



United Nations
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Bangkok Office
Asia and Pacific Regional Bureau
for Education

NEQMAP 2020 Thematic Review

Formative Assessments and the Continuity of Learning During Emergencies and Crises

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ABSTRACT

Emergencies and crises (e.g. natural disasters, conflicts, pandemics) often take a particularly heavy toll on education systems and learners, since the initial and immediate response is often school closures. Educational systems in the Asia-Pacific have adopted measures to respond to crises over the years by bringing in alternative models of educational practices to ensure the continuity of education. However, the recent COVID-19 pandemic also disclosed how countries, when placed in unprecedented situations, have struggled to find suitable ways to continue teaching and learning. In addition, how countries have adapted approaches towards formative and school-based assessments during such crucial times is still indistinct and unclear. The current paper thus attempts to explore the ways countries in the Asia-Pacific region have ventured towards gauging learners progress in emergency situations and what tools have been adopted to ensure validity and inclusiveness while any such assessments were carried out. The current thematic review offers a glimpse into the educational assessment landscape under varied emergency contexts in the Asia-Pacific region.

KEY WORDS

Education in emergencies, continuity of learning, flexible learning, formative assessment, monitoring learning, assessment tools

INTRODUCTION

The COVID-19 pandemic has caused unprecedented levels of disruption to education globally. By April 2020, schools in 195 countries had been forced to close, affecting more than [91 per cent of the world's student population](#). Estimates indicate that about 24 million students (from pre-primary to tertiary education) will be at risk of not returning to education institutions in 2020. This accounts for an estimated 10.9 million in primary and secondary levels, which is in addition to the 258 million children and youth of this age who were already out of school prior to the crisis (UNESCO, 2020^a).

As a result, many schools are in an unprecedented situation and grappling to find suitable ways to continue teaching and learning. Prolonged school closures have significant implications for learning, assessments and credentials, as the interruption of examinations delays decisions regarding student progression and graduation (UNESCO, 2020^d). And the disruption of formative school and class-based assessments significantly impacts the feedback that learners and teachers need in order to maintain and strengthen the continuity of learning. Formative and classroom assessments in any form are important and relevant to understand the learning needs of each student and to adjust instruction accordingly (Lieberman et al., 2020) both during normal and crisis situations. In this regard, UNESCO (2020^b) contends that during crisis times, formative and continuous assessment provides better options and solutions to approximate learner progress, since summative and high stakes examinations are usually either annulled or postponed by educational institutions (READ, 2020; Save the Children, 2016^b).

This thematic review explores how countries in the Asia-Pacific region have been able to cope with educational disruptions and what steps were undertaken to ensure continuity in monitoring student learning through formative assessments. The world's unpreparedness to the pandemic sees the pressing need to relook and examine the past experiences on how countries have effectively responded to ensure uninterrupted educational participation, and particularly conducting formative and school-based assessments to monitor the learning progress of the crisis affected school going children. Inferences drawn from the past experiences during emergencies and crises may shed light on how to formulate guidelines and educational support for current and future planning that countries in the Asia-Pacific region may need to enhance formative assessment procedures to improve quality of education.

IMPACT OF EMERGENCIES/CRISES ON EDUCATION

The Asia-Pacific region is vulnerable to various natural hazards and disasters, like earthquakes, tsunamis, volcanic eruptions, forest fires and floods. It is twenty times more likely to be affected by natural disasters than Europe or North America (Bhatia & Narain, 2010; UN, 2010; UN, 2019). Forty-five per cent of the world's natural disasters occurred in this region and more than 75 per cent of those affected by the disasters globally lived in this region (UNFPA, 2018). It is estimated that 175 million children were likely to be affected by disasters annually and over 230 million children were living in countries affected by conflict. Almost 10 million refugees (over half of the world's refugee population) were under 18 years (Global Education Cluster, 2018). Apart from natural catastrophes, emerging disease threats and epidemics leave the region vulnerable (Coker et al., 2011; Morand et al., 2014; WHO, 2005) and many Asia-Pacific countries have been inadequately prepared to confront them (Caballero-Anthony & Balen, 2009).

Regardless of the nature and intensity of disasters, one of the most common consequences experienced by countries is educational disruption. Owing to such disasters, schools and educational facilities are often damaged beyond repair and those that survive are usually designated as temporary evacuation centres to provide shelter for affected families. And even months after disasters, despite being officially open, the critical reality was managing to resume regular classes and follow the daily routines after a break period (Save the Children, 2016^b). Schools struggle to offer full day classes and experience interruption of schedules ultimately leaving both learners and teachers stressed and disoriented. In Fiji, after cyclone Winston in

2016, many were unable to hold full day classes since their classrooms were not fully functional (Save the Children, 2017) and due to irregular teaching-learning schedules, most of them suffered severe time loss. The attendance was minimal and even those children who attended, felt disoriented and distressed of having forgotten what they learnt prior to the crisis (Lucia & Dir, 2015; Powers & Azzi-Huck, 2016).

EDUCATIONAL RESPONSES IN TIMES OF CRISES

Many countries have developed relevant coping strategies school-based initiatives and management approaches to reduce risks and respond effectively to any such emergencies and restore educational opportunities across the Asia-Pacific (Bozkurt et al., 2020). These educational initiatives have typically followed the premise that schooling provides *'hope for the future'*, and as a result the basic response to emergencies is primarily towards *'restoring normalcy'* by bringing children back to school and ensuring that *'routines of schooling are equally important as its content'* (Davies & Talbot, 2008). These strategies typically start with ensuring safe learning environments, followed by adapting and adjusting teaching and learning to fit within the context.

School and learning environments

While disasters damaged and destructed schools, alternative learning places were sought to restore and continue schooling, and most often such spaces were voluntarily offered by the community themselves. Establishment of **temporary learning centres** (TLCs), wherein children of different grades came together to resume education and facilitate temporary learning, was a common practice adopted in many countries. This strategy of setting **temporary learning spaces** (TLS) proved effective in Myanmar, in the aftermath of cyclone Nargis, and in Sri Lanka following civilian conflict as well as the 2004 tsunami, without which classroom activities might not have resumed on time because of insufficient space (UNICEF, 2010^b).

Establishment of **Child Friendly Spaces** (CFS) was another programme that has been widely adopted by UNICEF since 1999 to support children's well-being during emergencies. In 2010, when Cyclone Giri struck Myanmar, Save the Children in Myanmar (SCiM)'s child protection programme also operated **Child Friendly Spaces in Emergencies**, to provide psychosocial support and create a protective environment for children in most severely affected areas. Local volunteers were recruited and trained to lead and monitor a variety of psychosocial and educational activities at the CFS for at least 6 days a week and 4 sessions per day (Save the Children, 2011).

Another example of the importance of safe spaces comes from the **Education in Emergencies Post Crisis Transition (EEPCT)** programme run by UNICEF in places such as Sri Lanka, Nepal and Philippines to support educational delivery in conflict and post-conflict scenarios. Specifically, the **Schools as Zones of Peace (SZOP)** in Nepal which supported community peace and tolerance programmes, conflict resolution, and multicultural and peace education. These efforts to build long-lasting institutional peace not only protected schools from closure, but this had a nationwide impact during a nationwide Maoist strike when schools continued to operate (UNICEF, 2009; UNICEF 2011). Other positive impacts of the SZOP initiative included improved school governance by strengthening School Management Committees (SMCs) and Parent Teacher Associations (PTAs) representing members from different ethnic groups. Most of these interventions reduced political interference in educational activities and increased enrolment of students (Barakat, et al., 2013).

Schools, during and after crises, have always served as platforms to provide space for psychological support, regaining a sense of normalcy and healing children from distress and trauma, despite the severe destruction and chaos caused due to emergencies. Interventions that have integrated different types of psychosocial activities and extra-curricular activities facilitated children to socialize better and divert their attention towards learning. For example, Burde, et al., (2017) saw that children from emergency and post-emergency situations, when placed in structured, meaningful, and creative school settings, or in informal

learning spaces, showed improved emotional and behavioural well-being. Schools and teachers have also looked to increase the focus on sports and more play time activities to effectively manage children's stress (Chatterjee, 2018; Save the Children, 2017).

Flexible learning programmes

The *open, distance and flexible Learning* (ODFL) models have been employed in emergencies and conflict regions to reach and extend basic and secondary education to hard-to reach children. Some of the ODFL interventions adopted in emergency situations have been: 1) *School in a box*, 2) home school programme, 3) Catch Up Education, and 4) the open school. Evidence from a Sri Lankan case study (Creed & Morpeth, 2014), revealed that such models play a significant and cost-effective role by improving the quality of provision and as well as facilitated linkages between non-formal and formal sectors.

In Fiji, after cyclone Winston, due to school closures, providing flexible time offs for students and teachers, adjustment of school days through extra school hours, and offering weekend and night classes, were introduced to compensate the loss in the school calendar. Further directives were issued by the Ministry to shorten term breaks from two weeks to one week (Save the Children, 2017, p. 13).

The *school in a box* programme provides the essentials for setting up a classroom using locally developed teaching guides, curriculum and materials, to cover the first 72 hours of any emergency situation (Creed & Morpeth, 2014). In many of the countries, disaster affected schools have been supplied with external relief assistance like school kits, teacher kits, student kits and psychological support, to assist teachers and encourage children to return to school. According to Fijian teachers, the supply of such kits had a positive impact on the children since, '*children find new things exciting, even if they are very basic*' and this novelty encouraged students to return to school (Save the Children, 2017).

Home school programmes have similarly been offered to children who could not attend school in conflict-affected areas such as Sri Lanka. Learning modules in mathematics and first language were offered by a mediator, either a parent or young adult, who conducted classes to a group of children who lived close to one another and these classes were assisted by a teacher who was known as a 'facilitator' (Creed & Morpeth, 2014).

Another service that improved options for children who missed out on schooling and provided teaching-learning opportunities during emergencies was the *Catch-Up Education* (CUE), which has been used in Sri Lanka under UNICEF's EEPCT. This programme has helped children to improve their performance, especially those who had either dropped out or were on the verge of dropping out, or missed a great deal of schooling (UNICEF, 2010^a; UNICEF, 2010^b).

The *Accelerated Learning Programme* (ALP) was another widely adopted school-based intervention, associated with the EEPCT programme of UNICEF's. This programme helped students who had fallen behind in education to rapidly reach their age-appropriate learning competency level (UNICEF, 2010^b).

Lastly, some countries have adapted *Non-formal Education* programmes as alternative modes for teaching and learning skills of economic survival and developing personal resilience in certain post-conflict situations (Davies & Talbot, 2008; Dicum, 2008). Based on the experiences in many conflict-affected areas, Save the Children found that innovations in non-formal education were effective for ensuring children's right to basic education services (Save the Children, 2013 cited in Save the Children, 2016b, p.7)

COVID-19 education responses

In times of the COVID-19 pandemic, when most of the educational institutions and schools experienced closed-down, countries embraced *distance education* and *digital platforms* to bring back normalcy and continue teaching and learning opportunities. Platforms such as Zoom, Google Meet, MOOCs, mobile technologies, television, social media platforms, radio channels and video conferences have all been adopted by countries in Asia-Pacific and elsewhere (Trucano, 2020; UNESCO, 2020^c; World Bank Group,

2020). China reacted fast when they were first hit by Covid-19, by launching a cloud platform (Schleicher, 2020), which accommodated 50 million learners simultaneously. In India, digital e-learning platforms like Diskha, Swayam and e-pathshala were strengthened to enable free access to online resources and teachers were encouraged to utilize these platforms (Government of India, 2020).

Regardless of the technological solutions being embraced by countries, it has also been warned that ‘emphasis on virtual learning can exacerbate existing inequalities in education, particularly in developing contexts, marginalized communities and rural settings’ (ILO, 2020; p.1), where access to internet is limited. Sudden transport to online or digital platform has not been smooth for many countries as they have realised that it was impossible to ask teachers to simply shift to online teaching. Huber and Helm (2020) based on recent pandemic study revealed that digital learning demanded self-regulatory skills from the students and how well the students were equipped with this skill is uncertain?

These examples show that many countries have introduced several alternative approaches to sustain educational continuity as a response to varied emergencies and crises. During such difficult times it also becomes imperative for educational institutions to conduct classroom assessments to allow both the teachers and institutions to approximate the nature and extent of learning taking place both in remote and face-to face situations. An attempt to understand in what ways schools and teachers have gauged learners’ progress in order to identify and address their learning gaps during and as well as post-disaster situation is provided in the following section.

FORMATIVE ASSESSMENT DURING TIMES OF CRISES

Formative assessments, under normal circumstances are carried out in the classroom by a teacher as a part of the teaching-learning process to provide ongoing feedback that can be used to improve their teaching and by students to improve their learning. However, during emergencies, due to disruptions in routine teaching, learning is likely to take place even beyond a classroom context, and hence conducting assessments, formative and summative, can prove to be challenging for teachers (READ, 2020). Moreover, in such situations, conducting assessments of children both in and out of school demand distinctive strategies (Brown, 2001), which might be either costlier or may require an entirely different organizational set-up. The following **examples show how** formative assessments can be implemented in these times of disruption.

Guidelines and policies

Countries often look to the support and guidance of external and non-state establishments like United Nations (UN) agencies or other international and local nongovernmental organizations, to help them develop minimum standards and benchmarks for performance in education during emergencies. For example, the Inter-Agency Network for Education in Emergencies (INEE) supports countries by articulating the minimum levels of educational quality and access in emergencies through to recovery. The network has developed standards for effective education responses across several areas: e.g. access to education and learning environments, teaching and learning materials, and education policy. Resources in the form of manuals, handbooks, toolkits and guides for different age groups, subjects and domains have been developed and freely available for countries to adopt as and when required. And the INEE has also been crucial in developing guidelines and responses for COVID-19 prevention and control in schools.

The measurement library on INEE website¹ provides access to a collection of measurement tools that assess children’s learning and holistic development in crisis contexts. For instance, the INEE standards were adopted for designing and implementation of its Emergency Education Programme, when Aceh in Indonesia was affected by tsunami in 2004 (Anderson & Brooks, 2006).

¹ For more information see <https://inee.org/resources>

While these international guidelines are useful, most of the guidelines are for ensuring safety of learning environments, and few include policy guidelines on learning assessments. This indicates the need for establishing concrete guidelines and formulation of relevant policies to monitor and record the learning progression of children during emergencies and hence formative and school-based assessments matter and stand significant in today's context.

Tools and methods utilized to measure learning

Despite the hurdles, certain assessment tools to diagnose and benchmark the learning outcomes of children in various conflict and emergency situations have been utilized. The tools utilized in such contexts have primarily been competency-based assessments covering literacy (English or mother tongue) and numeracy, as well as social-emotional skills. Some of these are large-scale and others are used at the individual level.

During one of its conflict situations, Sri Lanka had trouble in assessing schools and developed a rapid competency assessment tool for the Internally Displaced Persons (IDP) children. This large-scale learning competency assessment tool was developed in collaboration with UNICEF as part of the Accelerated Learning Programme (ALP) in the post-crisis resettlement period. It served as a baseline to identify the students' literacy and numeracy competency levels of children at different stages. The test results enabled to identify students in need of additional support at the correct entry level in the ALP (UNICEF, 2010^b; UNICEF, 2012). The competency-based assessment conducted under the ALP was said to be more systematic as it regularly monitored and reported by establishing its linkage to a relevant indicator-based framework (UNICEF, 2010^b).

Another diagnostic tool to measure learning in crises, based on ACER and Save the Children's numeracy standards, was administered for Rohingya refugees in Thailand. The Thai government accepted more than 225 Rohingya irregular migrants in 2015 and in order to determine the current and future learning needs of Rohingya children in Southern Thailand, a quick literacy and numeracy diagnostic assessment was carried out in February 2016. The assessment was repeated in May 2016 to capture learning gains resulting from the Migrant Assistance and Protection in Shelters (MAPS) project. This tool had two components; foundational reading skills and numeracy skills. The reading proficiency was assessed on four areas; letter recognition, word decoding, accuracy when reading simple sentences and a text, and comprehension of the text (Save the Children, 2016^a).

In Southeast Myanmar, another example that has been used to assess the literacy and numeracy skills of ethnic minority children is the **Literacy Boost Assessment Tool and Numeracy Boost Assessment tool**. The assessment criterion for each of these tools was the ability to demonstrate the desired skills. For example, literacy skills of grade two expected them to recognize letters, sounds, common words, and read a story. Children were identified as 'readers' if they could read at least five words of the story correctly in the first 30 seconds (Jonason & Htu, 2018).

Apart from literacy and numeracy tools, some programmes have attempted to measure the **behaviours and attitudes** of learners, particularly considering the importance of psychosocial support in times of crises (Brown, 2001; UNHCR, 2001). Save the Children's **International Social and Emotional Learning Assessment (ISELA)** tool has been used to assess student competencies in the areas of inter-personal conflict negotiation, and social and emotional learning. The ISELA is a scenario- and performance-based measure designed to assess the development of self-concept, stress management, perseverance, empathy, relationship management, and conflict resolution in children ages 6 - 12 years old. It is intended to provide data for program monitoring and evaluation purposes. A version of this tool was utilized in the case of the Rohingya in Thailand in 2016. Here it was utilized as a participatory exercise to assess student competencies in inter-personal conflict negotiation and social perspective coordination. (Save the Children, 2016^a).

Leveraging Digital Tools for Assessment

So far, all modalities of classroom learning assessment were chiefly dependent on students' physical presence. While the recent COVID-19 pandemic which compelled schools to close and shift towards online teaching left teachers with no choice but transit to remote teaching and use digital platforms to communicate and stay connected with their students.

Under such remote circumstances, the relevance for formative assessment becomes more critical for any teacher to gauge student's learning progress. The advantage of conducting formative assessments in online or digital mode is about the flexibility of holding in both synchronous and asynchronous forms. Several ways have been widely recommended to conduct continuous assessment online and these include; quizzes, polls, survey, and those with an additional advantage can provide feedback in real time via phone, online tools like Zoom, Google-meet, Microsoft teams etc. (READ, 2020). Assignments and portfolios although being asynchronous methods of assessment, benefit to assess higher order thinking and reflective skills among the students (Khan & Jawaid, 2020).

In context of the nature of assessments conducted in the recent COVID pandemic, a World Bank report revealed that in the Republic of Korea, the government set up cyber learning services, like *Wedorang* and *e-Hakseupteo*, wherein teachers could teach online classes, post online assignments, conduct surveys, have open class discussions and as well as track student learning progress (World Bank Group, 2020). In Bhutan, Social media applications like WeChat and WhatsApp were utilized by teachers to assign children specific chapters to read and a set of questions to respond. The answers to questions were sent back to teachers, either through messages or image clippings, based on which students were subsequently assessed. In Cambodia the government installed a Facebook page and made several puzzle games available to the school students (World Bank Group, 2020). Although, many ministries of education (MoE) have moved towards a range of online strategies to conduct student evaluations, a major concern that emerged is 'how can validity and reliability be ensured through online and remote testing?'

In case of learning situations with less or no Internet facility, other alternatives like messaging platforms (WhatsApp, Messenger), telephones, radio and television classes to facilitate learning need to be explored. The recent COVID experience has essentially raised the need to relook and examine the relevance of conducting remote-periodic formative assessments, and educational institutions may henceforth have to invest more on accessible technologies and develop alternative online formative assessment methods that are particularly valid, reliable and feasible.

The above assessment tools have primarily drawn attention to the fact that the assessment techniques in such context need not be confined to only paper-pencil tests but should also include other techniques like observations and demonstration of skills and competencies. These examples provide some evidence that similar competency and affective assessments can be adapted during and following disruptions of other crises to ensure that learners receive proper feedback.

LESSONS LEARNED IN MONITORING LEARNING

Conflict and natural disasters were viewed as major obstacles in achieving the 2015 Millennium Development Goal for providing universal primary education (Williams, 2006) and it had been speculated that the same would continue to hinder achieving the Sustainable Development Goals in quality education by 2030 (UNDP, 2020). The current pandemic reinforces this challenge, and highlights that the responses to disruptions in education still require much work to ensure continuity in educational and assessment processes.

Emergencies in any form take a devastating toll on educational systems, learners, teachers and all stakeholders. In terms of the continuity of learning, they can significantly disrupt teaching and assessment procedures unless efficient preparedness measures and approaches are adopted to minimize these effects.

The current thematic review has revealed several cross-cutting issues and gaps in the continuity of learning and formative and school-based assessments. These include gaps in collecting data on learning, the role of teachers, the impact of stress and anxiety and the importance of family and community.

Challenges

First, the practice of *maintaining educational statistics* during times of crisis, either in general (e.g. attendance, drop-outs, learning grades) or specifically on learning achievements or outcomes, is a significant challenge. Often, countries do not have a systematic mechanism to collect data, monitor the educational participation of the children and manage assessment systems amidst emergency circumstances (Barakat et al., 2013). Measurement or assessment of learning outcomes has taken a back seat and hence not been vigorously researched and explicitly addressed in reports related to education during emergencies.

Second, the process of teachers' engagement in monitoring of students' learning under normal classroom circumstances is not the same as during-crisis and post-crisis situations. Class time may be reduced or altered posing *challenges for teachers to properly monitor learning*. Under such emergencies and crises, even when schools are converted into relief camps, teachers have grappled to find ways to reconnect with their students and keep track of how much learning has taken place to enable them to plan subsequent lessons. It has been noted that teachers during such crises are often over-burdened with tasks like syllabus revision and nurturing victimized children (Powers & Azzi-Huck, 2016), that impact their ability to deliver instruction. These additional burdens impact the role and performance of a teacher as an assessor.

In addition to lack of class time, teachers are often faced with a shortage of teaching materials, have access to haphazard or unstructured curricula and inadequate support to conduct diagnostic assessment of children with mixed abilities. Adapting to mixed-aged and mixed-ability classrooms in times of emergency is another challenge that requires significant efforts to keep children engaged and responsive during classes (Global Education Cluster, 2018).

Third, *students are likely to be more anxious and distressed* during the times of emergencies. Such disruptions lead to stress among students and their families thereby triggering further disengagement in education (Goyal, 2020). Studies have shown that high levels of anxiety, low levels of motivation, difficulty to concentrate, and less school/classroom time were some of the main challenges expressed by children during and post emergencies (Lucia and Dir, 2015; Save the Children, 2017).

When schools reopen after a gap period, children have reported losing motivation and confidence to study and complained about their inability to remember and recall what they had learnt prior to the crisis revealed (Powers & Azzi-Huck, 2016; Save the Children, 2016^b). For example, after Winston cyclone in Fiji, it was reported that children were more restless and prone to tantrums by being loud and screaming. Most importantly it was seen that *'although physically present in the classroom, some remain dazed or lost which limited their participation in the lessons and had difficulty concentrating'* (Save the Children, 2017, p.18).

Teachers need to be perceptive and aware of the physical, behavioural and affective symptoms and warning signs of anxiety among their students by observing, interacting with them and as well as their families about their reactions to educational assessments. Prior to conducting any kind of assessment, teachers can try to reduce anxiety by engaging students in relaxation activities such as deep breathing, small breaks, engaging in positive self-talk, focusing on past success, exercising, and games. Construction of student-friendly tests by fostering motivation, relating questions to student's lives, giving choices while responding to items, work in collaborative groups, and embedding visual reminders are some of the suggested ways to reduce anxiety (Salend, 2012). Mitigating the effects of anxiety through various techniques and teaching students how to cope with test anxiety are some of the areas for capacity building among teachers which countries may henceforth focus upon.

Lastly, one can also not deny the *crucial role played by community members in encouraging children to continue to learn at home*. The involvement of a community's own networks, people and resources in the establishment

of Child Friendly Spaces during the emergencies have been helpful. During emergency situations, apart from teachers, other stakeholders become engaged in conducting continuous and formative assessments of children. The role of family, community and parents has been particularly important during COVID-19, with a significant portion of learners being displaced and having to continue their studies remotely from home.

Most country practices have indicated that the assistance of community members like parents, other youth, volunteers and normal citizens were sought at different stages to monitor learning and provide feedback. In the Thailand Rohingya refugee education example, mothers of school going children assisted in developing the tools to assess language competency, i.e. the mother tongue, in the refugee learning centres (Save the Children. 2016^a). Another project, the Quality Cross-Border Education Support in Thailand (QUEST) project carried out by Save the Children for refugees along the Thai-Myanmar border, revealed that the engagement of parents and the community built a strong partnership between schools and community and enabled to sustain the interventions implemented in the field (Jonason & Htu, 2018).

This implies that formative and continuous assessment during emergencies can be viewed as a participative and collaborative educational exercise and hence for its effective implementation requires systematic training, coordination and management of community ownership. Adoption of bottom-up approaches and policies to support community ownership by enhancing coordination between the government and local agencies during emergencies is recommended.

Way Forward

Although, a variety of educational interventions and services have been introduced and implemented by different countries during and post-emergencies, information on the actual outcomes and impacts of such interventions is scarce (UNICEF, 2010^b; UNICEF, 2012). Although many countries in the region have developed varied coping strategies to mitigate the effects of emergencies on education, millions of children remain excluded from learning opportunities and formative assessments (Akram et al., 2012).

The current COVID experience has shown that the education sector was still unprepared for this type of crisis, as many countries failed to effectively migrate towards online teaching and find alternative modes to conduct formative assessments (Bozkurt et al., 2020). Countries will need to strengthen their mechanisms for monitoring student learning outcomes in order to estimate the impact of interventions thereby providing a transparent system to demonstrate educational accountability. Educational institutions must realise it is imperative to adopt an integrated and collaborative approach to conduct formative and school-based assessment during emergencies and hence involving community and other concerned stakeholders is crucial to ensure universal access to quality education and achieving the sustainable development goals.

REFERENCES

Akram, O., Chakma, J., & Mahbub, A. 2012. Continuing Education in Disaster – Affected Schools in Bangladesh: An Evaluation of the Education in Emergencies Project. *Children, Youth and Environments*, 22(2), pp.249-262

Anderson, A., & Brooks, D. 2006. Implementing Minimum Standards for Education in Emergencies: Lessons from Aceh. Retrieved from <https://odihpn.org/magazine/implementing-minimum-standards-for-education-in-emergencies-lessons-from-aceh/>

Barakat, S., Connolly, D., Hardman, F., & Sundaram, V. 2013. The Role of Basic Education in Post-Conflict Recovery, *Comparative Education*, 49(2), pp. 124-142.

Bhatia, R., & Narain, J.P. 2010. The challenges of Emerging Zoonoses in Asia Pacific. *Asia Pacific Journal of Public Health*, 22(4), pp. 388-394.

- Bozkurt, A., Jung, I., Xiao, J., Vladimirsch, V., Schuwer, R., Egorov, G., Lambert, S., Al-Freih, M., Pete, J., Olcott, Jr., D., Rodes, V., Aranciaga, I., Bali, M., Alvarez, A. J., Roberts, J., Pazurek, A., Raffaghelli, J. E., Panagiotou, N., de Coëtlogon, P., Paskevicius, M. (2020). A Global Outlook to the Interruption of Education Due to COVID-19 Pandemic: Navigating in a Time of Uncertainty and Crisis. *Asian Journal of Distance Education*, 15(1), 1-126.
- Brown, R. 2001. Improving Quality and Attainment in Refugee Schools: The Case of the Bhutanese Refugees in Nepal. In J. Crisp., C. Talbot & D. B. Cipollone. (Eds.). *Learning for a Future: Refugee Education in Developing Countries*. Switzerland: UNHCR.
- Burde, D, Kapit, A., Wahl, R.L., Guven, O., & Skarpeteig, I. M. 2017. Education in Emergencies: A review of Theory and Research. *Review of Educational Research*. 87 (3), pp. 619-658.
- Caballero-Anthony, M., & Balen, J. 2009. The State of Pandemic Preparedness in Southeast Asia: Challenges and the Way Forward. In Melly, C (Ed.). *Pandemic Preparedness in Asia*. Retrieved from <https://www.files.ethz.ch/isn/145817/Monograph16.pdf>
- Chatterjee, S. 2018. Children's Coping, Adaptation and Resilience through Play in Situations of Crisis. *Children, Youth and Environments*, 28(2), pp.119-145.
- Coker, R.J., Hunter, B.M., Rudge, J.W., Liverani, M., & Hanvoravongchai, P. 2011. *Lancet*. 2011 Feb 12, 377(9765). pp.599-609.
- Creed, C., & Morpeth, R.L. 2014. Continuity Education in Emergency and Conflict Situations: The Case of Using Open, Distance and Flexible Learning. *Journal of Learning for Development*. 1(3).
- Davies, L., & Talbot, C. 2008. Learning in Conflict and Post Conflict Contexts. *Comparative Education Review*. 52(4), pp. 509-517.
- Dicum, J. 2008. Learning, War, and Emergencies: A Study of the Learner's Perspective. *Comparative Education Review*. 52(4), pp.619-638
- Global Education Cluster. 2018. Joint Education Needs Assessment: Rohingya Refugee in Cox's Bazaar. https://reliefweb.int/sites/reliefweb.int/files/resources/cxb_jena_assessment_report-180607.pdf
- Government of India (GoI). 2020. India Report Digital Education. New Delhi: Department of School Education & Literacy, Ministry of Human Resource Development, GoI.
- Goyal, S. 2020. Future Shock: 25 Education Trends Post COVID-19. Retrieved from <https://brandequity.economictimes.indiatimes.com/news/business-of-brands/future-shock-25-education-trends-post-covid-19/75729537>
- Huber, S.G., & Helm, C. 2020. COVID-19 and schooling: evaluation, assessment and accountability in times of crises—reacting quickly to explore key issues for policy, practice and research with the school barometer. *Educational Assessment, Evaluation and Accountability*. Vol. 32, pp.237–270
- ILO. 2020. COVID-19 and the Education Sector. ILO Sectorial Brief. Retrieved from https://www.ilo.org/wcmsp5/groups/public/---ed_dialogue/---sector/documents/briefingnote/wcms_741343.pdf
- Jonason, C., & Htu, L. 2018. Baseline Results of the QUEST Project in Myanmar. Thailand: Save the Children. https://resourcecentre.savethechildren.net/node/14284/pdf/stc_thequest_report_highres-spreads_oct31-compressed.pdf
- Khan, R.A., Jawaid, M. 2020. Technology Enhanced Assessment (TEA) in COVID 19 Pandemic. *Pakistan Journal of Medical Sciences*. 36 (COVID19-S4): COVID19-S108-S110. doi: <https://doi.org/10.12669/pjms.36.COVID19-S4.2795>.
- Lieberman, J., Levin, V., & Luna-Bazaldua, D. 2020. Are Students still Learning during COVID-19? Formative assessment can provide the answer. Retrieved from <https://blogs.worldbank.org/education/are-students-still-learning-during-covid-19-formative-assessment-can-provide-answer>
- Lucia, W., & Dir, D. 2015. After the Earthquake: Nepal's Children Speak Out. London: Save the Children. Retrieved from https://resourcecentre.savethechildren.net/node/9356/pdf/nepal_children_consultation_final_lowres.pdf
- Morand, S., Jittapalapong, S., Suputtamongkol, Y., Abdullah, M. T., & Huan, T. B. (2014). Infectious diseases and their outbreaks in Asia-Pacific: biodiversity and its regulation loss matter. *PLoS one*, 9(2).

- Powers, S., & Azzi-Huck, K. 2016. The Impact of Ebola on Education in Sierra Leone. Retrieved from <https://blogs.worldbank.org/education/impact-ebola-education-sierra-leone>
- READ.2020. Formative Assessment and Student Learning: How to ensure that students learn outside of the classroom. Retrieved from https://mcusercontent.com/48c4a73c23e2baf7ec7646cae/files/938ebdd9-e6ea-461d-8d37-b281a45e1681/Formative_assessment_and_student_learning.02.pdf
- Salend, S.J. 2012. Teaching Students Not to Sweat the Test. *The Phi Delta Kappan*, 93(6), pp.20-25.
- Save the Children. 2011. Psychosocial support for Children through Child Friendly Spaces after Cyclone Giri in Myanmar. Sweden: Save the Children. <https://resourcecentre.savethechildren.net/node/4428/pdf/4428.pdf>
- Save the Children. 2016^a. Andaman Sea Crisis: Migrant Assistance & Protection in Shelters Project. London: Save the children.
- Save the Children. 2016^b. Disaster Impacts on Education in the Asia Pacific Region in 2015. London: Save the Children.
- Save the Children. 2017. Post-Disaster Educational Continuity in Fiji. Retrieved from https://resourcecentre.savethechildren.net/node/14173/pdf/fiji_post_winston_edu_continuity_report_eng_2017.pdf. London: Save the Children
- Schleicher, A. 2020. How can teachers and school systems respond to the COVID-19 pandemic? Some lessons from TALIS. Retrieved from <https://www.oecd-forum.org/users/50583-andreas-schleicher/posts/63740-how-can-teachers-and-school-systems-respond-to-the-covid-19-pandemic-some-lessons-from-talis>
- Trucano, M. 2020. How ministries of education work with mobile operators, telecom providers, ISPs and others to increase access to digital resources during COVID19-driven school closures (Coronavirus). Retrieved from <https://blogs.worldbank.org/education/how-ministries-education-work-mobile-operators-telecom-providers-isps-and-others-increase>.
- UN.2010. Asia-Pacific Most Prone to Natural Disasters but Lacks Preparedness- UN Report. Retrieved from <https://news.un.org/en/story/2010/10/357062>
- UN. 2019. Asia-Pacific Disaster Report 2019. Bangkok: UN. Retrieved from https://www.unescap.org/sites/default/files/publications/Asia-Pacific%20Disaster%20Report%202019_full%20version.pdf
- UNDP. 2020. Retrieved from <https://www.undp.org/content/undp/en/home/sustainable-development-goals/goal-4-quality-education.html>
- UNESCO 2020^a. UNESCO COVID-19 Education Response. Advocacy paper 30 July 2020. How many students are at risk of not returning to school? Paris: UNESCO. Retrieved from <https://unesdoc.unesco.org/ark:/48223/pf0000373992>
- UNESCO. 2020^b. Managing High-stakes Assessments and Exams during Crisis. UNESCO Covid-19 Education Response: Education Sector Issue Note 4.3. Bangkok: UNESCO. Retrieved from <https://unesdoc.unesco.org/ark:/48223/pf0000373387>
- UNESCO. 2020^c. How is China ensuring learning when classes are disrupted by coronavirus? Retrieved from <https://en.unesco.org/news/how-china-ensuring-learning-when-classes-are-disrupted-coronavirus>.
- UNESCO 2020^d. Exams and assessments in COVID-19 Crisis: Fairness at the Centre. Retrieved from <https://en.unesco.org/news/exams-and-assessments-covid-19-crisis-fairness-centre>
- UNFPA. 2018. Delivering Supplies When Crisis Strikes: Reproductive Health in Humanitarian Settings. New York: UNFPA. <https://www.unfpa.org/sites/default/files/resource-pdf/18-291-DeliveringSuppliesCrisis-Asia-finalweb.pdf>
- UNHCR. 2001. Learning for a Future: Refugee Education In Developing Countries. Switzerland: UNHCR
- UNICEF. 2009. Education in Emergencies and Post-Crisis Transition. Consolidated 2009 Progress Report to the Government of the Netherlands and the European Commission. Retrieved from https://www.unicef.org/emergencies/files/FINAL_PUBLIC_Consolidated_Netherlands_Donor_Report_2009.pdf
- UNICEF. 2010^a. Progress Evaluation of the UNICEF Education in Emergencies and Post-Crisis Transition Programme (EEPCT). New York: UNICEF.
- UNICEF. 2010^b. Progress Evaluation of UNICEF's Education in Emergencies and Post-Crisis Transition Programme: Sri Lanka Study. New York: UNICEF

UNICEF. 2011. The Role of Education in Peacebuilding: Case Study-Nepal. Retrieved from https://inee.org/system/files/resources/The_Role_of_Education_in_Peacebuilding_-_Case_Study_-_Nepal_%28Aug_2011%29.pdf

UNICEF. 2012. Education in Emergencies and Post-Crisis Transition. Retrieved from https://reliefweb.int/sites/reliefweb.int/files/resources/Full_Report_4257.pdf

WHO. 2005. Asia pacific strategy for emerging diseases. WHO Regional Office for South-East Asia.

Williams, P. 2006. Achieving Education for All: Good Practice in Crisis and Post-Conflict Reconstruction. London: Commonwealth Secretariat.

World Bank Group, 2020. How countries are using edtech (including online learning, radio, television, texting) to support access to remote learning during the COVID-19 pandemic. Retrieved from <https://www.worldbank.org/en/topic/edutech/brief/how-countries-are-using-edtech-to-support-remote-learning-during-the-covid-19-pandemic>

Published in 2020 by the United Nations Educational, Scientific and Cultural Organization, 7, place de Fontenoy, 75352 Paris 07 SP, France and UNESCO Bangkok Office

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THA/DOC/IQE/20/062-V1