

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

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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

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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.

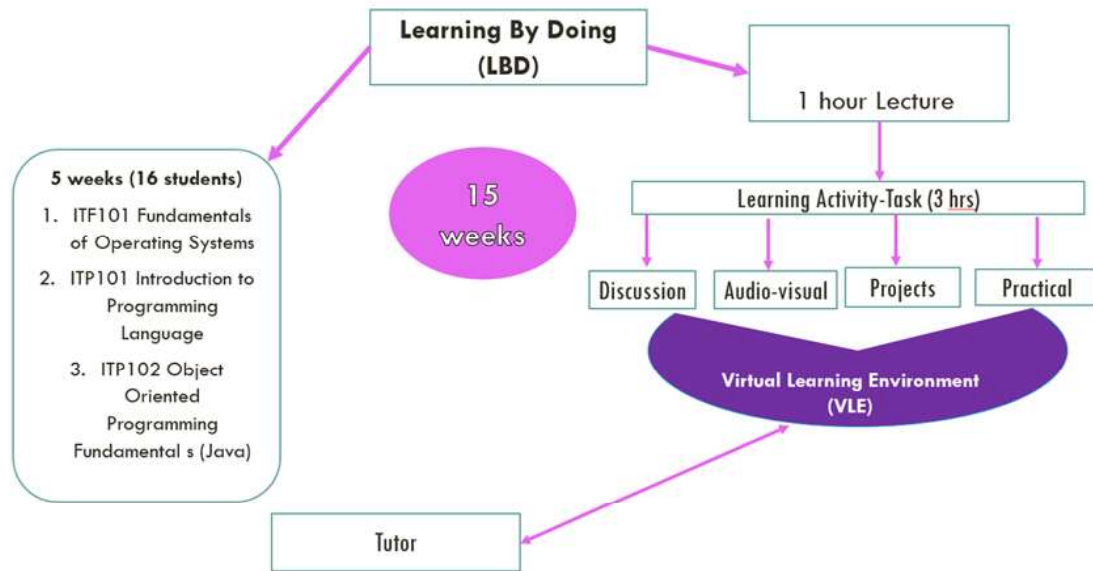
Intervention

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 & Inrona, 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 Inrona (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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