EdTech Hub

Clear evidence, better decisions, more learning.

POLICY BRIEF

How Can EdTech Support Primary School Learners with Disabilities in LMICs?

Recommendations for Policy

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Notes

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Using EdTech to enable learners with disabilities to take control of their own learning

This briefing paper summarises the key messages for policymakers emerging from a recent (2021) systematic review of the literature by Paul Lynch, Nidhi Singal and Gill Francis on the ways that using educational technology (EdTech) can support better learning outcomes for primary school children with disabilities in low- and middle-income countries (LMICs).

EdTech can play a powerful role in supporting children's learning, not only in ways of providing access but also in enabling them to engage more effectively with the school curriculum. Having access to and engagement with appropriate technology should help develop a strong sense of self-worth and well-being, so that the learner continues to use the technology on a regular basis, takes ownership of it, and is able to self-advocate in the present and in the future.

As the international community continues to promote inclusive education, it is vital to carry out a closer examination of international published evidence to understand how EdTech is making a positive difference to the educational experiences and learning outcomes of children and young people with disabilities in low- and middle-income countries (LMICs). The field of disability and EdTech (mirroring larger trends in disability and educational research) has remained dominated by international assertions of support through the sustainable development agenda goals, anecdotal commentaries and strong personal assertions but these are substantiated by little evidence.

Through their systematic literature review, Lynch, Singal and Francis analysed how educational technology is shaping the school experiences and learning outcomes of children aged 6–12 years with disabilities living in LMICs. The review provides a synthesis of what we know from the evidence and highlights gaps in the existing knowledge base.

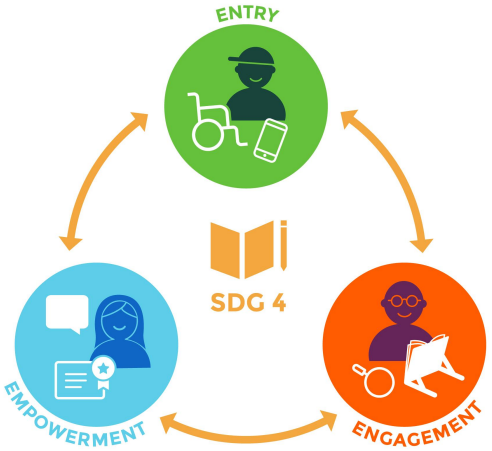
Overall, the review revealed a paucity of published research that addresses how, when, and what type of technology should be introduced to the learning process of children with disabilities. There is also a need to reduce barriers to children's learning by identifying new approaches to how learners with disabilities can access information to develop their knowledge, confidence, and diverse skills. See the table below for examples of how to build on existing practices for learners with autism spectrum disorders or deaf / hard of hearing in LMICs.

Moving forward, there is an urgent need for interdisciplinary research that encourages EdTech (as well as assistive technology) designers to work closely with learners and other key beneficiaries, including teachers and parents / carers at all stages of a project. This, in turn, should help learners with disabilities to be able to take more control of what EdTech they use as well as decide on how, where, and when they wish to use it. This should generate more evidence about the effect EdTech is having on children's learning experience.

Policy recommendations

Alignment of EdTech research to global commitment

New research into EdTech needs to be more aligned with global commitments set out in the UN Sustainable Development Goals and the UN Convention on the Rights of Persons with Disabilities.



Guidelines on who is responsible for sourcing technology

Clear national guidelines are needed on who is responsible for sourcing assistive technology.

Investment in mobile and portable devices

Governments should invest in more technology — especially mobiles and portable devices — that encourage greater opportunities for ubiquitous learning opportunities within schools, residential settings and / or homes.

Greater involvement with user groups

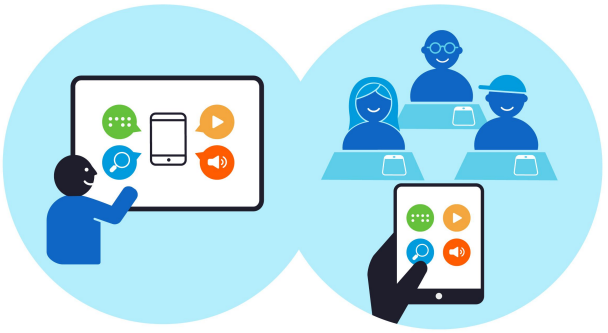
Prioritise and select specific assistive technologies for particular settings through consulting a wide range of stakeholders, e.g., international organisations, donor agencies, professional organisations, academics, user groups, learners with disabilities and their families, teachers and schools.

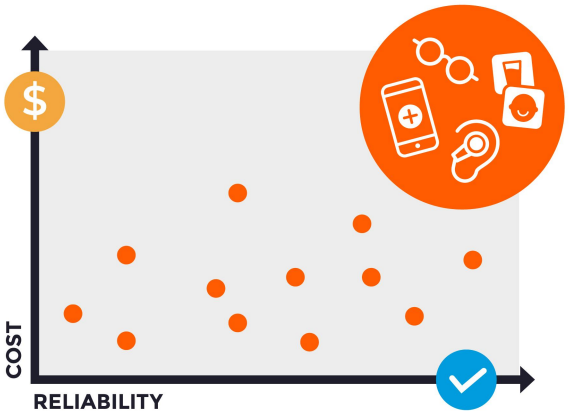
EdTech infrastructure and technology for school

Investment should be targeted to building basic and inclusive infrastructure to ensure that providing access to learning is not defeated by lack of electricity or technological know-how within a country context.

High-quality competency skill training in EdTech for teachers

Teacher development programmes should provide teachers with the basic skills and confidence to embrace and use all technology available to them, and provide them with the specialist skills relevant to the EdTech needs of learners with disabilities.





Keep the cost of assistive technology affordable

There is an urgent need to seek formal agreements with specialist suppliers of assistive technology to find solutions to keep the cost to affordable levels. It is also important to source assistive technology more locally in order to reduce additional import taxes and develop reliable supply chains within countries.

A few considerations on how EdTech can be developed or scaled up in LMICs

Disability / impairment	Implications for potential development or scaling up EdTech in low- and middle-income countries
Autistic Spectrum Disorders (ASDs)	■ Augmentative and alternative communication (AAC) has the potential to increase learning opportunities for children with ASD by expanding on the traditional instructional strategies such as pictures, symbols, flashcards, and videos. *Moving forward:* ■ It is important to consider the feasibility of piloting high-tech applications in countries where power supplies and availability of computer hardware are sparse or non-existent. ■ Exclusion of parents during testing of AAC can reduce chances of successful uptake of apps using touch-screen technology.
Deaf / Hard-of-hearing learners	■ Multimodal approaches to teaching sign language using video, text, pictures, and finger spelling help learners acquire new vocabulary. ■ Apps for mobile phones that help children, teachers, and parents to learn sign language at the same time are making a difference to the learning experiences of deaf learners. *Moving forward:* ■ It is important to involve parents when introducing a new device to learners to help ensure support and reduce the chances of abandoning the device. ■ Additional costs of devices, such as mobile phones need to be considered when promoting apps. ■ The strong uptake of mobile phones and apps is having a positive impact on how the curriculum is being re-conceptualised and delivered to deaf and hard-of-hearing learners, but there are considerable cost implications for schools and learners without strong government incentives to subsidise costs.

Further information

Read the full report here.

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