ONLINE PROFESSIONAL LEARNING OF PAKISTAN AND BHUTAN
TEACHER-EDUCATORS

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ABSTRACT

This paper explores Pakistan and Bhutan teacher-educator digital competency about
the use of social media, digital resources and professional online communities and
implications of this use on professional learning. The two countries, less discussed in
international educational literature, are facing a growing use of the Internet in teaching
and learning. Data include a survey completed by 67 teacher-educators from Pakistan
and 37 teachers from Bhutan, as well as semi-structured interviews from both countries.
This study provides evidence of how teachers’ interaction on social networks and the
use of digital resources plays a central role in the introduction of innovative pedagogical
practices of teacher-educators, and teacher-educators remain interested in knowledge
sharing through social media for their professional learning.

Keywords: Teacher-Educators; Digital Competency; Pakistan; Bhutan

INTRODUCTION

The aim of this paper is to explore the digital competency of teacher educators from
two countries - Pakistan and Bhutan, only recently deeply impacted by technology in
teaching and learning. For many work areas, professional development has become a
critical dimension for supporting increased specialisation, new forms of organisation and
the agile transformation of work outputs. The potentiality of participation and
collaboration with peers is progressively being reshaped by digital technologies and social
media, which impact teaching practices and professional learning of teacher-educators.
Teacher-educators are immersed in the abundance of web resources and repositories,
creating and sharing knowledge on different platforms. Social media refers to a wide range
of applications that enable users to create, share, comment and discuss digital content [1].
Also, social networks have become a space for sharing Open Educational Resources
(OER), which are digitised materials offered freely and openly to use and reuse for
teaching, learning and researching that include learning content; software tools to develop,
use and distribute content; and implement resources such as open licenses. Through social
media communities’ teacher-educators could engage in collegial discussions and share
experiences related to their profession. Indeed, an increasing number of teacher-educators have started to engage in pedagogical discussions in various online professional communities worldwide. Participation and collaboration in social media are favourable for discovering, discuss and suggest methodologies, tools, and solutions already experimented by the peers. Educational researchers have therefore started to explore the impact of teachers’ participation in social media and online professional communities for professional learning [2]. The use of online professional communities is considered to have the high potentiality for professional learning.

METHODOLOGY

The aim of this study sought to analyse how Pakistan and Bhutan teacher-educators use social media, digital resources and professional online community. In the following, it presented the context of technology education in the two countries: Pakistan and Bhutan.

In Pakistan, there are about 135 educational institutions employing 36,563 teacher educators. Among these, 114 institutions were established in the public sector and 21 were set up by the private sector. Although in recent decades there has been considerable expansion in the field of teacher education in Pakistan, the quality of teacher education still needs improvement through the introduction of innovative strategies and practices, together with economic and social recognition. According to institutional reference in Pakistan [3], it also observes, ‘the qualitative dimension of teacher training program has received marginal attention resulting in mass production of teachers with a shallow understanding of both the content and methodology of education’. The government’s budget for education is still very low, especially when compared with the 20% recommended by UNICEF and the 6% agreed upon in the Dakar Framework of Action at the 2000 World Educational Forum. Attention has recently been increasing on the opportunities created by technology and their implications for economic and social growth, for one example of international project mentioned by Impedovo and Khatton [4].

The results of a reference report on female teachers in early childhood education in Pakistan were quite encouraging, as the teachers had learned and approved of mobile technology as an innovative teaching skill in an auspicious environment [5]. Social network platforms are frequently used as there is easy access to high-speed Internet and mobile broadband (3G, 4G Long-Term Evolution LTE) in rural and urban areas of Pakistan. The national research has shown that social media has influenced the performance of teachers Hassan and Sajid [6] mentioned that, although the teachers feel the urgency of technology integration in education for self-directed learning, they face challenges regarding the use of technology in the teaching process and these barriers are mostly related to the training of teachers and lack of technical skills in many areas.

Bhutan is a small landlocked country with a democratic, constitutional monarchy in South Asia. Until the 1950s, education in Bhutan was mainly monastic, and during the 1950s, the first secular schools were opened. Education holds an important place in Bhutanese society and is given priority in developmental activities, in line with the
country’s philosophy of Gross National Happiness. A system of non-formal and monastic schools is active. The government provides free education to all students until Grade 10, with 11 years of basic schooling. Samtse College of Education was established in 1968 as the country’s first Teacher Training Institute under the aegis of late His Majesty the Third King, Jigme Dorji Wangchuck. Educational technology research is a new field of research and ICT in Bhutan [7]. The spreading of computers, telephones, and the Internet has further accelerated the communication commerce systems in the country, resulting in rapid social and economic change. Despite the delayed introduction, large sections of the population have rapidly adopted ICTs, especially mobile devices. This dissemination has triggered changes and new opportunities, also in school and university. Both teachers and students make use of technology such as computers, projectors, internet, laptops, and mobile phones for personal purposes, as well as to enhance teaching and learning [8]. According to Ura et al. [1] and Pakistan’s National Education Policy [3], the use of ICT as the main tool for teaching and learning is more prominent in universities and high schools than primary schools, due to the existence of adequate ICT facilities. To integrate ICT in teaching, lecturers were specifically trained, with international collaboration, for an example, the international project “Blended Learning in Teacher Training between Asia and Europe” (http://blteae.eu/).

Data Collection

An online questionnaire was distributed online via email. The sample composed of teacher-educators in different subjects and different seniority. Survey volunteer respondents were invited to participate in a short semi-structured interview. In Pakistan, 64 teacher-educators (48.4% women and 51.6% men; 15 aged 20–30 years; 30 aged 30–40 years; 12 aged 40–50 years; 7 over 50 years) completed the online questionnaire. The educational qualifications of the participants included doctorates (44.3%) and master’s degrees in humanistic subjects (42.6%); art and design (18.3%); language (16.7%); society (11.7%); economy and law (11.7%). From this sample, 14 teacher-educators (11 women and 3 men) were available to participate in an interview. In Bhutan, teacher-educators (7.4% aged between 20–30; 59.3% aged 30–40 years; 33.3% aged 40–50 years) completed the online questionnaire; of these 6 were women and 21 men. Of the respondents, 56% had master’s degrees and 66.7% worked in universities, 22.2% in secondary schools, and 11% in elementary school with university collaboration. Major subject areas included language (23%), physics and math (23%) and art and design (19%). From this sample, eight teacher-educators (4 men and 4 woman) were available to participate in an interview.
Demographic Data

Table I shows the demography of the respondents.

| Teacher Educators Participants | 91 teacher educators total (of which 22 for the interviews -15 women and 7 men) |
|---------------------------------|----------------------------------------------------------------------------|
| Sex                             | 48.4% women and 51.6% men                                                 |
| Age                             | aged 20–30 years = 17                                                      |
|                                 | aged 30–40 years = 46                                                      |
|                                 | aged 40–50 years =21                                                       |
|                                 | over 50 years = 7                                                          |

RESULTS AND DISCUSSIONS

The responses to three areas: digital media in teachers-educator practices, use and creation of OER and being members of online communities were described.

In Pakistan

Digital Media in Teacher-Educators Practices

From the survey, with a total of 64 responses, the main social networking media used was WhatsApp (70.3%), followed mainly by Facebook, Instagram, Research Gate, LinkedIn and Twitter. Teacher educators considered WhatsApp an effective social media tool because students had easy access to this app. Teachers had been using it for a long time i.e. ‘I have used WhatsApp since 2016 with my students’; because of the ability to communicate freely with them: ‘I can share important information related to their subject with them’ and the application’s positive impact: ‘I feel students use the WhatsApp activities excitedly’. Particular attention was given to the personal relationships that this application made possible: ‘It’s a good app and students feel more confident that they can reach me any time’. They could also share and discuss any concern/confusion about assignments and dates. There is however a trend that people start forwarding unconcerned messages.

From the interviews, it emerged that the teachers used WhatsApp in combination with a variety of other technologies such as WhatsApp, reflective videos, power point slides, using internet search engines, reading e-books and online blogs, including e-mail, online activities for students and YouTube. Teacher were attentive to the exploration of new tools: ‘I have used YouTube video clips, video lectures, feature film, and WhatsApp during class. I have just started using Google Classroom to incorporate eLearning. I plan to incorporate Google Forms in the classroom for formative assessments’ and were using it actively in the classroom: ‘Different links are opened in the class to explain the topic’.
In terms of motivation for the use of technology in learning, the teacher educators were aware of the rich opportunity for instruction: ‘In my opinion, use of technology in classroom brings a sense of novelty and grabs their attention. Students learn when they are attentive. Thinking deeply however requires exercise of reflective thinking with or without technology’. Teachers-educators were shown to have made qualitative use of technology in education: ‘I have been integrating technology in teaching since 2008. I have observed that students are fully involved in learning when we integrate technology. For example, when we use multimedia slides or when some video clips are shown for learning purposes’, with attention to the suitable integration of technology in teaching. Concerning modality, the teacher educators proposed a focus on reflective practices: ‘Students’ reflective thinking power is developed by watching video clips’ and ‘If students watch a movie of video lecture, they are given a small questionnaire to express their opinion about the content as well as the concepts discussed. This activity can be for individuals or in Think-pair-share methodology’.

**Use and Creation of OER**

The teacher educators noted the utility and potentiality of OER, as one respondent observed: ‘I think online educational resources are the major source of learning for students. Students have free access to such resources. There are free online education journals and students can get their papers publish free of charge. Students are too excited to know about free online education resources’. When researching OER, 62.5% used a search engine such as Google, 18.8% used social networks and 9.4% used a specialist database. In line with the research, teachers stressed the importance and the quality of the OER: ‘I like using online sources as they are more current but these have to be scanned for their accuracy. Internet is a free source and anyone can publish whatever. Students have to be guided to choose reliable sources’.

Many of the impediments to OER use in the developing world are the same as those in developed countries, including lack of time, lack of incentives, lack of capacity (both technical and financial) and fear of loss of control: ‘Connection issues still are a cause of concern but time management can overcome some of it’ and the formative role in the use of it: ‘They get comfortable when they get used to it and are encouraged’. Sharing educational resources inside the work community (in which 91% of respondents participated) mainly took place through email (67%) and Facebook (54%).

Of the respondents, 90% thought that belonging to an online community helped to share and create new educational resources. This confirms that teachers who participated in a community formed by a selected group of users were in fact more likely to share their own resources and teaching experiences. The more confident a teacher became, the more they willing to collaborate and share their materials with
their community. The main tool for online sharing of educational resources in the working community was email (63.5%) or Dropbox and Google Drive (23.8%).

**Being Members of Online Communities**

From the answer to the questionnaire, 78.1% of Pakistani teacher educators declared to be members of an online professional community; of these, 75% joined the online community to ask and answer questions or comments. When asked for an example of an online community, 46% responded with a Facebook group, and the remainder with a combination of Facebook groups, WhatsApp and closed institutional groups. Concerning the features of the online community, 49% were international, 35% national and 28% belonged to the institution where the teacher worked. In response to an open question on the reasons for joining a professional online community, the respondents identified four primary motivations: exchange and share knowledge for professional growth in teaching; international exposure and being aware of the circumstances and politics of Pakistan and globally; to engage in research, including free articles and interesting discussions; and for the pleasure of joining and being part of a community during their free time.

When they considered the benefits of joining an online professional community, 83.9% of respondents noted that they were developing new skills as a result of such participation. These skills included professional learning practices such as interacting internationally, changing research methods and modes of thought, participating in collaborative work, joining in the academic discourse and exploring new areas of research with the latest software, but the benefits also included mental health and awareness about religion, socialising skills and getting to know people well. The active participants in online communities felt that it allowed them to move towards direct personal change (e.g. I was not able to communicate with other before I joined the community, but now I feel better’).

When asked how these skills were developed, the answers included sharing, asking and thinking about the content shared (e.g. ‘By reading everyone’s interaction style’ or ‘By asking various queries and problems’), and 86.7% of respondents considered that being part of an online community has had an impact on their professional work. Of these, 62% considered the motivation was in having access and gaining more advanced educational resources, and 35.8% prioritized getting help through more discussion with colleagues. For those who considered that participation in an online community did not have an impact on their work, 55% thought that ‘I perform my work well and not need to learn in online community’.

Over three-quarters of respondents (76.3%) affirmed that they shared what they had learned online with their local working community. Teachers wove a network of communication between their personal working networks and the online networks, thanks to the sharing of resources and knowledge between the two networks. The main motivation for sharing was that they felt the information
needed to be shared and that it is good to share: ‘I think new knowledge should be shared and I share it through email and Facebook’ and ‘Sharing is caring. Knowledge is not my personal possession. I prefer to share it because this is how I learn more. I teach for free to students around me’. Teachers also felt there were direct positive implications for sharing in terms of professional and student development: ‘I am applying these techniques to my research work and also share with my research students’.

In Bhutan

**Digital Media in Teacher Educators Practices**

There were a total of 27 responses to the survey. Based on these responses, the main social media sites used were Facebook (57.7%) and Research Gate (11.5%). Based on the interviews, it emerged that teachers also used some online application to improve their teaching, such as YouTube: ‘I download the YouTube videos and show them to my students. It helps them understand concepts in a deeper way’ and Google App: ‘I use Google classroom to assess learners’ work. I sometimes post Google Forms with multiple-choice questions to check my students’ understanding level’. However, the use of the online Google suite was dependent on the availability of an Internet connection: ‘I use Google classroom every day before mid-term and rarely used after mid-term due to lack of internet connectivity in the lab’.

**Use and Creation of OER**

When researching OER, 55.6% used search engines such as Google or Bing, while 37% used specialist databases. The teachers paid attention to the quality of online resources: ‘The latest online resources help me update the learners with the correct and valid information’. Teachers also went to find specific resources to support their professional learning, which included attending massive open online courses: ‘MOOCs: I have been enrolling myself in MOOCS to learn and develop my skills. I have been able to download resources once I get enrolled. I use relevant resources to teach in the class’, and reusing resources when teaching: ‘I have already downloaded the useful resources I found as I did some course’, depending on the specific subject matter: ‘When I teach a Phonetics module in autumn semester, I make use of the sound section of the BBC Learning English website’. Concerning the sharing of educational resources inside the work community, 92.3% said that they did share resources, and most of these shared resources via email (66.7%). The sharing of resources was also quite personalised: ‘I use email to receive and send my resources from/to friends. I usually send and receive math worksheets from/to friends. These worksheets sometimes help me design my lessons in a different way’. All of the participants thought that belonging to an
online community helped to share and create new educational resources: ‘When we visit online educational websites, we get new ideas from different parts of the world. This motivates me to create new and better ways of teaching in the class based on the ideas that are gathered from different sources’.

Being Members of Online Communities

Of the participants who completed questionnaires, 88.9% were members of an online professional community and also used these applications to involve students: ‘Look for search engines and find the relevant online community for enhancing the skills and knowledge of the subject. I mostly used WeChat for teaching online learners’. Most of the participants (75%) joined an online community to make and answer comments. Concerning the features of the online communities, 55.5% were inside the institution where the teacher worked, 22% were national and 18% were international. The generic activities done were reading and community participation (74.1%) for information sharing and professional purposes; other activities included awareness, updating and partnership and research collaborations. One teacher considered that: ‘online community forums help us to connect to the changing world community and update ourselves with latest information’.

More than three quarters of the respondents (77.8%) considered they were developing new skills by joining an online professional community, although 14.8% thought that they were not. Skills learned included the ability to use new online applications and generic ICT skills, and these were learned through the use of applications and ongoing interactions. The majority (92%) affirmed that they shared what they had learned from online communities with their local working community to bring new ideas, stay updated and apply new approaches in the classroom.

Most of the respondents (96.3%) considered that being part of an online community had had an impact on their professional work: ‘to discover unknown or un-tapping potential, to facilitate decision making around which practices to change or maintain, and to learn how other have overcome similar challenges’. Of these, 69.2% considered the motivation was to have more access and to get more advanced educational resources, while 30.8% highlighted having help in through more discussion with colleagues. The link between the quality of resources and being part of an online community was well expressed by one teacher, who noted: ‘The future certainly belongs to the person who uses the online resources. The regular users not only use these resources but also constantly provide feedback to make them better and easier to use (…). The downloaded resources (or the links) do not remain with one user but it is multiplied through various social media groups. In this way, it reaches out to so many users. So, I believe that belonging to an online community helps sustain the creation of online resources’.
CONCLUSIONS

The main contribution of this paper is that it was observed that the use of social media for the professional learning of teacher-educators in social and cultural contexts – Pakistan and Bhutan was less explored in the literature. The main limitation of this study was the limited sample size, which meant that the results from this specific sample may not be generalizable to all teachers-educators or teachers in the two countries. However, the paper gives a glimpse on teacher educators practices about digital use in a Global South perspective is considered as valuable contribution aside from the occidental mainstreaming research context. Teacher is a dynamic professionalism which is shaped by curiosity, inquiry attitude and reflexivity [9]. In summary, from this study, the argument is that the quality of teacher-educators training in different parts of the world and in this case from Pakistan and Bhutan, it could be nourished by the intense exchange of information of connections between people, knowledge, and communities.

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