

*Insights into Students' Online Learning Experiences During COVID-19 Pandemic:
Shaping How We Do Education Moving Forward*

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Abstract

Teaching and learning have transitioned entirely into an online mode in response to COVID-19 pandemic in Mongolia. Online education in and of itself is not new to Mongolian higher education sector. However, transitioning into 100% online mode within a space of a month and continue doing so since February 2020 has been a challenge. This article presents an insight into Mongolian National University of Education students' experiences with online learning using Microsoft Teams. The findings reveal that the Microsoft Teams provided similar learning experiences to on campus face to face learning in terms of working in groups, participating in lectures and seminars, and communicating with peers and teachers for some. For others, however this same experience was not achievable given their circumstances associated with rural location, poor quality Internet connection, costs of technology, buying Internet data, and other personal and family situations. Despite the challenges, of the 87 students who were involved in the study 57% of them were satisfied with the online learning mode but 36% were not satisfied. The qualitative findings were mixed: some noticed improvements in their independent learning skills and use technology and preferred online learning, some reported preference towards a blended learning for better interaction with peers and teachers. This insight into students' experiences with online learning is valuable in shaping how we do higher education moving forward.

Keywords: COVID-19, Online Learning, Higher Education, Future Education

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Introduction

COVID – 19 pandemic created many challenges in how we do education all around the world including Mongolia (Crawford et al. 2020; Lkhagvasuren 2021; UNESCO, 2020). In the context of Mongolia, like in many other countries, in February 2020 educational venues were closed down for certain periods of time to minimize the spread of the COVID – 19 virus and reduce infections. Mongolian National University of Education (MNUE) had to respond to this change very quickly with little time to plan for 100% online learning and teaching mode. In other words, due to this extraordinary circumstances, the university made the decision to close down first following the government advice and then discuss the ways around how we would do teaching and learning online.

Before the pandemic, MNUE used to do education largely on campus with little capacity to do online learning. On campus teaching and learning were focused on active student-centered learning, with emphasis on team work, collaboration, peer learning and support, and laboratory learning. Due to this sudden transition to 100% online teaching and learning, teachers had to change their approach to teaching and students their approach to learning.

The authors of this paper work as lecturers in the School of Humanities and Social Sciences of MNUE, English language department. The authors teach English language to future school teachers. Most of the student population of the school are from country Mongolia. Due to the lockdown, these students who were living in the capital city where their respective campus was located had to travel back to their home countries or remote villages.

This article aims to capture an insight into students' experiences with online learning and how effective the use of Office 365 Microsoft Teams was, particularly in relation to experiences associated with use of technology, learning environments, and student engagement when learning online.

Literature Review

Online learning is a technology-mediated teaching and learning approach which has been researched extensively in the field of Educational Technology for the past decade or so. Garrison (2017) points out that this technology - mediated learning is rapidly changing how educational institutions do teaching and learning. Online learning or e-learning is defined as “an innovative web-based system based on digital technologies and other forms of educational materials whose primary goal is to provide students with a personalized, learner-centred, open, enjoyable, and interactive learning environment supporting and enhancing the learning processes” (Rodrigues et al., 2019, p. 95). This definition shows that if educational institutions are offering online learning to their students, it needs to mimic the campus delivery mode in a sense that the teaching needs to be student-centred and students need to be provided with interactive engaging materials that help them better their learning and study goals. Because it is delivered online, the digital technologies need to be enabled and provided regardless where the locations of the students are.

In their 2018 paper, Shailendra et al. stated that online education and its various modes has been growing steadily worldwide due to the high use of technologies, wide utilization of the Internet, and increasing need from workforce to suit the needs of digital economy. It was estimated that online education is going to become the main form of education by 2025 (Shailendra et al, 2018). Many universities were increasingly running their education in some

blended modes (both online and on campus), progressively shifting their focus more towards online education.

But this was in 2018. When the pandemic hit hard and fast in the early 2020, most educational institutions were not ready for the rapid transition to fully go into online learning mode. For example, the students from country Mongolia living in remote areas or from low socio-economic backgrounds do not have sufficient access to the Internet and technologies needed to study online (Lkhagvasuren 2021). These situations created enormous challenges to students and their families. This situation made students to experience inequality and discrimination (Lkhagvasuren 2021). It was also found that students may experience psychological disorders and anxieties in relation to fear of falling behind (MNUE & UNICEF, 2020).

To put this in perspective, there are 320 small villages in Mongolia which comprises 96.6% of the country. These villages have fibre optic cable connections or 3G or 4G/LTE Internet connections. About 92% of the village population use Internet, while approximately 48% of households own computers (Main Development Trends of Mongolia for 2021-2025). While the data show higher percentage of the population use the Internet, this does not mean that they have access at their finger tips. Affordability of the Internet data and computer pose significant barriers to students' education (UNDP Mongolia's Accelerator Lab Team, 2021).

To resolve this issue, there is an urgent need to supply students with fast Internet connection, computers and deliver education and content that is suited to online learning (Lkhagvasuren, 2020). This is dependant on Information and Communication Technology infrastructure, human resources, and program renovations which means that Mongolian government and higher education institutions have a lot to do (Lkhagvasuren, 2020).

According to the *Vision 2050 Long Term Development Policy*, "The Government aims to create and develop equal opportunities for the quality and inclusive education for everyone" (Main Development Trends of Mongolia for 2021-2025). To achieve these goals, legal arrangements have already been made for digital and distance learning for the first time in Mongolia (Lkhagvasuren, 2021). For example, higher education institutions have been using management information systems and other software to deliver online education during the pandemic. However, more work needs to be done to continuous training processes, and ensure every student has the opportunity for the quality and inclusive education (Lkhagvasuren, 2021).

Theoretical framework

The theoretical framework that was used to inform the development of this research and understand students' experiences with online e-learning is Community of Inquiry. Community of Inquiry is one of the widely used theoretical framework in the studies about online learning or e-learning is Community of Inquiry (Garrison, Anderson, Archer, 2010). This theory is about the people who constitute the community, for example teachers and students who aim to develop knowledge and ideas, build meanings, and do research (Garrison et al., 2010).

Personal reflection and shared discussion are common amongst these communities and the success of this processes is dependant on how teachers engage students in learning environments that are interesting and engaging (Thomas, Wes & Borup, 2017). In other

words, what knowledge a student develops is dependant on the learning environment or the community of inquiry. Students need to be provided with learning environments that help them to take responsibility for their own learning, enable them to negotiate meanings, and question their current understandings about ideas and develop new ones (Thomas et al., 2017). Three key components of his theory were particularly relevant to the context of this study:

- a. Students working in groups and feel sense of belonging as this helps them to communicate openly with trust (Thomas et al., 2017; Shea & Bidjerano. 2009; Shea & Bidjerano, 2012).
- b. Teacher facilitation in helping students think cognitively, make meaning and keep interested in learning (Arbaugh, 2013; Rubin, Fernandes, & Avgerinou, 2013).
- c. Focus on reflection, discussion, and critical thinking to help students make meaning and confirm meanings (Ke , 2010; Kim, Kwon,& Cho, 2011; Zhan & Mei, 2013;).

This shows that for teaching and learning to be successful in the context of Community of Inquiry, learning environments need to be set up to enable students to work in groups in which they feel comfortable to discuss ideas openly without feeling fear or shame, students need to be provided with content that is well designed to meet their learning needs, and teachers need to be capable in facilitating the content so that it is helping students to make meaning through cognitively challenging activities. These three key concepts of Community of Inquiry have been tested successfully in different educational contexts of e-learning (Stenbom, 2018; Yu, & Richardson, 2015).

Participants, Research Method and Data Analysis

A total of 87 students ranging from 18-22 years of age participated in the study. The students were studying in their first year of primary education at the MNUE. 3% of the students were male and 97% were female students. 71 students experienced online learning for the first time at the time of participating in the study and only 16 students had prior experience with the online learning which was outside their university learning. Most of the students were from country Mongolia.

Data were collected using online survey method called Google Forms. This was used to collect data about students' approach to online learning, challenges associated with online learning, learning environments and their perceived engagement. Online survey is a convenient way to collect data from a large cohort answering the same questions (de Vaus, 1995) and it is one of the widely-used survey methods (Walter, 2010). It is convenient in a sense that different types of data on different topics can be collected electronically from different respondents (Jansen, Corley & Jansen, 2007) in a short time and at little or no cost (Czaja & Blair, 2005).

The online survey was hosted on Google Forms. The online survey link was sent to the students to collect the data. Students completed the surveys voluntarily and the respondents were anonymous which meant non-identifiable.

Data analysis aimed to find meanings in data (Patton, 2012) or in the context of this study to understand how the online learning impacted on students' learning and engagement. Google Forms is a user-friendly tool that automatically analyses data itself and provides a meaningful data that are easy to interpret.

Findings

The findings from the study are arranged in three categories: use of technology, learning environment, and student engagement.

Use of technology: 1% of the students owned desktop, 9% owned laptops and 90% of the students reported using their mobile devices to participate in online learning. It was reported that 32% of the devices worked well, 49% reasonably well, and 18% did not work well or the students frequently experienced technical issues.

Of the 87 students, 10% of them reported that they managed to continue with their studies regardless of disturbances outside of their control. However, overwhelming 90% of the students reported constant difficulties including issues with the Internet connection, software being down, power outage, difficulties with concentration due to daily distractions in the household, the size of their mobile devices did not allow to see some pages of the content materials, and costs associated with purchasing Internet data was high.

Regardless, 69% of the students were happy using the Office 365 Teams recommended by the University. The platform enabled students to communicate with others, work in groups face to face, watch recordings of the lectures, use resources which were readily available on the platform, and they were easy to use. On the other hand, 9% of the students did not experience similar engagement with the Teams due to their slow Internet or lack of it, having no access to microphones and cameras, high costs to purchase Internet data, and their mobile devices did not support some of the applications used in Teams. Only 1% of the students found the online learning mode was ineffective and they preferred on campus face to face learning.

Learning environments: Of the 87 students 29% were from the capital city, 6% resided in the centre of provinces, and 40% of the students lived in village centres, 22% were from remote villages, and 3% had to go to the top of mountains so that they can connect to the Internet to study. 7% of the students described their learning environments satisfactory, 74% manageable, and 20% unsatisfactory.

Face to face interactions in the online learning space was reported as very important by 36% of the students. Whereas 63% reported as important and 3% viewed it as not as important. It was also found that 81% of the students communicated with their peers via Facebook, Teams chat function, and exchanged messages via their mobile phones for the purposes of sharing subject information and study tips. The students also reported that they were communicating with their teachers using the same mediums in addition to emails.

Students also rated the class contents designed by the teachers. 2% of the students found the content excellent, 45% thought that it was of good quality and 47% average and 6% said it was of poor quality. 36% of the students found that the help they received from their teachers were timely and useful but 55% reported that it could be improved. Majority of the students or 76% found the online learning enabled medium level productivity and 57% enjoyed learning online.

Student engagement: During the period of online learning, students studied 8-9 different subjects or 13-14 credit hours. On average, they were spending anywhere between 5-10 hours daily on their studies. Some of the side effects of studying online were dry eye, and neck

and back pain. On a positive note, a large number of students reported that they saw significant improvements in their independent learning skills, time-management, technical skills and troubleshooting, and online communication skills.

Last but not least, 41% of the students preferred on campus learning mode as they reported that the on campus face to face learning helps them to better engage with learning, connect with teachers, more productive, learn better and develop deep understanding under teachers' supervision, and engage with peers. Another 49% of the students found no significant difference in terms of engagement and learning quality though with some differences: online learning promotes more independent learning skills and time-management whereas on campus learning promotes better engagement with teachers and peers. Therefore, these students preferred both the online and on campus learning modes moving forward.

Discussion and Conclusion

The findings show the student satisfaction with online learning drastically varied around use of technology, learning environment, and student engagement. Though there were noticeable advantages to online learning including improvement in independent learning skills, time-management skills, better engagement with peers and sometimes teachers, the bigger picture of the findings reveal that one aspect of online learning cannot be successfully achieved without the other.

For example, without having access to affordable Internet and technology, it is virtually impossible to deliver good quality education and engage productively in learning. This is the ultimate bridge between the teaching and learning in an online space. Mongolian higher education sector and MNUE have to make significant improvement in this space. As was mentioned earlier, it is promising to know that to develop equal opportunities for the quality and inclusive education for everyone, the Mongolian government has made legal arrangements for digital and distance learning (Lkhagvasuren, 2021). However, more needs to be done in relation to implementation of these amendments. As was suggested by Palvia et al (2018), telecommunications infrastructure with focus on high speed Internet has to improve.

To achieve success of true community of inquiry, it is important how teachers engage students in online learning environments so that the learning is interesting and engaging (Thomas, Wes & Borup, 2017). Data show that more work need to be done in this space too. This is in line with what was suggested by Palvia et al. (2018) in that online education quality also has to improve to the level of how on campus face to face learning is conducted with better engagement both between teachers and students, and peers with each other. This indicates teacher training or professional development for teachers on the topic of online learning and community of inquiry is essential.

Overwhelming number of students reported issues around having access to affordable Internet and technologies. This shows that MNUE has to assist students from country Mongolia or low socio-economic backgrounds to have access to technologies. Many universities cooperate with technological companies to provide computers and equipment to create campus working and learning environments. They need to extend their cooperation to more online learning context and design a program to better assist and supply students in need with computers and necessary equipment for learning from remote locations.

Such insights into students' experiences with online learning is valuable in shaping how we do higher education moving forward. More likely, like the rest of the world, Mongolia will be doing more of online learning than on campus learning. Mongolia and Mongolian higher education need to have a thorough strategic planning in place to create better online learning experience for students and for teachers.

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