

Blending Moodle and Closed Facebook Group in Interdisciplinary Reading Course: A Collaborative Action Research

Ashok Sapkota

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Corresponding Author:

Ashok Sapkota

Email:

assapkota@gmail.com

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Abstract

Learning management system has been an innovative practice in Nepalese higher education to foster interaction and keep track of day-to-day teaching-learning activities. This article explores using technology applications: Moodle and closed Facebook group in face-to-face class for promoting participation in an interdisciplinary reading course and to find out students' perception in blending Moodle in face-to-face class. The research study was mainly based on collaborative action research. The primary sources of data were collected from the use of Moodle as learning management system. The students of four intact classes (consists 120 students) were selected purposively under department of English Education, University Campus, Kirtipur. The systematically collected narratives and observation have been analyzed and interpreted descriptively. This study found that the basic tutorials in using technology is prerequisite for the students in using the basics of moodle, email log and the ways to interact on reading text in Moodle platform as a part of pre-instructional activity. Many students felt that they come from remote area, have studied in the technology outreach area, cannot explore the resources, and feel hesitation in exploring the technological tools. In addition, the use of resources in the Moodle and blend of closed Facebook group was found to be highly motivating and resourceful for both the low-level learners and high-level readers in assisting resources.

Keywords: blending, Moodle, face-to-face, interaction,

interdisciplinary

Introduction

Information Communication and Technology (ICT) has been a part of everyday living and been used in the different forms of entertainment as a part of social life as well as in learning engagements in the academic institutions. The shift in the use of technology, particularly after COVID-19 is well-experienced in the academic institutions as an alternative tool on learning. On the other, the use of ICT has been often perceived as a means for the sustainable development in language instruction and classroom discussion. The use of the internet is growing in the developing country, like Nepal. It functions as an instructional guide and made the educators rethink about their ways of they practice in their classrooms. No doubt, this critical thought in pedagogy help in promoting active participation. There are several aspects, particularly modes of learning and the strategies of teaching that have been changed in an adequate manner. The needs of the learners have been diversified having a belief that traditional mode of instruction need to be assisted by the use of technology to assist their lives and livelihoods (Jimenez, Abbott & Dasuki, 2022). It is believed that information and communication technologies encourage learners to make progress in their foreign language learning and motivate the learners in a positive and creative manner through active participation. Blended learning is the thoughtful fusion of face-to-face and online learning experiences (Garrison & Vaughan, 2008). The learners explore to wide range of both online and offline resources to engage themselves. In this context, they often take help of open resources to complete their assignments which helps them to expose to the ample resources and options in learning. There is no doubt that students significantly nurture their language skills by the use of advanced synchronous and asynchronous e-learning tools such as moodle, podcasts, blogs, wikis, streaming audios, streaming videos and web conferencing. The present research is on bridging the use of technology applications like moodle and blending the facebook closed group to promote students' interaction in the classroom.

Review of Related Literature

Learning system is not only limited on the use of ICT gadgets. It is supported by the use of different Learning Management Systems (LMSs) in which some of them are designed by the own university portal and others are used from open access. These LMSs help to develop, organize and distribute the digital resources to the students. On the other, it helps both the teachers and students to interact with each other through the use of other activities in the moodle, such as discussion forums, chats, wikis, quizzes and other resources. The growth of e-learning has become more supportive to the students, particularly after COVID-19 pandemic in which face-to-face teaching possibilities (Gamage et al., 2022) were globally restricted and options were opted in the educational institutions to fulfill the gap. There are 561 LMSs available worldwide used as an academic purpose (Capterra, 2021). The learning platforms that were commonly used include Edmodo, Moodle, MOOC, Google Classroom, Sakai, SumTotal, Blackboard, Canvas and ATutor. Moodle is the most popular and preferred open-source LMS. The acceptance rate of the moodle in the learning community is higher in many universities and schools. Particularly, in the STEM education, moodle is found to be most popular LMS tool. The moodle users are found to be in increasing number from 78 million in 2015 to over 294 million (Moodle Project, 2021).

There are empirical researches which show that the use of learning management tools in higher education are increasing to assist in learning activities. A systematic review conducted by Gamage et al. (2022), concluded that the use of moodle is mainly used in the University STEM disciplines and helps effectively to improve student performance, satisfaction, and engagement as an adaptive learning tool. The most preferable tools used in the moodle are quizzes, workshops, and external tools such as videos, virtual tours and e-portfolios can also be embedded in the same learning platform. The usability is the major dominant factor to be considered in the e-learning. Therefore, the educators are supposed to identify the common usability issues among the learners and follow proper e-learning principles. Likewise, the study conducted by Abuhlfaia and Quincey (2019) on evaluating the usability of an e-learning platform in the higher education found the virtual learning environment performed below the average usability expectation. It is essential to take concern on the aspects of learning management system such as: usability of the features of LMS, purpose, learner interaction, support system and assessment practices. The study conducted by Makruf et al. (2021) tried to measure the level of implementation of the learning management in three dimensions of moodle-based online learning; planning, implementation and evaluation of learning. Having a high sample of 718 students from five faculties showed that the planning was in the high category, implementation of learning in the medium category and the evaluation in the medium category. This shows that the learning management system, using like moodle system need to be reconsidered at learning and evaluation system to make it more effective. In the recent years, the use of adapting the features in LMS are necessary in classroom learning. The use of one application may not be equally useful in the classrooms. The user's willingness to employ technology determines the usability and effectiveness of LMS system. Therefore, the appropriate use of technology, technology users' acceptance (Teo, 2012), influence the design and implementation process. In the past, the authorities were mostly focused on ensuring the planning of using technology. However, it is essential to re-examine user acceptance issues to make it effective for the productive learning outcomes. Additionally, there are several other applications that can be synchronized in the moodle to make it learner-friendly. One of the popular tools is Facebook which can be embedded within the moodle or could be separately used. In the context of Nepal, the learners in the higher-level use social sites, like Facebook, Viber, Tiktok and other means as a part of their entertainment. The use of these social sites could be used for the academic purpose through closed group discussion feature of Facebook. The case study of Novia (2022) shows that Facebook Groups as one of the potential learning tools as a part of English-language community of practice. The use of Facebook group contributes in the interaction and reflection in learning practices. The results show that reading skills tend to be promoted to the greater extent than other skills through the consistently use of English language in the group chat or other reflections. Therefore, considering the aspects of LMS and the learners' engagement in the social sites, this study adapted the use of moodle and closed Facebook groups in interdisciplinary reading course.

Learning shapes ones' thoughts and verifies experience to perform further actions. Learning is reshaped by the input the learners get and the exposure they are explored to. Among the practices, traditional learning was based on the one-way delivery of the contents. This situation led the students to share their experiential learning in a limited amount where the participation was few or none. In regard to

the practices in Tribhuvan University in Nepal, it is not aloof from this situation. The semester system has been in practice since 2016 to meet the global trends in educational practices and make the learning more interactive than annual system. The students are evaluated based on their internal assignments, presentation and regularity however, the students present one or two times in their semester which is still a limited exposure. In addition, the students are found exploring resources in their laptops and mobiles with free wifi facilities available in university campus even in the off hours and holidays. This situation indicates that the students are motivated to explore both the content and technology. The blending of technology can be an additional assert for them to develop their participation. Considering this scenario, we felt the need of collaborative action research in advanced reading course through moodle platform as a form of action research. Using moodle in teaching develops learners' communicative skills in language and requires social interaction between the teacher and students and among the students themselves (Al-ani, 2013). This blended mode of learning can promote participation of the learners both in face-to-face and virtual platform. In addition, the collaborative effort of the three teachers as researchers' shapes to provide the comprehensible input in facilitating their participation both in synchronous and asynchronous modes of learning using the available resources.

This study aimed to investigate the role of using moodle in face-to-face class for promoting participation in a reading class and to find out students' perception in blending moodle in face-to-face class. In these rationale, this research seeks to answer the following research questions:

- How can Moodle platform be effectively blended in face-to-face mode for promoting active participation in advanced reading class?
- What are the students' reflections on blended learning?

Methodology

The study was collaborative action research in nature. Action research is typically portrayed in second language literature to focus a change in social situations because of group problem solving and collaboration (Burns, 2011). It is often called practitioner based or teacher research which is a successful tool to bring change or improvement at local level (Cohen et al., 2011) in a systematic way. Considering the types of action research, there are three major types of action research, such as: collaborative action research, cooperative collaborative action research and transformative collaborative action research (Mertens, 2015). The research was based on the collaborative action research. The researcher took support of two teachers. The reading texts were discussed in the face-to-face mode and the virtual moodle platform. There were seven major interventions adopted in the study based on Norton (2009).

Firstly, a baseline survey was conducted to identify the actual level regarding technological use of the students. *Secondly*, an ICT orientation class was conducted to the participating students so that they were explored to the basic forms of using technological tools. *Thirdly*, to promote participation, the students were involved both in moodle and face-to-face classroom on weekly basis through discussion forum. The other included, weekly discussion forum was created where they needed to post their views. Additionally, they were motivated to participate and share their questions or reflection in the chat forum of

the moodle. A quiz based on the reading texts were discussed in face-to-face mode. The final steps of this cycle of research was completed with reflection and sharing further learning and challenges.

The study was conducted with the students studying in first semester in Masters' in Education in English first semester under university campus. The population of this study was the students studying in first semester in Masters' in Education in English first semester under university campus. There were 120 students from four intact classes participating in the study and purposive non-random sampling strategy was used to select the classes and the number of students. Baseline survey, post survey questionnaire and interaction protocol both in face-to-face and discussion in the moodle platform was used in the study. Both primary and secondary sources of data are required for this research. The primary data was collected from the selected four intact classes (120 students) in Department of English Education, University Campus, Kirtipur and the secondary data was based on the books, recent national and international articles, reviews and documents. The systematically collected data was analyzed, interpreted and presented into several themes both quantitatively and qualitatively focusing on the participation of students in the blended learning.

Results and Discussion

The major discussions as form of preliminary investigation began with the base line survey of the participants' access on the use of ICT tools. A baseline survey was conducted to identify the actual level regarding technological use of the students. A questionnaire was designed to identify the level and designed the information and communication technology (ICT) orientation class.

In this preliminary study, 100 students had their email whereas remaining 20 students did not have any email. Furthermore, in the question of regarding the academic use of email, only 10 students stated that they used email for few academic sharing. Similarly, 98 students shared that they used Youtube videos to explore new songs however only ten students shared that they used Youtube videos for academic sharing.

Regarding the use of computer access, 90 students responded that they used mobile data to open social sites, such as Facebook and email if necessary. However, they even shared that it was very hard times for them to use mobile data to use in the low bandwidth. This situation shows that the students were friendly in having smart phones despite the limited data access.

ICT Orientation Class

An ICT orientation class was conducted focusing on how to use email professionally, use of moodle guidelines and enrollment in the facebook for sharing and discussion of the reading materials. It was helpful for students so that they were explored to the basic forms of using technological tools. It helped them to arouse motivation and focus on the discussion of reading texts. The students were taught to create, responding their emails, attaching files in their emails, enrolling them in moodle virtual platform, orienting and exploring them in moodle and its features, sharing the ideas about materials access, and interactive forums such as: chat and quiz.

In this stage, there were few challenges faced by the teachers in orienting the students regarding the ICT tools. The students were found interested to explore the use of moodle and its features however the

administration challenges were found in using moodle. The challenges that I faced as a researcher were no internet access in the classroom, very difficult to explore the students using the data packages and off line mode. In addition, majority of the students (80%) did not have laptops and wifi services in their house. This situation made the researchers to support each student and their queries in an individual basis.

Main Intervention

The major interventions done in this collaborative action research was to blend Moodle activities and face-to face classroom to promote students' participation. This was the main stage of action research. This stage was the blended form of face-to-face and moodle virtual platform. In addition, it was the form of collaborative teaching and active participation of students was supportive in interaction both in face-to-face and moodle platform. The figure 1 presents the sample screenshot list of participants enrolled in the moodle.

Figure 1

Students Enrollment Sample-Screen shot in Moodle

Select	User picture	First name / Surname	Email address	City/town	Country	Last access ▾
<input type="checkbox"/>		Ashok Sapkota	ashok.sapkota@tuteled.edu.np	Kathmandu	Nepal	19 secs
<input type="checkbox"/>		Sita Ram Niraula	sitaramniraula01@gmail.com			40 days 6 hours
<input type="checkbox"/>		Madhu Neupane	madhuneupane@gmail.com	KTM	Nepal	43 days 13 hours
<input type="checkbox"/>		Subas Bhandari	subasbhandari01@gmail.com	Kathmandu	Nepal	54 days 12 hours
<input type="checkbox"/>		Anrit Thapa	thapaanrit17@gmail.com	Kathmandu	Nepal	54 days 14 hours
<input type="checkbox"/>		Sapana Bishara	sapanabishara100@gmail.com	Kathmandu	Nepal	55 days
<input type="checkbox"/>		Sapana Sigdel	sapanasigdel@gmail.com	Kathmandu	Nepal	55 days 1 hour
<input type="checkbox"/>		Santu Bishara Bishwakarma	bishara017@gmail.com	Kathmandu	Nepal	55 days 1 hour
<input type="checkbox"/>		Jayant Pathak	pathajayant01@gmail.com	Kathmandu	Nepal	55 days 11 hours
<input type="checkbox"/>		Binod Yadav	yadavbinod014@gmail.com	kathmandu	Nepal	55 days 20 hours

The list of the participants increased everyday due to the motivation and support system. The students used to ask after the face-to face classroom to support even in their mobile data to explore more explorations or features of moodle. The materials discussed in the different groups taught by them were discussed in advance to establish the common understanding, sharings and participation. All effort was made in making moodle rich resource. The gender participation of the students was minutely observed in the moodle platform and promote if necessary.

Promoting Participation

The students were involved both in moodle and face-to-face classroom. Every week a discussion forum was created where they need to post their views. They were as motivated to participate and share their questions or reflection in the chat forum of the moodle. A quiz based on the text discussed in face-to-face mode. A video link was inserted in relation to the text discussed in the face-to-face classroom, a set of questions will be developed to make the discussion more purposeful and the students will share their thoughts on it. In addition, few recorded face-to-face classroom videos will be uploaded.

In this regard, the reflection of the students was:

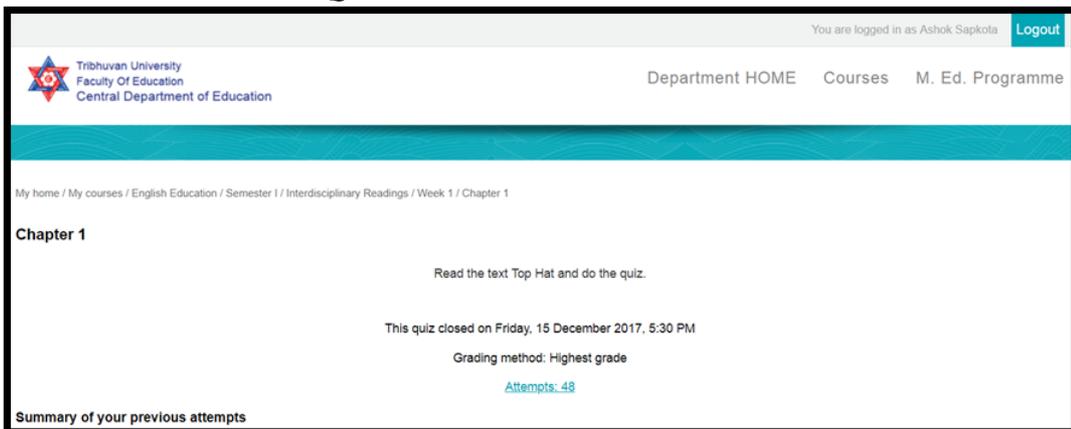
It was really nice to have discussion in the moodle. It was completely new for me. In the beginning it was very difficult to enroll in the course. I often forgot the password. Later, my teacher supported to open it again. I have plenty of resource to download from the moodle. The slides uploaded were really useful for me to prepare for the exams.

In this reflection, it was found that the students were highly motivated to adapt with the recent changes in the tech practices. In addition, moodle was a new concept for them and the things they need was the administration support. The resources available was highly useful for them to explore the materials, particularly to have off line mode and learn it later even in the situation having no internet access.

Regarding the participation in moodle, the students showed a high interest in the moodle quiz platform as shown in figure 2.

Figure 2

Students Interaction in Quiz in Moodle



Here, in figure 2, there were 48 students who attempted to use quiz in the moodle platform. This shows that the students were found motivated in exploring the resources in the moodle. Some of the students, in person, explored that they felt difficulty in using it in the beginning however it was useful to help their everyday learning. Although, the participation was less in the moodle, so we thought to increase the participation and reach to the wider students. We were aware that moodle was not blended to the facebook as all of the students used facebook account. So, enrich the discussion, we introduced the

closed group discussion forum on interdisciplinary readings and started similar quiz activity through pool activities as presented in figure 3.

Figure 3

Students' Participation in Pool in Facebook

The screenshot displays a Facebook group interface. The top navigation bar includes the Facebook logo, a search bar with the text 'Discussions on Interdisciplinary Readings', and user profile information for 'Ashok'. The main content area features a poll titled 'According to the author, which of the followings is true regarding money?'. The poll options are:

- The more money we have, the miserable we feel deep in our heart. (+16 votes)
- The more money we have the happier we become. (+1 vote)
- Rich and powerful people love their life more than poor and powerless people.
- Money makes our life meaningful.
- + Add option

 Below the poll, there are 'Like' and 'Comment' buttons. A notification indicates that 'Dilliraj Bhatta, Rasi Daa and 13 others' have seen the poll. Comments from users like 'Dilliraj Bhatta' and 'Rasi Daa' are visible, all selecting the first option. The left sidebar contains group navigation links such as 'About', 'Discussion', 'Members', 'Events', 'Photos', 'Files', 'Group Insights', and 'Manage Group'. The right sidebar shows an advertisement for 'KATHMANDU WHOLESALE BAZAR' and a 'People You May Know' section with profiles for 'Bhabindra Ghimire' and 'काजी कान्छा'.

As in figure 3, there were high number of the facebook users who participated in this pool. There were 93 students who responded this quiz and the numbers of the participants were going more. There were even the reflections and the comments students made. The Students were found to be excited to be part of these activities.

Figure 4*Students' Responses in a Reading Text Content*

The sharing of the students shows that the students were found highly motivated in the discussion. The reflection in one of the text '*Is Nepal small?*' by *L.P. Devkota* was one of the discussions where the majority of the students participated. Due to the slow bandwidth in moodle, some of the students still felt difficult in exploring the moodle however, they felt easy in sharing their thoughts in the moodle. It helped them to share their thoughts in academic discussion even in the facebook.

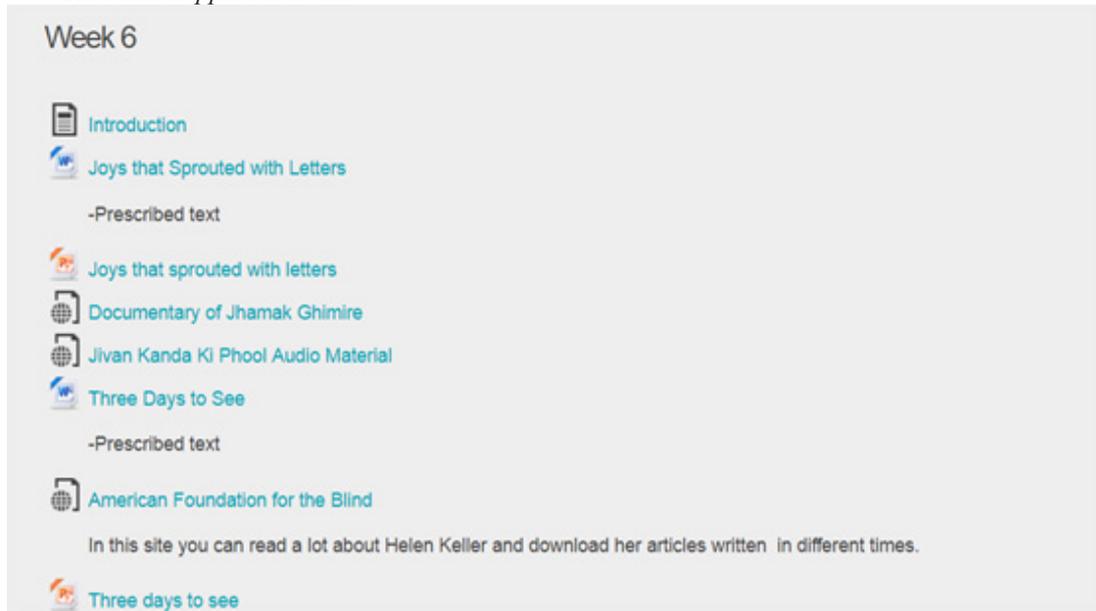
Resource Support to Students

The participation of the students in this blended mode of learning will be enriched with the necessary resources such as: discussing the courses both in the face-to-face and virtual platform weekly, uploading necessary reference and reading materials and sharing both student's presentation and teachers' face-to-face discussion slides or powerpoints.

The students are provided the resources through the moodle platform. The resources were opened week wise and the notification was posted in the closed group discussion in facebook. This made the learners easier to use it.

Figure 5

Resource Support to Students

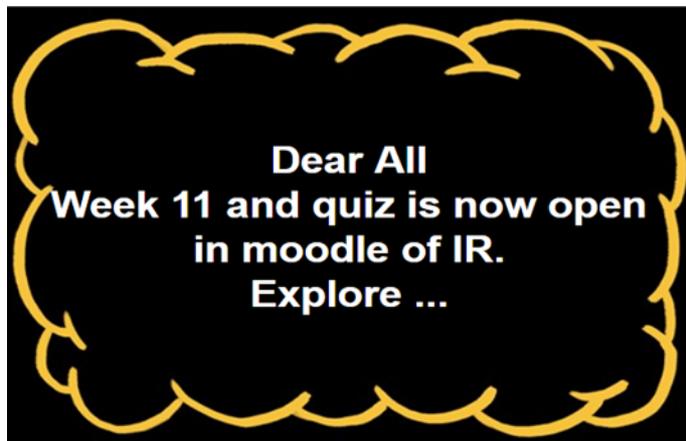


In figure 5, the students were provided the resources which would help them in exploring the materials. As we can see in the example above in the week 6, the lesson begins with the introduction, followed by the authentic text, supported with powerpoint slides and videos link as well as audio files for a lesson. When a learner can explore these materials, it helps them to prepare using adequate resources.

The students were notified in the closed group discussion so that they could get instant information as presented in the figure 6.

Figure 6

Notification Facebook of Moodle



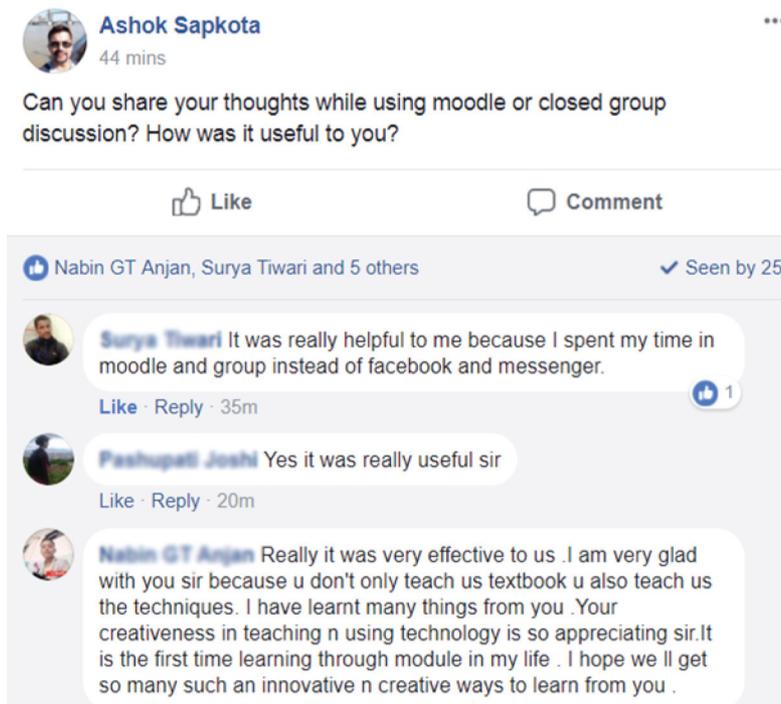
Reflection

The reflection of both teachers as researchers and students were presented in the research. The post survey questionnaire was designed to identify the effectiveness of the research and participation of the students’.

There are 90 students who felt that the discussion was really beneficial for them. More importantly, they shared that the discussion in the facebook closed group discussion and moodle was an additional assert for them to explore the recent trends in ICT. In the beginning, it was very difficult for us as researcher. one of our co-researchers, Ashok Sapkota shared that it was a tough time to manage face-to-face class, moderate moodle, update in the closed group discussion and support them in exploring moodle. Hover, the latter part of the sharing was exciting enough.

Figure 7

Reflection of Students in Using Moodle/Facebook Group



As in the sharing above, the participants shared that using moodle as the exciting moments for the students to explore the ideas. They used it productively to share their thoughts and discussions. It enriched them to motivate towards the course and reflect the sharing made by their friends. They reflected that it was an innovative technique used and they learnt many innovative concepts than limiting only in the textual knowledge.

Sharing Further Learning and Challenges

The major findings of the research was shared through the publications and presentations to the wider

community through print and online publications. The articles are in the practices. The role of collaborative tech classroom as a form of heutagogy has been presented in the international conference. The feedback of the participants was highly motivating and wanted to know more about it.

Conclusion and Implications

The use of ICT becomes effective in the classroom when the learners are minutely supported in the areas of difficulty. Most of the learners could not get the contents of language when they revolve themselves in the technological difficulty. The proper guidance and support system is a must in the higher education in the use and adaptability of technology. After the careful intervention from study, it implied that the orientation class is necessary for the students in supporting them to use the basics of technology for bringing ease in the discussion. They were found having general information regarding the use of ICT tools however the use of orientation helped in gaining maturity in their learning. Many students feel that they come from the remote area, and have studied in the technology outreach area cannot explore the resources and feel hesitation in exploring the tech tools. When the students are carefully supported in the learning system, like moodle, the students find it interesting and use more although it is less mobile friendly. The use of resources in the moodle was found to be highly motivating and resourceful for both the low and high level readers. The incorporation of the closed group discussion made the students use moodle and know the updates quickly. The students were found to use, like, comment and explore moodle through successful integration of the closed facebook discussion. The interaction, quiz or pool discussion was found to be beneficial and promote the interaction in the moodle and group.

The study was highly useful in the use of moodle however if the lab was provided it would have been easier to handle moodle. The students' motivation in the form of interaction was highly beneficial when this blended form of moodle could be in practice. The admin support in assisting in the enrollment of students is the main factor to be taken into the consideration before we launch moodle in the new enrollment or the semester.

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[Mr. Ashok Sapkota is an Assistant-Professor at Open and Distance Education Centre (ODEC), Tribhuvan University. He leads classes on interdisciplinary readings and research in English Education at the Tribhuvan University, Nepal, and conducts research on the use of technology and classroom practices. He has gained Masters' in Philosophy in English Language Education from Kathmandu University, where his dissertation focused on teachers' identity and their professional practices. He has worked as a presenter in several webinars as presenter and supported teachers in using online tools.]