The COVID-19 pandemic has created the largest disruption of education systems in history, at its peak affecting nearly 1.6 billion learners in more than 190 countries. Closures of schools and other learning spaces have impacted 94 per cent of the world’s student population\(^1\). The crisis has exacerbated pre-existing education disparities by reducing learning opportunities for many of the most vulnerable. Learning losses threaten to have long-lasting human development and economic impacts.

Many countries have distance learning modes, and there are global examples and materials for remote learning. Due to social distancing advice in response to COVID-19, student interaction with teachers will be minimal in many of the countries where we work, limiting the range of possible options. As student-teacher interactions – even in resource-rich environments – are highly constrained during COVID-caused school shutdowns, we need to be realistic about what is possible during the shutdown phase.

**Key points:**

- During school shutdowns, students should be encouraged to practice, review and maintain learning routines – in other words, a ‘continuity of learning’. It may not be realistic to expect new learning or progression of curriculum.
- **Self-guided materials and learning** are likely to be the most practical option.
- **Low-tech approaches may be the best solution.** In the Indo-Pacific, not everyone has access to the internet or stable/affordable mobile reception.
  - Even in Australia, some teachers are having to hand deliver education materials so that students can continue their learning during school shutdown, and there are serious issues around digital divides in education access.

**Low-tech solutions:**

**Paper-based learning materials**

**Challenge:** There is already a shortage of printed learning materials.

**Solution:**
- Development partners/ministries of education/private sector (e.g. printing services) print additional learning materials and deliver to schools for safe distribution to students.
  - **Side benefit:** economic stimulus (printing; distribution)
- Newspapers reproduce locally created learning materials and have an education/learning section in their newspapers.
  - **Side benefit:** economic stimulus (job retention; printing; distribution)
- Where learning resources are already broadly available, remind parents/teachers/students of the learning materials and available activities (e.g. textbooks; readers).
  - **Side benefit:** gain value from existing resources and investments
- Emphasise the family’s role – e.g. Tonga’s “Read with your child” public information campaign promoted reading 10 minutes with a child every day.

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Mobile phone and radio-based learning materials

Radio is broadly available in most countries, including in rural/remote areas. Radio education is great for situations that require social distancing, and was implemented during the Ebola pandemic. Mobile phone use is high in developing countries.

**Challenge:** Previous donor developed mobile phone and radio education modules may not be readily available due to changes in technology (many radio programs are now online or app-based).

**Challenge:** Mobile phone-based and radio programs not stored in a central depository – would require historic detective work amongst partners at the country level.

**Solution:**
- Support ministries of education to re-broadcast locally produced radio programs.
  - E.g. the Solomon Islands ‘Community-based radio network for development and learning’.
  - *Side benefit:* gain value from existing resources and previous investments
- Scale up existing mobile phone-based learning programs.
  - E.g. SMS Story in Papua New Guinea
  - *Side benefit:* gain value from existing resources and previous investments; proven model (at small scale)
- Broadcast existing Australian radio programs.
  - E.g. ABC, Radio National, commercial stations
  - *Side benefit:* available content; expand broadcast agreements.

“Medium-tech” solutions:

Free-to-air television education programs are a good option in countries where television ownership and broadcast penetration is high. Television-based education program are currently being broadcast by the Governments of Indonesia, Timor-Leste, Mongolia, and many other low- and medium-income countries (also see UNESCO guidelines for COVID-19 response).

**Challenge:** Open source programs very difficult to find; usually involve negotiating broadcasting rights and/or finding a broadcasting partner.

**Solution:** Draw partner attention to existing television and radio content.
- Pasifika TV Home Learning Program, developed by the New Zealand Ministry of Education, which is available through partner television networks in the Pacific.
- Papua New Guinea is broadcasting Grade 11 subjects (maths, physics, geography) on ClickTV, DigiTV and NBCTV, and elementary subjects (maths, science, English, community and religion) on NBC Radio.

**Solution:** Increase the reach of Australian educational television and radio content in the region
  - *Side benefit:* available content; expand broadcast agreements.

Online learning solutions:

Online education options are best for countries where populations have stable and reasonably-priced internet services, and ownership of smartphones and other devices are high.

There are many online solutions already being implemented in the Indo-Pacific region:

**China:**
- During SARS, Classroom of the Air was rapidly established in China as an interactive education format between students and teachers. It provided a large-scale, short-term substitute for students (and their parents).

**Indonesia:**
- Rumah Belajar - on-demand learning resources from early childhood to high school level, as well as vocational education levels, with digital lessons, electronic textbooks and practice assessment tools aligned to the curriculum.
- Ruangguru Digital Bootcamp (a winner in an iXc-funded challenge) has been expanded to offer free online classes while schools are closed.

Philippines:
- DepEd Commons portal for public and private school students, building on an existing alternative learning platform.

UNESCO and the Commonwealth of Learning (including TVET and higher education options) have extensive lists of resources available for consideration.

**Challenge:** When countries have low to no internet coverage available to students/carers, but there is reasonable access to a smartphone or tablet device.

**Solutions:** The following education apps have strong offline capabilities:
- **Kolibri:** Requires one-time access to internet to download online resources from pre-school to year 12 levels; multiple subjects and languages.
- **Moodle:** An open source learning platform, suitable for pre-school to Year 12, teacher training and workplaces. Papua New Guinea Telikom have uploaded all teachers guides, student textbooks and syllabus on to Moodle to be made available to all schools.
- **Talking books** have been rolled out successfully in Papua New Guinea with materials in local language, while also catering for students with hearing disabilities.
  - **Side benefit:** highlights a Pacific model; disability inclusive
- Facebook can be a useful location for online material if internet is available.
  - Lafaek Facebook page and website has educational resources and videos
  - ABC Education content can be accessed through their website and Facebook page
    - Full access to ABC Education resources may be restricted internationally through geo-blocks, but a list of their non-geo-block content is available on their website.

This resource is one of a number of tools produced by the Education Section (DFAT Human Development and Governance Division) on the human development impacts and issues related to COVID-19 disruptions.

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