Abstract

The wider uses of digital online tools have been explicitly practised in the educational spheres including access and use of technology in Nepal during the pandemic situation, like COVID 19. This article focuses on the use of six different digital online tools which could be effectively blended in face-to-face and distance classroom teaching by teacher educators to reshape the way they teach. It links the idea of tech integration along technological, pedagogical and content knowledge (TPACK) model in the use of technology. The data elicited from the narratives of ten experienced teacher educators relate the grassroots challenges in the use of tech tools to foster the professional identity of teachers. It further discusses the effective use of digital online tools even in the difficult circumstances minimizing the challenges and digital divide.

Keywords: blending, circumstances, integration, impact, professional

Introduction

The advancement of Information Communication Technology (ICT) has brought an impact in wider aspects of life ranging from personal to professional as well as house to office. The use of the internet as an instructional tool has made educators to rethink about instructional practices in dealing with the learners having face-to-face classroom teaching (Schrum & Levin, 2009). In diverse content context and the context of difficulty like COVID 19, blended learning, a thoughtful fusion of face-to-face and online learning experiences (Garrison & Vaughan, 2008) is taken to be a viable alternative. It assists in adequate exposure to authentic materials to learners and helps in tailoring learning and the development to the needs of individuals (Throne, 2003).

In the difficult circumstances, technology can be blended with the existing educational practices. Here, we can blend face-to-face teaching at different levels and different modes. As Auster (2016) views, there are two models of blending: replacement model and supplemental model. In the replacement model, the amount of time that students spend in online mode is reduced from face-to-face class time. In contrast, in supplemental model, students are engaged in online activities (e.g. discussion forum, quizzes, etc.) outside the class for supporting their learning with the face-to-face class time remaining the same. Similarly, based on learning experience they provide for learners, Laurillard (2002) has classified education media in five types: narrative for attending and understanding (e.g. printed materials, video), interactive for
investigative and exploring (e.g. digital library resources, weblinks), communicative for discussing and debating (e.g. online discussion forum, video conferencing), adaptive for experimenting and practicing (e.g. quiz providing feedback, virtual laboratory), and productive for articulating and expressing (e.g. blogs, wikis). However, studies have shown that Virtual Learning Environments (VLEs) are used predominantly in narrative and interactive modes to offer students access to digital contents.

In addition to the modes mentioned above, Neumeier (2005) has suggested six parameters that are used to define the nature of blended learning especially in language. These six parameters are: (a) mode, (b) model of integration, (c) distribution of learning content and objectives and assignment of purpose, (d) language teaching methods, (e) involvement of learning subjects (students, tutors, and teachers), and (f) location. Two modes in blended learning are face-to-face and online mode. The first parameter is about the dominance of one of the two modes in blended learning. The dominant mode is called lead mode while the non-dominant is called peripheral mode. One of the modes is lead while the other is peripheral. The second parameter, the model of integration, is about sequencing of modes and level of integration. The sequencing can be alternative or parallel. Similarly, learning materials or communication channels available in a course can be made optional (low level of blending) or obligatory (high level of blending). Parameter three, distribution of learning content and objectives, can be implemented in two ways: parallel or isolated. Parallel distribution allows certain contents to be incorporated and practiced in both modes while this does not happen in an isolated mode. Teaching methods, parameter four, are influenced by online materials, the online tutor, and the face-to-face teacher. Involvement of learning subjects, parameter five, refers to types of interaction that can take place in the blended environment. In addition to the two major interaction patterns, human-to-human and human-to-computer, there could be another variation (e.g., human-to-human through computer). Another descriptor of this parameter is teacher and learner roles. In the blended environment both teachers and students assume new roles, so teachers can become online tutors and students become more autonomous learners. The final parameter, location, refers to the physical space where learning takes place. In addition to traditional locations such as classroom and home, new technologies (such as mobile phones) will allow for learning to take place elsewhere for designing blended learning (Al-Ani, 2013; Auster, 2016; Laurillard, 2002; Neumeier, 2005). This article relates how these parameters have been used in the classroom practices along the use of tech tools despite limited classroom resources or the institutional support to facilitate students' learning.

**Classroom Practices and E-Learning**

Technology refers to use and knowledge of tools which shapes our ability to control and adapt in the changing virtual world environment. When EFL teachers take technology as supporting tool for their professional development and students’ progress in learning, the use of technology becomes meaningful. Here, the access resources as low digital online or high matters less. No doubt, classrooms in campuses are loaded places and mostly concentrated on ‘data-driven practices’ (Baber, 2013).

The situation in Nepal is not aloof from global issue of having limited access to the digital tools. Regarding access, teachers and students studying in urban area access more in the use of technology
compared to the teachers and students in the rural area. Even in face-to-face classroom, the context mostly relies on completing the class hours or the courses rather than involving oneself in the activities of professional development (Wilde, 2010). This situation in using technology as a part of professional development in the Nepalese context is really challenging regarding access to internet or digital online tools. In most of the university classes, the number of students ranges from 30-100. The teachers often use lecture notes, partially e-gadgets and interactive methods to teach contents or subject matter. The form of learning is shifting from the traditional practices and use of digital tools are being adapted than ‘chalk and talk’ practices. The interaction between teachers and students infers the technological awareness and expertise is growing in the recent times. The students can feel the shift in learning at home without going for traditional classroom instruction. It permits the learner freedom of learning at will and according to the time available.

The shift in the face-to-face learning environment is gradually blending with the integration of common tech tools, such as Powerpoint presentation, video discussion, exchange of emails where instructional materials are transferred electronically using email.

Thus, the classroom practices and use of tech tools in higher education is shifting towards an innovative approach for delivering well-designed, learner-centered, interactive, and facilitated learning environments to anyone, anyplace, anytime by utilizing the attributes and resources of digital technologies suited for open, flexible, and distributed learning environments (Khan, 2005).

**E-Learning and Blended Pedagogy**

The classroom environment learning is gradually been integrated using tech tools in different forms of pedagogies, such as: fully online, mixed mode or web assisted. However, regarding the process of delivery method, there are numerous tools and features used by the teachers using technology as a form of their experiential learning and developing towards e-learning community (Buzzetto-More, 2008). There are three types of e-learning named fully online, mixed and web assisted mode as forms of integrating pedagogy. They are briefly discussed below.

**Fully Online.** In this mode of learning, the educational process (90-100%) takes place in an electronic environment; the learning content is highly interactive and students regularly communicate with both the teacher and each other. (Yanuschika, Pakhomovaa & Batbolda, 2015). There are no physical contacts between the learner and the instructor; everything is done fully-online using internet and tools. Face to face interaction is possible though it is fully technology mediated. Learning materials, assignments, teaching and learning are all done online in this type of e-learning. This mode of learning is found as growing practice in the context of Nepal. The open and distance learning centre under Tribhuvan University, Kathmandu University and Nepal Open University are practicing this mode of learning using moodle virtual platform to address the students in the diverse geographical learning.

**Mixed or Hybrid or Blended.** The other mode of learning is mixed mode, often known as blended learning, incorporates face to face meeting and interaction with online learning. In this type of e-learning, some portion of teaching is done online and some other aspects are done online. Blended
learning encompasses both classroom-based and extracurricular educational activities with the use of complementary technologies of traditional and e-learning. In blended learning, the time allotted to work on e-learning courses can range from 20% to 80% (Yanuschika et al., 2015). For example, teaching is done face to face while assignment are submitted online. After the pandemic situation of COVID 19, Tribhuvan University has formalized the online examinations in regard to proposal defense and thesis viva. This mode of learning is practiced in Nepal under Tribhuvan University, Kathmandu University and Nepal Open University where the students are supported through the contact sessions as a form of face-to-face support and moodle platform as a virtual learning system.

**Low Tech Classrooms in Higher Education**

The advancement in technology has brought the changes in the classroom learning and teaching environment in higher education. The traditional classroom instruction is shifting to tech-integrated classroom in the context of Nepal in university classes. There is shift in the classroom practices regarding the enrollment of students in university classes. The number of students ranging from 300-400 in a classroom have been specified into 40-50. The number of students are divided into smaller groups, making it organized and support students intensively in their studies. The teachers often use professional emails to share classroom resources with the colleagues and reference materials to the students. The colleges use limited multimedia class along their chalk and talk mode of teaching. The students often present their course assignments using multimedia tools. Therefore, the use of technology has brought positive changes in the higher education in Nepal.

**Statement of Problem**

Despite having issues with internet access, the internet expansion is rapidly growing as a part of state investment and private sector initiatives in Nepalese context. There are multiple options in exploring the tech tools, like: live classroom, management information system, online assessment, and online homework login portal however these tools may not be feasible in the all classroom settings. The growing use of digital online tools are becoming part of life, yet the effective use of those tools in classrooms has not materialized because we try to use every tools into the classroom. This has become simply trial and error of the use of tools than of specific use of a particular tool. Some tech tools, like Microsoft teams, high definition videos, animated softwares do not work well in the low bandthwidth while others, like word document, Powerpoint presentation, closed private group discussion in Facebook or Edmodo work well. Teachers are given training which is more theoretical and less practical (Edge & Galton, 2009). So, they fail to relate such professional activities to their classroom engagement. The major problem lies in the use of digital online tools in the classroom blending the prescribed curriculum. As a faculty in Tribhuvan University, I have experienced that the curriculum except in the online modes hardly integrates tech tools in the face-to-face classrooms, like in the open and distance learning centre under Tribhuvan University, Kathmandu University and other institutions. It is limited to operating the device and does not equip the teachers for remodeling the conventional lesson into ICT (Sapkota, 2016). On the other, the role of teachers and the institutions play significant contribution to shape the professional identity. An institution is the place where
we grow, explore, learn, relearn and shape our identity as a teacher. Richards and Farrell (2005) believe that professional development is directed toward both the institution's goals and the teacher's own personal goals. Achieving personal growth and improving departmental performance go side by side. There might be various instances where we need institutional support to carve our growth. Based on the success stories of the teachers, the article presents the possible six ICT tools for the pedagogical purposes even if in the offline modes which are equally useful in the classroom practices in higher education in language classroom.

**Objectives of the Study**

The overall aim of the article is to find out the effectiveness of six online digital tools, like: use of professional emails, google sites, closed group discussion, youtube or TED videos, interactive PowerPoint discussion and moodle platform, in the context of low tech classrooms in a Nepalese University classes. Secondly, the article aimed to identify challenges and opportunities afforded by those resources as reported by teacher educators.

**Study Reviews**

This section relates the review of the use of technology in the classroom practices in the different countries in relation to the context of Nepal. Rhema (2013) carried out a research entitled “An Analysis of Experiences and Perceptions of Technology-based Learning in Higher Education Institutions in Libya: Informing the Advancement of E-learning”. The overall goal of this research was to gain a better understanding of the experiences and perceptions of ICT and e-learning among students and instructors in higher education engineering programs in Libya. Mixed methods, including a written survey and phone interviews, were used for data collection. A paper-based survey questionnaire was the primary data collection instrument used in this study. The findings show that web-based technologies were used for learning and teaching purposes by a majority of students and instructors. All participating students and instructors perceived computer, web, and mobile phone technologies as useful and most of the participants indicated that they would like to use these technologies in learning and teaching. These positive perceptions were held by urban and regional, and male and female, participants alike. This research links is using the web tools and the use of tools in practice.

Focusing more on the general social sites, Dahal (2015) carried out a research entitled “Students Perception on the Use of Online Resources” with an aim of finding the students’ perception on the use of online resources especially Website, G-mail, E-book, Blogs and Facebook. Both open and close ended survey questionnaire were asked to forty +2 level students of Kathmandu valley in order to collect the required data as per research objectives. The findings of this research show that students browse online resources to consult the subject matter regarding their academic course as well as to access authentic and updated materials. This shows the growing trend of ICT in searching resources to support ones study. Convincingly, findings show that online resources help students to arise interest and motivation in learning as well as support to expand their horizon of knowledge. This activity of students applies to many other students in the higher level to use online resources to search article, book or research to support their study.
The research of Phuyal (2015) differs from Dahal (2015) in specifying the use of language skills. He carried out a research entitled “Use of World Wide Web for Learning English” with an aim of finding students’ habit of using WWW for learning English Language. Survey Questionnaire were asked to eighty students of grade 12 from four different colleges of Kathmandu valley in order to elicit required data. The findings of the research show that listening and reading skills are highly facilitated by the use of WWW. Similarly, it takes no time to access the authentic information from website by which students become self-reliant and self-dependent. WWW is equally important to arouse motivation for grade 12 Students.

Mamattah (2016) in “Students’ Perceptions of E-Learning” aims to analyze Ghanaian Students’ Perception about e-learning. To collect the data he distributed 100 questionnaires to the student of Ho Polytechnic out of which 80 were returned, representing 80% of response rate. The finding shows that majority of the respondents agreed on the ease of e-learning platform. Similarly the study shows that overwhelming respondents believe upon the innovative concept of e-learning so it should be encouraged. The main intention of students to enroll in e-learning is to boost up their qualification in order to grab the opportunities they have.

The researches reviewed above reflect the use of e-resources in learning and teaching in diverse pattern. The studies above are differ than this study in terms of the level, the study context and the common tech tools used in the low resourced classroom and the challenges faced by the teachers in the form of their stories.

**Methodology**

The article is based on the narrative inquiry research design and relies on the narratives of the ten teacher educators teaching in higher studies regarding effectiveness of six digital online tools in the low tech classrooms. Narrative inquiry is the process of gathering information for the purpose of research through storytelling (Mertens, 2015) and exploring one’s experiences. Narrative inquiry is a research methodology that is growing in acceptance with and practice in such disciplines as nursing, medicine, law, especially organizational studies, therapy in health fields, social work, counseling, psychotherapy, and teaching for sharing human stories of experience (Webster & Metrova, 2007). Ten teachers were selected in university level, particularly teaching in graduate classes having experience of 12-25 years using purposive sampling and using interview as a tool of data collection. Based on the qualitative research approach, the data were collected by using teacher narratives based on the exploration of their best practices in using tech tools and the challenges faced in using those tools. The personal and institutional names used in this research are the pseudo names which are used to maintain the ethical considerations of privacy, trustworthiness and confidentiality.

**Theoretical framework**

The major theoretical framework is based on the technological pedagogical and content based knowledge (TPACK) model of e-learning (Harris, Mishra & Koehler, 2010) of practices in the effective technology integration, recognizing technology, pedagogy, content in the context of Nepal in the university practices. Knowledge growth in teaching with technology is identified as necessary in supporting teachers
learning trajectories. TPACK framework is found supportive in thinking about planning, implementing and evaluating the knowledge (Hunter, 2015). TPACK is useful to integrate the successful practices of teachers and relate their successful practices. Bringing the ICT for everyday classroom practices and empowering teachers is the major contribution of this article to contribute in reshaping the practices we teach in the classroom.

**Results and Discussion**

The use of technology has become another ‘compass point’ through which individuals (whether students, teachers or policy-makers) and institutions construct modern and progressive identities (Shields, 2011). Based on the observation of digital online tools, used in the low resourced classroom, the following basic tools were found to be used in common the teacher educators as a form of low resourced classroom as best practices in Nepal in the higher studies.

**Professional Use of Email**

The use of email practices as a form of professional use is found among the students and teacher educators. In the recent classroom practices, mostly students and teachers both use email to share the materials used in the classroom. The email is mostly used in sharing assignments and asking queries to their faculties by the students whereas by the teacher educators to share the classroom resources. The discussion among the respondents was found that few teacher educators' response to the messages received instantly or in a days or two. The differentiation in the use of sender: to (the main sender), cc (carbon copy) and bcc (blind carbon copy) is mostly unknown to the email users although in is general information Carbon copy is the copy of the email for the information whereas bcc is used to the recipients to whom we want to send the mail without letting the main sender (to) and informant recipients (cc) about the information. Likewise, the use of signature in the email was found to be used by many teacher educators. This sorts of practices shows that the teacher educators are aware regard the professional use of email.

**Interactive Power Point**

Among the common multimedia tools, Powerpoint presentation was found to be used for sharing their ideas among the class. The teachers were found to use the slides to share the content knowledge in the class. The students are encouraged to present their assignments through the use of powerpoint presentation. Moreover, this tech tools helps the teacher to adapt their presentation the further years as a resource as well. There are books embedded with @companion as supplementary e-materials in research practices (Cohen, Manion & Morrison, 2011) which includes Powerpoint files to support learners along the book. On the other, powerpoint can be used in the offline mode and was found to be commonly used by teachers and students.

**Closed Facebook Group Discussion**

Facebook is one of the common social sites popular among the several aged group learners. Most of the students use facebook in the informal settings however facebook can be best used in the classroom discussion as well. The closed group discussion was found to be best used to emancipate the students' discussed moderated by the course instructor. It was found that the use of closed facebook discussion
enriched the interaction and found to be one of the useful tech tools. For Example: https://www.facebook. com/groups/469035906845970/
Some examples of other groups are: Literature, Research in English Education

**Youtube or TED Offline Videos**

 Youtube videos are mostly taken as the source of entertainment and often used for listening songs, film and some documentaries. However, the teachers were found to use this free tool in the academic purpose. There are several youtube videos available in free which can be integrated in the lessons, such as: An interview with David Crystal talks about the role of English and world Englishes, intercultural communication, discussions on critical pedagogy and many more can be blended in the course in applied linguistics. Likewise, there are videos in research which helps to describe more about the issues in research. The series of lectures by Creswell was found to be used by the teacher scholars. In addition, TED Talks were found to be used by the teacher educators in their lessons, for example Body language by Amy Cuddy, school kills creativity by Sir Ken Robinson, and Learning is life by Muniba Mazari, are few which can be interrelated to the textual practices.

**Google Sites**

Google sites are the free google apps which help to create individual web page. This site was found to be used by the teachers. It is useful in the sense that the teachers can create the site f their own subject, upload the resources and facilitate interaction. The best practices are:

  - Interdisciplinary Readings: https://sites.google.com/site/interdisciplinaryreadings1/
  - Linguistics in application: https://sites.google.com/site/appliedlinguisticskirtipur1/

**Moodle Platform**

Moodle platform is the other innovative form of virtual learning platform which is widely used in Nepal and the globe. The teacher educators were found to use moodle platform as one of the basic tools and courses under Open and Distance Learning Centre under the support of Norhed Quantict Project uses moodle virtual platform for students interaction and tutorials. Using the mobile app to explore the learning materials, the students can make the best use of it. The materials uploaded by the tutors can be viewed even in the offline mode. Furthermore, Nepal Open University has started all its academic programs ranging from masters, M.Phil and higher degrees in the moodle platform.

**Practices and Challenges in Using Technology**

Technology has been a buzz word in the context of Nepal. Teachers in classroom practices try to bring effective tools in blending technology however, they often face challenges in using technology as a part of enrich their professional practices.

One of the teacher educators, Raju Smith shared as:

Closed group discussion have been medium of instructions as source of information and knowledge by building rapport with new friends with sharing and retrieves friend's thoughts and ideas. It probably the best way of teaching and learning means of communication among us.

This shows that the use of technology has become one of the medium of instructional tool to
share, reflect and discuss the pedagogical discussions. Apart from the several tech tools for classroom instruction, closed group discussion helps the students to share their thoughts on the topics which promotes participation, enriches the wider knowledge and even boosts the shy students with the confidence (Burns, 2011). Likewise, the other teacher educator, Anju Dawadi use Google site, felt happy and motivated to use technology and shared:

Really it was very effective to us. I am very glad because teaching is not limited within textbook but can be further taught using the blended tech techniques.

This shows tech tools might be helpful to develop extrinsic motivation among the learners. The textual knowledge might make the students bored in the all the cases. The students feel comfortable when they feel something new in integrating in the content knowledge. Likewise, the other teacher Pharshu Ram Tharu shares challenges in everyday life in using the tools and perceive tech-tools are often time consuming and stated:

Other cases, sometime, I have really felt bad, when there is not match between you need to complete and the things you want to teach the learner. If you teach them, you will not be able to finish the course, if you want to finish the course, you will not be able to teach them. So, the constraints of time and the things … make me feel trapped.

The reflection above shows that technology may not be friendly for students in all the cases. Integration of the tech-tools and maintaining the content coverage are the major challenges that the teachers in the context like Nepal often face. The teachers are obliged to complete their course within the estimated timeline however they desire to integrate the tech in their teaching. Maintaining the balance between the effective use of tech-tools and completion of the course has been one of the major issues. We may not be able to handle technology all the times, get problems in using it as Usha Karki shared as:

I think I haven't felt much. I am very open. Whenever I have difficulty I do not feel bad about asking questions to other people. I don't feel bad whenever I don't know anything; I tried to figure out talking to people or searching in the internet or going somewhere. Whenever I have questions, I need to find the answers to them. Because, I am open, I haven't faced many challenges because of the explosion of knowledge.

The reflection above relates the idea of collaborative learning where we learn from our colleagues and seek the answers to our queries. As Wenger (1998) believes learning is negotiated experience, participation in getting ones level and reification, the ideas or the solutions of the problems may not available on the books or in the internet all the time. We learn it as a form of community of practice. It is true that when we explore the tech tools we encounter many problems; it may be technical or academic. Mostly, technical problems are faced by the learners. In the course of learning, the role of collaboration among the colleagues is vital where as the role of institutional motivation is a must. In this regard, Ashok Mishra shared:

I am a teacher at Sunrise Multiple Campus. It is not well equipped. It is an old campus and has traditional teachers and traditional teaching materials. We do not have language lab... We have to be updated which we do not have the culture. It has not done much for the English language teachers. … We teachers not so aware about it. The institution has not done much for us regarding the use...
of computer as an advantage of using to teach English. The students study the theory courses. The students simply remember some lines from the books written by the Nepali writers. Regarding, technology, it is the main problem for me. I am not used to internet access. In the past, my son used to assist me. Now he has gone for his masters’ degree. I am feeling difficult. I am trying to use it to my knowledge.

The reflection above shares the idea of community of practice where we cannot learn even if we have self motivation. The support of an institution, colleagues and family members can boost our level of motivation and sharpen our professional skills. The environment in the campus plays to reflect ones identity, love towards the profession. As Davies and Pearse (2008), believe, in the poorly coordinated institutions, the change begins when teacher teach effectively and establish some cooperation with one or two other teachers. It can be taken something important. No doubt the classroom atmosphere is gradually changing and the students' expectation from the teachers is found to be growing. In this regard, the blended learning is one of the important. In the course of revealing the stories, Kailash Pandey shared that physical strength matters lot in learning and exploring the tech tools despite personal interest in exploring it as:

I feel difficulty in using computer technology in the classroom because I am getting older and older. My muscles or hands cannot be manipulated easily and my typing is not so good. So, it is very difficult for me. When I went to higher grades, it was very difficult for me.

The story of Kailash Pandey relates to many teachers who are in the latter stage of teaching career. The motivation in adapting with technology relates both in age factor of learning in spite of our will and support. When we get older, there might be several physical allergies in using tech tools as shared in the story. In addition, we cannot work in computer for a long time which might bring eyes strain as well.

**Conclusion and Implications**

Despite the problems, they were enthusiastic to learn the things and bridge the gap that they felt as a digital divide and left behind (Finn & Inman, 2010). The rationale for using the offline materials is that teachers in many places cannot have reliable access to the internet in both urban and rural areas. We may not have internet access in all the times wherever, whenever we are. As one of the practitioner of ICT tools, the reflection from the respondent shows that few teachers still do not reply the mails in a week or the month. When we send them the mails, we need to call them as a form of notifications. Similarly, we might encounter technological problem and the technological terminological difficulties in course of teaching-learning practices. When we are able to cope with those problems in simple way, we will be able to construct our separate identity. The difficulties or the success we gain has implied effect in shaping our professional identities (Sapkota, 2016). Bringing the ICT for everyday classroom practices thereby empowering teacher educators is the main contribution to the area of technology it tries to address. Teaching is socially constructed out of the experience and the classroom from which teachers come from and can bring new innovative practices in contributing knowledge and get it as a social capital (Sapkota, 2017). As in the era of post method pedagogy, the diversity in the tech tools cannot be limited within few however the common tools needs to be taken into consideration. The effective use of technology is
successful when it works in the classroom. The success leads the students seem curious, motivated and develop their level of confidence in learning.

References


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