EXPLORING THE CHANGE TO REMOTE LEARNING IN NEPAL

Paul Sparks[1], & Jeff Lee[2]
[1]*Ph.D., Learning Technology, Pepperdine University (USA)*
[2]*Ed.D., UMass Global (USA)*

Abstract

The transition to remote learning in Nepal presented formidable challenges especially for rural students. To explore and document their experiences a pilot study was conducted. Interviews of seven students from several remote villages were collected and coded to capture frequency and impact of common themes. As expected, device and Internet access were key limitations, followed by minimal teacher and platform support. Surprising findings included innovative technology use, increased reliance on self and friends, and inspirational determination.

Keywords: Remote learning, collaboration, social, technology, equity.

1. Introduction

Remote learning is a challenge for learners in developed countries, let alone in developing countries. Nepal has one of the highest rural population rates at 80% and struggles to support remote learning for its children (https://www.statista.com/). In recent years earthquakes and pandemics have exacerbated this problem forcing teachers, parents and students to create and rely on new strategies for supporting remote learning.

1.1. Background

In May of 2020, UNESCO (2020) estimated that nearly nine million (8,796,624) Nepali students were affected by school closures because of the response to the COVID-19 pandemic. Breaking down the impact, 39% were in primary or below, 39% were in secondary school and 22% were in post-secondary education.

Because of the compulsory closure of schools and universities for an unsettling uncertain period, the education system changed dramatically. Foremost was the fortunate appearance of remote learning opportunities which was made possible only by shifting teaching and learning from classrooms to online digital platforms. Past research (Rana, 2022) suggests that remote learning is often complicated by lack of technology and commensurate skills and that any success requires innovation and collaboration at multiple levels. Obviously, this caused many challenges relative to the equitable access to eLearning (Dawadi et al., 2020).

Educational infrastructure is a challenge for remote learners in developing countries. Nepal has one of the highest rural population rates at 80% and struggles to support remote learning for its children (https://www.statista.com/). In recent years earthquakes and pandemics have exacerbated this problem forcing teachers, parents, and students to create and rely on new strategies for supporting remote learning.

1.2. Purpose and significance

This pilot study seeks to understand the challenges and derived solutions associated with the change to remote learning through personal interviews of stakeholders (teachers, parents, and students) from several remote villages in rural Nepal. Subjects will have the opportunity to tell their stories through interviews in their own language. The purpose is to capture the lived experience of students and teachers in order to improve learning in rural Nepal.

Experienced investigators will leverage past research and expanded access to subjects for the data. Two main areas of interest include the sudden change in technology use and the shift in learning relationships and social learning strategies. These will be compared with other remote learning challenges in the world for convergence. Open ended interview questions will allow researchers to capture the concerns

and strategies of this important shift in learning structure in Nepal. A qualitative analysis will distill responses into codes then into themes for greater understanding and possible conclusions.

1.3. Research questions:

During the first months of COVID-19:
- RQ1: In what specific ways did your use of technology for remote learning change?
- RQ2: In what specific ways did learning relationships change between students, teachers and parents?

2. Methods / data collection

While several methodologies were considered for this project, holding qualitative interviews with students and teachers was selected. The data for this descriptive qualitative study come directly from those who experienced it. Students, teachers, and parents in rural Nepal were interviewed with open-ended questions regarding changes in technology use and in learning relationships during the first few months of the COVID-19 pandemic starting in January of 2020.

Audio recordings were made of each interview and then transcribed and further translated into English. The documents were then hand coded and analyzed for dominant themes. This research builds on earlier work of Lee and Sparks (2014) when they conducted a case study of technology integration in the village of Bungamati, Nepal. Nepal is a developing country where very little research has been conducted, focusing on the intersectionality of technology and education; research on the immediate transition to remote learning is a topic that no prior evidence can be found. Since this study explores a new phenomenon without prior study, it was a pilot.

3. Results

The results of this pilot study were very instructive. Researchers were able to begin to validate codes and identify preliminary themes. Additional findings will be processed and shared in the future.

3.1. Demographics

There were seven participants interviewed for this pilot study. There were five women and two men, six students and one teacher. Subjects were selected using a combination of snowball and convenience sampling. All subjects were 18 and older and instructed on human protections before signing a consent form. Interviews averaged approximately 30 minutes. Semi structured interviews were conducted in Nepali and were translated to English for coding and thematic analysis. All identifying information was omitted and subjects will be referred to by number to preserve confidentiality.

3.2. Technology use

The interview prompt was, "In what specific ways did your use of technology for remote learning change?

Of the many factors in the literature regarding the transition to remote learning, access to technology is perhaps the most critical issue, especially in Nepal. Stories abound regarding the many challenges and the lengths to which Nepali students have gone to in order to continue their education during COVID-19. In past studies, Lee and Sparks (2014), have documented the very limited technology backdrop in remote rural villages sometimes relying on a single phone for access. It is interesting to consider that change in technology use, smart phones, new applications also changes the nature of learning relationships.

Responses for interview item #1 and the first research question are listed in the table below. Codes were created from the transcripts and often direct quotes, indicated by "", from the transcripts were used as codes directly.
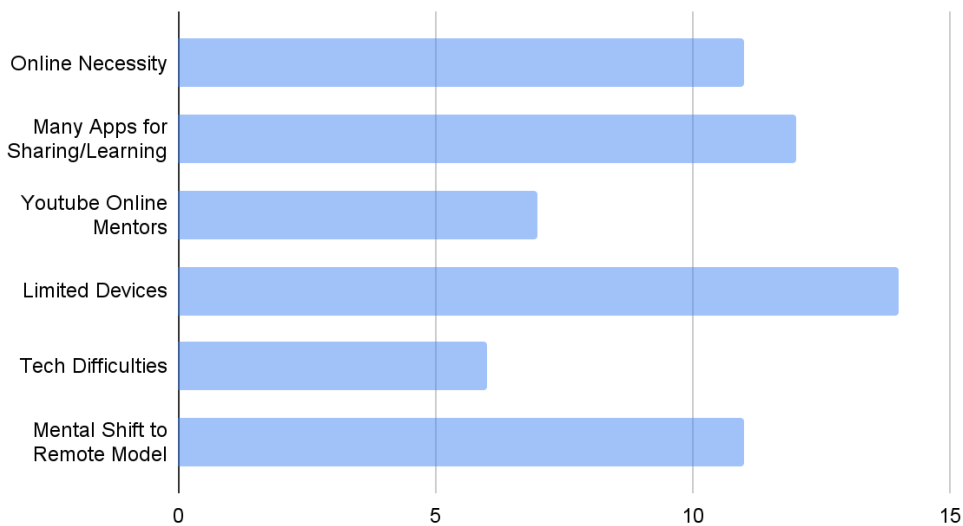
Please also note that frequencies for these codes are listed as well and were used to determine the relative importance of the resultant themes. The last column indicates the themes generated by qualitative analysis of the transcripts of student interviews.

Table 1.

Codes for Changes in Technology Use	Frequency	Theme
Technology became a basic need for learning, every house Access critical for school	6 5	Online Necessity
Learn anytime, Learn Anywhere, Many applications and platforms very accessible Online apps like zoom, teams, google meet were easy to use	3 4 5	Many Apps for Sharing/Learning
YouTube for questions, Bloggers became mentors	6 1	YouTube Online Mentors
Limited resources, had to share phone, Had to switch to technology, from books to web Device availability was crucial for class	5 4 5	Limited Devices
Battery problems "Ran out during 3-hour class online" Poor connections, hard to hear or ask questions Had to hold phone out window for reception	2 3 1	Tech Difficulties
Drastic change from social/games to remote class, Zoom From Face to face discussions to posting online Awareness of tech from outsiders, travelers, extended family School narrow concept, online is wide open	2 4 4 1	Mental Shift to Remote Model

Figure 1.

Technology Use Frequencies and Themes

3.3. Learning relationships

The interview prompt was, "In what specific ways did learning change between students, teachers and parents?

Responses for interview item #2 and the second research question are listed in the table below. Codes were created from the transcripts and often direct quotes, indicated by "", from the transcripts were used as codes directly.

Please also note that frequencies for these codes are listed as well. The last column indicates the themes generated by qualitative analysis of the transcripts of student responses.

Table 2.

Codes for Changes in Learning Relationships	Frequency	Theme
Had to share technology with family members Family was curious about studies/process Remote learning allows more time with family	3 1 4	More Home and Family Time
More interaction possible with parents "Parents are more aware and encouraging" Parent appreciated students being home more	2 3 2	More Parent Awareness and Engagement
More reliance on self "I started learning myself" Shift away from "dependence on parents and teachers"	3 5 2	Shift to Active Online Self Reliance
More reliance on friends more for notes, etc. "Friend circle" easier to learn w friends Share recordings assignments	3 1 4	Greater Reliance on Friends for Support
Less reliance on teacher Grew past reliance on teacher and parents	4 1	Less Teacher Reliance

Figure 2.

Learning Relationship Frequencies and Themes
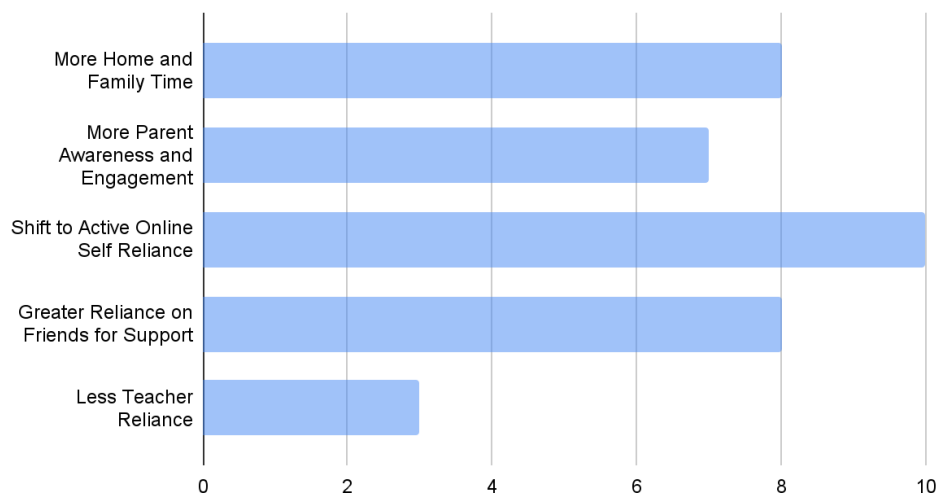
As shown in the graph, important changes in technology use were reported with the greatest energy surrounding family and friend relationships.

3.4. Illustrative narratives enrich the understanding of the lived experience during the COVID -19 change

Stories are becoming a more acceptable way of understanding lived experience. The strategy is used here with three specific stories to give them more human face to the data collected. Direct quotes are also used to add flavor to bring life to the challenges and successes of Nepali students transitioning to remote learning.

Student 2:

Before 2020 going to college was a narrow concept … After 2020, I started researching myself, started learning myself and it was like no guidance … I felt that I can learn many things just by surfing around the internet myself ... I didn't have only one mentor but every platform … was a mentor for me.

Student 5:

The relationship with teachers was good but we couldn't ask questions properly …there wasn't wifi to join the class, and there was only one mobile in my whole family, which was tough to join the class… there was only one mobile from which I used to take my class… My mother bought me a new mobile with the money which she was saving for a long period of time.

4. Discussion

Many researchers have focused their attention on the effects of COVID-19 on educational systems around the world. There is growing consensus that developed countries were able to fare much better because of the greater access to technology and experience with using technology for education. In Nepal, as in other developing countries, the lack of resources and expertise created huge challenges but also a great opportunity. As the data from these subjects shows, students and teachers who had precious little access to technology prior to COVID-19 were thrown into chaos for months. Slowly and painfully, they matched resources with challenges and within several months were finding creative ways to learn online. In spite of the fact, that many of the challenges were structural (i.e. lack of access/ data) and many other challenges were financial (data/device costs, scheduling) the desire to learn prevailed.

The data clearly show two important phenomena. The Nepali students studied have survived the pandemic chaos and forged innovative new relationships with remote learning technology and expansive learning relationships with themselves, friends, teachers, and parents.

5. Summary

This study sought to explore the challenges of rural students transitioning to remote learning in Nepal. Personal interviews of key stakeholders (teachers, parents, and students) from several remote villages were selected as the method used to begin to understand human experience of that chaotic change. Data from this study confirms previous work that transition to remote learning in developing countries is fraught with many levels of challenge. (Rana, 2020). Some surprising findings included innovative ways of using technology, increasing reliance on self and friends, and building better communication with parents and teachers. Several stories illustrate that resilience of students in the face of ongoing challenges are common and inspirational.

References

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