Supporting remote teaching and learning in developing countries: From the global to the local

All around the world, the use of technology in teaching and learning has become commonplace. However, due to constraints of funds and resources, not everyone has access to these technologies. The Covid-19 pandemic has been an eye opener for governments and communities worldwide with schools forced to shut making online teaching the only alternative to continued learning for children. Therefore, this joint publication of the British Council and NELTA (Nepal English Language Teachers’ Association) on supporting remote teaching and learning in developing countries comes at a very pertinent time. The book features global and local perspectives highlighting innovative alternative methods of teaching and technology supported teaching during the pandemic in South Asian nations. The book also includes case studies from Nepal ranging from personal reflections of teachers, students’ experiences of lockdown and views from other stakeholders. The book is edited by Michael Hammond.

This book consists of two sections. Section one "Global, Regional and Local Perspectives on Remote Learning" includes three articles. Section two "Case studies from Nepal: Challenges and creative responses during the Covid-19 pandemic" includes case studies grouped under four themes (i) Personal reflections on professional development, (ii) Reporting teacher professional development, (iii) Students’ experiences of teaching, learning and assessment, and (iv) Whole-school approaches to lockdown.

The book provides useful information about remote teaching and learning (RTL) and how it is embedded in developing countries including Nepal, and recommendations for making it more effective. The articles are written by authors who work in education. The book will be relevant not only for other practitioners, but also to academicians and policy makers or as editor Michael Hammond has recommends, “anyone interested in RTL in general and the response of national educational systems to the lockdown of schools during the Covid-19 pandemic in particular”.

The book opens with an introduction from the Editor Michael Hammond. Before introducing the chapters, he starts by giving a background of RTL and explains the context of school lockdown. He highlights successes and challenges from the accounts in the book and the learning from these that should inform future plans with regards to remote learning as access to school will still be a problem for remote communities and natural disasters and other pandemics may still occur in the future. He then introduces the chapters in the book highlighting the contents of each chapter.

Section One of this book is “Global, Regional and Local Perspectives on Remote Learning” and includes three articles that offer perspectives from a global point of view, then South Asia and finally Nepal.
Using technology to support remote teaching and learning in developing countries: An overview

Marilyn Leask and Carol Hordatt Gentles

This chapter provides information on a wide range of models of remote teaching and learning that doesn’t always involve hi-tech devices, electricity and internet. The authors encourage the developers to decide on the best option by assessing their own context and adopting the most viable option. The chapter is co-written by Marilyn Leask and Carol Hordatt Gentles.

The authors point out that remote teaching and learning is not a new concept and give the example of correspondence courses which have been around for over a hundred years. They then go on to give examples of open universities for higher studies which are now common place in many countries. Then there are other mediums like radio and television being used to connect with learners remotely. Leask and Hordatt Gentles then write about some very innovative models for remote teaching and learning that have been in use around the world. These range from low-technology solutions like the community blackboard pioneered by a teacher in Jamaica the success of which eventually led to the whole community involvement in her project, to the digital tools supported by internet access. Other models in the chapter mentioned are the use of telephone, conference calling and print materials, radio and television broadcasting, “packages of digital tools” to extend learning made available to learners and teachers in places without electricity and internet, blended remote learning and online platforms and offline apps.

The challenges in developing RTL are mostly also relevant to Nepal. The authors write about deciding on the appropriate technologies to use that suit the local context, generating electricity through solar batteries and addressing shortages of devices giving examples of technology buses or ‘school in a bag kits, and making online resources available offline, involving all stakeholders and maintaining infrastructure, ensuring that learners are still supported while learning remotely, keeping a focus on RTL pedagogy, using teacher leaders as change agents, understanding how change happens, finding adequate funding, and prioritising innovations.

The authors end the chapter with some questions that developers are recommended to consider when implementing RTL in their own context.

In writing this chapter, the authors have referenced or consulted about 55 academic pieces (articles, journal papers, government documents). Therefore the chapter is rich in information ans is highly relevant for developing countries.
The use of technology to support remote teaching and learning during the COVID-19 pandemic: Responses in South Asia

Vaishali Pradhan and Liana Hyde

Since the outbreak of COVID-19, governments around the world have imposed lockdowns, closed schools, and enforced travel restrictions. Although this pandemic has affected people around the world, the marginalized sections of societies have been affected more. Education has been largely impacted and many students were not able to access learning.

This chapter covers RTL practices introduced as a response to the COVID-19 lockdowns in the South Asian countries of Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka and examines what was done to support continued learning for all students. This is followed by a section focussing on lessons learned from these interventions.

In Afghanistan, a number of models were used: self-learning with support provided by radio, distance learning with delivery broadcast through television and in remote areas teachers teaching small groups of students in open air.

Bangladesh, under their digitisation strategy of "digital Bangladesh" had some ready innovative solutions, such as Konnect an online platform that reaches nearly 300,000 teenagers and adolescents), a Teachers' portal that provide teacher development opportunities with nearly 1.5 million members, talking books for visually impaired students, and a virtual class platform offering live online classes for tertiary level students. Apart from these, the Ministry of Education also used radio, television, and mobile phones to reach those without online access.

Soon after lockdown, Bhutan, developed their "Education in Emergency Plan" which mapped a two phased approach focussing first on awareness, advocacy, psychosocial support and development of an adapted curriculum, followed by different school reopening scenarios. Soon after an adapted curriculum was developed and put in use. Various online platforms like WhatsApp, Google Classrooms and Zoom were used to deliver lessons. Radio was used to broadcast lessons and also television. Over 100000 students engaged through social media platforms while just over 3000 were engaged through radio.

In India, 285 million students were affected by the lockdown. Several remote learning initiatives were launched using radio, television, online and print resources. Online content was distributed over WhatsApp, along with village panchayat and livelihood groups distributing textbooks and initiating home-based learning activities like the Padai Tuhar Para and Bultu Ke Bol in Chhattisgarh and the Vidyagama scheme in Karnataka. The central government issued some guidelines as a response to the crisis, such as 'Pragyata guidance on digital learning', 'Learning enhancement guidelines for continuous learning' and 'Guidelines for out of school children'. State and private sectors
developed online self-access content that was released through various digital platforms. The Pradhan Mantri e-Vidya Initiative for Digital Education was announced in May 2021 to unify all efforts related to online education and enable multimode access to education. Other means used were online classes (17% of total households have access to connectivity and smart phone), television (about two-thirds of all Indian households and about one-third of the poorest households own a television), and radio (All India Radio surveyed to have a massive reach of 92 per cent across the country). WhatsApp and interactive voice response systems were also used with nearly 90 per cent of teachers that were surveyed said they used the platform to interact with their students by sending recorded classes, worksheets and reference links.

In Maldives, a country of over 1,000 islands and relatively connected, most learning initiatives focused on online learning and television. The lessons broadcast on TV were also available on the online Filaa portal so that students with internet connection could watch at a suitable time or re-watch the lessons. About 31 per cent of the potential audience for the school education distance-learning programmes did not have internet or Wi-Fi access at home. To address these issue the government offered 5GB of free data for each student.

In Nepal, the federal government came up with the following guidelines and protocols to respond to the COVID-19 crisis: COVID-19 Education Cluster Contingency Action Plan, Alternative Learning Facilitation Guidelines, Emergency Action Plan for School Education, and the more recent School Reopening Framework, which was released in November 2020. Local governments had the responsibility for planning and implementation. RTL activities implemented during the repeated lockdowns include an online platform with virtual lessons and guidance for the primary and secondary level, a digital library E-pustakalaya, Sikai Chautari – a government-supported platform with educational materials for Grades 1–10. Teachers, especially from private schools, started online classes through Zoom, Google Meet and Teams. Other initiatives included lessons on radio and television and the distribution of print resources. Initiatives involving radio included programmes like Sikdai Sikaudai, Radio Schools, Ma Sikdaichu, Udaan and Low-Tech Intervention for Foundational Education (LIFE).

Self-study using textbooks was the most dominant remote learning option for children. The access to online classes was significantly higher for children from private schools compared to children going to community schools. Self-learning packs were also distributed to children with no access to any other type of alternative education along with few in-person modalities such as mobile teachers and Tole Shiksha, in which teachers supported groups of children within their communities.

In Pakistan, school closures impacted an estimated 50 million learners from pre-primary up to university level. In response, the government developed a national education and resilience plan. The most successful part of this plan was the Tele School where lessons were broadcast on television. State led television programmes were also initiated like the Taleem Ghar in Punjab and a public-private partnership initiative in the Sindh. In addition, YouTube videos and learning platforms, mass communication campaigns on the most popular television shows were also broadcast. An existing programme meant for deaf children was adapted and an organisation called Deaf reach developed a programme that delivered computers with pre-loaded content accompanied by worksheets and other material to their students.
Sri Lanka’s RTL response included radio programmes, home-based learning packages, and online platforms like E-thaksalawa and eSiphala. Like other countries in the region, internet access is restricted and only about 22 per cent of households owned a computer, with access to television being the highest. The government allocated funds to produce television programmes and to distribute televisions to schools. A television channel launched by the Ministry of Education offered lessons to GCE A and O-level students. Teachers also used WhatsApp and Viber to remain in touch with their students. The government now is using diagnostic tests to assess the loss of learning and this is being used as a national strategy for learning recovery.

Governments in South Asian countries implemented several interventions to respond to the learning crisis during the pandemic. Although considered successful to some extent, some learners were still unable to access online material, and many were unable to take part in online classes, these interventions were not able to close the digital divide completely.
How teachers developed remote learning during the Covid-19 crisis: What can we learn from rural teachers in Nepal?

Karna Rana

The third chapter of the first section of the book explores the experiences of teachers in rural Nepal in using different technologies during the lockdown periods. The chapter identifies challenges faced and how some teachers were able to develop confidence and competence in the use of technology.

Karna Rana, the author, writes that the study employed qualitative design with semi-structured interviews with twenty teachers from government schools of rural settings. Rana begins by writing about different literature on remote learning. He has mostly reviewed literature on the use of digital technologies both in general and in the context of Nepal.

Before teaching remotely, most of the teachers in Nepal were not trained in the use of digital technologies during their pre-service and in-service teacher training programmes. Therefore, they had to rely on the limited technological knowledge they had. The findings of the study are grouped under teachers’ experience on opportunities for online learning, steps taken to compensate the difficulties of access to online teaching and support and leadership they received during the time period.

Rana reports that many students and teachers in remote areas did not have access to online learning, and teachers had to find alternative ways of supporting students’ learning, including setting up mobile team teaching and promoting the use of television and radio.

The key conclusion from this chapter is that providing and maintaining teaching and learning during lockdown requires an integrated response from teachers, school leaders, communities and government if it is to succeed. Maintaining teaching and learning during lockdown requires a joined-up response from teachers, school leaders, communities and government.
Section Two of the book contains case studies from Nepal and is titled "Case studies from Nepal: Challenges and creative responses during the Covid-19 pandemic". These studies are presented under four different categories - *Personal reflections on professional development*, *Reporting teacher professional development*, *Students' experiences of teaching, learning and assessment*, and *Whole-school approaches to lockdown*.

### Personal reflections on professional development
This section includes three personal reflections on professional development during the lockdown

#### Developing EFL audio-video materials as/ for continuing self-professional development

**Parbati Dhungana**

Parbati Dhungana shares her personal reflection on her changing relationship with technology by self reflecting on her previous work during lockdown. Although suffering the consequences of the pandemic, Dhungana took the opportunity to reflect on the EFL audio-video material that she had produced for the government in 2016 and comes to key realisations on how she could improve future work. One of them being that continuing professional development, a constant reflection on professional practices, help to improve the relationship between students, teachers and beyond.

Dhungana’s story is that of a teacher who chose not to use technology when teaching, to someone transforming into a technology friendly teacher. Dhungana recounts on how she moved from 'professional crisis' to 'professionally sound' teacher through constantly trying to improve.

As part of her reflections, she shares that she felt a sense of agency while designing the learning materials. She also felt discomfort when going public with her learning resources. She makes a point of there being a real need for accessible online materials, that technology has to be used with a more participatory pedagogy, and producing public materials may be challenging and sometimes uncomfortable.
Supporting teacher development in Nepal during the Covid-19 pandemic: Lessons learned  
Ashok Sapkota

Most of the teachers in Nepal attempted to use remote technology during the lockdown period without first receiving training. This chapter is Ashok Sapkota’s journey of presenting professional development sessions online for teachers which also helped him develop his own digital skills. Sapkota started with a webinar organised by NELTA on how to make effective PowerPoint presentations. He then went on to present many other webinars during the lockdown, improving and learning to address expectations of his participants along the way.

Sapkota highlights a number of areas in his story: that getting feedback and reflecting are important in order to improve, that planning is important but at some point you just have to dive right in and the right networking opportunities are important (British Council, NELTA).

Sapkota’s chapter provides useful information for other teachers. His narration on ‘the more we practise, the more we get used to it’ is useful advice for teachers wanting to improve their ICT skills. He also shares that mistakes were also helpful to improve his performance but there must be eagerness to learn from mistakes and careful planning to not repeat the mistakes in future.

The learning from Sapkota’s story is that one should realize that it may be difficult to meet the participants’ needs and interests, but the presenter should be confident about their presentation. It depends on one’s preparation and capacity to use the tools rather than the number of tools available and we all should learn that it takes time to build up an understanding of all that the technology can do.

My teaching transition from reluctance to competence to creativity with technology  
Raju Shrestha

This chapter is about author Raju Shrestha’s transition from reluctance to competence to creativity with using technology. The author carried out auto-ethnography research to critically-reflect on his own ELT practices.

Shrestha writes that in his early years of his teaching career he hadn’t seen the need or value of technology in teaching but this changed during the pandemic. When compelled to take his teaching online, Shrestha faced several challenges like classroom management, internet connectivity and his own lack of skills in using the online platforms. Shrestha writes about how he overcame these challenges with the help of different strategies. He attended several training events, read materials that helped him to run online classes and implemented the learning in his teaching. He also tried out new ways to aid his online teaching, by providing learning material online that students could go through on their own time, included recordings of live classes and the use of small breakout groups within Zoom. He admits that the journey wasn’t easy.

He writes that some of the material that he created for online teaching could be useful once students get back to the physical classroom. His story will be useful for other teachers, teacher educators and stakeholders while envisioning a technology-rich pedagogy. But self-initiation and receiving feedback from others are necessary for change to happen.
The authors touch on the perception of teachers with work and the use of technology, their experience of teaching online and use of different strategies and tools in their teaching. The teachers studied in this chapter reported different challenges they faced but all felt that they learned by working together and sharing ideas with colleagues. The teachers are likened to caterpillars transforming into butterflies and transformation doesn’t happen easily. The authors point out that willingness to explore, collaborate, learn, share and grow are required for this process.

Caterpillars break their cocoons: Teachers’ journeys of transformation in Nepal

Sikha Gurung and Manuka Adhikari

In this chapter authors Sikha Gurung and Manuka Adhikari describe the transformation of three teachers when they started teaching online during the lockdown. The authors talked to these teachers through unstructured interviews.

Teachers’ resilience and their professional development during the COVID-19 pandemic: A case study

Dinesh Kumar Yadav (‘Aastic’) 

Dinesh Kumar Yadav’s case study contains accounts of teachers’ resilience and professional development during the COVID-19 pandemic touching on enhancement of the teachers’ professionalism and their efforts at mitigating the loss of students’ learning in the lockdown. The study was carried out with five teachers from different schools and a university.

Yadav begins by describing the mental stress that he himself underwent during the lockdown before finally deciding that he would take the situation as an opportunity to do something both personally and professionally meaningful.

During the interview, teachers were asked about the challenges they faced while teaching online and how they remained resilient through these challenges. The different types of professional development activities the teachers undertook during this time are presented in a comparative chart. Yadav, in this analysis, concludes that the COVID-19 pandemic tested the resilience of teachers – who experienced a sense of loss and disruption but also provided an opportunity for developing their professional capacity. The study also highlights examples of resilience that saw these teachers through, in particular in learning about and using online tools. The
During the lockdown period, besides technological challenges, most of the teachers faced economic and pedagogical challenges. Monika Niroula, writes a case study of the experiences of online teaching of four female teachers working in a private school. Niroula makes a point about how female teachers are disadvantaged by time pressure due to their triple work burdens, such as household chores, contributing to farm work and teaching, in addition to family and other social obligations making it challenging for them to dedicate the time needed to use the new technology. Differences in challenges were observed among these teachers based on marital status, size of household and age of children.

The many challenges faced by these female teachers include collaboration with parents of their students, economic constraints, and pedagogical challenges. The study also also highlights how gender affects teachers’ experiences relating to learning about online pedagogical skills, managing time and general wellbeing.

The teachers used different online platforms like Zoom, Google Classroom etc. for teaching. It is interesting to note that children of this private school did not use television and radio. This could be because of the availability of other tools and devices.

The female teachers studied were able to run online classes with joy and a sense of achievement despite the challenges in a context where many schools were not operating at all. This was made possible as a result of the self-confidence and their eagerness to do something new. They lament however, that private schools did not receive support from the government and Niroula recommends that the government and development partners should include private schools and private school teachers in their interventions on remote teaching programme design and implementation.
Digital literacies and digital skills: A view from secondary school students

Puskar Chaudhary

Puskar Chaudhary, in this study, explores secondary school learners’ views on remote learning with digital tools which were essential for schools during lockdown. The role of digital tools and technologies and their influence in the education system is described in this study.

Chaudhary notes that the term digital literacy is defined as both technology know-how and the ability to engage in the culture of communicating, dealing and connecting information. Interactive focus group discussions were carried out to collect the data for his study and the data then analysed and interpreted qualitatively under a case-study design approach.

Chaudhary writes, the opportunities provided by technology in learning largely depend upon the skills needed to effectively interpret, manage, share and create meaning. He writes about his own difficulties with digital tools and how he developed the skills on how to use some of the technological tools that helped him to access, evaluate, communicate and generally use information.

The author presents learners’ perceptions of digital literacies, ways of developing learners’ digital literacies, and digital literacies and learning remotely. He notes that ‘being digitally literate is not just about learning how to operate digital tools and technologies but about exploring ideas and new innovations and being creative, innovative and crucial.’

The students were able to talk about their growing digital skills – skills which can be used across the curriculum. It was also found that digital literacies have helped learners to adjust remote learning and to experience engaging on online learning. However, they also recognised that they could, and did, ‘waste a lot of time on the internet’.
Explore, engage and empower: My responses to forced transition to digital learning

Baman Kumar Ghimire

In this chapter, Baman Kumar Ghimire describes a range of initiatives undertaken to support students’ online learning. These initiatives included online classes, inter-school and international cooperation, gamification and the use of massive open online courses (MOOCs) and YouTube. Ghimire reports that many students responded positively to the different aspects of online work.

The author talks about his own journey towards online teaching and learning which began with learning to use Zoom. Soon he was not only teaching online but also moving beyond the curriculum and engaging his students in different open online sources of learning and internationally organized events. Ghimire used different technological tools of gamification, such as VoiceThread, Quizizz and Nearpod. In order to explore the impact of using technology in teaching, he interviewed grade 10-12 students. Students responded positively. A student reported to have transformed from an introvert to an extrovert, while others developed confidence and motivation. Ghimire also writes about the challenges faced. Shortage of time and teaching to a prescriptive curriculum are some of the constraints mentioned. Ghimire notes the opportunity of expanding the reach of teaching and learning, and the links with students in other countries is a noticeable example of this. From his reflections, Ghimire recommends that teachers should extend their professional networks, remember the seven Cs (connect, communicate, collaborate, coordinate, counsel, convince, and celebrate), make learners the mentors, respect students' multiple intelligences and be present for the learners and provide feedback where necessary. The author recommends that it would be useful to incorporate some aspects of online teaching and learning in a blended approach even after lockdown.
Maintaining well-being during lockdown: Views of students in one school in the Kathmandu valley

Geeta Bhattarai

In this chapter Geeta Bhattarai describes students’ experience of the lockdown focussing on their well-being. The author's study group often called the 'Generation Z' or 'digital natives' are characteristically assumed to be tech-savvy, multi-taskers that are socially connected and presumably the age group most likely to adjust to remote online teaching easily. Bhattarai collected her data through focus group discussions. The students belong to a school in Kathmandu valley with ages ranging from 12-14 years. The author reports on the students’ experience of well-being during lockdown, what they look for in learning spaces and what role was there for self-reflection in learning and reflection on values.

The study found that students' well-being was threatened and they reported distress because of various difficulties in accessing classes and unfamiliarity with the process. The students' reported feelings of isolation, sadness and lack of support. In terms of learning spaces, students' valued collaborative learning with peers where they can express their ideas and share values with others and for the teachers to organize and monitor these activities.

Teachers and parents need to understand students’ problems and pay attention to their well-being. The author recommends that “schools should not lose focus on well-being and teach values of sharing, respect and kindness.”
Whole-school approach to lockdown

The section on whole-school approaches to lockdown include three case studies. The case studies look at the approaches to meeting the challenge of lockdown. These include the importance of access to libraries, whole-school development, and experiences of leading a school during the lock down period from a school leader. These are personal accounts of the authors.

The importance of access to libraries during lockdown

Prateet Baskota and Kiran Shrestha

In this study Bastola and Shrestha talk about the importance of access to libraries under a school library programme at the time of lockdown. The authors note that while achievements have been made in enrolment and literacy, the setting up of a proper school library is often overlooked. They highlight the work done in this area by INGOs.

This study reports of how a School Library Programme provided continued access to library services to children during the lockdown. These were done via an online portal providing e-books, teachers taking books to students that didn’t have access to internet, and controlled access to physical libraries once restrictions eased. These services provided continued access to learning. The authors also highlight the role of trained librarians in managing and sustaining physical libraries as well as facilitating access to digital resources and supporting students’ digital literacy skills.

The authors note that it is important to create physical libraries and introduce measures for their sustainability. Considerations should be given while selecting measures of sustainability, selecting e-books and working with teachers, students, parents and other actors.
Whole-school development during a lockdown: The views of stakeholders

Amit Bikram Sijapati and Tirtha Raj Kandel

A three-year whole-school development project (2020-2023), in collaboration with the British Council, is being implemented in the Kawasoti Municipality by the Kawasoti Municipal Education Committee. This project provides support in enhancing school leadership, continuous professional development for teachers, active student engagement in projects and clubs, and enhancement of assessment and accountability mechanism. Jointly written by Amit Bikram Sijapati and Tirtha Raj Kandel, this case study reports on the experiences of the stakeholders who are directly benefitting from the programme.

The views of different stakeholders about whole-school development during the lockdown period were collected through interviews and focus group discussions. The participants were all from schools that were involved in the British Council’s International School Award (ISA) programme. Interviewees included a head teacher, the ISA co-ordinator and a section officer of the municipality. Teachers and students of grade 7-9 were also interviewed.

The “Findings” section of the study reports the views of the interviewees. All of them described how teaching and learning became possible through different strategies, the challenges they had faced and how these were overcome. One of the highlights is the recurring importance of practical CPD, peer support and distributed leadership. Sijapati and Kandel note that the whole-school project has helped to develop school leadership and supported a more active approach to student learning. CPD, in this case, includes the importance of practical online teacher development activities. The authors also present some lessons learned where they give recommendations on how to enhance online learning, CPD and the sort of courses and support teachers would need, students’ experience and the value of collaboration, and challenges to school improvement which mostly revolve around the use of technology.
What I learned about leading my school during lockdown

Sunita Swar Suri

The final case study touches on the subject of school leadership, one of the most critical elements in the success and failure of the organization and something that was tested during the pandemic. Written by Sunita Swar Suri, this is an account of her personal experience as the principal of a school in Far Western Nepal. In her journey, she realizes that leadership qualities are not inherent characteristics but such skills can be developed.

Suri has collected the data for the study through focus group discussions and interviews. Her findings include a) response to a crisis should come in stages, giving the teachers time to prepare for the alternative response and letting them develop their capacity in that area. She also highlights b) the importance of communication. She reports her teachers appreciated the constant communication she had with them and the communication that her school had with the parents and students to keep the connection going and to inform decision making. She also notes that c) care, connection and compassion are key to keeping the work of the school alive.

Key lessons, from this study, points to school leaders working together with the teachers, parents and students and that realising that though online teaching is an important alternative way to teaching, it’s not the only way and that, considerations should be given to children's, parents' and teachers' physical and mental health, and planning for future crises is necessary.

In sum up,

This book is a cumulative report of different small scale studies that includes several modalities, options and strategies of remote teaching and learning. It is relevant and useful not only for future lockdowns, it is equally relevant for the situation of after lockdown. The experiences shared by teachers of progressing from a novice condition to a technology friendly situation can motivate other teachers as well if they like to start the journey. But the eagerness to do something is extremely necessary.

School teachers in Nepal are not educated or trained for remote teaching learning, especially teaching through virtual mode or distance modes. Both the pre-service and in-service courses are focused on face to face teaching and learning. Still, large numbers of schools and teachers are not connected and lack the required infrastructure and technological devices. Those who are connected they lack the digital curricular materials and support that is required. The pandemic did not only create pain to the education system, it also provided great shock to the schools, teachers and the entire education system. To respond to the crisis created by the lockdown because of the pandemic, some of the teachers, especially head teachers and schools came up with new innovative ideas of using technological tools in teaching and learning despite the difficulties they faced. In this process, some of the teachers transformed themselves from a novice and uneducated person in
technological tools and devices to the technology friendly and more creative teachers in using such tools in teaching and learning. This book includes the first hand experiences of such teachers and head teachers on how their journey started and reached the destination which they had set. The detailed description of such experiences may be helpful to other interested persons who would like to transform themselves in using technological devices in an effective manner.

The different modalities and strategies carried out by the South Asian countries with similar contexts would provide some insights to the policy makers and head teachers when they engage themselves in designing strategies for their countries and schools. They can use the best performing modalities and strategies and motivate teachers to develop their technological skills. The modalities of low cost are extremely useful for every single teacher, school and country which can also be drawn from the book.

Lastly, one of the final messages of the book could be 'if you have eagerness to do something or eagerness to develop skills, you must start the journey with the passion and continuity'.

Thank you.

Hari Prasad Lamsal
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