas

Article 2 of the Royal Charter for the Royal University of Bhutan spells out that the overall objective of the University shall be to provide, through the dissemination of knowledge and the advancement of learning and the granting of awards, for the economic and cultural development of the Kingdom of Bhutan and to promote the cultural enrichment, personal development, and well-being of our people.

Section B5 of the Wheel of Academic Law lists the expectations of RUB Graduates as:

- general academic, intellectual, personal and communication skills;
- the possession of general academic skills such as critical reasoning, analysis, evaluation, creativity etc.;
- an awareness of the contexts, boundaries, and limits of the subject matter studied;
- the possession of self-motivated study skills and the readiness to pursue lifelong learning;
- an understanding of and ability to undertake one's own personal development such as self-reflection and self-criticism, intellectual maturity etc.;
- interpersonal skills and awareness such as leadership, negotiation, networking, able to work in teams etc.;
- communication and presentation skills;
- information literacy; and
- personal development and personal illumination such as sense of service, moral responsibility etc.

These are the expectations (many of which are termed as soft skills, or traversal, or transferrable skills) from the graduates and the big question is: have we been able to fulfil these?

The answer is 'yes' and 'no'. 'Yes', because we have produced thousands of very competent and capable graduates who today are doing extremely well in their lives and shouldering important responsibilities in the public as well as private sectors. At the same time

the answer is 'no', because there are also many graduates who have not even been able to get gainful employment. This could be true of many educational institutes, all of which strive to make every single one of its students successful, but the reality is this is rarely true due to so many factors.

So what should the aspirations of the University be? The debate surrounding the purpose of university education whether it should educate students for life or livelihood will not go away for some time but I believe that:

- Investing in the skills and systems to support them with a learning focused on developing an adaptive mind-set should be a top priority.
- Apart from the domain knowledge that students acquire, university education should help individuals to hone their thinking and analytical skills, give them confidence, and the ability to re-skill as life changes.

One of the biggest challenges that we are facing today is how the education that we provide to the youth stays relevant as they face the future. What we know for sure is that the future is going to be drastically different and that will be mainly driven by emerging technologies.

The Royal Kasho on Education Reforms mentions "...Educationists and experts have identified what 21st century competencies mean for our children everywhere...We must prioritize self-discovery and exploration, and involve learners in the creation of knowledge rather than making them mere consumers of it..."

So what is of paramount importance is to acquire valuable skill sets to function in a highly volatile, uncertain, complex, and ambiguous (in short, a VUCA) world. The focus should be on hands-on learning with real world applications that helps students develop a variety of skill sets, including creativity, media and technology literacy, productivity, social skills, communication skills, flexibility, and initiative. Other skills attained include problem-solving, critical thinking, curiosity, decision making, leadership, entrepreneurship, acceptance of failure, resilience, and more. It is, therefore, important to prioritize hands-on experience and real-world applications necessary to developing an innovative mind. I believe that these should be emphasis on these in any programme of study.

Because of the explosion of new things, new markets will emerge which will require a new set of skills for employment. Increasingly smart robots will take over some jobs, and jobs which didn't exist before will be in demand.

The workplace of the future, whatever that may ultimately look like, will inevitably be driven by people and fuelled by digital technology amongst which AI, automation, and robotics will most shape the future of work. Automation will allow workers to focus more on important tasks such as solving problems, designing products, and interpreting data.

It is estimated that the demand for people with technological, social, and emotional and higher cognitive skills will rise manifold by 2030. The skills valued by employers are the soft skills that were mentioned earlier in addition to adaptability, culture fit, and growth potential for in-demand technical skills e.g., Design Thinking, Analytics, and Cloud Computing. Given that technology keeps advancing and evolving rapidly, one needs to be continuously learning new skills—in other words we have to always learn, unlearn, and relearn throughout our lives. Learnability which is defined as being curious and having a hungry mind for new things is now considered a huge asset and seen as a key indicator for career potential.

There is no doubt at all that we need to incorporate future-focused thinking in our strategic plans and adopt trends that can provide the greatest impact.

If we look at the trends in education, they are:

1. Soft skills: in addition to what I mentioned earlier, we need to prepare our students to work in teams, demonstrate strong leadership, and possess the ability to thrive in diverse cultural and social settings.
2. Reinventing the learning experience: we must realize that learning has now become less about acquiring information or submitting to another's ideas or views but it is about finding one's own voice and exchanging ideas with others. Today students want to be in charge of their own learning and increasingly want to be able to transition between structured and unstructured learning modes facilitated by digital content and modalities. This trend calls for redefining the roles of the Professor and a shift in attitudes as well as cultural values. In short, we should be able to provide the best learning experience for students to allow them to identify where they can best use their talents and interests.
3. Internationalization and collaboration are important for improving overall quality of education and preparing students for the global world. Students seek internationalization experiences and employers want workers with international experiences.
4. Lifelong learning: as pointed out earlier, the rapidly changing world of work require continuous education which is also important for pursuing personal growth.
5. Future is technology-driven: there is no doubt that the technological advancements will revolutionize the way we think, how we teach, how our students learn, and the transformation of the learning process in a digitized world. This offers the opportunity to view higher education as a lifelong pursuit rather than a degree-driven activity.
6. Values education: Amidst the technological advancements and the constant changes, it is crucial for us to root our children's education in our core value system which defines us and bind us as Bhutanese. As C.S. Lewis said, "Education without values, as useful as it is, seems rather to make a man a more clever devil." Values education includes developing the appropriate sensibilities: moral, cultural, spiritual, and the ability to make value judgments and internalize them in one's life. Further, there is no doubt that people are going to be stressed more and more due to the fast pace of life and all the distractions. So it is important to integrate mindfulness in the curriculum to counter the overwhelming levels of anxiety and distraction for students to stay focused and to being present.

Finally, I would like to say that today's students have a lot of advantages, which older generations did not have. Most importantly they have technology at their disposal to do anything and they must always be ready to harness the potential offered by technology. They must also learn to use this power and the knowledge that they get to improve the lives of people around them and the world.

I end with this message for our students in schools and colleges: "From those to whom much is given, much is expected"; so give your best in life.

Thank you.

A Case Study of Social Science and Humanities Undergraduate Research in Bhutan

DOLMA CHODEN RODER[1], KENCHO PELZOM[2], VANLALLAWMKIMI[3], & MOHAN RAI[4]

ABSTRACT: This research investigated the undergraduate research experiences of social science and humanities students at Royal Thimphu College, a private college in Bhutan. For the purpose of this study, the focus was five social science and humanities programmes that each have a year-long research project module. The study used sequential exploratory mixed methods. Data were collected in two phases: first qualitative data were collected followed by a survey informed by the qualitative findings. The findings from the study indicate that final-year research helps students become more independent learners. By the end of the year, most students felt a sense of ownership, confidence, and agency. Although most students felt their prior learning somewhat prepared them to undertake the project, many also found that applying what they learned about research was challenging. Time and workload were found to be common challenges for both faculty and students. Finally, it was found that the relationship between students and their supervisors as well as feelings of ownership varied based on faculty personality as well as the informal programme culture.

Keywords: Undergraduate research, independent learning, research curriculum, research supervision

Introduction

Student research is an increasingly important part of an undergraduate degree. Universities across the world offer research-related modules to undergraduate students with varying degrees of intensity in terms of content and length. There is consensus on the positive impacts of undergraduate research experience on students (see for example Lopatto, 2010). According to Myatt (2009, p.89), undergraduate research experience led to gains in areas such as "knowledge extension, understanding research, interpreting results, confidence in the ability to undertake research and understanding what everyday research work is like". It often cements

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students' love for their discipline and may influence future career choices or further studies. Knowledge creation, however small, is significant for developing countries such as Bhutan. Additionally, home-grown skilled researchers are an asset to the country as they are likely to have a deeper understanding of and commitment to the needs of their society.

Almost all undergraduate studies offered in Bhutan, especially programmes offered under the Royal University of Bhutan (RUB), including the Royal Thimphu College (RTC), require undergraduate students to take research-related modules. This is especially true for the social science and humanities programmes offered across RUB colleges. Although the quality and quantity of research-related modules offered vary across programmes and colleges, the importance that the RUB places on research cannot be denied. While there is awareness of the importance of undergraduate research experiences in colleges in Bhutan, what is lacking is knowledge about the impact of these experiences on students and student learning.

RTC places immense importance on student research because it sees the potential positive impact on student learning. Therefore, this study's main aim was to investigate RTC students' experiences with their final-year research projects. In particular, it sought to understand how research skills are learned and applied by students. Further, the study also sought to explore the similarities and differences in student experiences across different programmes and uncover the factors impacting their experiences.

This project collected data from the five degree programmes at RTC that include a yearlong project in the final year. These programmes are Anthropology, Development Economics, Political Science and Sociology, Environmental Management, and English Studies. The number of cohorts who graduated from these programmes varies based on the age of the programme but in general each has on average 30 graduates each year with this research experience. All the programmes except Political Science and Sociology were developed at RTC. The final-year projects are discipline-specific and the research approaches and methods vary based on the discipline and the expertise of the faculty leading the project module.

This project was prompted by a European Union-funded capacity building in higher education project called HAPPY (Qualitative research in Higher Education Teaching APProaches for sustainabilitY and well-being in Bhutan)[5]. The aim of HAPPY is to enhance qualitative research methods in higher education institutes in Bhutan. RTC is the lead Bhutanese partner. A baseline need assessment was carried out in four higher education institutions and its findings suggest that there are many areas for improvement. Although almost all social science and humanities programmes offered in Bhutan have research related modules, the student experiences varied greatly among the colleges and even within programmes at the same college (Royal Thimphu College [RTC], 2021).

Literature Review

Students' research experiences are broadly classified into two types: Undergraduate Research Experiences (URE) and Course-based Research Experiences (CURE). While UREs provide opportunities for a small number of individual students to be involved in active research

[5] Project Number 618793-EPP-1-2020-1-NL-EPPKA2-CBHE-JP co-funded by the Erasmus+ programme of the European Union.

in a faculty-led research laboratory, CUREs have one or more mentors to guide a large number of students and is an experience open to most students (Linn et al., 2015). Linn et al. (2015) note that while UREs allow students to see science happening, CUREs offer students more opportunities to integrate lectures and readings with actual research and help them to develop a conceptual understanding of research. CURE seems to best describe RTC's yearlong final-year project. Much of the research on undergraduate research focuses on natural sciences with very little on the social sciences and humanities (Ishiyama, 2002).This study provides an opportunity to help address this gap.

Independent learning is often described as students' ability to navigate complex learning that is self-directed and self-regulated to achieve learning goals that enhance deep learning (Balapumi & Aitken, 2012; Broad, 2006; Gunasekara, 2008). Independent learning skills such as critical thinking, navigating complex concepts, the ability to generate new knowledge, and the ability to self-direct their own learning are associated with independent learning (Balapumi & Aitken, 2012; Broad, 2006). There are ample studies done on the correlation between undergraduate research and independent learning (Ishiyama, 2002; Petrella et al., 2008; Weston et al., 2015). Most of this research suggests that undergraduate students undertaking research led to confidence in the subject and learning to be independent learners (Todd et al., 2004; Weston et al., 2015; Petrella et al., 2008). Feelings of ownership and skills development (including reading, writing, thinking like an expert, and critical analysis) were also attributed to students engaging in research (Cuthbert et al., 2012; Linn et al., 2015; Myatt, 2009; Wayment & Dickson, 2008; Ishiyama, 2002).

When research is integrated into the curriculum, it helps the students to understand by providing both theoretical and practical knowledge (Dolan, n.d.; Ishiyama, 2002; Wilson, 2003; Crowe & Boe, 2019). Debates on whether the final product is more important than the learning process are also present (Beckemn & Hensel, 2009). Many undergraduate students report feeling unprepared to undertake individual research. These feelings are linked to the way research is taught. If learning is the primary focus, helping students to develop research skills through practice from the first year itself is suggested (Beckemn & Hensel, 2009; Jenkins & Healey, 2009). However, developing nuanced research skills that require students to use research theories while working in their field of study is complex and messy. For this to happen, the curriculum must be carefully designed to nurture the skills of an independent researcher (Beckemn & Hensel, 2009), putting research at the centre of the curriculum (Jenkins & Healey, 2009). The more integrated research skills are into courses that are not explicitly teaching methodology, the better-prepared student feels while undertaking independent research projects (Parker, 2012; Beckemn & Hensel, 2009). Although there are numerous tangible benefits to undertaking research, many students do not see connections especially when practice and theory are not explicitly connected (Ambrosia et al., 2010; Fung, 2017).

Many studies looking at undergraduate research identify the relationship between students and their supervisors as having a strong positive impact on students' experiences (Lopatto, 2014; Davis & Jones, 2020; Pfund, 2016), particularly on future study and career

plans (see for example Adedokun et al., 2012; Colbry et al., 2013; Cuthbert et al., 2012; Houser et al., 2013).

Todd et al. (2004) described the critical role the supervisor played during periods when students faced challenges in the research process. Other positive impacts included increased research productivity (Houser et al., 2013; Joshi et al., 2019; Wilson et al., 2018) increased confidence and competency (Davis & Jones, 2020; Petrella & Jung, 2008) as well as serving as a form of disciplinary socialization helping students feel more like researchers (Davis & Jones, 2020; Wilson et al., 2018). In contrast, Delly et al. (2021) found that students' dissatisfaction with supervision was linked to higher failure rates in research projects in one Botswanan business programme. These students complained about the supervisor's knowledge, feedback, and availability. This suggested that the personality and competence of the supervisor are also important to student research experiences.

Morales et al. (2017) found that faculty most likely to choose to be research mentors often placed greater value on increasing diversity, while faculty who felt the work was time-consuming or not adequately rewarded by their institution were also less interested in mentoring. Houser et al. (2013) found that mentorship style played an important role in the research productivity of students, with more engaged and structured mentorship leading to higher levels of productivity. Davis and Jones (2020) argued that faculty who choose to be mentors in these programmes might be self-selecting for the very qualities that made them good mentors, which might have an impact on the positive results.

Methodology

The study employed a sequential exploratory mixed-methods approach. The chosen methods were consistent with other studies looking at undergraduate research with a particular focus on methods that allowed for reflection. In the first phase, we used semi-structured interviews and focus group discussions with final-year students, interviews with alumni, and interviews with faculty teaching the yearlong research project. In the second phase, a survey of final-year students at the end of the academic year (after the completion of their projects) was conducted. For our analysis, we also included data that was gathered for the HAPPY project (RTC, 2021). However, only data collected from RTC was considered for our project.

Data collected in the first phase are detailed below (Table 1):

1. In-depth interviews with 10 students from the five programmes at 3 different stages of their final year research were conducted. The goal was to interview the same students at different stages in order to capture their feelings, impressions, and experiences at different points in the research process. One set of interviews was conducted when students completed their literature review and research proposal and most were poised to begin data collection over the winter break. The second was conducted around the time that most students were engaged in data analysis. The final interview was conducted after students had completed the project and submitted it for final

assessment. The first set of interview questions focused broadly on expectations and experiences while the second set responded to issues raised by students in the first set of interviews. The final interview question was based in part on recurring themes but was also intended to have students reflect on skills developed as well as to capture their overall impressions of the experience.

2. In-depth interviews were conducted with 9 alumni from the 5 programmes. Interview questions were open-ended and focused both on memories of students' research experiences as well as the way that experiences shaped their career trajectory and aspirations.
3. The focus group discussion (FGD) was conducted around the same time as the second in-depth interview with individual final-year students. 5 focus group discussions with students from the 5 programmes who were not already part of the project as respondents were conducted. The size of each focus group varied but none were smaller than 4 students. Groups were diverse in terms of gender and academic performance. The questions used during the FDGs were open-ended and based in part on findings from the first set of in-depth interviews with individual students asking about their experience of research in general as well as about key aspects of experiences such as the challenges they faced, the skills they felt they developed, and their relationship with their supervisors and peers.
4. In-depth interviews with faculty who had taught the final year research project module were also conducted. We made a particular effort to select those faculty who have been supervising this kind of work for many years. We attempted to interview 2 faculty from each of the programmes, however, while all programmes were represented we were only able to conduct 9 interviews. These were done in part to include their perspectives and experiences. Their interviews are also a way to compare student experiences and perspectives to that of the faculty they worked with in order to seek out consensus, overlaps, and contradictions.

In the second phase of the data collection, a self-assessment survey of 66 questions was deployed via Google Forms. The first part of the survey collected demographic information such as gender, programme, student's high school history, and parents' level of education and current job information. The second part of the survey had questions from five general themes that emerged from the qualitative data: Preparation, Personal Interest, Supervision, Skills Gained, and Time and Resources needed or used. Each question was framed in the form of a statement and respondents were asked to choose one response from: *strongly disagree*, *disagree*, *neither agree nor disagree*, *agree*, or *strongly agree*.

The survey was distributed via email to students of all five programmes. Of the 113 students who were eligible for the survey, 44 students completed the survey. While students from all programmes responded, the representation of some programmes was substantially higher than others.

Table 1. Data Sample Description

Description of Method	Male	Female	Total number of students	Data collected
In-Depth interviews with current final year students	3	7	10	28 interviews
In-Depth interviews with alumni	2	7	9	9 interviews
Focus group discussion with final year students	14	16	29	5 interviews
Faculty interviews	5	5	10	9 interviews
Survey	17	27	44	44 completed surveys

Analysis of the findings was done in three phases. A thematic coding was first done with preliminary data after conducting the first round of interviews. The second round of coding was done after collecting the rest of the data. The final themes were in part influenced by the relevant literature however there was room also for emergent themes. Finally, the survey findings were analysed using descriptive analysis to cross-tabulate the qualitative and quantitative findings.

Findings & Discussions

The rich array of data collected for this project provided a range of findings. However, we have chosen to focus our findings on the three most prominent themes, namely independent learning, curriculum, and relationship with supervisors. The literature on undergraduate student research supports the centrality of these themes to the undergraduate research experience. We will also discuss the emergent theme of the impact of informal programme culture, a theme that was not explored in the literature. The themes also appeared to intersect, for example, the informal department culture and personality of the supervisor unexpectedly had a direct impact on the student-supervisor experience as well as students' enjoyment of the research process while the supervisory style could encourage or impede independent learning.

However, several other themes particularly related to the challenges of research also come up repeatedly and are worth briefly discussing. The first was the perceived lack of resources particularly in terms of money, time, and locally relevant academic sources. For example, students who had to conduct some form of data collection that involved travel mentioned that they had to spend their own money on transportation. Faculty and students both mentioned that time was another resource in short supply. Faculty described the grading load and the weight of supervising a large number of students. Students talked about the stress of doing research while keeping up with work for other modules. As most final-year students had expected to collect data during the winter breaks but were impeded by long lockdowns in both

winters of 2021 and 2020, the COVID -19 pandemic was also mentioned as a challenge. Many students for example mentioned having to change their sample size or data collection strategy because of the lockdowns.

Informal Programme Culture

One of the significant findings of this research was the importance of informal programme culture on student research experiences. Most studies on the undergraduate experience tend to look at a single disciplinary setting so this project which explored the experiences across 5 different programmes offered a rare opportunity to see the differences. The differences in informal programme culture were particularly notable in looking at supervisory norms within each programme, especially in terms of the relationship between the two faculty assigned to a cohort of research students, the level of formality in the relationship between students and faculty, and the frequency and style of engagement.

Though two faculty are assigned to teach each cohort, they divide the lecturing and supervising duties so that they are each only supervising half the students in the cohort but this does not limit students from seeking help from the other supervisor when needed. The level of coordination and cooperation between two assigned supervisors varied widely and seemed to strongly reflect the programme culture. In some programmes the supervisors operated more or less independently and may not even be present when the other supervisor is teaching a particular topic, while in other programmes they were both present at almost all levels of engagement from formal lectures to less formal one-on-one meetings. Students in at least three programmes frequently described getting conflicting feedback, one student, for example, noted "perspective collides and what we want to say gets lost between their communication as well". Students in other programmes describe the way in which the two supervisors gave complementary feedback, sometimes focusing on different aspects of the project. As noted by a student, "one of the supervisors, she would give me advice on the grammar and how to write it smoothly or nicely. The other one would give me on the technical expertise".

Some programmes diversify the sources of feedback even further, for example, by formally teaching and incorporating peer feedback or assigning students a second reader in the programme beyond the supervisory team. One faculty describes this extra supervision that their programme provides saying:

> The second supervisor doesn't mark or give any grades but the second supervisor is always available to give advice or to ask for readings or comments. So they always get two supervisors in that sense, one main supervisor and second supervisor.

These practices are usually beyond the description of the official Definitive Programme Document and seem to be the result of specific programme cultures.

The style and tone of relationship between students and their supervisors varied greatly and seemed to reflect programme culture. In some programmes the relationship appeared to be more loose and informal while in others there was a high degree of formality and attempts to

officially document engagement. However, across the programmes, students were more likely to share challenges and frustrations with peers than their supervisors suggesting that all the relationships carried some degree of formality. In one of the more heavy-handed programmes where the supervisors exerted the most control over projects at least two students described using some form of subterfuge to either get more useful feedback or secure their preferred supervisor. One student, for example, described the way she worked to ensure she had a particular supervisor:

> I had heard from my seniors that he's the best supervisor for research and so, I was praying, praying, praying that I'd get him and I don't know if I should say this but it was my unconscious, it was biased sort of way because I was so adamant on wanting to be his supervisee. That I would kind of manipulate my topic so that it's something that he would pick.

Relationship with Supervisor

The importance of the relationship dynamic between the student and their supervisor(s) was one of the main findings and was found to be true in a wide range of other research on this subject (see for example Adedokun et al., 2012; Colbry et al., 2013; Cuthbert et al., 2012; Davis & Jones, 2020; Houser et al., 2013; Lopatto, 2014; Pfund, 2016).

Morales et al. (2017) and Davis and Jones (2020) argued that faculty who choose to be research mentors were self-selecting for more committed and engaged mentors, however, this is not the case for research mentors at RTC as faculty teaching allocations are finalized by the Programme Leader and the administration and reflect the realities of available human resources. Faculty do not usually get to choose if they will teach or guide research modules. Despite this, most students reported that they felt supported by their supervisor and described their experiences as largely positive, however, the handful of students who had less positive experiences largely attributed their difficulties to issues with their supervisor or even the dynamic between the two supervisors teaching the module. At least two final-year students described the way in which comments from their supervisors lead to a decrease in motivation and confidence. This is similar to findings from Davis and Jones (2020) as well as Petrella and Jung (2008). One student described his relationship with his supervisor as follows:

> It was very difficult for me to connect with my supervisor. So, there is that gap between what the supervisor expects and what I can deliver…there are times that you feel so demotivated because of the comments or because of the grades at the same time and I think that motivation factor is important.

However, most students described their relationship with their supervisors as encouraging and helpful. In at least one programme, students described the relationship as a friendship (suggesting a high degree of mutual trust and affection).

While the experience of the supervisor, their own personality, and the informal culture within a programme influenced the style of supervision, most supervisors, both from student and faculty accounts, appear to be engaged and available. Faculty in almost all programmes were more likely to initiate engagement. Many students admitted that though they were encouraged to reach out, they usually waited for their supervisor to contact them; conversely, many of these same students described asking friends and peers for advice. This was especially true during the lockdown periods when in-person meetings were not possible. One final-year student reported:

> Frankly speaking, I didn't reach out to my tutor but my tutor used to email me a lot reminding that we need to work on it. It is time. Hope you have enjoyed your vacation. Now you need to work on your research. There was a constant reminder from my tutor.

Todd et al. (2004) similarly noted that the role of the supervisor can become particularly important when students face challenges.

Some programmes had a very hands-on research supervision culture with frequent meetings and engagements (both formal and informal) while other programmes appeared to have more minimal and more formal engagement as per the dictates of formal structures like their Definitive Programme Document or the expectations of the Academic Affairs Department. Houser et al. (2013) explored the impact of mentorship style on the research experience. They found that more engaged and structured mentorship led to higher levels of productivity. Our findings are more mixed suggesting that engaged mentorship can lead to students feeling supported and confident but that too much micromanagement can result in the opposite.

While frequent and detailed feedback characterized the experience in almost all programmes (though students in at least one programme noted that feedback was sometimes delayed), several students noted that they were not always able to use the feedback. One student noted, "we had like an individual time to talk with the professor but it was really difficult for me to understand what my professor wants me to do. They explained but somehow I didn't like, comprehend." One of the faculty similarly noted, "a lot of feedback … is hit and miss because you have to sit with them to go through the feedback because they don't understand".

Supervisors in at least three programmes appear to have a very strong influence on the choice of topic. In at least one programme, students repeatedly described their supervisor as "rejecting" topics. This suggests that the weight of guidance varied between programmes, that in some programmes, changes were mandated while in others students had more agency to choose what suggestions to apply. Students in at least two programmes described having to "fight" with their supervisors in order to maintain control of their projects. One student, for example, noted, "I feel like students have to fight for what they want to research about rather than just going with what the tutor says". However, the fact that in all programmes the various

stages of the project were graded does imply that student work was evaluated and needed to reach a particular standard, a standard set by the programme and supervisors.

Table 2. Survey findings on supervision

Question/measurement	Mean	Median	Mode
I felt that I could go to my supervisor with questions and problems.	4.61	5	5
My supervisor made a regular effort to check in with me on the progress of my project.	4.7	5	5
I felt that my supervisor cared about me and my project.	4.66	5	5
I found the feedback and advice my supervisor gave me confusing or contradictory.	2	2	1
I chose my topic because my supervisor recommended it.	1.32	1	1

The survey data on supervisor support and care to students (Table 2) validate the qualitative data, however, the qualitative data finding on the co-supervisors confusing students with different feedback and supervisor dynamic due to choice of topic could not be validated due to the limited data set.

Independent Learning/Personal Development

In most programmes the final year research provided an important opportunity for students to become independent learners. Most students felt that although the final year research was demanding and challenging, they learned to study on their own and advocate for themselves. This is in agreement with most research on undergraduate research experience (Todd et al., 2004; Weston et al., 2015; Petrella et al., 2008) which suggests that undergraduate research experience contributes to independent learning. Some also felt that they were able to discover their potential as the research allowed them to delve deeper into the subject and hone their research skills. One student said, "One more thing is I feel we gain more confidence and independence. Going to unknown village and talking itself gains more confidence. I feel that is one of the best skills that I have learned from my research."

How confident and prepared students felt to undertake independent learning varied across programmes in part linked to their programme's curriculum structure. Students from programmes that provided programme specific research method modules in earlier years felt more prepared and confident compared to students from programmes with no or little research methods. As suggested by literature (Dolan, n.d.; Ishiyama, 2002; Wilson, 2003; Crowe & Boe, 2019) research integrated into the curriculum helps students to be more prepared for research.

Students (both final-year students and alumni) and faculty mentioned feelings of ownership, agency, and pride in the research product. Despite the work pressures, both groups were largely satisfied with the end product. A student expressed:

> In the beginning, I thought that I would be happy if I was just done with it. Now I kind of feel like a proud mother because I'm proud of my project and because I dedicated one year, do it and it's nice when I printed it and binded it and I felt proud.

This was linked to the hard work they put into their projects and doing research on their own which was different from their experience in more coursework-based modules.

The ability to choose their own topic was a key source of agency and responsibility. The students who chose their research topic based on their interests and personal connections did not just enjoy the process of research more but were also motivated to work even harder when they encountered challenges. A final-year student who loved her research topic said:

> I was really worried in my first year because I could tell that they (her seniors) really hated the research and they kept on complaining about how hard it was but then now that I am in my final year I actually enjoy it. And I love that I am focusing on something that I really want to learn about and I think what I realize is that it really differs on whether the person actually puts in efforts.

However, in some programmes students felt that their own choice of a research topic was not supported which resulted in frequent changes in the research topic. This seemed to impact their confidence at other stages in the research process. This was also true for students who could not pick their own topic and relied on topics suggested by tutors and friends. One faculty said that when students pick a topic suggested by their friends or supervisors it often hampers the quality of their work. Many faculty interviewed narrated success stories of students who were passionate about their choice of topic. This could be seen as similar to other research that saw successful student research experience as building a sense of disciplinary identity and commitment to their chosen field of study (see for example Davis & Jones, 2020; Wilson et al., 2018).

Most faculty were pleased with the progress made by students during their research process. They mentioned that they felt students learned important research skills. However, the faculty did point out that the quality of work produced by students was not uniform and for some faculty, their sense of satisfaction depended on the quality of student work.

Most students felt their research skills improved during the course of their final year research even if the degree of improvement varied. The final year research project also encouraged some students to pursue research in the future. For example, one student said, "I definitely also kind of found an interest in doing research and I definitely see myself exploring more fields of research."

Almost all students and alumni also reported personal development during the research process that changed their level of confidence. Skills development is a significant outcome of student research (Cuthbert et al., 2012; Linn et al., 2015; Myatt, 2009; Wayment & Dickson, 2008; Ishiyama, 2002). Apart from the research skills, they were able to hone skills such as interpersonal communication, reading, writing, and time management. They believed that these

skills will be of immense use after graduation. Most working alumni who were interviewed spoke about how they were able to use their research skills in their work even if they were not directly involved in field research. For example, one alumnus said, "I work as an assistant…officer…there is lots of research work and even in our daily normal work also, we always have to check information and do some analysis".

Table 3. Survey findings on independent learning

Question/measurement	Mean	Median	Mode
I have become an independent learner.	4.09	4	4
I have become more confident.	4.16	4	4
I chose my research topic based on my own interest.	4.48	5	5
I enjoyed working on my research topic because I was interested in the topic.	4.25	4	5

The survey data (Table 3) validate the qualitative finding on student feeling of agency especially in choosing topics of their interest and being motivated to work on it without being forced. Student feelings about becoming independent learners were also high as were feeling confident and responsible for their project.

Preparedness and Curriculum

All programmes except one had dedicated methods classes that students took before they began the final year of research. Students from programmes where research was integrated into multiple modules (not just the methodology modules), taught over the course of the entire degree, and where students had multiple opportunities to practice research skills and methods, were found to be more confident and better able to discuss research and articulate their research process. They were also more confident going into the research process. For example, one of these students said, **"**I think we were pretty much prepared from all the small research we have done so far…we were ready to interview them. How to approach them. We knew that we had to get their consent and all this ethical consideration". In some programmes, students were able to discuss and explain their final year research, but many others expressed that they were not prepared to do the final year project.

Many students also expressed that the gap between knowledge of research methods and the lack of actual application of the methods until the final year was a challenge for them. Also, making connections with prior learned theories during the analysis phase was also reported to be challenging. This was also reported to be a challenge (Tucker et al., 2016) while other authors (Dolan, n.d; Ishiyama, 2002; Wilson, 2003; Crowe & Boe, 2019) have also noted the importance of paying attention to how methods and theory are linked within the curriculum. An alumnus said, "I think in terms of what we were being taught, the tools and everything it was very good but I think more practical sessions may be because we can see it really fall apart

during the data collection with them". This was even more strongly reported by students from programmes that had either no practice with using theory or where this practice was fragmented or disconnected. For example, one final year student said, "When it comes to analysing the data, though we study software like the Excel Strata before, the previous semesters, we are finding it very difficult to how to use this and implement what we have studied". In some programmes both students and faculty said that students forget the research methods they learned in the previous semesters by the time they start their final year of research. The need to more strategically and deliberately integrate research into the curriculum was also noted frequently noted in the literature (Beckemn & Hensel, 2009; Jenkins & Healey, 2009; Parker, 2012).

Across all programmes, students and faculty agreed that reading literature, writing an annotated bibliography, and a literature review posed one of the biggest challenges. This was particularly true for students belonging to programmes without research methods modules. One student said, "It was very hard for me to read and capture what was written in the article". Students felt that they had to suddenly dive into research without preparation and felt overwhelmed. Faculty were aware of this issue and changes have been made to the programme curriculum. For example, in the new BA in English Studies programme, which was recently revised, a module on Introduction to Literary Research Methods has been added to better prepare students for their final year project.

Students from programmes where discipline-specific research methods are taught expressed the desire to learn other research methods. For example, students who study quantitative research methods also wanted to learn qualitative research methods and vice versa. This was because some students wanted to use both methods in their final year research and some alumni expressed the need in their work. One alumnus said, "I wish I could have learned how to analyse qualitative data more too because…right now, I really need to apply this in my field."

Table 4. Survey findings on skills

Question/measurement	Mean	Median	Mode
I felt the prior modules I learned in my 1st and 2nd years have prepared me for the final year research project.	3.7	4	4
The actual practice of doing research was much more difficult than I expected.	4	5	5
I have improved my writing skill.	4.24	4	4
I have learned how to do a literature review.	4.18	4	5
I now know how to look for credible sources.	4.52	5	5

The qualitative data suggest that the feeling of preparedness amongst students varied, and the quantitative data (Table 4) states the same. However, whether this was programme-specific is more difficult to validate since the representation from all five programmes in the survey was not as balanced as the qualitative data.

Students' feeling of being able to learn skills such as writing, finding credible sources, and literature review while doing the final year research was reported to be higher in both qualitative and quantitative data although students suggest they struggle the most with it while doing research.

Limitations

The current study has two limitations. First, the survey response representation is skewed to a few programmes with only 113 total possible respondents. The survey rate was 39%, but most of the respondents were from one of two programmes. Respondents from the other three programmes accounted for less than 8% of the total. Second, the current findings cannot be generalized to other Bhutanese colleges at large due to RTC's more formal institutional structure.

Conclusion

The current study on the undergraduate research experience of the student in five programmes in humanities and social science at RTC suggest that experiences for both faculty and students were mostly positive, accounting for many learning gains for the students. One of the distinctive findings that are not reflected in the literature on the topic is how informal programme culture impacts student research experience at the undergraduate level. Although the programme descriptors of all five programmes in the final year research are similar, the way programmes mentor and supervise final-year research varied from programme to programme. This was tied to the impact of supervision on student research experience. Although supervision was seen mostly in a positive light, there were some negative experiences with supervisors that greatly impacted student experience and willingness to learn.

Another important finding was that the research module allowed students to become "independent learners" and have increased their confidence and ownership of the learning process. Almost all students reported learning new and sometimes transversal skills while doing the final-year research. Students' feelings of preparedness to take research in their final year varied, with many students not feeling completely prepared. The most common challenges among students were finding credible sources and writing a literature review, although most students felt that by the time they completed the project they had improved these skills. This suggests that some programmes may not be assigning students readings that reflect the kind of discipline-specific research they are expected to produce in the final year. In other words, they are not consuming and discussing the kind of literature that they need for their literature reviews before the final year. As the literature suggests, there is a need to re-visit the curriculum to align efforts right from the first year to prepare students to do research in their final year.

Both faculty and student data suggest that time and workload were an issue. For faculty, the current workload distribution structure does not account for the kind of effort that supervision and guidance of final-year research requires. For students, since this is often the first

module that required independent undertaking at many levels, the time and amount of effort needed were much more than they were used to. There needs to be a system in place that better recognizes the efforts and time of students and faculty to encourage meaningful learning and supervising experience.

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Degree of Learner Autonomy among University Students

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ABSTRACT: This one-group pretest-posttest quasi-experimental study examined the degree of learner autonomy among first-year students of Gyalpozhing College of Information Technology (GCIT) who were taught using the 'Learning by Doing' approach. A total of 62 first-year students taking BSc in Information Technology in the first semester of the academic year 2021 participated in the study. Participants completed pre-and post-closed-ended questionnaires at the beginning and the end of the course and a semi-structured interview at the end of the semester. The quantitative data obtained from the closed-ended questionnaire was analyzed through descriptive and inferential statistics, and qualitative data using content analysis. The findings from the study shed light on students' level of learner autonomy and their readiness to embrace self-directed or independent learning approaches such as 'Learning by Doing'. The study also unveiled benefits and challenges faced by students whilst studying under the 'Learning by Doing' pedagogy, which will eventually help in addressing the issues and enabling students to be responsible for their own learning. Overall, the results from this research revealed that learners can enhance their learner autonomy with proper training and pedagogical tools in place. The study, therefore, recommends teachers to incorporate student-centered learning approaches such as 'Learning by Doing' to enhance learner autonomy among students.

Keywords: learner autonomy, learning by doing, online learning

Introduction

The advent of technology and the digitalization of the teaching-learning process has contributed to the emergence of online learning. Increasingly, educational institutes are implementing online learning as the main instructional method, and the COVID-19 pandemic has further exacerbated dependence on online teaching-learning methodology (Rapanta et al., 2020). As online learning is distinctly known for its flexibility in terms of time zones, location, and distance, it is often assumed that the use of technology in teaching and learning fosters learner autonomy (Anderson, 2011). Learner autonomy is a quintessential skill in both online

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learning and the conventional learning environment. However, Clark claims that technologies are merely vehicles that deliver instruction, and do not themselves influence and regulate students' learning process (1983 as cited in Anderson, 2011). Usually, online learning programmes assume an already developed degree of autonomy for self-directed learning among students, but many students may not yet have developed adequate autonomy for independent learning.

Given that higher education in Bhutan is at a nascent yet pivotal stage, the emphasis on 21st century education has been of paramount importance. Several pedagogical innovations pertinent to equipping students with skills and competencies to respond to the economical, technological, and societal shifts have been introduced in all the integral colleges under Royal University Bhutan (RUB). In particular, Gyalpozhing College of Information Technology (GCIT) has adopted an experiential learning approach known as Learning by Doing (LBD). Learning by Doing was first propounded by John Dewey and he described it as progressive education where learners socially interact and engage in the learning process (1938 as cited in Williams, 2017). Flinders and Thornton (2013) also support Dewey's belief and define education as a "process of living and not a preparation for future living" (as cited in Williams, 2017, p.35).

Pedagogically, Learning by Doing is more inclined to learner-centred practices where learners actively participate in the learning process and influence the content, activities, materials, and pace of the learning and assessment process (Wrenn & Wrenn, 2009). This pedagogy was formally launched at GCIT with the introduction of the BSc IT Programme in July 2020 with a batch of 66 students. Thus, the students enrolled in the BSc IT Programme were expected to have a certain degree of learner autonomy to be able to embrace the Learning by Doing approach. However, as the Bhutanese high school education system is largely dominated by teacher-centred approaches and a culture of reproduction (Dorji et al., 2013), it could be a potential barrier for undergraduate students to adopt autonomous learning approaches such as Learning by Doing. The teacher-centred approach uses the didactic method with the objective to transmit knowledge from teacher to student. The focus is more on teaching the content than on students' participation and contribution to the learning process. The teacher decides and controls the instructional methods, curriculum, and assessment without any involvement of students (Gyamtso & Maxwell, 2012). Given these premises, teacher-centred pedagogies are criticized for their lack of collaborative learning activities and their focus on the end product rather than the learning process.

On the other hand, in the student-centred approach, learners have complete control over the learning process. They select the learning materials, monitor, and evaluate their own progress. Students are expected to be autonomous learners with the ability to make decisions, the capacity to take responsibility for their own learning, and the skill to critically evaluate their own progress (Doyle & Parrish, 2012). 21st century education mandates students to be self-directed as it enables them to learn anytime and anywhere using online tools and open-source software. The present paper, therefore, examines the degree of learner autonomy of first-year

students and their readiness to adopt a self-directed learning approach such as Learning by Doing.

Research Questions

This study investigated the following research questions:

1. Is there any statistically significant difference between the pre-and post-closed-ended questionnaire in terms of learner autonomy?
2. What is the perception of students about the Learning by Doing (LBD) approach?

Literature Review

Learner Autonomy

During the 21st century, autonomous learning approaches have become vital in the field of computer science and information technology as a consequence of the ever-changing and fast technical advancements. Holec (1988) defined learner autonomy as the ability to take control over one's learning. Learner autonomy is also explained as a "capacity for detachment, critical reflection, decision-making, and independent action" (Little, 1991, p.4). The definitions of learner autonomy differ but it is generally agreed that learner autonomy is a matter of degree, implying development from lower to higher level of autonomy (Benson, 2011). Learner autonomy is often misinterpreted as informal out-of-class learning in which learners independently take control of all aspects of their learning. In this view autonomous learning is treated as secluded activity, where learners need to be intrinsically motivated to learn out of the classroom, alone, and with no support and scaffolding from the teacher. However, learner autonomy can be developed in a formal learning environment such as a university and adopted as a student-centred pedagogy and part of the learning objective. There are two types of autonomy, namely, proactive and reactive. Proactive learners are self-directed and have complete control over learning in comparison to reactive learners who are responsive to tasks and react by choosing preferred strategies, materials, and goals to achieve learning objectives formulated by teachers (Benson, 2011).

In university, students adopt diverse learning approaches such as deep, surface, and strategic learning, and teachers are often left bewildered and in a conundrum, not able to meet individual students' needs. Thus, university students must develop learner autonomy to manage their own learning (Geertshuis et al., 2014). Generally, university students are assumed to be more autonomous than high school students in terms of taking initiative and learning independently. However, in reality, students need support to develop their autonomy, as it is not innate but a learned skill. Therefore, formal education plays a pivotal role in equipping students with the necessary skills to become autonomous learners. The components of learner autonomy accepted by advocates of autonomy entail learners taking initiative, monitoring progress, and evaluating individual learning outcomes (Benson, 2011). Autonomous learners employ cognitive, metacognitive, social, and affective strategies to manage their own learning.

In learning and teaching processes, all these dimensions are interwoven and closely related. Cognitive strategies relate to decision-making about one's own learning (e.g., knowing about alternatives); metacognitive strategies are used to manage learning (e.g., planning, monitoring, and evaluating the learning process); social strategies are implemented to learn through interaction and collaboration with others; and affective strategies consider one's own interests and motivation while carrying out learning tasks (Tassinari, 2012).

Despite the prevalence of learner autonomy in higher education, it has been unanimously recognized that developing learner autonomy does not entirely depend on the ubiquity of resources, tools, and environments for out-of-class learning but requires support to develop the skills and mind-set that can lead to successful autonomous learning (Benson, 2011). Although online educational technology has introduced unprecedented options for teaching and learning with opportunities for self-directed learning by enabling learners to use resources for learning on their own, in the Asian education context learner autonomy is still a new concept. Moreover, as Asian learners are often stereotyped as passive and reluctant to openly challenge teachers' authority (Chang & Geary, 2015), training learners to become autonomous could be difficult. For instance, several researchers examined the readiness of Asian learners for autonomous learning and their studies revealed that the learners did not possess the characteristic of learner autonomy such as learner control, ability to make decisions, the capacity to take responsibility for one's own learning, and skill to critically evaluate one's own progress (Doyle & Parrish, 2012; Guo, 2011). Similarly, in the Bhutanese context, until the introduction of modern education in the 1950s, the education system heavily relied on a traditional approach where passive reception and culture of reproduction were emphasized over active participation and creativity (Phuntsho, 2000). This conventional teacher-centred approach could be a hurdle for Bhutanese students to develop learner autonomy.

Thus, the current Learning by Doing pedagogy integrated reactive autonomy in its approach as teachers helped to formulate a direction of learning and students reacted by choosing preferred strategies, materials, and goals. Considering Bhutanese students' substantial dependence on teachers, reactive autonomy was suitable for them as the teacher could provide the support necessary for their learning.

Learning by Doing (LBD)

Learning by Doing refers to a theory of education postulated by American philosopher John Dewey (Garrison et al., 2012). It is an active, hands-on approach to learning that prioritizes practice over theory during the learning process. The goal of this teaching approach is for learners to take charge of their own learning through active participation. The curriculum is designed using a student-centred approach and it focuses more on "making, producing, practicing, and observing" rather than teacher-centred lectures (Churchill, 2003). This approach emerged from constructivist theory; thus, students' willingness and self- responsibilities are crucial for successful learning. While students take ownership of their learning, the teacher's role is to guide and facilitate the students by providing them with multiple tasks and teaching

materials. Hence, the learners construct knowledge and skills through the guidance of the teachers. Mekonnen's (2020) research on the effectiveness of Learning by Doing teaching strategy in Somaliland with undergraduate students indicated that Learning by Doing was useful as participants' responses demonstrated that the approach enhanced their active participation in the learning process, and helped to understand the course more. Some characteristics of the learning by doing approach are:

i. Learning as a process, not the end product;
ii. Learning is the process of creating knowledge;
iii. Learners work to create, interpret, and reorganize knowledge in individual ways;
iv. Less emphasis is placed on transmitting information and more on the development of students' skills;
v. Students are engaged in self-directed learning (e.g., monitoring, choosing preferred strategies and materials, and evaluating) with minimal intervention from teachers;
vi. Greater emphasis is placed on autonomous learning over teacher-directed lectures (Wrenn & Wrenn, 2009).

In the context of GCIT, the B.Sc. in Information Technology programme adopted the Learning by Doing pedagogy in Year I. The teaching-learning and assessment of each IT core module were completed within five weeks. The students were viewed as unique individuals and they engaged in completing a task available in the Virtual Learning Environment (VLE), a Moodle implementation, after one hour of the lecture by the module coordinator on a daily basis. The modules included a wide range of teaching-learning tasks divided into smaller learning activities for each unit to accomplish the overall objectives of the modules. The approach included a diverse range of teaching-learning components including lectures, activities, discussions, audio-visual materials, and projects. Students were seen learning by doing in these classes and they solved problems through hands-on approaches. With the implementation of Learning by Doing approach, it was, therefore, expected that students would acquire knowledge and skills to achieve the learning outcomes of the programme (Gyalpozhing College of Information Technology [GCIT], 2020).

Methodology

Research Design

The study employed a mixed-method, quasi-experimental design. Unlike a true experiment where participants are randomly assigned to treatment and control groups, in the current study, all the participants were selected based on the requirements of the study and treated as the treatment group. As experimental research seeks to determine if a specific intervention influences an outcome (Creswell, 2014, p.13), in the present study the one-group pretest-posttest design was implemented to determine whether there is a causal relationship between Learning by Doing (intervention) and degree of learner autonomy among first-year students (outcome). A pre-closed ended questionnaire was administered with a group of

respondents (01); treatment (X) then occurred; and a post-closed ended questionnaire with the same respondents (02) followed as illustrated in Table 1 below:

Table 1. Quasi-experimental Study

One Group Pretest-Posttest Design			
Group	Pre	Intervention	Post
A	**01**	**X**	**02**

Where,

A: Participants
01: Pre-closed ended questionnaire
02: Post-closed ended questionnaire
X: Treatment (Learning by Doing)

Participants

Sixty-two first-year students taking BSc in Information Technology at Gyalpozhing College of Information Technology in the first semester of the academic year 2021 participated in the study. To ensure participants' homogeneity, students who were taught using the Learning by Doing approach were selected.

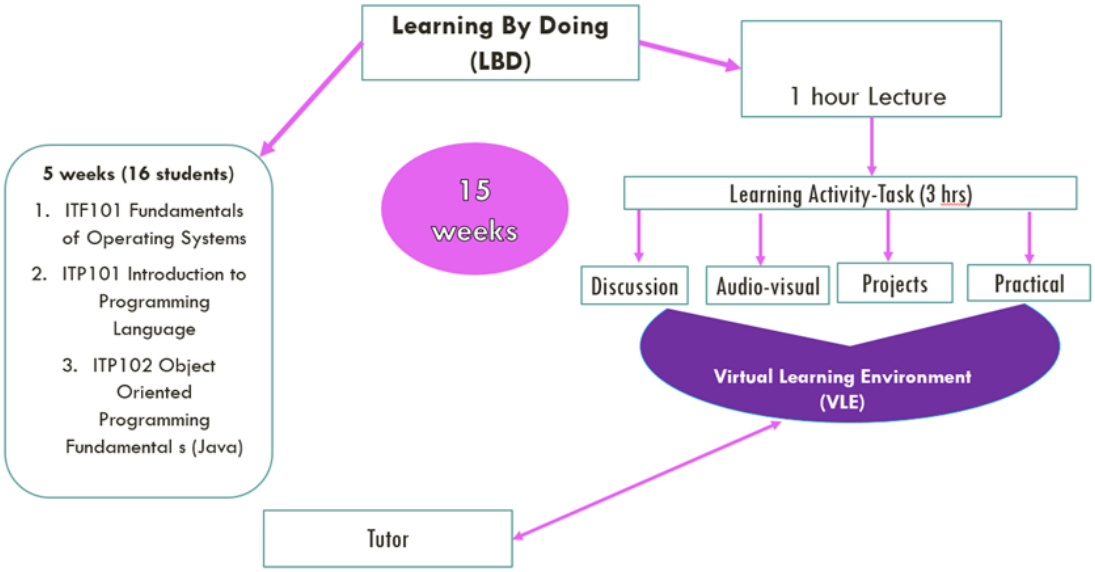
Intervention

Learning by Doing (LBD) was implemented as an intervention in this study over one semester. In a class, there were only 16 students. The activity-based learning provided individualized and self-directed instruction. Students were required to work on a series of activities that were designed to train them on certain skills, as described in the learning outcomes. The students submitted the deliverables of the activities within a day, which the tutors evaluated and provided feedback on. This mode of instruction strived to provide students with a platform for independent learning. The activity-based learning encompassed a wide range of teaching learning activities including lectures, activities and discussions, audio-visual engagement, hands-on practicals, and projects.

Each IT core module was taught over a period of 5 weeks sequentially. For instance, the first IT core module was taught, assessed, and completed within the first 5 weeks of the semester. Over the 5-week period, there was regularly a 1-hour lecture and 3 hours of practical sessions. Upon completion of the first module, the same process was then implemented for the next IT core module. Each activity was expected to contribute towards knowledge and understanding of the theory and development of skills related to the modules. The students were involved in summarizing and applying concepts, reviewing ideas, and developing programming skills through problem-solving, discussion forums, and quizzes. Once students completed the activities, they were assessed through assignments, conceptual tests, projects, presentations, practical tests, and final examinations.

Figure 1 below shows the process of implementation of LBD at GCIT.

Figure 1. GCIT Learning by Doing Process



Data Collection

Over one semester, quantitative data was collected using a pre-and post-closed ended questionnaire, and qualitative data through semi-structured interview.

Pre- and Post-Closed-Ended Questionnaire

A pre-and post-closed-ended questionnaire was administered using Google Forms before and after the intervention respectively to examine the degree of learner autonomy. This study adapted the Self-Efficacy Questionnaire of Language Learning Strategies (SEQueLLS) developed by Ruelens (2019). The questionnaire included two parts. The first part collected the participants' demographic information, including their gender, English language proficiency, and other related information. The second part consisted of 38 items investigating the participants' autonomous learning capacity based on seven common characteristics of learner autonomy: identifying learning needs and setting goals, selecting learning resources and materials, seeking social assistance, organizing the learning process and environment, monitoring one's learning, evaluating one's learning, and transferring acquired skills to other contexts. A five-point Likert scale was used to indicate the degree of agreement of respondents.

Semi-structured interview

As interviews provide researchers with rich and detailed qualitative data (Gillham, 2000), in this study, the researchers used the semi-structured interview to understand participants' attitudes and perceptions towards the use of Learning by Doing (LBD). The

researcher used the interview protocol constructed using the guidelines postulated by Creswell (2014), for asking questions and recording answers during the interview. The interview was conducted at the end of the semester and of 62 participants, 16 were randomly selected for the interview. Only 12 students turned up for the interview, and each interview lasted for 15-20 minutes.

Procedures

The following sequential procedures were implemented:

i. Researchers obtained consent from the participants by making the purpose, procedure, and requirements of the study clear and letting them sign the informed consent form.
ii. Researchers administered a pre-closed-ended questionnaire to determine the degree of learner autonomy of participants at the beginning of the course.
iii. Researchers administered the post-closed-ended questionnaire to check the degree of learner autonomy after one semester.
iv. Researchers conducted a semi-structured face-to-face interview with sample participants.
v. Finally, data was analysed by computing the pre-and post-closed-ended questionnaire data in Excel and using content analysis to organize the substantive themes of the semi-structured interview.

Results

This section presents the findings in alignment with the two research questions. It examined whether there was any statistically significant difference between the pre-and post-closed-ended questionnaire in terms of learner autonomy and scrutinized the perception of students about the Learning by Doing approach.

Quantitative Result

Effectiveness of Learning by Doing Approach to Improve Learner Autonomy

To examine whether there was a statistically significant difference between the pre-and post-mean in terms of learner autonomy, the data collected from pre-and post-closed-ended questionnaires was analysed.

As shown in Table 2, the paired-sample t-test suggested that the implementation of the Learning by Doing approach was effective in enhancing students' learner autonomy over the period of one semester. There were statistically significant differences in the mean scores of the pre-closed-ended questionnaire (x=3.55) and post-closed-ended questionnaire (x=4.16) responses of participants at $p=0.00<0.05$, indicating that the participants developed learner autonomy. The components such as identifying learning needs and setting goals (p=0.00), selecting learning resources and materials (p=0.00), seeking social assistance (p=0.04), organizing the learning process and environment (0.01), and transferring acquired skills or information to

other contexts (0.01) achieved a significant degree of difference between pre- and post-closed ended questionnaire scores at a level of 0.05. However, characteristics 5 and 6, monitoring one's learning (p=0.36) and evaluating one's learning (p=0.34) did not have a significant difference between pre and post-mean.

Table 2. Difference between Pre-and Post-closed-Ended Data

Characteristics	Mean (Pre)	SD (Pre)	Mean (Post)	SD (Post)	T - test
1. Identifying Learning Needs and Setting Goals	3.70	0.60	4.02	0.54	0.00
2. Selecting Learning Resources and Materials	3.43	0.62	3.71	0.59	0.00
3. Seeking Social Assistance	3.81	0.69	4.05	0.65	0.04
4. Organizing the Learning Process and Environment	3.50	0.53	3.30	0.61	0.01
5. Monitoring One's Learning	3.65	0.54	3.57	0.57	0.36
6. Evaluating One's Learning	3.34	0.52	3.42	0.54	0.34
7. Transferring Acquired Skills or Information to Other Contexts	3.42	0.63	3.66	0.51	0.01
Overall	3.55	0.41	4.16	0.51	0.00

Remark: ** significant at 0.05 level

Overall, the characteristic "Organizing the learning process and environment" is significant with a p-value of 0.01, so there is a difference in the student's opinion after going through the LBD intervention but the means for items such as setting realistic and achievable study plan and then sticking to the plan have decreased. More than half of the students are not sure about their ability in sticking to the study plan both before and after the intervention. This could be due to the student's inability to complete all the tasks during lab hours and time constraints for the module as reflected in Table 3.

Table 3. Organizing the Learning Process and Environment

Items	Mean (Pre)	Mean (Post)	SD (pre)	SD (post)	T - test
i) I set a realistic and achievable plan	3.63	3.54	0.78	0.74	0.49
ii) I stick to my study plan	3.17	2.94	0.81	0.87	0.08
iii) I organize my learning environment.	3.57	3.57	0.73	0.79	1
iv) I keep my learning space tidy.	3.74	3.8	0.72	0.80	0.48
v) I leave my smartphone off when studying	3.37	2.66	1.14	1.19	0.67
vi) I keep an appropriate learning pace.	3.54	3.28	0.83	0.91	0.01

In Table 4, the modal value of the pre and post-components suggest that more than half of the students agreed about monitoring their learning in terms of routine, progress, and process. However, there is a decrease in the mean of almost all the components with regard to monitoring one's learning after the Learning by Doing intervention, which demonstrates their incompetency in monitoring their learning while practicing self-directed learning. The overall p-value for monitoring one's learning is 0.36 which is insignificant and thereby rejected the hypothesis that there is a difference in the mean for pre and post-data with respect to monitoring one's learning.

Table 4. Monitoring One's Learning

Items	Mean (Pre)	Mean (Post)	SD (pre)	SD (post)	T-test
i) I reflect on whether the selected learning routine is effective.	3.66	3.57	0.76	0.79	0.48
ii) I follow my learning process to reach my learning goals.	3.69	3.59	0.74	0.71	0.40
iii) I monitor whether my learning is progressing according to my plan.	3.60	3.54	0.83	0.83	0.72
iv) I monitor whether I have achieved my learning goals after completing each task.	3.46	3.50	0.79	0.77	0.73
v) I check whether I have understood the previous lesson when I try to finish a task.	3.88	3.63	0.81	0.82	0.07

Table 5. Evaluating One's Learning

Items	Mean (Pre)	Mean (Post)	SD (pre)	SD (post)	T-test
i) I have a set of criteria to evaluate my learning outcome.	3.09	3.2	0.89	0.78	0.46
ii) I evaluate the quality of my learning outcome	3.32	3.50	0.81	0.63	0.12
iii) I seek help from my peers to evaluate my learning outcome	3.35	3.35	0.87	0.97	1
iv) I seek help from my professor to evaluate my learning outcome	3.15	3.07	0.95	0.98	0.62
v) I evaluate whether I reached my learning goals	3.35	3.55	0.84	0.71	0.18
vi) I evaluate whether my learning process was effective	3.67	3.6	0.72	0.77	0.52
vii) I evaluate whether my planning was realistic and achievable.	3.44	3.63	0.79	0.76	0.16

There is a slight increase in the mean of a few of the components with regard to the evaluation of one's learning which reflects students' ability in evaluating their learning routine, goals, progress, and verifying the lessons learned. The overall p-value for evaluating one's learning is 0.34 and thus the characteristic "Evaluating one's learning" is insignificant, as shown in Table 5. There is evidence that students were mostly taking a neutral stand when asked about their evaluation of learning outcomes using their set of criteria or with the lecturer's help. However, more than half of the students agreed that they do assess their own planning and learning process and also prefer peers to evaluate their learning outcomes.

Qualitative Result

Student's Perception of the Autonomous Learning Approach

At the end of the semester, a semi-structured interview was conducted with twelve participants to understand their attitudes and perceptions toward the use of the Learning by Doing (LBD) approach. The interview data is presented under two themes, namely, improved participation in the learning process and challenges of autonomous learning as detailed below:

Improved Participation in the Learning Process

All twelve interviewees had some knowledge about the autonomous learning approach. The participants shared their definitions of autonomous learning and experiences of learning on their own. Following are the responses provided by students:

> Student 8: Independent learning means, researching on your own, you will be given a topic/concept and you have to search/explore it on your own. And students work more on their own thereby increasing student's ability to learn more.
>
> Student 7: It helped us to explore more on our own, we became independent while learning by ourselves. We don't have to rely on others and we get many resources online while we learn by ourselves.
>
> Student 10: I thought learning by doing was good because we are learning it ourselves especially learning programming languages such as Python, we learn when we study on our own. We work in the lab on our own and when we get errors we continue working and we understand.

Overall, students had a positive experience with Learning by Doing pedagogy and the interview findings revealed that there was an improvement in students' participation in the teaching-learning process. Majority of students reported that the LBD tasks kept them motivated throughout the semester and enhanced their ability to select learning resources and materials, seek help from classmates and tutors, and take responsibility for their own learning. The participants shared how LBD benefitted them. To represent others' views, Student 7 expressed:

> Yes it helped, in LBD class, after 1 hour of lecture, 3 hours was given for practical, so we could explore on our own. We could do practical on our own, and when we don't know we asked for help from our friends and tutors, if not search on YouTube.

Challenges of Autonomous Learning

Autonomous learning invariably requires students to have a degree of self-discipline and self-motivation. Despite the positive impact of LBD on the learning process, majority of students unanimously expressed their discontentment over the allocation of time for completing each module. To corroborate this view, Student 11 said that "the problem with the LBD is the time span, so it is like 20 days, and to learn a programming language it takes more than years and here we learn it within 20 days".

Moreover, some students found completing the course syllabus demanding because of the vastness of the content. Students, for example, acknowledged the difficulty of fulfilling the daily requirements of the course, as expressed by Student 4:

> It is interesting, but also hectic. We have one hour lecture, and 3 hours of practical, to explore, use the learning materials provided by the tutors, and watch the videos. We cannot explore everything within three hours as the unit itself is vast and it gets hectic.

Furthermore, monitoring and selecting one's learning is a vital component of autonomous learning, however, the interview findings indicated that many students did not have adequate skills to monitor their learning and felt incompetent to evaluate their own learning.

It can be inferred from participants' interview responses that there is a heavy reliance on teachers for monitoring and evaluating the learning progress. The findings showed that teacher scaffolding gave students guidance and motivation to understand the learning material and steps to complete the task on their own. The following excerpts demonstrate student's need for teacher support and guidance:

> We need teachers, if I give a current example, let's say we are studying programming language, if we study on our own, we won't know where to start and when to end. For example in the case of Python, we won't know the syntax, so a one-hour theory class teaches us the starting point. But when we study without any guidance we won't know when to stop (Student 4).

Similar views were expressed by Student 9: "I think it is nearly mid-level like we need teachers' help and some concepts may need more of our effort but I think we need teachers' help the most. Like teachers can teach us the rules and the general idea but logic, we have to understand ourselves, we have to search and analyse for ourselves."

Discussion

The current study evaluated the degree of autonomous learning of first-year students after the intervention of the Learning by Doing (LBD) pedagogy. Firstly, the findings supported the conclusion of the previous study on using Learning by Doing as a teaching strategy to enhance students' learner autonomy (Mekonnen, 2020). Overall, the findings of the closed-ended questionnaire and interview revealed that the participants developed learner autonomy after undergoing LBD for one semester. Students improved their ability in identifying learning needs and setting goals, selecting learning resources and materials, seeking social assistance, and transferring acquired skills or information to other contexts after the intervention. However, the statistical finding showed that their ability to organize the learning process deteriorated after the intervention. This could be because of the student's inability to complete all the tasks during the allotted lab hours. The time limit of 25 days to complete each module might have impeded autonomous learning as they were not able to acquire the required knowledge on a daily basis. This finding echoed the result of the study conducted by Bonk et al. (2014) which suggested that the common reason for self-directed learning included intrinsic motivation with lack of time being the substantial impediment to using the resource.

The findings from the study also showed that students expected tutors to help them with monitoring and evaluating their learning progress. The components such as monitoring and evaluating learning progress had insignificant improvement and this was further corroborated by interview findings (Section 5.2.2, Interview Student 4). The previous studies supported this finding as teacher's guidance, feedback, and roles were identified as a pivotal attributes in the development of students' autonomous learning (Kim, 2014; Lee, 2016). To foster learner autonomy, the teachers were expected to facilitate, monitor, and evaluate the students learning process. One positive impact of the intervention was the increase in the number of students using gadgets such as laptops and phones for exploration and research of complex topics on the internet.

Secondly, the result confirmed Gyamtsho and Maxwell's (2012) research in which they identified historical-cultural as one of the factors affecting teaching and learning in the Bhutanese education system. Before the introduction of modern education, monastic education was predominant in Bhutan. As the learning approach was traditionally teacher-centred and dependent on rote learning and memorization based on the key textbooks, the students in the current study expressed their difficulty in adopting and adapting to a self-directed or autonomous learning approach. For instance, while learning programming module, it is mandatory that students understand the topic they are studying before moving to the next concept, however, students shared having difficulty organizing the learning process and environment which resulted in failure to complete all the tasks assigned on the day. The interview findings indicated that students needed tutors to take the facilitative role in continually monitoring their learning progress (Section 5.2.2, Interview Student 9) proving heavy dependence on the teacher-centeredness approach (Kim, 2014).

Lastly, the students did not necessarily know how to learn efficiently on their own at the beginning of the semester. The finding attested to the fact that the tutor was one essential attribute of learner autonomy (Anderson, 2011; Kim, 2014) and their presence was vital for motivating students. Apart from selecting learning strategies, materials, and goals to achieve learning objectives, students expected the tutor to guide and facilitate the learning process when needed. Furthermore, time constraint has been a recurring theme in this study. Students reported that they spent a great deal of time reading new materials and watching tutorials which made completing the tasks and assignments arduous on daily basis. Thus, it can be iterated that self-regulation and self-monitoring strategies are pivotal to the success of autonomous learning. It would be particularly helpful to teach management skills, such as deciding what, when, and how to learn, and how to monitor one's learning to become autonomous (Lee, 2016).

Conclusion

This paper investigated the degree of learner autonomy among first-year students of Gyalpozhing College of Information Technology (GCIT) who were taught using the 'Learning by Doing' approach. Findings from the statistical analysis and themes that emerged from the semi-structured interview indicated that students are ready for an autonomous learning approach. As suggested by a significant difference in the overall average mean, students seem to be embracing the idea of autonomous learning. Nevertheless, students need to work on their monitoring and evaluation skills to become fully autonomous. The Learning by Doing approach played a vital role in instilling the concept of independent or self-directed learning among students.

The current study considered all the participants as an experimental group, having a control group might have offered a wider perspective on the effectiveness of LBD in developing students' learner autonomy. Despite this limitation, the results from this study unveiled the probable benefits of using a student-centred approach such as LBD in enhancing learner autonomy among university students. Thus, it is recommended that teachers use innovative pedagogical tools to facilitate self-directed learning and support students in monitoring and evaluating their learning progress to realize the full potential of learner autonomy.

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Attitude towards Plagiarism among Sherubtseans

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ABSTRACT: Academic writing is a specifically arduous task for students as it is associated with an assortment of cognitive and linguistic processes which students find difficult to achieve and make it a normative task to handle. In order to fulfil the writing requirements of academia, students often resort to using other people's works and ideas without citing the source, a practice which is commonly referred to as plagiarism. As the practice of plagiarism becomes habitual, students become desensitized to the act and do not consider it a serious crime, and hence continue to practice it. Subsequently, the objective of this study was to find out and understand the rationale behind students committing plagiarism and their attitude towards the act. In addition, this research further explored and endeavoured to relate the practice of plagiarism with sociological and individual behaviour. This study employed a qualitative approach and the data was collected through focus group discussions and in-depth interviews which were semi-structured in nature. Participants were selected from among Sherubtse College students using purposive sampling and were representative of each department, namely, Social Science; Mathematics and Computer Science; Environmental and Life Sciences; and Arts and Humanities. The study deduced the causes of plagiarism to be demanding schedules; inadequate reading, language, and writing skills; and economy of effort. Given the prevalence of plagiarism among students and the tendency for both students and lecturers to take it for granted, it is of utmost importance for institutions to instil the concept of integrity, and teach reading, writing, and time management skills.

Keywords: plagiarism, academic writing, internet, sociological

Introduction

Plagiarism is the act of copying others' work without proper citation or acknowledging the original author (Ahmadi, 2014). It includes copying others' work from various online and offline platforms such as websites and books. The practice of plagiarism dates back to when people started to read and write, however, in recent years, increased access to the internet has

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made it easier to copy others' work as students can retrieve articles and works without much effort. Additionally, due to recent development of and increased accessibility to plagiarism detection software, it has become much easier to check students' works for plagiarism and consequently penalize them, leading to an increase in reported cases. Plagiarism should be considered as a serious crime and dealt with accordingly, primarily because it is unethical and is similar to stealing and theft, and undermines academic values and morals. However, despite the presence of various plagiarism detecting tools, students still commit plagiarism without fear of its consequences, which can include imprisonment in severe cases. For instance, in 2021 students of Sherubtse College pursuing BSc. Mathematics and Physics committed plagiarism in their examination which resulted in suspension of the entire class for one semester. Additionally, students of Bachelor of Arts in Population and Development Studies at Sherubtse were also caught sharing materials through pen drives during their semester-end examinations, leading to the suspension of half the class for a year. This points to the need for students in Bhutan to be taught academic skills in lower levels of education.

This research paper also focuses on how sociological behaviour affects students' attitude towards plagiarism, taking into account studies that show how societal norms affect attitudes towards other concepts as well (Culwin & Lancaster, 2001; Dawson & Overfield, 2016; Granitz & Loewy, 2007; Hayes & Introna, 2005; Martin, 2012; Park, 2003).

Until recently, the norm was to accept assignments without checking them for plagiarism, which resulted in students scoring high marks despite them submitting plagiarized assignments. Universities also did not take serious action when students were caught plagiarizing work. However, with developments in technology, people have strategized different solutions to overcome plagiarism. Most universities now view plagiarism as a serious crime and have started to use plagiarism detection software such as URKUND and Turnitin. There are also laws at the university level that lay out the consequences of plagiarism, which range from grade reduction to expulsion (Royal University of Bhutan [RUB], n.d.). Thus, the practice of plagiarism is now significantly under control, and there are fewer students who commit plagiarism. Much research has been conducted by Bruton and Childers (2016), and Awasthi (2019), in various other countries and universities, such as 'The ethics and politics of policing plagiarism' and 'Plagiarism and misconduct, a systematic review', however, research on plagiarism has not been conducted in Bhutan before. Therefore, this served as motivation to conduct a study on the students' attitude towards plagiarism in one of the universities in Bhutan.

This research paper further delved into the effects of plagiarism on an individual's life and methods of reducing and preventing such practices.

Research Objectives

Sherubtse College is a multidisciplinary college with a wide range of degree courses. Sherubtse College has a total of 1582 students out of which 706 are male and 820 are females. On average, each student is assigned an average of ten written assignments every semester which

increases the possibility of instances of plagiarism. It is seen that the majority of the students plagiarize their work and use other software such as Quill Bot, Prepostseo in order to paraphrase their work. The objective of this research was to find out the rationale behind students committing plagiarism and Sherubtse College students' attitude towards plagiarism. Students do not take plagiarism as a serious crime and continue to practice it. Bhutanese students in general are arrogant in the academic field. Society plays a vital role in shaping an individual and their mentality about a particular thing. Therefore, this research also sought to relate the practice of plagiarism with sociological and individual behaviour.

Literature review

Plagiarism can be a confusing concept to contend with for its definition and uses are various. Plagiarism however, can be summarized as the act of using someone else's words, ideas organization drawings, designs, illustrations, statistical data, computer programs, inventions or any creative work as if it were new and original to a person committing the act (Liddel, 2008); this would be inclusive of intellectual property and materials from public domain. The causes for plagiarism are several and can be attributed to various factors. In addition, plagiarism is not a consequence of the individual inclinations; external factors must also be considered. These external factors can arise from sociological elements as well such as socialization, one's social milieu, and sociological proclivities innate to a person. Therefore, the study of plagiarism must be multi-faceted and a wider approach is required, which this study resolved to achieve.

Green (2002) argues that plagiarism, which is known as the theft of intellectual property, has existed for a very long time. It emerged from the time when humans invented works of art and research. In recent discussions of students' perceptions of plagiarism, a recurring issue has been that plagiarism is a sophisticated topic which has been studied by many, using different types of frameworks (Fish & Hura, n.d.). Plagiarism includes counterfeiting others' works as one's own work, replicating and providing false information about the source. The popular process is to change the words but keep the same sentence structure without acknowledging the source (Blum, 2011). Plagiarism is considered to be a severe crime or academic misconduct. In other words of Park (2003), the term plagiarism means to copy others words and ideas, which is not considered to be general knowledge, and plagiarism is sometimes known as the misuse of others' work. Plagiarism is widely considered to be an illegal act. Many university students tend to commit plagiarism despite knowing its consequences.

Ahmadi (2014) places plagiarism in four categories, namely, accidental, unintentional, intentional and self-plagiarism. Accidental plagiarism is the first type of plagiarism where a person plagiarizes their work because they do not possess any knowledge about that particular topic and do not know rules of citation and referencing. Secondly, in unintentional plagiarism, a person does not intend to copy others' work. Whereas, intentional plagiarism is intentionally copying others work without citation. Finally, self-plagiarism is a type of plagiarism in which the author publishes their work on some other platform or website but they do not acknowledge

their actual work. Students in university of Bhutan fall under the category of unintentional and intentional plagiarism because as students have access to the internet and other advanced technologies, they copy ideas from whatever source is available on the internet but do not know how to cite or reference sources properly, which Culwin and Lancaster (2001) consider as plagiarism. On the other hand, when students have limited time to do their assignments and when they are not confident with their language, they tend to intentionally copy others' words and use them in their assignments. Thus, these kinds of factors contribute to the increase in the rate of plagiarism which falls under academic misconduct.

Martin (2012) argues that the practice of plagiarism is influenced by an individual's societal background. In his work "Culture and unethical conduct: Understanding the impact of individualism and collectivism on actual plagiarism", the author says that international students plagiarize more than domestic students in countries such as the United States. Plagiarism has not been taught to students in their culture. The theory of cultural relativism is relevant in this literature. According to this notion, differences in societal behaviour and belief should not be judged on what is right or bad, but rather from the viewpoint of others or through the lens of others. This philosophy also contends that each society has its own culture, customs and practices which should all be treated equally. Dawson and Overfield (2016) have found that there are certain characteristics which can help predict the likelihood of an individual committing plagiarism. Even in Bhutan, where this research is based, various societies have different values and practices, which also contributes towards developing a varied attitude towards plagiarism. This demonstrates how culture varies from place to place and how it aids in the education of people about plagiarism. Similarly, in Sherubtse College, students come from all walks of life, including people from rural and metropolitan areas, people who have been exposed to global cultures and students who have yet to be exposed to the outside world; hence it is important to take into consideration the nature of relative phenomenological experiences of these students.

Plagiarism by university students is defined as a sin known as "the unoriginal sin" or "sin against originality" in Park (2003). This article employs ethical philosophy to demonstrate why plagiarism is regarded as a sin or immoral practice. Ethical theory provides a comprehensive understanding of our ethical obligations or what we should do. This philosophy guides a person's actions by stating what is correct and incorrect. Telling a falsehood to your parents, for example, is deemed bad and goes against societal norms. Plagiarism is also against a university's and other institutions' policies and regulations. Because many students at Sherubtse College are Buddhist, ethical theory is the best theory to explain such phenomena. As a result, lying, stealing, and duplicating other people's work without their permission is considered a sin. This idea is significant to this research because it leads us to assume that plagiarism is contrary to our religion, university rules, and self-cheating.

In their book "Cultural Values, Plagiarism, and Fairness: When Plagiarism Gets in the Way of Learning" (2005), Hayes and Introna argue that kids learn by copying other people's work, linking plagiarism to the growth of students. The theory of social learning is supported

by this article. The social learning hypothesis describes a process in which a person learns new skills by watching and copying others. While copying others' work, students must read and process it. Students gain new knowledge through plagiarizing since they must put the sentences in the correct order for the assignment to be presentable. This article also employed criminological theory, which explains why people engage in criminal and deviant behaviour. Due to inadequate time management, students frequently plagiarize their work. This theory would aid this research in determining why students at Sherubtse College plagiarize despite knowing the repercussions. Culwin and Lancaster (2001) state lack of time and students' lack of confidence in their own writing skills as likely reasons for committing plagiarism.

Rational choice theory, which explains that individuals use their self-interest to make different choices in life which will give them the benefit in life (Granitz & Loewy, 2007), is also relevant, particularly when studying attitudes towards plagiarism. Individuals have the right to choose whether to plagiarize their work or to do it ethically. In rational choice theory, people do not make decisions through traditional beliefs, unconsciousness and environmental influence, rather they make decisions by looking at the risk and benefits of that particular act. So students tend to plagiarize their work when they want to gain good grades (benefit).

Research methodology

This study employed a qualitative approach and the data was garnered through focus group discussions which were semi-structured in nature and through in-depth interviews. The study was based in Sherubtse College, which consists of four forums: Social Sciences; Mathematical and Computer Science; Environmental and Life Sciences; and Arts and Humanities. Participants were representatives of each forum. For the focus group discussion, the participants were selected through purposive sampling and were not differentiated based on their gender, religion, ethnicity, or other cultural backgrounds. A total of 20 students (10 male and 10 female) selected from the population participated in the focus group discussions.

Focus Groups Discussion and In-depth interview

The research methodologies employed in order to understand the practice of plagiarism were focus group discussion and in-depth interview. These methods were chosen as it had been effective in gathering detailed information in a short period of time and could be conducted according to the convenience of the students and the researchers. Through the in-depth interview the researchers were able to harvest honest feedback and were able to understand the students' perspectives as it was shared in a casual conversation-like manner. The in-depth interview was intentionally chosen with the objective of understanding the answers at a deeper level that is by reading the facial expressions of the interviewees, monitoring their tone and changes in their body language. The physical gestures while they answered were a key element in actually measuring the honesty of their answers and it made asking follow up questions easier

and in accordance to their overall answer, which is inclusive of the physical cues mentioned above along with what they have said.

The focus group discussion was carried out in two different groups. The first group consisted of the male students and the second group were that of the female students. This segregation was done in order to clear the stereotypical perspective that male counterparts are bolder and therefore, plagiarism cases are usually higher in male students compared to female students. By having a separate focus group for male and female students, understanding and evaluating the rationales and reasons behind plagiarism could be understood more clearly, from both perspectives and the differences in their thoughts about plagiarism could also be measured.

Design and Analysis

The answers provided by the participants were recorded in the form of voice recording, which were then transcribed. The transcription was coded and as a result the objective of the research was achieved by comparing the responses of the participants. Additionally, secondary data were collected through articles and statistics which are already published.

Results and Discussion

The key findings are generally attributed to students viewing plagiarism as a means to complete their academic course work. Though a large number of the respondents understand that plagiarism is unethical and immoral, they state that academic pressure drives them to plagiarize materials from the internet either through the usage of paraphrasing tools or copying it verbatim. The findings also indicate that the motivations for plagiarizing among various factors were three-fold, namely, demanding schedules (lack of time), inadequate language and general writing skills, and economy of effort, as detailed below.

Students' perspective on plagiarism and examining their attitudes towards plagiarism

Students were asked to provide their perspective on plagiarism in order to examine their attitudes on plagiarism. This topic delved on how students perceive plagiarism and their understanding of its consequences; it assessed the students' moral and ethical standpoint towards plagiarism. Students believed that plagiarism was unethical academically however asserted that it was necessary as a consequence of academic pressure, PM1 (male participant 1) stated "I mean I know that plagiarism is wrong, but the pressure to complete the assignment and the marks it carries, I am compelled to plagiarize." In addition, their view of plagiarism is primarily predicated on the need for urgency characterized by academic tasks and believed that students naturally plagiarized as a last resort. The students consider plagiarism a necessary evil, especially in college where they are without parental supervision: they procrastinate and stall academic tasks and cram for last minute completion of assignments, which indicates the inadvertent dependence on plagiarism as a consequence. Focus participants stated that plagiarism, according to Sherubtse students, is a serious offense academics can commit, and the

duplication of work was considered unethical and a total disregard of the hard work done by those who wrote the material.

Interestingly, one student compared plagiarism to gambling. If a person is not caught cheating, then it is not considered cheating. PM3 remarked,

> Regardless of plagiarizing being an immoral act, for me it is more like gambling. When I plagiarize I risk getting caught, but if I do not get caught, what I copied is considered to be of my own by the tutor.

Two thirds of the male participants concurred with this view; this implies that to be accused of plagiarizing, one must be caught in the act. Hence this provides an overarching idea of plagiarism being not of individual honesty but of social scrutiny. However, in contrast, Sherubtse students believed that plagiarism to a certain degree was acceptable, especially given the fact that reference of articles and books is a prerequisite to writing an assignment or any task.

Students' view of plagiarism is predicated on a two-point scale: verbatim plagiarism is considered unethical and immoral, but plagiarism of a certain degree, which varied with each respondent and with the usage of paraphrasing tools, is considered normative and consistent with academic honesty. Therefore, students in collective consensus considered plagiarism as inevitable, and the consideration of its immorality and unethical nature was directly proportional to the degree of plagiarism practiced.

Student's motivation to plagiarize

Students' motivation to plagiarize consisted of several factors ranging from the desire to look smarter to the lack of information about what constitutes the idea of plagiarism. However, throughout the two sets of focus group discussions conducted, the general consensus from the participants on the motivation to plagiarize seemed to be outlined by three affective factors discussed below.

Demanding schedules (lack of time)

Sherubtse students tend to be engulfed by various tasks which are either academic or other, leisure activities. Students were of the view that there is a conflict between personal and academic life, that is to say, students who are seriously pursuing their aims and goals which are beyond the academic realm tend to consider academic tasks as secondary and plagiarize merely as a consequence of necessity. Further attributable to the lack of proper time management skills, students usually resort to plagiarizing their course work.

PF3 claimed that for most students, demanding schedules such as multiple assignments and course work is the primary cause of plagiarism. In college, students assert that they do not usually have the time to write original essays for each of the many assignments by reading several sources because their social and personal obligations are demanding and require immediate attention; these are inclusive of attending gatherings, picnicking during the weekends, sporting

activities, social services, and other miscellaneous activities. Martin's (2011) theory of cultural relativism may also apply here as Bhutanese culture prioritizes social bonding.

Additionally, PM6 shared, "I am interested in sports and have a passion for it. I cannot stop what I love doing for academic tasks which may not help me at all in the future in the area I want to excel in." This is in line with Granitz and Loewy's rational choice theory (2007) where students weigh the benefits and consequences of plagiarism and their own interests, and deduce that the rational choice would be to focus on their field of interest which has more immediate benefits. This also supports Park's (2003) article which studied reasons for plagiarism through ethical philosophy. However, it seems to have no utility when committing plagiarism. Despite the act being contrary to Buddhist beliefs, self-interest seems to take over. PM8 stated "I do understand that it is ethically wrong and against my own religious beliefs, but when it comes to my own interests, I do not compromise." Therefore, one's own ethics seem to remain passive in the face of urgency and academics.

In addition, the burden of collision of multiple assignment due dates constitutes another factor. Consequently, assignments are usually incomplete and completed only during the day of the deadline, leading to plagiarism in order to submit the assignment on time. PF1 stated that her lack of time management skills leads her to plagiarize. "I procrastinate a lot and leave all of my academic tasks only at the last moment, so I have to pull an all-nighter to submit my assignments hence I plagiarize quite a lot," she said. Therefore, the practice of plagiarism among students can be attributed to the lack of time as students have to meet various obligations and the lack of proper time management skills. This is inconsistent with the theory of reasoned action which suggests cheating to not be a result of environmental factors such as time (Simkin & McLeod, 2010, p. 9).

Inadequate reading, language skills, and writing skills

The language of English not being the modus operandi of communication amongst Bhutanese students tends to be a challenge for students. During the discussions, PM2 asserted that the practice of plagiarism can be attributed to inadequate language skills which leads to the inability to understand ideas and concepts which are laid out in their references. In addition, the lack of writing skills further leads to the inability to articulate ideas. He said "I do not read at all, and I only write when I get assignments. I cannot write any assignment without plagiarizing, and I cannot even dream of writing it on my own. I lack writing and language skills." Writing is formalized thinking and students as a consequence of lack of writing habits, do not possess the cognitive skills to articulate and organize ideas. This leads to difficulty in integrating source material into their own argument. Hence, as mentioned, one of the underlying factors which is quite subtle in nature which leads to the practice of plagiarism is the lack of reading habits, inadequate language, and writing skills which inadvertently lead students to plagiarize work. This is concurrent with a study conducted by Nashruddin in 2013 among Indonesian university students surrounding the reasons students cheat. Similar to Bhutanese

students, Nashruddin's were using English as a second language, making them lack confidence in using the language to write assignments, leading them to plagiarize.

While the participants acknowledged the existence of a module on academic skills in their first year, they viewed it to be wholly insufficient and also pointed to the lack of an established resource centre to approach when they need help with employing proper guidelines in academic writing. In the absence of a reliable resource centre, students resort to filling the knowledge gap through widely available materials on the internet. Taking the help of the internet to fulfil academic needs is one of the main reasons for students resorting to plagiarism.

Economy of effort

Economy of effort is generally defined as the tendency of organisms to act efficiently and minimize the expenditure of energy and restricting unnecessary movements. In this context, it is translated as the perceived convenience of cheating or the laziness of students. This was one of the most often mentioned factors in the discussion. The participants of the focus group believe that students usually copy the work of other authors verbatim in order to avoid the burden of reading and writing and complete their assignments, which takes a significantly larger amount of time. Plagiarism solves their problems quickly so that students have the time to do other things and be engaged in other activities. PF4 said, "I would rather spend time doing something I like, so plagiarizing is an easy way out for me." Overall, there was a general consensus from the participants that the economy of effort or the convenience of cheating and the laziness of students play an immediate fundamental role in the practice of plagiarism. This finding is in line with the study conducted by Hayes and Introna (2005) in which some individuals are inclined to carry out an act despite knowing that it is deviant because of other factors that push them towards the decision. These students, despite understanding the consequence of plagiarism, resort to deviant behaviour and habits which arises mainly because of demanding schedules and economy of effort.

Another reason that emerged from the discussions that is worth mentioning includes the contention that students usually resort to plagiarism mainly as a consequence of not understanding the degree of seriousness that is associated with plagiarizing, they consider plagiarism as possessing 'innovative skills' and 'thinking out of the box' and not viewed as misconduct that warrants immediate disciplinary action. Additionally, participants of the focus group propounded that the environment they were born into and the process of socialization played a vital role in determining the degree to which a student plagiarizes. Students who are disciplined from an early age tend not to plagiarize, however, students more specifically from the digital age (Generation Z) tend to plagiarize more often. The study from Park (2003) that suggests that ethical theory (individuals are inclined to choose decisions that they perceive to be morally correct and avoid decisions believed to be morally incorrect) is linked to the reasons individuals decide to commit plagiarism is relevant here. Students who do not believe plagiarism to be wrong as a result of their upbringing feel free to commit it, whereas those who perceive plagiarism as morally wrong choose to not commit it.

In addition to the factors outlined above, several other factors were also stressed by the participants. These factors were inclusive of lack of information in understanding academic honesty and the consequence of plagiarism. The unwillingness to take risks, the desire to get good grades or be seen as smart were also some of the reasons. Some agreed that getting away with cheating was one of the factors which contributed to the practice of plagiarism. All of this suggests that the reasons as to why students plagiarize are multi-dimensional in nature and are not easily visible.

Intentional plagiarism seems to be quite prevalent which involves intentionally copying the works of others; this is as a consequence of the factors mentioned above. Further, plagiarism is not linked with learning in the case of Sherubtse students. This is in contrast with Hayes and Introna's (2005) study that links plagiarism to social learning theory. Students commit plagiarism as a means to merely complete an assignment and not as a process of learning. These focus group participants hinted that they do not learn from plagiarism primarily because they do not commit to longitudinal plagiarism which involves committing plagiarism through careful research and picking resources and paraphrasing.

Furthermore, it is also quite interesting to note that, the prevalence of plagiarism among the male participants of the focus group seems to be more as opposed to female students. This result is similar to that of a study done by Clariana et al. (2013) among university students in Spain, which showed that male undergraduate students cheated significantly more than female students in Spain. The reasons for this consist of better reading habits among females, commitment to academics, and encouragement among the few mentioned during the focus group.

Conclusion

The occurrence of plagiarism generally among undergraduate students of Sherubtse College seems to be pervasive. This research sought to understand the attitude or perception of these students towards plagiarism as well as the consequent reasons they commit the act. This was done through two semi-structured focus group discussions. The responses were then juxtaposed against existing research on the same topic conducted in other countries (dis)similar to Bhutan and analysed using social learning, criminological, ethical, reasoned action, and cultural relativism theories. It was learned that Sherubtse students engage in both intentional and unintentional forms of plagiarism. The former was as a result of their misunderstanding or varied understandings of the definition of plagiarism as well as the lack of skills to recognize and avoid practices that constitute as plagiarism.

The reasons for the latter were cited to be students' priorities being other than academic, lack of academically appropriate reading and writing skills, demanding social obligations and lack of time management skills for a few. Additionally, students claimed to be ill equipped with the requisite academic reading and writing skills, which, when compounded with the existence of too large a number of assignments in too short of the amount of time to

write them in, a large number of social/extracurricular obligations, as well as the lack of an established resource centre to approach when confronted with the inability to follow proper guidelines, students felt like they have no choice but to submit plagiarized work. This occurs sometimes also regardless of their ethical and moral views on plagiarism. Additionally, students did not see copying as an opportunity to imitate proper academic writing, which means that they did not learn in the process of plagiarism.

However, it must be noted that the sample size of this study is fairly small (20 students) and was limited to only students of Sherubtse College. It is important to remember that the scope of the research was only to study the attitude towards and reasons for plagiarism among this demographic. We did and do not intend to form generalizations about the larger student population. Additionally, it must be noted that these responses were gathered from FGDs which can sometimes lead to groupthink, defined by Janis (1971) as "the mode of thinking that persons engage in when concurrence-seeking becomes so dominant in a cohesive ingroup that it tends to override realistic appraisal of alternative courses of action" (p. 260), which could have resulted in the general consensus among student respondents and a lack of anomalous responses.

What is quite clearly evident from the discussion is that understanding the academic policies and rules is not sufficient to assist students in avoiding plagiarism pitfalls even with students' good intentions. Second, it is important to teach writing skills and at the same time equally important to concurrently to teach time management skills. Finally, students try to gain most of their achievement through the least possible effort, which is quite a difficult attitude to alter.

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Peer Observation as a Professional Development Tool for Higher Education in Bhutan: A Case Study at RTC

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ABSTRACT: Peer observation and peer feedback are tools used by educators in their professional development. Using an instrumental case study, this study examined the effectiveness of peer observation and feedback in enhancing student-centred teaching-learning practices in Bhutan. It is important for educators to know what works to maintain students' interest in the class and what works best for a specific group of pupils. This requires constantly challenging one's own assumptions about teaching and learning, educating oneself on more tried and tested pedagogical theories, and critical reflection on classroom practices. Peer observation and constant peer feedback are a few tools to achieve these. In this study, six tutors at Royal Thimphu College who were participants in a peer observation programme shared their experiences of participating in the exercise through a focus group discussion. This study found that unlike the potentially evaluative nature of feedback from programme leaders and management, peer observation is more effective and favoured by the teachers because of its non-evaluative nature. The observed and the observers seemed to equally benefit from learning and adapting new teaching strategies acquired as a result of the peer observation. Receiving feedback and attending the classes of peers were perceived to be beneficial by all the participants. The study, therefore, suggests and encourages teachers to consider using peer observation and peer feedback as tools for professional development.

Keywords: higher education, teaching practices, peer observation, feedback

Introduction

Peer observation is considered one method to enhance the teaching-learning environment and professional development although it has not been used as much as some others (Bell & Mladenovic, 2008). This paper aims to shed some light on peer observation as a tool for professional development for teachers and encourage the use of peer observation among teachers.

Peer observation is not just an evaluation tool for the one being observed but, as Donnelly (2007) notes, it also provides an opportunity to learn for both the observer and the

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observed. Similar views were shared by Hendry and Oliver (2012), that there is increasing evidence of benefits acquired by the teachers from observing a colleague teach and from receiving feedback. Peer observation as a professional development tool has not received much attention as a tool for helping teachers develop professionally in higher education institutions in Bhutan. This paper explores the significance and effectiveness of peer observation for teachers in their professional development and the strategies that best help teachers improve their teaching methods. To do so, this paper has analysed a post-peer observation focus group discussion conducted among a small group of faculty members at Royal Thimphu College (RTC).

At RTC, the Centre for Innovative Teaching and Learning (CITL) is a centre that encourages and works toward building innovative and effective teaching and learning culture at RTC. One of the programmes CITL conducts to achieve its goal of encouraging innovative and effective teaching and learning is peer observation. This paper is a by-product of one such peer observation conducted by the CITL. The study explored the experiences and views of six faculty members at RTC to understand if peer observation and feedback play a role in facilitating professional development. Participants in the peer observation programme were gathered together to reflect on their experiences and confirm their strengths and improve on their weaknesses with regard to their classroom practices. The critical reflections from their peers provided key insights into their classroom teaching and learning strategies. There is no doubt that teachers do not usually look forward to classroom observations with excitement and as Cosh (2002) suggests, there is no real evidence that people develop and improve through the judgments or comments of others. However, it was found through the discussion analysed in this study that peer observations have the potential to be an enjoyable process if the purpose of the observation is to reflect upon one's own teaching and for active self-development rather than to make judgments about others.

Literature Review

Peer observation is said to have a direct relationship with the professional development of educators (Hammersley-Fletcher & Orsmond, 2005). However, it is not a practice commonly used by most educational institutions because peer observation as a tool for professional development is not always popular among teachers. For a peer observation programme to be a success, it requires the observer and the observed to be reflective about their own teaching strategies and practices when they receive feedback from their peers. Feedback can play a major role in helping the tutors learn from their teaching experiences if the tutors are willing and aspire to learn and grow (Day, 1995).

It takes practice to be reflective and open to feedback (Hammersley-Fletcher & Orsmond, 2005). As educators, being reflective is equally essential if not more than being a subject specialist, and when peer observation is done right, it can help us reflect effectively. Reflective teachers don't just focus on being a subject specialist but reflect on other factors such as philosophies of teaching and learning (Hammersley-Fletcher & Orsmond, 2005). It is an individual's ability to reflect on one's own practices that distinguishes a teacher who can just

teach from a teacher who can also inspire and motivate the students. There are many ways in which a teacher can work toward professional development, and peer observation is one of the tools for teachers to help improve their teaching practice (Bell, 2005). When the teachers participate in peer observation, it not only helps them reflect on their own teaching practices but it also provides insights into the teaching practices of other teachers which can be helpful if one is open to learning. Peer observation will not only help the teachers foster their development and professional growth, but also help them adapt to the changing demands of the education system (Cosh, 1998).

Having said that, peer observation can easily seem like a burden to the teachers if not done right, or if the practice is flawed. It is important to find the best practices and implement as many good practices as possible to make the peer observation effective. There is no one right way to do it, and teachers will have to try different methods, constantly evolving and changing the process according to the current requirements. According to Hammersley-Fletcher and Orsmond (2005, p.1), "the 'best practice' of peer observation is, to a large degree, dependent on the quality of the processes in place, and on the practices of those conducting observations and being observed". When quality processes and a non-judgmental environment where participants feel comfortable having colleagues in their classrooms are in place, the observer and the observed are able to maintain confidentiality, which is a major factor for good peer observation and feedback.

When putting the process of peer observation in place it is important to be aware of the risk of the peer observation seeming to be intrusive and challenging academic freedom (Lomas & Nicholls, 2005). One of the reasons why peer observation is underrated or underused as a tool for professional development is because in most cases the teachers are only observed for the purpose of advice or assessment, during inspections, or when they are new to the profession or the institution (Cosh, 1998). When peer observation is used by management with the intention to be evaluative it doesn't get the credit that it should and that leads to it not being used as intensively as it should be. The notion that peer observation is a practice of being observed by or observing those more experienced in order to learn can discourage many teachers from using it as a tool for their professional development. It is evident that most institutions use peer observation simply as a requirement for evaluation which can end up being just one of the ineffective and mechanical 'to-dos'. According to Gosling (2014, p.18), "although the staff can be required to undertake a task (such as observing others or being observed) they cannot be required to benefit from the task, and arguably, as soon as a development task becomes a requirement its potential for development is reduced." This is why peer observation can be more effective when it is done on a voluntary basis rather than making it a requirement. When peer observation becomes just a requirement instead of a tool to improve teaching and learning, the motive for the practice is driven more by compliance rather than the willingness to grow and become a better teacher. Peer observation is an effective tool for the professional development of teachers only if it is non-judgemental, non-evaluative, and not done under compulsion (Lomas & Nicholls, 2005). So, as long as peer observation is safe from any direct cost or

consequences, it has the potential to be an effective tool for professional development for the teachers.

The other reason peer observation is perceived negatively comes from the notion that the observers' jobs are just to observe and give feedback. As noted by Gosling (2014), the outdated feedback model puts the reviewer in a position to make a judgment about the rights and wrongs of the teaching practice of others and expects the reviewer to give feedback to the teacher about ways of improving their teaching based on one or two classes they observe. Though it is expected that the observer remain sensitive and empathetic with their feedback, the underlying reality of the mismatch of the power dynamics between the observer and the observed holds. A major loophole in the traditional observation system is the power dynamics between the observer and the observed. It is usually assumed that the observer is in a position to make a judgment and offer constructive feedback on the basis of a class or two that they observe. Therefore, if the practice of peer observation is to be sustained, there is a need to move to a model of peer observation and assessment that is more flexible and more inclusive of the complete range of activities involved: designing, delivering, and assessing teaching and learning (Gosling, 2014).

The misconception that the observers should have a critical view gives peer observation a bad image. If we change the lens and view observers as equal partners in learning with the observed, it would be more beneficial and effective for both the parties. Peer observation is most effective if the motive of the observer is to reflect upon their own teaching and for active self-development, rather than to make judgments upon the observed (Cosh, 1998). Peer observation and peer feedback as tools for teacher development ultimately have an effect on the students' experience of learning (Bell & Cooper, 2013). So, irrespective of the flaws of peer observation, it still has a great potential to be used as a professional development tool for student-centred teaching and learning. Teachers should try the tool at least once before discarding it as ineffective. If it is done right, they might come to see the effectiveness of peer observation for their professional development.

Methodology

This research is an instrumental case study based on a focus group discussion among the six participants in a peer observation programme conducted at RTC during the fall semester of 2021. This is a purely qualitative research based on the focus group discussion among the participants in peer observation and the author of the paper was one among the six volunteer participants in the peer observation programme. The purpose of this peer observation was not for evaluation but for self-growth and learning and therefore, the participation was voluntary. The participants in the focus group discussion were part of the peer observation programme but they were not part of the research team. The author of the paper was both a part of the peer observation team and the researcher who used the focus group discussion as a source of data for the paper.

The focus group discussion was used in this research as its data and the discussion was conducted, recorded, and transcribed by the Centre for Innovative Teaching and Learning

(CITL). The CITL lead Ms. Kencho Pelzom was the interviewer and the interviewees were the six participants of the peer observation programme.

This study seeks to investigate and improve on the practice of peer observation through the application of the personal experiences of the participating tutors.

Method of Data Collection

The data for the research was collected from six tutors of five different programmes at RTC who were teaching a common module, Orientation to College Learning (OCL), to first-semester students across different programmes in the fall semester of 2021. In this peer observation programme, each of the participating tutors observed the classes for a few of their peers and similarly, their classes were observed by a few of the other participants. In this cycle of peer observation each participant carried out two observations during the semester. The first observation was done for the shared OCL module. For the second observation, participants could suggest any of their other classes to be observed, and also request a specific area of focus. The observation arrangements were made by the CITL team. After each round of observation was complete the group sat together to reflect on values and lessons learned from their observations and to share feedback. These were done both in the form of dialogues and written responses in order for insights to be clarified and for good practices to be shared.

The participants in the group were of different age groups, from different departments, and with different years of experience, ranging from 1 year to 10 years. There was only one male faculty in the group. The data from the peer observation programme were collected using discussions, written documents, and class observations. However, in this paper, the focus group discussion with the participants has been used for the analysis. This is because the focus group discussion covered all the information required for this paper. The focus group discussion used for this research was held on 18th November 2021, led by CITL lead Ms. Kencho Pelzom.

Method of Analysis

The main purpose of this research was to understand and analyse the experiences of the tutors participating in peer observation. Though there were data in the form of written documents from the class observation, the researcher decided to use the focus group discussion as the only source of data because the information from the written documents was almost similar to what was discussed during the focus group discussion.

The discussion that took place during the focus group discussion was recorded and transcribed by the CITL team. The themes that have emerged in this paper have been inspired by the following focus group discussion questions that were discussed in length:

i. What did you learn from being an observer in someone's classroom?
ii. What did you learn from the feedback that you received from peer observers?
iii. Would you volunteer for another peer observation? You are most welcome to say no (for any reason you might have). So, why or why not?

Though the written documents have not been used in this paper, the peer observation used five templates for observation and feedback. The following five templates were provided by the CITL to the participants:

i. RTC peer observation partnership planning form: pre-planning self-reflection template
ii. RTC peer observation partnership form: pre-observation planning form
iii. RTC peer observation partnership form: templates for observation
iv. RTC post-observation feedback form
v. RTC peer observation partnership: post-observation self-reflection form

These templates have not been provided in this paper but they can be found on the CITL website (https://www.rtc.bt/index.php/academics/citl) and can be used with consent from CITL. The participants in the peer observation were oriented on how to use each of the templates which gave the observer and the observed clarity on the process of observation. Though the templates have a predetermined format, the tutors had the flexibility to make changes at their convenience if required. The templates used during the process of peer observation were filled in different stages of the observation. The first template was filled by the observed before the observers came to observe the class. It requires the observed to identify the area(s) of their teaching practices they would like to receive feedback on. This made the peer observation more interesting and friendly because the one who is to be observed gets to tell the observers what area of their classroom teaching they would like to be observed for and improve on.

Themes of the Findings

As mentioned above, the paper is specifically concerned with the focus group discussion. The following three key themes emerged from the discussion:

i. Effectiveness of peer observation
ii. Effectiveness of Feedback
iii. Willingness to take part in future peer observations

Each of the themes will be further analysed in the following sections.

Analysis

Effectiveness of Peer Observation

The participants in the peer observation said that they got a new perspective on teaching and learned new strategies for teaching by observing their peers. At least three out of six participating faculty members felt that being an observer was helpful and effective because watching other faculty members in action was so much more effective and useful than attending workshops and learning passively. For instance, Participant 1 said:

> When I was sitting in someone else's class, I felt like I was getting a different perspective and I could see things from different angles. It is very easy for me to sit on the other side of the table and say this is not working and students are being disruptive but I don't notice that disruption when I am teaching. So, getting this

different view of the classroom made me more mindful when I went to my class the next time.

Participant 4 said:

> I feel like it is kind of useful to see it in action rather than just going to workshops. Workshops are great, they give you a lot of information but it is useful only if we immerse in someone else's class and see how it happens.

One common comment that almost all the participants made during the discussion were that they tried to adopt the good practices they learned from observing other classes. They said that they learned different teaching styles and different classroom management strategies by observing other classes. Participant 1 said that it is good to start with peer observation before being observed by a supervisor. In her words:

> When I was a new faculty, it would have been really helpful if observation for my class was done by one of my peers first and then by the PL. It would have been helpful to get my peers' feedback first and then move on to the evaluative feedback.

The other comment that was common among the participants was that observing other classes helped them notice and realize the mistakes they were making in their own classroom management practices. For instance, Participant 2 said that she was not paying much attention to the engagement of the students while teaching but after her observer let her know about it, she was more mindful in checking on the students while teaching.

Four participants felt that peer observation was more effective than the observation done by the PLs (Programme Leaders) or the mentors. For instance, Participant 3 noted that it was a good opportunity to be an observer for a change instead of always being observed. In their words:

> As a young faculty, we do not get the opportunity to observe the classes because we are usually observed. We don't get to discuss the observations later. When you are only being observed, you do not get to see the best practices which are possible when you get the opportunity to observe other classes.

This, however, was not just the view of the younger faculty who are usually observed but also of the senior faculty who usually go and observe other classes. Participant 4, who usually observes the classes for the purpose of evaluation, said that going for observation as a peer instead of going as a superior for the purpose of the evaluation was more effective, refreshing, and a completely different experience. In her words:

> I have been doing classroom observation for a long time. Doing classroom observation as PL is really different. It is quite antagonistic. It is like you are watching and checking. So, I think this was really refreshing because you could just go into the class with no constraints. There weren't expectations of the list of things we have to tick off. This particular peer observation was not based on a

specific formula which can be quite restricting in some ways. It was a different experience.

Through the discussion, it was observed that it is not always helpful to have limitations or constraints on what has to be observed. When the observation is more organic in nature the process becomes more interesting for both the observer and the observed. According to the participants, it is more effective and efficient to go for observation with the intention to observe and learn rather than to give instructions. All the participants in the peer observation programme agreed that it was helpful and effective to observe other classes and bring in some of the best practices to their own classrooms.

However, it is important for the tutors to take the lessons learned and see how well it fits in their classrooms and their own personality. As noted by Donnelly (2007), the best practice for one teacher or class might not always work for others. With that said, the experience of observing another teacher in action and discussing their ideas about teaching was found to be a useful learning opportunity. A huge share of credit for the success of this particular peer observation programme goes to the participants for taking the time to sit together to discuss issues and identify the useful practices in the classes they observed.

Use of Feedback Received from Peer Observation

Feedback is important in any profession but more so for the teachers because it not only helps in learning from each other's teaching experiences but it also enhances the students' learning experience. Learning to receive and give feedback requires some practice to get used to the process. A few of the participants in the study said that at first it was difficult to receive and give feedback but with practice, it got easier. At RTC faculty do receive regular feedback from the students, the mentor or PL, and the management (if required), and all these feedbacks are quite evaluative. The aim of the peer observation was not to provide evaluative feedback but to provide feedback that is more collegial in nature. It was also noted from the discussion that frequent feedback during the semester was more helpful than being overloaded with feedback at the end of the semester all at once.

Timely and regular feedback can be helpful for the teachers to be better informed with regard to what strategies to adopt and adjustments to make in their teaching approach. For instance, Participant 2 said:

> I learned that getting feedback is very important especially if it is frequent and is not kept for the end to be given all at once. It helps us know where we are lagging and helps us continuously work on improving. So, I feel like feedback should be more frequent.

Most of the participants agreed that the feedback they got from their peers was extremely helpful when one has learned to be open to receiving feedback. As Participant 6 said:

> Before I took part in this peer observation, it was quite stressful for me knowing that someone would come and observe my classes. I have had the PLs and the

> mentors come to observe my classes and that made me reluctant to participate in peer observation initially. However, the briefing before the observation where we were told that the purpose of the observation and the feedback is not for evaluation but to help us become better tutors made me feel comfortable to participate in this peer observation.

The orientation on receiving and giving feedback before the peer observations seems to have played a major role in helping the participants to be better equipped to give and receive feedback.

The issue with feedback is not usually the feedback itself but the way in which it is communicated. It is important to have a proper process and channel of communication in place. It was also noted that the participants appreciate when their peers give specific rather than vague feedback. Most tutors do seem to appreciate feedback that is well articulated and has clarity on what worked, what did not, and what actions might help in overcoming the challenges. One of the templates used during the observation is the interactive map which keeps note of the movement of the tutor in the classroom. Participants 2 and 5 said that receiving the feedback post-observation was very useful because the feedback given was specific and clear. As participant 3 said:

> I got comfortable receiving the feedback after the post-observation, it was very useful and I felt like I was really learning because the feedback was not vague but was very specific. For example, being told that I moved around in the same direction about five times or that I was not paying attention to the backbenchers. This clarity in the feedback gave me the knowledge that I need to improve in that particular area and I have tried to adopt the best practices. So, from these specific types of feedback, I also learned how to plan my lesson, understand my strengths and weaknesses better, and be more aware of my classroom management practices. So, overall, it was a great experience.

All the participants agreed that they found it helpful to have that clarity of the process and the channel of communication in place. Though it is not comfortable for most to have an observer in their classes, if the process of giving feedback is done with clarity, there seems to be more open acceptance of feedback.

The templates used during the peer observations were useful in providing good guidelines for the observation. This made the observed feel that they have an equal role to play in the observation, unlike the observation that takes place as a surprise walk-in of the PLs or the mentors. Participant 3 mentioned that before an observer came and observed the class, being asked what one wants to be observed for and later discussing the feedback in the group made this particular peer observation more interesting and not as stressful. The tutors feel more comfortable receiving and keeping an open mind toward the feedback when there aren't too many surprise factors in the feedback. As noted by Participant 2:

> The peer observation was especially very interesting because of the fact that I could ask about what I would like to be observed for and receive feedback on. I thought that was really helpful because I don't think that happens as often.

The same participant said, "Usually we just get the feedback and we don't get to decide on what area we are being observed for."

The other important factor noted by the participants for the feedback process to be effective was the transparency of the feedback. Participant 3 said:

> When the Programme Leader or the mentors directly come to the class, we don't even know the format of observation but for the peer observation the format and the processes were all made clear to us before the observation which helps us have clarity on the purpose of the observation.

The same participant said that this clarity gave them an opportunity to improve on one particular area of their teaching at a time.

So, it was observed that the participants are more accepting of the feedback and open to learning or improving when there is more transparency and clarity in the process. All the participants agreed that it was easy for them to accept the feedback during the peer observations because they were prepared for the feedback with proper briefings beforehand. Participant 5, said that the feedback she received was constructive and did not feel judgemental at all. Participant 6 added, "This clarity of peer learning is helpful in adopting a lot of good practices and in working on our weaknesses."

The composition of the group was another factor that was mentioned as an important factor for feedback to be effective according to all the participants. Participants 1 and 4 mentioned that everyone in this particular group kept an open mind about giving and receiving feedback which made the process of peer observations fun and enjoyable. As a result, they felt comfortable sharing and receiving feedback knowing that they were not being judged.

Participant 4 said that 'composition is important', and that it's not just about forming a group for peer observation but also making sure that the peers are made aware of how and why to give and receive feedback. When the feedback is given in an honest and authentic manner with the intention to help the students learn better and for the tutor to be more effective, all the participants agreed that feedback plays a major role in one's professional development.

One practice in this peer observation programme that the participants enjoyed was the way the feedback was discussed in the group rather than talked about individually. Participant 5 said:

> Usually the feedback is just between you and the observer and no one else is listening. It is not a discussion. So, I liked the idea of sitting and talking about the classes together as a team. This less secretive way of giving and receiving feedback helps us know that all of us have some areas we struggle with and it also helps us learn from each other.

This method of giving and receiving feedback was found to be more engaging and interesting. Participant 3 said that this way of giving and receiving feedback was not intimidating instead the environment was collegial and friendly and everyone was willing to learn even from the classroom observations they did not get to be a part of. Participant 1 said:

> Listening to everyone's feedback was very insightful for me. As we were discussing the feedback for everyone, there were so many moments when I felt that this is the area that I should also look into and see how I am doing.

So, it is important to have an environment and space that is open and accepting of feedback and experiences shared. This peer observation group created a space where everyone was made to feel comfortable to share their experiences and provide constructive feedback where required. Participant 1 also added:

> Even when we were being critical at certain points everyone seemed to understand that we are doing so to help each other to grow and to create better teaching and learning experiences. That made this experience very interesting for me and that is why I really enjoyed giving and receiving feedback.

The conclusion we can derive from this section is that feedback can play a major role in professional development and if done right, giving and receiving feedback need not be as daunting a task as it may seem to be. The reason many people seem to dread feedback could be because of the flaws in process of giving and receiving feedback. This paper doesn't suggest one right way to give or receive feedback but the participants in the peer observation said that they learned that receiving feedback is very important and interesting if it is frequent, honest, transparent, clear, and to the point.

Participants' Experience and Willingness to Take Part in Future Peer Observation

Participation in the peer observation programme is voluntary and so the paper has used the willingness of the participants from this particular peer observation to take part in future peer observations as one of the themes.

During the discussion, the participants were asked if they would be willing to take part in future peer observations. There was no participant who said that they don't want to participate in future peer observations. Participant 5 said, "I will definitely take part in it again. As a junior lecturer, I enjoyed coming here and talking to you all, and the environment you created was comfortable. We learned a lot as a team. I would love to share this practice with other members of the faculty and convince them. I am not stopping here."

Though the participants in this study seem enthusiastic and interested, in reality most faculty do not easily subscribe to the idea of peer observation because of some misconceptions. Participant 3 said that initially peer observation sounded quite stressful but gradually they started to enjoy the process as they understood the purpose of the peer observation. At least three participants initially thought that their colleagues coming to the classroom and observing them teach was similar to what the PLs were doing. However, by the second round of

observation, they realized that this was not a critical review but a constructive one, and they started to enjoy the peer observations. Participant 2 said, "By the end, it was quite useful and fun."

However, not all the participants wanted to go through the whole process of peer observation all over again. Some of the participants said that their participation in future peer observations would be conditional. Participant 4 said, "I will definitely do it again but to be very honest I would look at the group composition. Just one or two people can change the dynamic in a group so quickly. I am conditional."

Despite all the benefits of peer observation, one of the reasons why many faculty members do not seem to sign up for peer observation could be their busy schedule during the semester. Participant 1 said that initially, she was sceptical and not as excited to be a part of the peer observation programme because of the workload. Ultimately, she said she really enjoyed doing this and would take part again. She also added, "The dynamic of students is constantly changing which is why it's important to have peers observe the class and give feedback."

One common view that all the participants shared was the significance of observing different classes, witnessing different methods, learning the best practices, and reflecting on one's own teaching strategies is huge. Irrespective of the participants' experiences in teaching, everyone in the team seemed to agree that it is important to know what works or doesn't work because every class is different. The participants were aware of the fact that what worked in the past may not always work in the present and that peer observation has the potential to provide some insights into that. That knowledge can take place when we get to sit on the other side of the table and observe or when we have a colleague observing and letting us know what is working or not working in our classrooms.

Personally, as one of the participants, I would highly recommend my fellow colleagues to take part at least in one round of peer observations and see for themselves if peer observation is actually helpful. Unlearning and relearning our beliefs and practices of teaching can help us become more efficient and effective teachers.

Discussion/Conclusion

In conclusion, it may be said that peer observation is a useful tool for teachers to use for their professional development. In the teaching profession, teachers need tools for self-awareness and self-evaluation. Peer observation can serve as one such tool.

When peer observation is implemented not as a tool for the evaluation or development of others on the basis of our assumptions, but instead as a reassessment of the assumptions on the basis of the observation, it has the potential to be very effective in the teaching practice. This research has attempted to draw together ideas on the development and practice of reflective peer observation based on the experiences of participants of a peer observation conducted at RTC, in order to measure the effectiveness of peer observation as an important tool for the professional development of the teachers. The participants in the peer observation were motivated to improve and better understand what types of strategies are meaningful and useful

for teaching in higher education. It was also noted through the experiences of the participants that peer observation works better when it's non-judgemental and non-evaluative. Peer observations seem particularly useful for self-assessment and for adapting better teaching strategies, and the ultimate beneficiaries of good teachers are students. Therefore, the motivation to adopt peer observation as a tool for professional development should be to help students learn better. However, if it is not done right, peer observation can easily lose its credibility among teachers.

Suggestions

Based on the findings, the study suggests the following:

i. When the focus of the peer observation is more on the collaborative dialogue among peers rather than just giving 'feedback', it is more effective and efficient than other forms of observation by the participants. Therefore, educational institutions can use peer observation as a basis for a dialogue.

ii. The peer observation team composition matters, however, the teams may not always have the opportunity to form naturally; they may have to be created as needed for an exercise. In order to make the composition work, it is important that the participants in the peer observation know that the process of peer observation is for mutual growth and is supposed to be non-judgemental.

iii. It is also important to consider the fact that peer observation may not necessarily be focused on just class observation because just observing a class or two might not always give the full picture of the classroom environment. In order to make this process of peer observation sustainable, more innovative strategies such as more ways of bringing together the tutors to have dialogues should be considered.

iv. For new faculty, it would be a good practice to start with peer observation before being observed by a supervisor. The management could consider sending the supervisors to go for observation after the faculty has gone through one cycle of peer observation.

v. Peer observation should be free from limitations or constraints on what has to be observed because there are other forms of observation in place that look into the aspect of evaluation. Since peer observation is voluntary, to attract more participants, it is important that the participants know that this form of observation is different from the others.

vi. The feedback in the peer observation should be collegial in nature and not evaluative or judgemental. It was observed through the discussion that the frequency of feedback matters. The participants seemed to appreciate specific, clear, and regular feedback rather than vague feedback. The orientation on receiving and giving feedback before the peer observation played a major role in helping the participants to be better prepared to give and receive feedback.

Limitations

The findings of this study have to be considered with some limitations. The analysis of peer observation in the research is based on discussion and observation where the researcher herself was one of the participants. Therefore, the conclusions derived in the paper are subject to the biases of the researcher, and her own personal experiences as a teacher may have influenced the findings to some extent. The other major limitation of the paper is that the study is based on just one cycle of peer observation and the data used for the research is based on one focus group discussion. There are other concerns such as the effects of observation on the students and the classroom environment, unavoidable implicit judgments from the observer, and awkwardness faced by some observed. It is also important to note that observing individual lessons doesn't always give the best overall picture of the class.

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Qualitative Research Training in a Bhutanese Context: Opportunities and Challenges

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ABSTRACT: After discussing the scope and rationale of the paper, I provide a chronological sketch of the opening portions of the ERASMUS-funded HAPPY training conducted during December 2021, which featured international and local experts guiding and facilitating the proceedings. This description helps to identify themes, and provides a clearer sense of how qualitative research methods were taught and learned. Next, drawing upon interviews, the paper considers the opportunities and challenges of qualitative research at HEIs in Bhutan. Interviews and other data suggest that participants found this training to be a challenging process, and felt a notable sense of accomplishment upon completing ToT3 in March 2022 (ToT3 being the phase which involved trainees doing research projects). Looking to areas that might be addressed in the future, I discuss my observation that usage convenience sampling by trainees during the ToT3 research was higher than I might have expected. Rather than automatically assuming this to be a 'weakness', however, I do my best to explore this topic from different angles. I also briefly touch upon the question of self-censorship in Bhutanese research. While I would describe my paper as 'suggestive' rather than 'conclusive', I hope that the ideas suggested here can be taken up further by future researchers and/or stimulate further debate.

Keywords: social sciences, qualitative methods, group research, sampling methods, interviewing, participant observation.

Introduction

An ERASMUS[2]-funded training in qualitative research methods, part of a project known as HAPPY,[3] was held for selected faculty from four colleges within the Royal University of Bhutan system in late 2021 and early 2022, and was a unique event RUB's history.

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[2] ERASMUS: European Action Scheme for the Mobility of University Students.

[3] HAPPY: **H**igher Education Teaching **APP**roaches for Sustainabilit**Y** and Well-Being in Bhutan. Project Number 618793-EPP-1-2020-1-NL-EPPKA2-CBHE-JP co-funded by the Erasmus+ programme of the European Union.

Historically speaking, quantitative methods have had been much more strongly established in Bhutan, and various commentators have noted, and sometimes even lamented upon, this state of affairs. Ten years ago, Dr. Dorji Penjore stated the following:

> If the Bhutanese education planners had exercised their foresights, anthropology, not sociology, should have been a more useful course to study Bhutan, a nation of villages and farmers. (2012: 1)

While the matter is complex, anthropology is often associated more strongly with qualitative methods (a point we shall return to below) and sociology more strongly with quantitative methods. Whatever the case, the quote above can be interpreted at least in part as a plea for placing greater emphasis on qualitative methods. Implicit in the comment about Bhutan's villages and farmers is that statistics cannot easily capture Bhutan's diversity and variation. Paying attention to people's sentiments, getting to know them, and even participating in their lives to better understand them are hallmarks of qualitative methods. Questionnaires and other quantitative methods, for all their importance, may be impersonal, and more importantly may fail to capture nuances and contested meanings among people who make up the fabric of a society.

Before turning to my own research, it could be useful to shed further light on how qualitative methods can be immensely helpful. I should state at the outset that the makeup of participants at the HAPPY training was highly diverse. By my count, there were approximately nine different academic disciplines represented, ranging from Business to English Studies to History. There are compelling reasons for increased use of qualitative methods across all of these disciplines, and these arguments will sometimes be discipline-specific. Nevertheless, particularly as anthropology is often regarded as the discipline of qualitative methods *par excellence*,[4] I will provide two examples from anthropologists which I hope will be compelling to readers with other backgrounds as well.

The first comes from an introductory anthropology textbook authored by a Norwegian anthropologist. The distinction he is making in this particular case is between verbal data and observational data. Observational data, which played a key role in the HAPPY training, is qualitative by definition, though in actuality, verbal data can be either qualitative or quantitative. Nevertheless the example he provides is vivid and will help to drive the point home:

> The significance of observational data can hardly be exaggerated. Far too many

[4] A primary reason for this is simply that a major qualitative technique, participant-observation, originated within anthropology before being adapted by other disciplines, and continues to be central to it. The relationship between interviewing techniques and anthropology, on the other hand, is clearly more complex. The extent to which anthropological interviewing methods specifically influenced other disciplines would be extremely hard to trace, and I am not aware of any such studies. Probably a more fruitful line of enquiry would be to look at how different approaches to interviewing from different disciplines have mutually influenced each other and/or have developed in parallel.

> social scientists seem to believe that verbal communication, either via interviews or questionnaires, offers a shortcut to an understanding of people's life-worlds. But it is not always possible to place one's views on a scale ranging from, say, 'I fully agree' to 'I fully disagree'. For my own part, I have the most advanced social scientific education available, yet whenever I am rung up by a pollster asking where I last saw a particular advertisement or how I evaluate the future of the monarchy on a scale of 1 to 5, I rarely know what to say. (Eriksen, 2004, p. 89)

An additional example comes from the fieldwork of an American anthropologist, Douglas Raybeck, doing research in Malaysia, and illustrates how living among a community will offer very different perspectives than can be yielded by any statistical accounts. According to Islamic norms, it is generally a man who should initiate a divorce, and statistics about divorces reflect this. However, Raybeck observed a case where a woman who was unhappy with her marriage, and whose husband would not grant a divorce, loudly creating a scene outside their home, in which she berated her husband for various forms of behaviour. This breaking of taboos was found awkward by the neighbours, and they soon visited the husband, stating that his behaviour was bringing shame to the neighbourhood. He relented, and filed for divorce at a courthouse. No reasonable observer would conclude that he 'initiated' the divorce, yet of course according to the official statistics registered, that is precisely what he did. Raybeck summarized as follows:

> It is fieldwork of the sort described here that leads anthropologists to be wary of official statistics. Had I trusted official accounts, I would be reporting that nearly all divorces were initiated by males. I am strongly committed to the importance of quantitative data, and have recorded figures on divorce, marriage, and adoption for the [area where I did research]. However, context is necessary to determine how data should be interpreted and evaluated, and anthropologists believe that an appreciation of context is best developed through fieldwork. (Raybeck, 1996, p. 258)

This quote merits some context of its own: this is from a memoir about research that was done in the 1960's, and fieldwork and participant-observation have long ceased to be the exclusive preserve of anthropologists. As such, many non-anthropologists today would share the sentiments above. Whatever the case, the example provided here should help to provide a more vivid sense of the pitfalls of relying on statistics about people's beliefs, opinions, and behaviours. Qualitative research, on the other hand, provides numerous ways of enriching our understanding.

Scope and Structure of this Paper

As a way of conveying some sense of what the HAPPY training was like, this paper sets the scene by providing a narrative of the first day and a half of ToT1 (the first session of 'Training of Teachers'). This name points to the ultimate goal of more RUB faculty being able

to teach research methods and guide student qualitative projects. There had been three rounds of ToT at the time of writing this paper, with the third round culminating in groups of four to five faculty presenting their research projects which they worked on together.

Leaving aside the homework that was required, the total amount of training was basically equivalent to 10 days or a bit more. I attended about half of the sessions to observe and sometimes participate, which included joining different groups in their discussions as well as leading one session on interviewing methods. Since an account of what transpired during all this time would not be reasonable, describing the first day and a half seemed like an effective way for outsiders to gain a sense of what this training involved (and hopefully, even refresh the memory of participants). As it happens, only ToT1 was conducted in person, and the later phases had to be conducted virtually, due to semester recess and/or lockdowns. At any rate, the important point to this introductory narrative is that I have tried my best to portray the training as a dynamic process, highlighting Bhutanese participants' comments and reactions.

After this narrative, I use interviews to explore ways in which participants gained research skills and a sense of accomplishment and research skills, and conclude by looking at a few areas that might be addressed in the future.

Setting the Scene

On the morning of 13 December 2021, faculty members and staff from the above-mentioned four colleges in the RUB system convened to begin their five day session devoted to learning the theory and practice of qualitative research methods. The participants came from the College of Language and Culture Studies, Norbuling Rigter College, Royal Thimphu College, and Sherubtse College.

After an initial round of self-introductions and their accompanying humour, preliminary discussions were led by RTC's Kencho Pelzom, who was the main organizer of these events. Much of the remainder of the morning session was spent on practical matters: how soon will we begin the formidable task of curricular revision? What do participants expect from this training? And, given the vast differences in our fields of study, research experiences, and number of years in academia, what kind of commonality might there be in what we understand qualitative methods to be? Challenging though these matters may be, addressing them gave us a sound footing before beginning our Zoom meetings with experts in the Netherlands.

Our afternoon session was primarily conducted by Dr. Lorraine Nencel, who joined us virtually from the Netherlands. After the inevitable 'can you hear me?' queries which have become a firm part of our pandemic-era Zoom culture, there were additional formalities and personal introductions from the Dutch team. Dr. Nencel soon turned to concepts that may strike fear into the heart of not only amateur researchers, but even advanced ones too. However, her introductions to the concepts of ontology and epistemology did not begin with technical definitions, but rather used questioning as one important device to reflect upon these topics, for instance "How do you *describe* reality?" (ontology) versus "How do we *learn about* reality?"

(epistemology; italics added for both quotes). Paintings and photographs, from Japan, Russia, and elsewhere were also carefully chosen to reflect different aspects of debates and to stimulate discussion. Participants soon had to stake out their own ground: what is your epistemological and ontological position? We also got interesting glimpses of how Bhutanese perspectives fit in with these international concepts. For instance one participant suggested that he believes Buddhist teachings are realist but that, when it comes to his academic work, he needs to take an idealist stance.

Matters next took on an increasingly practical turn, as Dr. Nencel furnished concrete examples from her fieldwork in Peru and other countries to further elucidate qualitative research and other points. Participants from the RUB colleges sometimes asked questions that would help them frame these perspectives in relation to their prior training which, as implied in the introduction to this paper, was significantly more likely to be quantitative. Some participants took up with enthusiasm this task of transitioning from the relatively known to the relatively unknown, and so one question began with discussing the replicability crisis in some (quantitative) social sciences, and the attempts of researchers to reach firm conclusions from ambiguous materials through methods such as p-hacking. Are there similar problems in qualitative research? As was often the case, Dr. Nencel suggested that the aims, frameworks, and standards of proof of qualitative research mean that there cannot, or should not be, a parallel problem in qualitative work. (Qualitative research has actually faced its own separate crises, though they did not come up in this particular answer, perhaps to better start the training with a more optimistic tone.)

The sessions on the morning of December 14 were conducted by Mr. Roderick Wijunamai, who had been teaching sociology at RTC for over three years. Perhaps anticipating unspoken doubts among the participants, he went straight to an important point: why *do* we need to consider philosophical stances before undertaking research? This fed into a larger point that philosophy is really intrinsic to thinking about things anyway: for instance, just deciding to oneself that 'philosophy complicates matters unnecessarily' is, itself, an act of philosophizing.

After reviewing the previous day's sessions, Roderick gave frequent anecdotes and practical examples to further enforce difficult concepts from the previous day such as ontology. When it came to theoretical background, he often drew upon sociology's founding fathers' ways of thinking and explanations, but also looked 'behind the scenes' at how Max Weber, in particular, arrived at his social interpretation through the study of texts and his family background in reading and interpreting the Bible. A sentence, for instance, cannot be forced into what we want it to mean, but has to be understood in the much broader context of the passages that come before and after it, plus numerous other factors if they are available (authorship, etc.). Some participants found it helpful to point out that Buddhist texts of the *sutra* genre also place a large value on context – they do not just launch straight into the Buddha's teaching, but provide information about the location, the type of participants, and the number of participants.

A central exercise during the morning session was to give participants a preliminary

taste of observation, which was to be taken up as the main theme in the next morning's session. There was a series of short video clips shot in various spots around London and participants, who had been placed in eight groups,[5] were tasked with discussing them once all films had been viewed. The number of questions posed but not answered by these clips was formidable: how close or far apart are these spots to each other? Since there is a series of daytime shots and a series of night time shots, are these in true chronological order? Did the people filming have a bad microphone, or did they deliberately emphasize bass frequencies as a way of making some kind of point about urban life? The ToT participants were, at any rate, thrown into the proverbial deep end and left to themselves as to what they wanted to look for, with the expectation being that they should find some kind of pattern or reach some sort of conclusion, rather than providing a long unconnected list of things they had seen.

Hearing all eight groups present some form of consensus among its own constituent members was quite revealing. Some points were common to more than one group ('males are more likely to be out walking at night'), and in some cases groups had opposing interpretations ('people are walking at a relaxed pace' versus 'people are in a hurry'). In perhaps half of the cases, the idea that the film represented 'Western culture' was presented as a way to make sense of the findings.

As the only 'Westerner' in the room at the time (albeit one who had lived in Asia for over 15 years), I followed these interpretations with great interest. I found for instance that some group's decision to use the concept of 'individualism' as having explanatory force seemed a bit misplaced relative to my own observations and experiences (I believe, for instance, that a waitress stacking up chairs alone as a restaurant is closing can better explained by socioeconomic matters). However, ultimately this simply illustrated an important broad point of this kind of training: everyone's perceptions will be shaped by their prior beliefs, and often there is no way to prove or to disprove an interpretation. Whatever the case, I found the attempts to make such connections stimulating and interesting, and the exercise forced people to use their best efforts to make sense of messy data where it was impossible to take in everything at once.

Before proceeding on to the next section, it is important to mention two additional lectures in the whole sequence of ToT events. Both of them took place online. One of these occurred between ToT2 and ToT3, while the other occurred towards the beginning of ToT3. The first of these was by Dr. Karma Phuntsho, who shared his views on the strengths and weaknesses of research culture in Bhutan at present, these views having been shaped by his unique combination of Bhutanese monastic training and doctoral education at Cambridge University. The second was by Dr. Françoise Pommaret, originally of French but now of Bhutanese nationality, whose experience conducting and supervising research in Bhutan goes back several decades. I strongly suspect that for many participants in the HAPPY training, these two lectures were among the highlights. Regrettably, in the interest of space, I cannot do justice

[5] These are the same eight groups who later worked together on one research project per group, and presented these at the end of ToT3.

to their lectures or the dialogs that followed at the end of them. However, in my search for themes to help analyse what I encountered during the course of the research HAPPY training, it seemed clear that their years of experience would provide us with fruitful areas for inquiry. Among the many points they addressed, I found Dr. Karma Phuntsho's discussion of self-censorship among Bhutanese scholars, and Dr. Pommaret's discussion of Bhutanese tendencies to do research among their own communities, to be extremely helpful in formulating this paper.

Benefits of the Training

Having provided a sense of what the training was like, it remains to ask: how did participants feel after they had completed all the training and collaborated with their peers to conduct and present their research project? Prior to answering this question, some methodological points are in order.

I conducted interviews with a total of six participating faculty members. The process began with I four leaders of the eight groups. The groups I chose to focus on were ones that seemed like they would be more fruitful for the themes I sought to explore. For instance, projects that touched upon matters of national identity seemed more likely to help me explore matters of how QRM was being adapted in a specifically Bhutanese context (as it happens, I did not end up doing much with this theme, though I hope others will take it up in the future).

Diversifying so as to interview leaders of the maximum number of teams possible would not necessarily have been the best approach. Instead, internal diversity seemed potentially more useful: richer data can be acquired by interviewing different members of a group rather than construing the group leader's account as somehow 'definitive' of the experience. On this point, I admittedly fell short of my goals by interviewing just two additional members of these four groups. The lockdowns that continued for a few weeks after ToT3 training posed problems: for a while, online interviews were the only way to move forward, but many of these yielded content where the audio quality was too poor to make full use of it. By the time I could potentially meet with colleagues again, a new set of problems emerged: since community transmission of Covid was, for the first time, being accepted as a part of daily life, lecturers now meeting with classrooms full of students had a very different set of concerns to grapple with. Despite these shortcomings, I hope that the themes I explored here will be useful to future researchers as possible areas to look further into.

In the interviews below, I do not distinguish between group leaders and others in the group, since all of these quotes provide perspectives on direct experience of conducting research, rather than the role of being either a 'leader' or 'follower'.

The best place to start when examining participants' experiences is the sense of accomplishment and increased understanding they often reported upon. One interviewee, with a background in quantitative methods but not much prior exposure to qualitative methods, reported the following at the beginning of an interview:

> When I think about the research and training, the thing that really stands out is

> the process, the whole process... I really didn't expect that I would be able to do this research... At the very beginning, I kept on telling [two of the Bhutanese facilitators] "I'm not able to understand anything. I'm not getting anything." But, as and when we were doing the field research, I actually found the whole process very interesting as well, where we don't know anything, but we keep learning as and when we do research.

These thoughts were extended and amplified at the interview's end:

> At the beginning, it was very challenging because we were all coming from different colleges. And not only that, but personally for me, I found the language that the experts were using was also very challenging for me. And even when the experts were asking questions, I was not able to understand even the question, when she was asking 'From which position are you looking from', it was very difficult for me as well. But when we were doing the fieldwork, I was actually able to realize what was being taught, and it was very interesting.

As it happens, the position or stance discussed in the penultimate sentence above refers back to something on the first day of the training, a point which was also captured briefly in the narrative that began this paper. The very terms 'epistemology' and 'ontology', can sound quite daunting, and grasping their nuances can take time. Yet, as discussed in my above, one of the facilitators in the Netherlands encouraged participants to take stances on these matters fairly soon. While the quote above suggests that the ability to understand them well in a classroom setting may initially be difficult, it also seems clear that going out and doing research can help one to look back at the concepts in new ways on the basis of experience gained.

While the above interviewee's background was in quantitative methods, another interviewee, whose background is in literature and not social sciences, gained a sense of satisfaction in experiencing that it was possible to transfer or adapt her skills from one domain to another:

> I think in literature we're always looking at, not just the literal meaning, but what is the hidden meaning, what are the symbols, what's the metaphor. So, I think when you analyse an interview or an observation and you're looking at that, I think... you're able to make interpretations, not just from what is said, but also looking at the body language of people who are talking, or how they answered, or their tone, or even a nervous laugh. I think that can also help you in interpreting... Of course, it's not just like analysing a literary piece, you want facts... but I think it does help, and definitely when you are reading an interview [transcript], it does help, when you're talking about fracturing and coding. As you're reading, you can kind of say 'This is where [a theme] stands out'.

There are clearly many ways in which the training was a success. A comparison of before and after scores on a quiz testing knowledge of qualitative methods shows a substantial amount of

learning between the very beginning and end of the training. Furthermore, the eight participating groups' final presentations were evidence of much growth, and all of the observers I spoke with in the aftermath of these presentations was notably impressed by how much had been accomplished. But of course, in a paper like this, one should also seek out areas for growth or problems to be solved as well, which will be addressed next.

Research Challenges in a Bhutanese Context

When I reflected back on what I had heard while listening in on (and sometimes participating in) various 'check in' sessions between all eight groups and the experts appointed to guide them, as well as my interviews with members of four of these groups, it seemed like the extent to which participants were using convenience sampling was higher than I might expect (for instance, five out of six of my interviewees had used this method in their project). Simply put, convenience sampling, at least in the cases I observed, meant interviewing and observing people one already knows,[6] rather than reaching out to identify strangers who might better fit particular criteria, and arguably helping to create a certain degree of distance that many researchers have observed can help facilitate research. This question of 'distance' is actually a highly complex matter which I cannot do full justice to here, but I will let the sentiments in the quotes below speak for themselves.

A few qualifying remarks seem important. First of all, speaking with people that one feels more comfortable with should not automatically be assumed to be a 'weakness' in research. As Françoise Pommaret pointed out in her guest lecture, Bhutanese researchers have often found that they get better results when working with communities that are close to them, or which they at least already know fairly well. Secondly, lockdowns began a bit more than halfway into the period when HAPPY trainees were supposed to be doing their research. We need to take this into account, because it is possible that this pushed some participants more strongly in the direction of convenience sampling would have been the case otherwise (Dr. Dolma Choden Roder, personal communication). Nevertheless, having spoken with various group members before these lockdowns took place, it seemed to me like there was already a fairly strong tendency towards convenience sampling.

Whatever the case may be, I found it noteworthy that a majority of our interviewees pointed out matters relating to the decision to research among friends or relatives during the course of the interview, in some cases without any prompting. Here is one example:

> Q: Was there anything challenging or difficult about doing participant-observation, and if so, what was it?

[6] The following is a fairly typical characterization of convenience sampling: "Essentially, individuals who are the most ready, willing, and able to participate in the study are the ones who are selected to participate" (Samure and Given, 2008). As will be seen, the type I discuss in this paper is a bit more specific, most frequently involving friends and/or family.

> A: As I said, in my case since I knew the people, it wasn't difficult at all. It was very easy to make an arrangement, make an appointment and go and meet them. But, had it been in the case of meeting strangers, with getting an appointment, perhaps it would have been a little difficult. I can sense that, because not everybody would give you time these days.

This answer raises a few questions: for instance, is this a common problem of people in a busy urban environment? (As it happens, this particular faculty member did indeed do his research in a city.) Or, does it perhaps reflect a general lack of familiarity with, or even some distrust of, research among the general public? I will return to such questions later, but for now I will note that, without being prompted, this interviewee soon after expressed some concern about his usage of convenience sampling:

> In a way I regret that I went to the people whom I knew. I should actually also have met one or two who were complete strangers to me, so that I could have the feeling of a real interview, in the real world.

Another interviewee, who happens to have been a member of the same research group, but was interviewed completely separately from the previous interviewee, also viewed her research among people she knew as posing problems, for a somewhat more explicit set of reasons:

> So, when we went there [to the homes of friends and family] and did our participant observation, I think it became difficult for us to differentiate ourselves as researchers and participant-observers because we had previously interacted with each other so often. In that sense, it was difficult for us to differentiate ourselves from friends and family.

While the above quote clearly stresses ways in which the *researcher* may have difficulty adapting, the following quote, from yet another interviewee, focuses on how the *people being researched* may also find their new role to be unfamiliar:

> For me, when I was interviewing my friends, I found that they were not taking it that seriously, because the topic was related to beauty, and it was a little bit challenging for me to really get the truth out of them. For example, when I was asking 'How do you define beauty?' they would say things like 'Beauty is not that important' or 'Beauty is about being confident', but I know that they do spend lots of money [on beauty products]... But if we just look at the transcript, it's like the whole truth was not being revealed.

But of course, the points by the interviewees in the two quotes above are, ultimately, closely connected: a switch away from accustomed roles can pose challenges for researcher and research participant alike.

I cannot draw any firm conclusions, but dialog about ways that qualitative researchers could most effectively consider doing more to step out of their 'comfort zones' could be a useful

next step. Doing so is likely to feel difficult in the short run, but in the long run, researchers might find unexpected benefits. That said, I am keenly aware of pragmatics: valiantly going out to explore a completely different community, or totally cutting oneself from one's community to immerse oneself in a different one *could* offer considerable rewards, but could just as well leave a sense of regret if one came away with the conclusion that an 'insider' (however construed) would have found that research participants were notably more willing to share their views and experiences.

Another area for consideration is for researchers to brainstorm further about ways they can convey the nature of research and the research process to prospective participants who may have little sense about what it actually involves. It is a common statement, to the extent of being a trope, that Bhutan has had to rapidly adapt to changes, in just a few decades, which other countries have had centuries to adapt to. Still, there is much to consider on this point. Consider a pair of examples like the following, with the first being written by two European scholars:

> Interviews have… become part of the common culture. In the current age, as visualized by the talk shows on TV, we live in an "interview society", where the production of the self has come in focus and the interview serves as a social technique for the public construction of the self. (Kvale and Brinkman, 2009, p. 12)

Compare this with Dorji Penjore's account of interviewing people in his home village, in Zhemgang, in 2006:

> Most respondents expressed discomfort at being recorded. Their conversation, tone and excitement changed on seeing an MP3 recorder. Some even refused to be recorded. (2009, p. 6)

Of course, the European example is intended by the authors as a cultural generalization – surely there are plenty of situations in Western countries where people decline to be interviewed, or generally become uncomfortable when they are being recorded. Likewise, it seems probable that Zhemgang villagers' general level of comfort with interviews would be higher in the 2022 than what Dorji Penjore experienced in 2006. Nevertheless, the European authors of the work quoted above trace Western 'interview culture' back to the middle of the 19th century (2009: 8). Suffice it to say that Bhutan has had a shorter period of time than this, and so it is entirely natural to suppose that getting people to feel more comfortable about interviews, or being observed in the course of research, would take some extra work.

A final point I would like to touch on in this paper concerns self-censorship. As noted above, Dr. Karma Phuntsho suggested that this is a major component of research in Bhutan today. His views on redressing this are pragmatic, and he summed up his views eloquently during his guest lecture:

> We can't have a revolution overnight, but if paragraph by paragraph you become more open, year after year, you are making a difference.

As noted previously, I wanted to pick up on this theme of self-censorship and see whether it would help me to better understand whether it was effecting the dynamics of HAPPY research projects. This can be a hard matter to address in interviews (and, indeed, I never even used the term self-censorship when asking questions), because when people censor their thoughts in their own mind, or in their own notebooks or final writings, how are they going to feel eager about discussing this with someone else? Whatever the case, I only encountered one clear example, which goes back to the time when groups were formulating their research topic. One of these groups was quite interested in a highly visible quasi-occupational group in Bhutan, about whom people have a wide range of opinions. While this research group initially wanted to pursue public perceptions of these workers, they were concerned about some of the sensitivities that might come up. As such, they ultimately chose to explore this quasi-occupational group's own experiences and how they perceived themselves, instead of looking at how they were perceived by others.

Final Remarks

Observing the HAPPY training from start to finish was thought provoking. I would like to thank everyone who shared their thoughts, and helped to make this such an enjoyable experience.[7] As noted above, factors arising from the pandemic curtailed my research plans. Furthermore, I faced a problem common to many researchers: because I did not manage to fully identify my chosen themes until late in the process, I was not able to then 'test' those themes by having a second round of interviews to hone in on these points, especially since by that point detailed memories of the training were becoming less vivid for most participants. Despite these shortcomings, I hope that my observations can help to stimulate more dialog and research about the future of qualitative methods in Bhutan.

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[7] I would also especially like to thank Mr. Chencho Dorji of Royal Thimphu College for having several discussions with me about the training and sharing his experiences.

Pedagogical Content Knowledge in Higher Education in Bhutan: Case Study at Royal Thimphu College

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ABSTRACT: The current study was conducted to understand the need, challenges, and opportunities in higher education at the Royal Thimphu College. Lee Shulman's concept of pedagogical content knowledge (PCK) was used as the conceptual framework for the study. Four categories under PCK were identified: content knowledge, curriculum knowledge, pedagogical knowledge, and pedagogical content knowledge to structure the questionnaire design. The study employed a sequential explanatory mixed methodology, and data was collected in a two-phase approach. Survey questionnaires were administered to all RTC faculty members ("tutors", n=76) in phase one, and focus group discussions (n=15) and in-depth interviews (n=13) were conducted in the second phase. The results show that most tutors reported being comfortable with the content knowledge of the subject matters they teach, however, relating content to real-life experiences and providing context-specific examples was more difficult for novices. Prescriptive curriculum design was challenging for all tutors, and this had a negative relation to tutors' ability to be creative in teaching and assessment design. Almost all tutors reported using various mixed student-centred strategies for lessons and assessments, however, only a handful of tutors could articulate the use of learning theories in their lesson plans. Students' underdeveloped skill of independent learning was a major challenge in using student-centred learning design.

Keywords: higher education, pedagogical content knowledge (PCK), sequential explanatory design, curriculum, pedagogy, and independent learning

Introduction

Historically, training on teaching and learning amongst tutors in higher education has been underemphasized (Major & Palmer, 2006). Most HEIs (Higher Education Institutions) around the world required lecturers or professors to have subject specialisations with Masters degrees or Ph.D. qualifications in their field of study to be hired to teach. Here, tutors are considered subject specialists, and hence assumed to have the ability to teach the subject matter.

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However, this trend is changing worldwide. This conception of the tutor role and scholarship began to include and emphasize original research not only in a specific discipline but also research that includes teaching-learning of the subject (Gaff & Simpson, 1994). The need for tutors to be trained in teaching and learning at the HEIs is a growing trend. Many renowned universities globally have their own teaching-learning research and development centres that provide professional on-site support and training to their teaching staff (Gaff & Simpson, 1994; Major & Palmer, 2006). At the Royal University of Bhutan, the Centre for University Learning and Teaching (CULT) was established in 2008 for the purpose of promoting excellence in learning and teaching at the university level across its colleges. The Royal Academy has implemented an on-site Teacher Development Centre. Likewise, the Royal Thimphu College (RTC), with its vision to inspire education by contributing to educational excellence in Bhutan, has initiated a Centre for Innovative Teaching and Learning (CITL) to inspire innovative teaching and learning culture at RTC and beyond.

Providing on-site professional development training in higher education at present is considered to be both necessary and complex. Generally, a need assessment study is advised in order to plan effective professional development training to support tutors' continuous improvement in the teaching-learning process (Salsberg et al., 2012; Sandford & McCaslin, 2004; Smith & Beno, 2003). A need assessment can be a formal one-time study design or a continuous informal input via feedback and other forms of iterative process within the institution, or a mix of both (Butler, 1992; McCawley, 2004; Travis, 1996). The need assessment study design can be policy-, explorative- or conceptual framework-driven depending on its goals. Most need assessments conducted by civil society organisations and government agencies are often policy-driven; this is also true for mass professional development programmes in education. However, policy-led professional development programmes in education are found to be ineffective due to a mismatch with the actual practice requirements (Daniels, 2016). The theoretical framework used in need assessment design for professional development in higher education uses adult learning theory and learning theories that are popular at present in higher education such as constructivism, cognitivism, reflection in education practice, and different approaches to learning in higher education.

Recognizing that teaching is a professional skill that requires context-specific knowledge (both subject and place) to be able to be an excellent tutor, the current study uses the conceptual framework of pedagogical content knowledge (PCK) pioneered by Lee Shulman in the mid-1980s to explore tutors need and challenge in teaching-learning in higher education. It was also inspired by the RTC's vision of fostering independent, life-long learning to create well-rounded, responsible citizens. This is embedded in the learning theories of constructivism and cognitivism.

Significance

The issuance of the Royal Kasho on Education Reform in Bhutan in 2020 has highlighted areas for improvement in the current modes of teaching and learning. It has

generated national urgency in creating a teaching-learning milieu that is tailored for the 21st century. Among others, one issue highlighted is the passive mode of learning that is pervasive in the current education system. The implication is that Bhutanese education institutions should take responsibility for fostering conducive learning environments through the use of the latest research and theories. There is limited research done on higher education teaching-learning in Bhutan. This study is one of the first of its kind as a need assessment conducted in higher education institutes in Bhutan on teaching-learning using the PCK conceptual framework.

Background/Context

The Royal Thimphu College was established formally in July, 2009 as the first private college in Bhutan. It currently has around 1,500 students studying undergraduate programmes in Business, Humanities, Social Sciences, and Sciences. It has around 95 tutors at present, of which most are Bhutanese; around 30 percent are from the USA, Asia (South Asia), Europe, and Australia. The need assessment study was conducted as an initial step to establish the CITL and to provide appropriate, need-based professional development training and research on teaching-learning.

Professional Development in Higher Education

In recent decades, training of university tutors has become common. However, there are few studies on the need and impact of such trainings, although it is generally agreed that they have some positive impact on tutors and student learning (Elci & Yaratan, 2012; Güneri et al., 2017). Tutors who participated in training self-report higher confidence in their role as a tutor and their pedagogical skills (Gibbs & Coffey, 2004; Ödalen et al., 2019). Professional development training of tutors in higher education is often complex, requiring conceptual models that change over time (Avalos, 2011; Gibbs & Coffey, 2004; Trigwell et al., 1994). The standards of professional development of tutors are often shaped by policy-makers, which are not necessarily aligned with the practice itself (Daniels, 2016).

According to Avalos (2011), the professional development of tutors is about "teacher learning, learning how to learn, and transforming their knowledge into practice for the benefit of their students' growth" (2011, p.11). Literature on professional teaching development planning is wary of "one size fits all" training design since learning needs and discipline-specific requirements are varied, especially in higher education (Güneri et al., 2017; Trigwell et al., 1994).

According to Trigwell et al. (1994) as cited by Gibbs and Coffey (2004), tutors usually take two approaches to teaching: the tutor-focused approach is mainly concerned with organisation, presentation, and testing of the content, and the student-focused approach which is concerned with supporting student learning. It also asserts that tutor training can increase the adoption of student-focused approaches.

Ning et al. (2010) states that improving overall quality of education in Bhutan, and tutor professional development, is preceded by challenges of attracting, recruiting, and retaining good teachers in schools. Tutors working in Bhutan recognized the importance of periodically improving their professional competencies, favouring training opportunities that are more "hands-on", skills-based, and easily implementable in their classes. In another study, Tshomo (2021) also uncovered similar tutor perceptions on the importance of professional development. However, factors such as "resistance to change" and resource and time constraints impeded the implementation of teaching practices learnt from new training programmes.

Pedagogical Content Knowledge (PCK)

Teaching in higher education is a complex process; there are many aspects that need to align such as tutors, learners, content matter, and pedagogy (Zepke, 2013). This process can be both messy and dynamic, but the quality of teaching depends on the interaction of these variables. The definition of quality teaching and learning has changed with time; traditionally, knowledge of the content was considered more important than pedagogy (Mishra & Koehler, 2006; Shulman, 1986).

According to Shulman (1986, 1987), teaching requires a distinctive body of knowledge for teaching known as the pedagogical content knowledge (PCK). PCK is an amalgamation of "content and pedagogy into an understanding of how particular topics, issues or problems are organized, represented, and adapted to the diverse interest and ability of the learner, and presented for instructions" (Shulman, 1987, p.8). Teaching requires the blending of content knowledge with pedagogy to make learning meaningful (Major & Palmer, 2006; Shulman, 1986, 1987; Zepke, 2013).

Since its conceptualization by Shulman, there has been robust discourse on what PCK actually comprises. It is generally agreed that PCK consists of four major categories: content knowledge, curricular knowledge, pedagogical knowledge, and pedagogical content knowledge/instructional knowledge (Hashweh, 2013; Kreber, 2006; Shulman, 1986, 1987). The difference between an experienced tutor and a novice is the capacity of the experienced tutor to navigate the learners' context by using the right pedagogy for the learner and the level of content by using appropriate instructional or learning tools to bring about quality learning (Shulman, 1986). This capacity of an experienced tutor is not something that comes naturally. It requires deep content knowledge, understanding of the higher education goal manifested in the form of curriculum, knowledge, and skills on teaching pedagogy, and finally "the wisdom of the practice" that takes years to build (Shulman, 1986, 1987). According to Hashweh (2013), there is disagreement concerning the need to portray a specific case of PCK of successful teaching. There are still concerns about the vagueness of the conceptualization of PCK and the studies conducted on it.

Using Shulman's PCK (Shulman, 1986), Mishra and Koehler (2006) formulated their TPACK (Technological, Pedagogical and Subject Content Knowledge) by adding a 'technology'

component. It entails tutors using technological knowledge to enhance their pedagogy, which has become an invaluable component of teaching in the 21st century.

Sherab et al. (2022) notes an encouraging trend in usage of technology among Bhutanese pre-service students in training. However, most trainees did not feel confident in integrating technology into their teaching once they become full-fledged tutors, indicating suboptimal preparation of trainees in technological pedagogy. Additionally, reported experiences such as expensive and slow internet connection, and low ownership of personal computers indicate resources as a barrier in achieving a robust TPACK education in Bhutan. Findings of another study, involving primary school tutors in Bhutan, indicate apprehension about online learning environments; tutors instead preferred face-to-face classes (Dhendup & Sherab, 2023). Low technological knowledge among tutors has been attributed to poor support structure.

Research Questions

What are the needs, challenges, and opportunities in teaching-learning at RTC in terms of pedagogical content knowledge?

Sub questions:

1. What are the challenges and needs in teaching-learning in each of the four categories of the PCK at RTC?
2. What are some of the opportunities present in teaching-learning at RTC?

Methodology

Most research using the PCK framework applies both qualitative and quantitative methods and design. An exploratory mixed methodology approach was used for the current study. A mixed methodology is often advised while studying a complex topic that cannot be addressed by a single method, and when very little is known about the topic. For the current study, since no similar study has been done in Bhutan, a mixed methodology with a sequential explanatory design was seen as the best approach. Here, the research builds on the quantitative findings with qualitative data (Ivankova et al., 2006). The qualitative design includes interviews, focus group discussions, and observations, while the quantitative component may refer to methods such as surveys (Creswell et al., 2006).

The data collection was done in two phases to help explore the topic deeper. During phase one, a quantitative survey was administered to assess the perceived knowledge of tutors under four themes: content, pedagogical, curricular, and instructional knowledge. Since this was an exploratory study, no hypothesis was designed for the survey. A self-assessment survey of 69 questions was deployed via Google Forms during the first phase of data collection.

The first part of the survey comprised ten questions that inquired about information such as gender, level of education, and teaching experiences. The second part of the survey collected data on the attitude, behaviour, and perceived knowledge of tutors pertaining to

teaching and classroom practices. Each category of PCK was broadly defined, and items representing the categories were developed into self-assessment statements.

Against these statements, respondents were asked to choose one response among *strongly disagree*, *disagree*, *neither agree nor disagree*, *agree*, or *strongly agree*. Some of the survey statements (especially on the fourth category, instructional knowledge) were adapted from the Paro College of Education (PCE) TPACK survey design which was made for the international ERASMUS+ project on "Blended Learning." Necessary permits were obtained from PCE.

For phase two, qualitative data was collected through focus group discussions and semi-structured in-depth interviews. This was conducted with tutors from every academic department. The focus group and in-depth interview questions were developed after looking at the preliminary results of the survey on four categories of PCK. 13 in-depth interviews and four focus group discussions (representing each department) with purposefully selected tutors were conducted with the mixed representation of gender, teaching experience, and level of education.

Additionally, document analysis was conducted of 17 class observations from 2021 to help understand teaching-learning needs in depth.

Table 1 shows the types of data and the corresponding number of respondents under each data category.

Table 1. Data Representation Summary

S. No.	Data Type	Method	Description	Male/ Female		Total
1	Primary	Survey	Survey had 69 questions covering 4 main categories: Content knowledge, Curriculum, Pedagogy and PCK (IK), along with some open questions at the end.	44	32	76 (out of 81 possible)
2	Primary	13 In-depth interviews	Each interview was 30 - 60 min long and transcribed afterwards.	7	6	13
3	Primary	4 Focus group discussions	Each FGD was 40 min - 90 min and transcribed afterwards.	7	8	15
4	Secondary	17 Class observations' (PL) document analysis	Each was a 3-page template, a few were filled in detail while some were sparsely filled.	9	8	17
	Total			67	54	121

Results

The response rate of the survey questionnaire was 93.83 percent. Table 2 shows the qualification of tutors against their teaching experience in number of years.

Table 2. Qualification and Teaching Experience (in Years) of Tutors

Qualification	Experience (Years)				
	0 - 5	6 - 10	11 - 15	15+	Total
Bachelors	7	1	0	0	8
Currently pursuing Masters	0	1	0	0	1
Masters	27	12	10	4	53
Currently pursuing PhD	2	0	1	2	5
Post-Doctoral	0	5	2	1	8
Total	36	19	13	7	75[3]

The majority of the teaching corps at RTC have a Masters degree and fall under the 0-5 years teaching experience category. This shows that most tutors, while trained at some point, do not necessarily have long teaching experiences.

Content Knowledge

The content knowledge component consists of three questions pertaining to tutors' perceived knowledge about subject matter. The quantitative data revealed that the tutors possess sound subject matter knowledge as evidenced by a high average mean score of 4.55 (SD = 0.53) reflected in Table 3. The overall mean response on the content knowledge was 4.54 (SD = 0.44). The mean value of being able to obtain a deep understanding of the subject matter is even higher at 4.7 (SD = 0.46). This indicates that tutors have a good amount of self-confidence pertaining to their level of knowledge of the content.

Table 3. Content Knowledge

Item (Computed)	Mean	SD
Overall	4.54	0.44
Sufficient knowledge of subject matter	4.55	0.53
Can think about the subject I teach like an expert	4.41	0.59
Able to continue to develop deep understanding of the content	4.70	0.46

The above self-assessed findings on the content knowledge were also validated by the qualitative data from the focus groups, in-depth interviews, and document analysis of class observations.

Qualitative data showed that all the respondents reported having improved their content knowledge while teaching at Royal Thimphu College and being able to understand and teach the subject like an expert. A tutor reflects on their experience:

[3] One respondent did not fill in the qualification question.

> When I first came to RTC, it was the first time teaching in a higher education. Sometimes I felt nervous but over the years I don't feel that anymore, I feel more confident… Even when the students ask questions – be it out of the box – I am able to answer. So, over time it has really changed.

However, the qualitative data on being able to relate the subject matter to real-world experiences were varied due to experience in teaching the subject/topic and on topics that are relevant but do not have any local context examples. Especially among new tutors, providing real-life examples, for some topics that are in its infancy in Bhutan, was reportedly challenging. A tutor notes:

> …I was teaching corporate law to them [… students]. They understand to the extent to which it is [applicable] in Bhutan. What is lacking is that when you teach the concept of corporate law here in Bhutan, we do not have enough case. Every case they discuss is based on criminal and civil case and they do not have separate corporate law.

Curricular Knowledge

The curriculum component of the survey was designed to assess the curricular knowledge of the tutors. Nine Likert items tested perceived tutor knowledge and practices in relation to the curriculum. Table 4 shows the computed mean of all nine Likert items. Further, the nine Likert items were computed to form three measures, namely the relationship between modules and programme, lesson, and assessment design in alignment with learning outcomes, and practices of self-reflection and feedback.

Table 4. Curricular Knowledge

Item (Computed)	Mean	SD
Overall	4.49	0.46
Relationship between modules and programme	4.53	0.56
Lesson and assessment design in alignment with learning outcomes	4.61	0.57
Practices on self-reflection and feedback	4.55	0.52

As far as curricular knowledge is concerned, the tutors feel they are aware of curriculum requirements and adhere to it. This is indicated by a high rate of self-perceived practices related to the curriculum with an average mean of 4.49 (SD = 0.46) as reflected in Table 4. However, qualitative data uncovered negative experiences that tutors commonly faced such as difficulty in navigating a prescriptive curriculum. This suggests that while the curricular knowledge base of tutors is quite high, and the curricular requirements are strictly adhered to, the curriculum

is seen as inefficient, restrictive, and a source of stress (elaborately discussed in the Discussion and Conclusion section).

In fact, strict adherence to curriculum requirements might explain why tutors find it difficult to navigate the requirements of the curriculum. Both the in-depth and focus group data findings showed that a prescriptive curriculum is viewed negatively by tutors because it dictates the exact content and assessment design for modules. Another common negative experience was in terms of insufficient time. Syllabus coverage coupled with numerous pre-set assessment designs was challenging for both students and teachers alike. Stress relating to not being able to teach and let students learn in their own space and time was also found in the data. It was also found that curriculum rigidity blocked tutors' creativity while teaching the subject matter. A tutor in the humanities department states:

> I want to give my students different assignments to bring out different outcomes but I am stuck with the DPD (definitive programme document) saying this is exactly what you are supposed to do and this is exactly how you need to mark them. I think that is irrelevant in the Humanities because times change, examples change and scenarios change. For assignments, I am unable to make any changes, as it even has an exact scenario and description of what the students are supposed to do.

Pedagogical Knowledge

This section tested the perceived prevalence of practices of six such teaching methods: case-based learning (CBL), problem-based learning (PBL), reflective learning (RL), active learning (AL), inquiry-based learning (IBL), and place-based learning (PLBL). These teaching-learning strategies were chosen as items for assessment due to their emphasis on deep learning that uses student-centred teaching-learning strategies.

Table 5. Total Perceived Practice of Teaching Methods

Item (Computed)	Mean	SD
Reported usage of CBL, PBL, RL, AL, IBL, and PLBL	4.34	0.47

Table 5 shows that the average reported usage of the above six teaching methods is 4.34 (SD = 0.47). There is a high reported usage of the overall six teaching methods. The data from the focus groups, in-depth interviews, and a few of the class observation reports indicate that tutors are well aware of the mixed group of students in their classes; hence stating their use of mixed or a variety of teaching strategies to engage students to learn. For example, there was reported use of group work, question-and-answer sessions in class, student presentations, and role play as assessment tools.

Tutors also chose assessment topics students could relate to such as gaming and social media. Building trust and relationships with the students came up when discussing pedagogical

knowledge. Tutors found that if they wanted students to understand the topic they had to learn what interests the students and provide positive affirmation through feedback to encourage learning; especially when students find the lessons difficult or among the underperforming and unmotivated students:

> I have one student who loves to play video games and he wasn't paying much attention or effort in the class so I convinced him to relate his assignment around his passion. So in the magazine, he wrote about articles on the games he likes and he really enjoys doing that.

However, prescriptive curricula and time constraints were major barriers to designing student-centric assessments. Flexibility was felt to be needed in both curricula and the institutional structure, as one tutor notes the following about the curriculum:

> I definitely feel like certain things we do because it is mandated. Usually, it comes from RUB because even if we are developing a curriculum in-house, we have to follow certain rules and regulations. ...I would definitely want RTC to be more autonomous and have some leverage to make our own curriculum without too much imposition.

Quality of teaching-learning was also mentioned in relation to prescriptive curriculum and fixed institutional structure. However, from qualitative data on pedagogical knowledge, when tutors were asked about the use of learning theories for their lesson design, only a few could mention and explicate the use of learning theories to design their lessons and assessments. Although most tutors reported using student-centric learning design for their modules, many could not actually state what it meant for their classes.

Pedagogical Content Knowledge (PCK) or Instructional Knowledge

For the category of PCK, tutors at RTC were surveyed on their usage of six teaching methods namely, case-based learning, problem-based learning, reflective learning, active learning, inquiry learning, and place-based learning. As mentioned before, the overall usage was remarkably high (Table 6). It is a reasonable assumption then that certain classroom practices, such as assessment design, should be congruent with the tenets of these teaching methods. For example, is the assessment design improving student's communication skills? (a goal of problem-based learning).

In order to test the relationship between perceived usage and practice, a correlation test was done. Two meta-variables were compared. The first variable is composed of six sub-variables that show the perceived use of the aforementioned six teaching methods. The second variable is a combination of six sub-variables that assessed assessment design and practices.

While the results of the correlation test do not mean anything in isolation, this is a useful tool that can give us an understanding of the type of relationship between teaching methods and practices as shown in Table 6.

Table 6. Correlation Between Perceived Usage of Teaching Methods and Practice

Correlation	Value (R)	Sig. (Two-tailed)
Spearman's Rho	0.67	0.00

Spearman's Rho value (R) of 0.67 revealed that there is a positive relationship between the perceived usage of teaching methods and their practices. There is evidence to suggest that there is a prevalence of practices in instructional design (for example, the rationale for the way assessments are designed) that are congruent with the objectives of the six teaching methods included in this survey.

The qualitative data on pedagogical content knowledge suggest that most tutors use a range of mixed student-centred learning approaches in the classroom, however, issues of underdeveloped independent learning habits in conjunction with poor reading, comprehension, and writing skills make student-centred learning design challenging for the tutors.

The data also suggest that the student body composition of the institution— where only 5-10 percent comprise the outstanding performers group, and a large majority falls under the average category—makes it extremely challenging for tutors to design student-centred learning environments that would require students to take ownership of their own learning. Student motivation was also reported to be a challenge since most of the students who come to the institution come just to get a college degree or due to family pressure. Differences between teaching first-year vs. final-year students were also apparent. Final-year students were more likely to be independent in self-learning than first-year students who commonly demand lecture-based lessons from the tutors. Tutors stated that with most of the students spending at least 6-7 hrs daily on campus for all levels, there may be little or no time to do anything during the day besides attending classes.

Two statements were also asked in the questionnaire to test the preference for lecture-based lessons and the use of exam/test format of assessment. These are dubbed traditional modes of assessments (summative) and are often viewed in opposition to student-centred assessments (formative). Table 7 shows the reported usage of these assessment formats.

Table 7. Usage of Lectures and Tests/Exams

Item	Mean	SD
Perceived use of lecture method of delivery (n=76)	4.08	0.91
Use of tests and exams more than assignments (n=75)	3.37	1.26

There is a slight preference towards the lecture method of delivery which speaks to a traditional mode of delivering content as shown in Table 7. It is probable that tutors are using this in conjunction with other methods of delivering content and assessing student knowledge. Going by the relative averages of the Likert items, the response on the "Use of tests and exams

compared to assignments" is relatively low. It is apparent that tutors are more hesitant to choose tests and exams over assignments to assess student knowledge. This might explain the fact that tutors generally prefer assessments that try to make students independent in their learning, as corroborated by qualitative data. Qualitative data also revealed that many students who are fresh from high school require a lot of supervision ("spoon-feeding") during their initial semesters. This might explain the higher prevalence and even the necessity of the lecture method of delivery.

Limitations

Since both quantitative (self-assessment survey) and qualitative (focus group discussion and in-depth interview) data were self-reported, the results of the study cannot claim to encompass a robust evaluation of actual teaching practices in class. The class observation data was limited, since not all observers had completed observation reports in detail, and the design of the class observation format did not necessarily have elements directly from the four PCK categories; rather it was designed for general class observation for institutional quality and monitoring purposes. The questionnaires for the survey, interviews, and focus groups on the four categories of PCK design were made for a general study and were not discipline-specific.

Discussion

Lesson Contextualization

Most tutors self-reported being comfortable with the content knowledge of the subjects they teach. However, relating this to real-life experiences was more difficult for novice tutors. At times, providing context-specific examples was difficult because of the nature of the topic many of which are still in infancy in Bhutan. The RTC student body composition is diverse in social, economic, and academic performance factors. Even the faculty composition is varied, with almost 40% being international. There are a lot of benefits associated with having a diverse student body and faculty composition especially in enhancing the quality of education. However, issues of contextualizing lessons are considered to be a challenge. Due to a rise in "internationalization" in education, there is an increasing number of both tutors and students from various cultural and social backgrounds. Tutors, who are unfamiliar with an ever-increasing mix of students, face challenges in teaching effectively if their cultural understanding is underdeveloped (Bodycott & Walker, 2000; Gay, 2002). It is as Cohn (1998, p.107) states, "an instructor's failure to know local laws, history, and culture undermines the effectiveness of the presentation and the rapport within the classroom." Lessons that are tailored to the "real world" has been linked to student performance, motivation, and deeper learning (King & Ginns, 2015; Rennie & Parker, 1996). Effective teachers contextualize knowledge by using a variety of teaching methods to cater to diverse students and provide real-world applications (Fuhrman et al., 2010; Sprinkle, 2009). For an institution with a regular turnover of teaching staff with one of the most diverse campuses in the country, this might be an important factor to look into while training or recruiting new tutors.

Curriculum - Meaningful & Independent Learning

Challenges on prescriptive curriculum design were also found to have a negative relation with tutors' ability to be creative in teaching and assessment design. This was often linked to students' independent learning skills and motivation issues in relation to not having the space and time for learners to engage meaningfully with the subject at their own pace. According to Todd et al. (2004), the current practice of universities requiring curriculum design with extensive focus on learning outcomes can lead to them being prescriptive and too structured, restricting independent learning and creativity. Offering students independence or choice in their learning can encourage deep learning. Independence in learning entails giving students more control over the decisions of the content they learn, its sequence, and its pace. Programmes designed to achieve independent learning—which inculcates autonomy and self-direction—are also prerequisites of employability (Stefani, 2000; Todd et al., 2004). However, teaching is underfunded at most universities which induces them to adopt one-size-fits-all standards in curricula and methods of assessing learning—what Ramsden (1992) called "mass production standards." Every student is different and yet everyone is treated the same. The education system in Bhutan especially at the primary and high school level does not prepare students to be independent learners. Considering that RTC's student body composition in a normal class would be average performers from their high school, most students coming to RTC are inadequately equipped to be independent learners with sufficient motivation to study.

Learning outcomes come with pre-set measures and assessment formats which can be conflictual with independent learning. This conflictual relationship is attributable to the emphasis on transparency in higher education (Hussey & Smith, 2002; Todd et al., 2004). It makes the task of balancing "freedom" and "structure" daunting for tutors. When this becomes challenging, it presents negative implications for learning. Hussey and Smith (2003) argue prescribing learning outcomes may impinge on tutor creativity. Independent learning, therefore, needs institutional policies which support it (Hughes, 2002). Learning outcomes need to be contextualized to student experiences and hence they cannot always be objectively measurable. It should not be used as a mere auditing tool to serve modern management techniques but needs to incorporate flexibility in order to achieve educational goals (Hussey & Smith, 2002). With RTC's structured institutional process the need to balance structure versus flexibility to enhance quality learning need to be looked at. There is also a need to study further the current curriculum design structure in higher education in Bhutan to look at its strengths and challenges in actual practices of teaching-learning.

Evidence-based Teaching-Learning

Most tutors reported the use of various teaching-learning strategies to cater to the learning needs of students. The most common strategies align with student-centred learning; however, since the data was self-reported, it is difficult to validate whether these student-centred teaching strategies are used effectively. The qualitative data on pedagogical knowledge also found that many tutors were not formally familiar with any specific learning theories, although their descriptions of strategies used in class related to popular learning theories such as

constructivism, for example, designing assessments that are context- and learner-centred. One of the main reasons for the tutors not being able to articulate learning theories in relation to the teaching strategies could be that only a handful of the tutors have had formal training in teaching. With a higher attrition rate at RTC training and mentoring new faculty will always be a challenge. A greater emphasis on pedagogy training for new faculty should be put in place so that teaching is evidence/science-based (Malot et. al, 2014) for meaningful learning and lesson as opposed to "give a class" (Sims, 2010).

There are three major camps of learning theory: behavioralism, cognitivism, and constructivism (Bada, 2015; O'Neill & McMahon, 2005). Each of these has its own offshoots. Learning theories play an important part in understanding tutors' roles and responsibilities in education (Peterson & Wilsom, 2006; Sandars et al., 2015). At present, there is a consensus that learning requires the active engagement of the learner and that learning is both a social and individual construct (Heuchemer et al., 2020; Kaput, 2018; O'Neill & McMahon, 2005). For example, engaging learners in meaningful activities that have a connection to quality learning, or understanding the prior knowledge and background of the student to make learning meaningful, is complex. The role of the tutor is to then build the bridge between student understanding of the topic and the intended lesson (Kreber, 2006; Peterson & Wilsom, 2006; Shulman, 1986, 1987). There is no one simple formula to do this, the methods used to fill the gap can be varied. To be able to engage the learning theory meaningfully tutors need to have a pedagogical repertoire that draws from many learning theories that are effective and meaningful (Peterson & Wilsom, 2006; Shulman, 1986, 1987). The relationship between theory and practice is complex.

From the data on pedagogical content knowledge (or instructional knowledge), many tutors reported that students' underdeveloped skill of independent learning was a major challenge. Although this tends to change by the time students are in their final year, the shift was not always enough to make the students ready for work life after graduation. Student motivation and poor reading, writing, and comprehension skills were the most challenging aspects while designing student-centred learning. The current large number of contact hours required for students was also found to be one of the factors that limit time and space for independent learning. A need to revisit the current contact hours, especially at the upper level to enhance independent learning skills among students is important. However, a cautious undertaking of meaningful independent learning has to be implemented that would gradually scaffold such skills considering the student body composition at RTC.

Conclusion

Teaching well in higher education is a complex process; what constitutes quality teaching varies according to how variables interact with each other (Mishra & Koehler, 2006; Shulman, 1986; Zepke, 2013). From the current study, it is evident that having confidence in content, curriculum, pedagogy, and instructional knowledge is not enough for quality teaching if there are structural issues relating to curriculum requirements and rigidity in institutional policies on academic regulations. Considering the gap in the majority of RTC's students' skills

of independent learning, especially at the entry level, a need is felt to relook at the curriculum design to scaffold independent learning skills. Also, providing tours and students with space and time for more meaningful learning experiences to enhance the overall quality of education is also evident from the study. There are also likely capacity gaps in professional teaching skills related to PCK and implementing effective student-centric teaching-learning techniques and strategies through professional development both in-house and from expert trainers to help tutors plan their teaching-learning methods that are based on evidence/science of education.

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