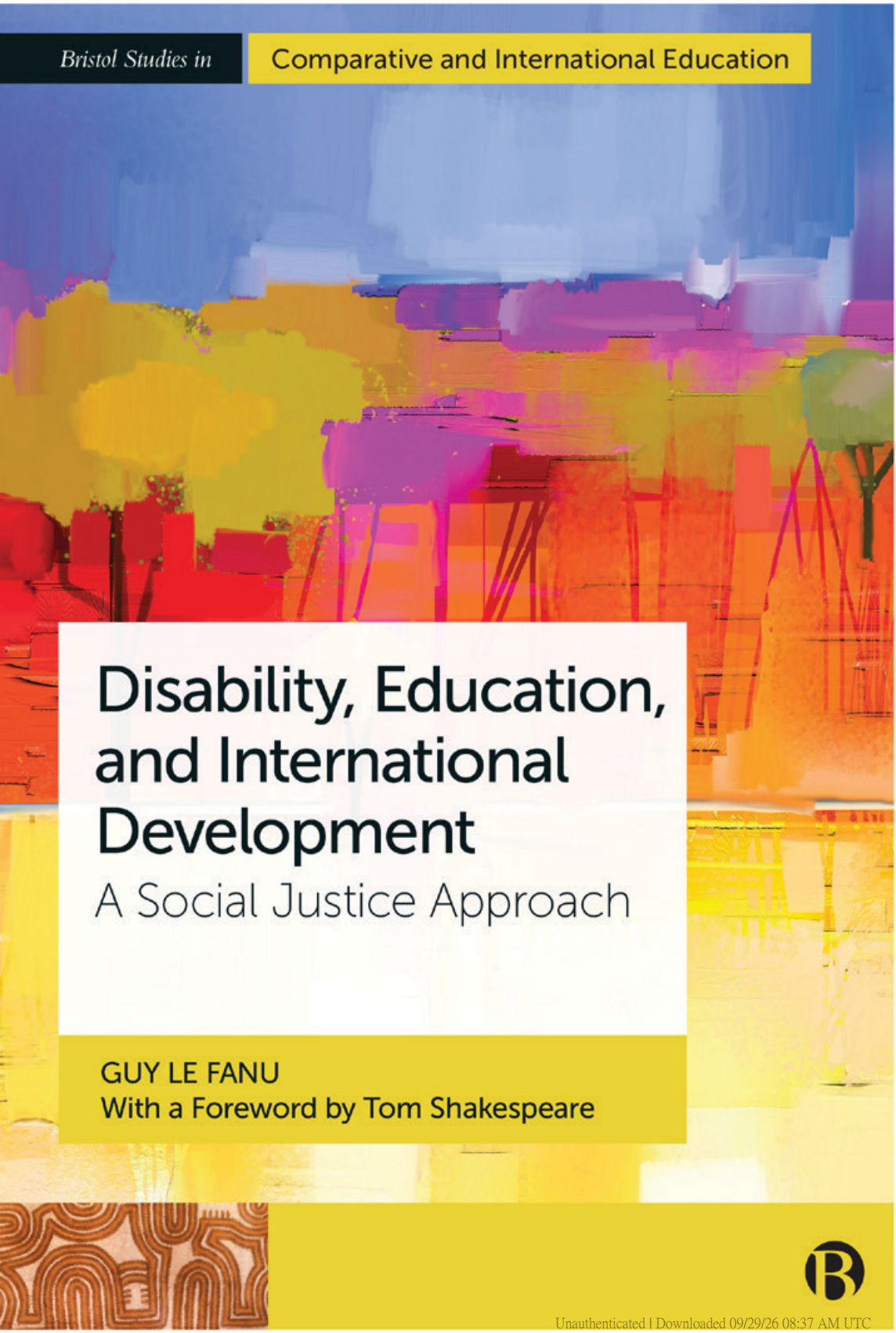


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DISABILITY, EDUCATION, AND INTERNATIONAL DEVELOPMENT

A Social Justice Approach

Guy Le Fanu

With a Foreword by
Tom Shakespeare

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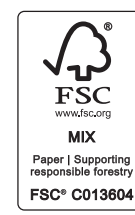
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Series Editor's Preface

Michael Crossley, Emeritus Professor of Comparative and International Education, University of Bristol

This important and challenging book seeks to identify ways in which the international development community 'can more effectively promote sustainable inclusive education of good quality for children and youth with disabilities'. To do this, the author, Dr Guy Le Fanu, draws upon many years of professional experience in a diversity of low- and middle-income countries worldwide. This is combined with extensive field research, deep theoretical scholarship, and critical reflections on the past and ongoing work of numerous international development agencies, agendas and initiatives.

The chapters that follow focus upon the educational realities for leaners with disabilities (Chapters 1–4); the political economy of disability, education, and international development (Chapters 4–5); and the technical work of the international development community (Chapters 6–10). This is an accessible, timely and insightful book that is written for anyone studying, working, or interested in the field of disability, education, and international development. I have long been impressed by the author's commitment to his work in this challenging arena and am especially pleased to see how he has developed many of his ideas through long-term engagement with colleagues, learners, communities, and mutual friends in Papua New Guinea. This was the context for Guy's doctoral research, where he lived and worked for six years; work that I was fortunate to supervise and see lead to this present volume. Indeed, Papua New Guinea has long inspired and informed my own research and career trajectory as reflected in our acknowledgement of Papuan Tapa cloth art in the series banner adopted for the *Bristol Studies in Comparative and International Education*.

While this is a book that is firmly grounded in original case studies and field research across the Global South, it draws upon, challenges, and reframes models of disability, human rights theory, pedagogy, child development, and the anthropology of childhood. In doing so, the analysis examines the challenges faced by learners with serious conditions and impairments; along with cross-cutting issues affecting all learners with disabilities in the formal,

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informal, and non-formal contexts of schools, homes, and communities. Building upon this work, the author develops an interactive model of disability that is used throughout the book to conceptualize the educational needs of learners with disabilities and the barriers to and opportunities for better meeting those needs.

I am, therefore, especially pleased to have the opportunity to recommend this book to a wide range of readers, researchers, policy makers, and practitioners, interested or engaged in advancing a genuinely inspiring social justice approach to disability, education, and international development.

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List of Abbreviations

ASC	Annual School Census
CBR	Community-Based Rehabilitation
CRPD	United Nations Convention on the Rights of Persons with Disabilities
EMIS	Education Management Information System
ESP	Education Sector Plan
EU	European Union
FCDO	Foreign, Commonwealth & Development Office
GERM	Global Education Reform Movement
GPE	Global Partnership for Education
ICF	International classification of functioning, disability and health
IDA	international development agency
IDC	international development community
INGO	international non-governmental organization
LAMIC	low- and middle-income countries
MoE	ministry of education
NGO	non-governmental organization
OECD	Organization for Economic Co-operation and Development
OPD	organization of persons with disabilities
PCMF	project cycle management framework
SDGs	Sustainable Development Goals
SEND	special educational needs and disabilities
SESA	Strengthening Education System Approach
SWAps	sector-wide approaches
TaRL	Teaching at the Right Level
UDL	Universal Design for Learning
UN	United Nations
UNDP	United Nations Development Program
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WGQs	Washington Group Questions
WHO	World Health Organization

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The author would like to thank Sanofi for giving permission to reproduce a multiple panel sequence from their educational comic book *We'll Make It*,

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and the Vision Impairment Centre for Teaching and Research (VICTAR) within the School of Education at the University of Birmingham for giving permission to reproduce an illustration from their Early Childhood Development and Vision Impairment Training Pack. He would also like to thank Sightsavers India for providing permission to reproduce a picture of a tactile resource illustrating geometric angles.

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Foreword

Tom Shakespeare, Professor of Disability Research, London School of Hygiene and Tropical Medicine

'You, of all my children, must go to school'

I don't think I will ever forget the man with visual impairment in Zambia, who told me what his mother had said to him. He had gone to school, and ultimately became a head teacher. Time and again, I met people with disabilities in Africa who proudly told me, not just how they had completed school, but had even been able to pay for the education of their siblings.

For many people with disabilities, education is a life and death matter. It means having skills and qualifications and therefore being employable. Many people cannot earn a living by their hands, and therefore a white-collar job is one of the few options. In addition to the emphasis on education throughout low and middle-income countries, it is particularly important for folk with disabilities.

And why is education inaccessible? Sometimes it is because families do not want to waste scarce resources on school fees. Sometimes, it is because of difficulties of travel to school. Again, I remember speaking to someone who had survived polio and now used crutches. He told me it had taken him three hours, morning and afternoon, to walk each way, and yet, he proudly told me he had done it. Sometimes it is because school itself is inaccessible: I know of a woman from Egypt, whose school friends had to lift her wheelchair up and down stairs to so she could use the bathroom. Sometimes it is because of the attitude of teachers. Sometimes it is because of inaccessible teaching, sauch as the Deaf woman I met in Kenya, who had learned nothing in lessons, but had afterwards copied out the books of the cleverest pupil in the class, and learned by rote.

None of these barriers are caused by a health condition. We can change them by social policies. Of course, about one in five or six people have an impairment, which often makes things harder. But on top of that disadvantage is added the difficulties of our failure to include them.

This book contributes to existing scholarship and the practice of international development through critical engagement with established

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assumptions about the educational needs of learners with disabilities in low- and middle-income countries, the best ways those needs can be met, and the role that the international development community can play in this process.

The good news is that things are getting better. But as this thoroughly excellent book shows, we have much further to go. Education should be a right, not a struggle. It matters for everyone. Disabled people can be Nobel prize winners, professors, scientists, authors, and everything else we value. Development efforts need them. Families need them. But in order to become a contributor, not a dependent, in order to have access to our shared culture, they need to have access to the schools and universities we are in danger of taking for granted.

All means all. All children should go to school. It is their human right. And it is the only way we will ever change the world.

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Introduction

In *Philosophical Foundations of Human Rights*, Cruft, Liao, and Renzo (2015) distinguish between 'non-instrumental' and 'instrumental' justifications for human rights. The non-instrumental justification affirms we possess rights as 'a matter of our basic moral status', independently of whether they promote 'human values such as agency, needs, freedom or interests' (p 16). Children and youth with disabilities therefore have a right to education because they have the same intrinsic value as their peers. The instrumental justification affirms that human rights are necessary because they are fundamental for people's well-being. Children and youth with disabilities therefore have a right to education because it is not only satisfying in itself (if it is of acceptable quality), but provides them with opportunities to acquire the various types of capital that will enable them to lead meaningful and fulfilling lives post-education. This was illustrated when young adults with disabilities in India reported that their schooling had provided them with the social networks, social opportunities, and capacities to engage with the outside world (Singal et al, 2011). It is also confirmed by employment data from selected South Asian and African countries which showed level of education had a positive effect on the earnings of adults with disabilities, although they still experienced discrimination in the workplace (Lamichhane, 2015; Wodon et al, 2018).

Other analyses have highlighted the wider social gains resulting from the participation of children and youth with disabilities in education. As a result of enrolling these individuals, mainstream schools can become more diverse and stimulating places that are more sensitive to all types of learner diversity, not just disability (Peters, 2004; Ainscow & Miles, 2008; United Nations Educational, Scientific and Cultural Organization [UNESCO], 2020). Inclusive schools provide the foundations for inclusive societies as 'they beget a younger generation which is more tolerant and accepting of difference' (Thomas, 1997, p 106). Furthermore, well-educated adults with disabilities, whether educated in special or mainstream schools, tend to be not only more self-sufficient but more likely to be economically active (see previous paragraph), thus reducing 'welfare costs and dependency on family members (while increasing the) potential for productivity and wealth creation' (World Bank, 2019, p 37).

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As will be discussed in Chapter 2, there is evidence that, in recent decades, there has been an increase in the percentage of children with disabilities in some low- and middle-income countries (LAMIC) going to school and achieving good education outcomes. However, these gains are threatened by the massive cuts to the funding of the United States Agency for International Development (USAID) by the Republican administration in the USA who are in government at the time of writing. These cuts have resulted in the cancellation of 83 per cent of its programmes, including 396 education programmes in 58 countries (Walls, 2025). It is also plausible that the cuts to nutrition, disease prevention, WASH (water, sanitation, and health), and cash-transfer programmes will result in millions of children becoming disabled,[1] imposing enormous pressures on struggling families and communities and already overstretched health and education systems. Walls observed these cuts have been accompanied by large reductions in the aid budgets of other Western nations: 40 per cent in the UK, 37 per cent in France, 30 per cent in the Netherlands, and 25 per cent in Belgium. As a result, the Organization for Economic Co-operation and Development (OECD) has estimated official development assistance in 2025 could drop between 9 per cent and 17 per cent.

In these challenging circumstances, this book seeks to identify ways the international development community (IDC) can more effectively promote sustainable inclusive education of good quality for children and youth with disabilities, as promised by the *United Nations Convention on the Rights of Persons with Disabilities* (CRPD) and Sustainable Development Goal 4 (SDG 4). To do so, it addresses the following questions:

1. Educational realities for learners with disabilities (Chapters 1–4)
   a) What are the educational needs/entitlements of learners with disabilities in LAMIC?
   b) To what extent are these needs being met?
   c) What are the factors contributing to this situation?

2. Political economy of disability, education, and international development (Chapters 4–5)
   a) To what extent are the systems, structures, and discourses of international development sensitive to the needs of learners with disabilities and their families in LAMIC?
   b) In what ways, do these systems, structures, and discourses need to change?

3. Technical work of the international development community (Chapters 6–10)
   a) What are the strengths and weaknesses of the work of IDC in various technical areas?

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b) What does this reveal about the priorities and perceptions of IDC?
c) How can this work be made more effective?

The book is written for anyone working in any capacity in the field of disability, education, and international development, whether based in the Global North or the Global South. To make the book as accessible as possible, including those whose first language is not English, the author has endeavoured to write it as clearly and simply as possible. However, it has sometimes been necessary to use specialist technical vocabulary. Some of these terms are explained in the Glossary, others in the text and footnotes.

The book discusses educational realities in various countries in the Global South (particularly African countries), while focusing on Papua New Guinea, where the author lived and worked for six years, and Sierra Leone, where the author has participated in various projects and programmes. Although it examines the challenges faced by learners with particular conditions and impairments, cross-cutting issues affecting all learners with disabilities are also addressed. Informal and non-formal education provision delivered in home and community settings is discussed, as well as formal, school-based education.

The book is an exploratory study – that is, a flexible and wide-ranging discussion of an under-researched subject which aims to generate rather than test hypotheses. Accordingly, it draws on a diverse range of sources – not only relevant scholarship but grey literature and the author's professional background which includes 25 years working with ministries of education in 15 LAMIC and ten years teaching in special and comprehensive schools in the UK.

To understand the educational needs/entitlements of learners with disabilities, the book draws on models of disability, human rights theory, pedagogical theory, child development theory, and the anthropology of childhood. While this discussion is greatly influenced by Martha Nussbaum's social philosophy, her version of the capabilities approach is not adopted, as it is not as relevant for children as it is for adults, as Nussbaum recognizes in *Frontiers of Justice* (2006). For instance, it is not sufficient that children should have the opportunity to learn to read (a 'capability'). They should actually learn to read (a 'functioning').

To identify educational realities for learners with disabilities in LAMIC and the factors shaping this provision, the book summarizes the findings of two statistical reports (the panoramic perspective) and provides a case study of a primary school in Papua New Guinea (the grounded perspective).

To understand the political economy of disability, education, and international development, the book critically engages with the discourses (agendas), systems (ways of working), and structures (power relations) of international development – in the process, both drawing on and critiquing

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decolonialization theory which examines ways in which 'colonial relations continue to shape and ground our present-day political, economic, social, and knowledge systems' (Duvisac, 2022, p 2).

The effectiveness of the work of IDC in various technical fields is assessed in the light of the available evidence from the field and in terms of the congruence of development approaches with development realities.

Exploratory studies in the social sciences lack the methodological rigour and concentrated focus of systematic reviews but have their own particular strengths:

- Due to their discursivity, they provide space for the elucidation of concepts and the discussion of philosophical issues.
- They enable empirical understanding through placing social phenomena (such as the educational marginalization and exclusion of learners with disabilities) in their broader contexts.
- They enable critical understanding through scrutinizing largely unchallenged assumptions (for example, assumptions about the educational needs of learners with disabilities and the best ways they can be met).
- They 'look behind' the data (for example, to assess the reliability and validity of school enrolment data) and 'look beyond' the data (for example, to discuss educational quality rather than assess education provision solely in terms of quantifiable metrics).
- Due to their flexibility and breadth, they potentially enable multi-layered analysis and new syntheses, and thus contribute to theory development.

Despite this flexibility and breadth, the book's limitations are acknowledged.

First, to ensure manageability, the book does not cover vocational, tertiary, and higher education, although it is recognized that increasing numbers of young people with disabilities in LAMIC access these forms of provision. Second, the book focuses on education provision in development settings, not in humanitarian settings,[2] as the latter raises a new set of issues. Third, as previously noted, there is a dearth of evidence-based research in this field, particularly in terms of 'what works' (Global Education Evidence Advisory Panel [GEAP], 2020). In passing, it is noted that addressing this challenge will not only require large-scale quantitative studies but also small-scale qualitative research, such as providing children with disabilities with meaningful and accessible opportunities in safe and supportive environments to express their views and concerns (see, for instance, Gregorius, 2016; Brydges & Mkandawire, 2017; Wickenden, 2017). When they conducted research in Madhya Pradesh, India, Singal et al (2011) also showed the value of asking young adults with disabilities to reflect on their educational experiences, as, compared to children, these individuals tend to be more articulate and self-aware, more able to provide informed consent to participate in research,

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and less likely to feel less pressurized to give answers they think will please the interviewer.

The book's structure is as follows.

Chapter 1 develops an interactive model of disability that is used later in the book to conceptualize the educational needs of learners with disabilities and barriers to/opportunities for meeting those needs. This model places disability at the intersection of the bio-medical and the social. This model is contrasted with other models of disability.

Drawing on statistical reports, Chapter 2 provides a panoramic picture of educational realities for learners with disabilities around the world and in selected African countries. It discusses the presence, participation, and achievement of these learners in education and the extent to which these phenomena are shaped by their type and severity of functional difficulty, along with their gender, socio-economic background, geographical location, and other characteristics.

In contrast, Chapter 3 is a 'grounded' study of the educational situation for students with disabilities in a 'model 'primary school in Papua New Guinea. The inclusiveness of teachers' pedagogical practices is assessed in terms of the extent to which they met the 'common', 'specific', and 'individual' needs of these students, particularly the needs of deaf students. The chapter then discusses the extent to which these practices are shaped by teaching and learning realities in the schools, the capacities of local support systems, and regulatory frameworks, such as the new standards-based curriculum.

Chapter 4 identifies the educational entitlements of learners with disabilities in the light of the neo-Aristotelian conception of human flourishing. The chapter then assesses Article 24 of *United Nations Convention on the Rights of Persons with Disabilities* and General Comment 4 on Article 24 in terms of the extent to which:

- They address the need of some learners with severe and complex disabilities for alternatives to full mainstreaming ('the sensitivity critique').
- They acknowledge the importance of informal and non-formal education delivered in home and community settings, particularly early learning ('the sufficiency critique').
- Their prescriptions are feasible, given often challenging contexts of implementation in LAMIC ('the feasibility critique').

Chapter 5 discusses the extent to which 'the political economy' of disability, education, and international development is conducive for the promotion of disability inclusive education. In particular, the chapter considers whether:

- The international development community (IDC) is sufficiently committed to disability inclusive education.

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- IDC's agenda and associated beliefs and values are conducive for disability inclusive education.
- The systems and structures of international development promote disability inclusive education.

Chapter 6 engages with the Strengthening Education System Approach (SESA) in international development. Recognizing that the various elements of education systems are connected, SESA posits that development initiatives in the field of education should engage with these systems in all their complexity. The validity of this approach is assessed in the light of learning from a large system-strengthening programme in Sierra Leone funded by the United Kingdom's Foreign, Commonwealth and Development Office (FCDO).

Chapter 7 evaluates attempts by the international development community (IDC) to strengthen the capacity of national Education Management Information Systems (EMISs) to manage disability-related data, focusing particularly on a pilot project which examined whether disability-disaggregated student data could be collected by teachers for the Sierra Leone EMIS through the Washington Group Questions.

Chapter 8 compares three pedagogical approaches that have been promoted by IDC and assesses their transmissibility to local practitioners, their feasibility in development contexts, and their inclusiveness for learners with disabilities in LAMIC. These approaches are Care for Child Development, Teaching at the Right Level, and Universal Design for Learning. It also contains a case study on early childhood care and education for children with autism in India.

Chapter 9 discusses two initiatives (one in India, one in Zambia) which adopted contrasting approaches to:

- Promote the use of 'functionally' and 'contextually' appropriate educational resources for students with disabilities (resource promotion).
- Strengthen the capacity of education systems so these students could access an expanded range of resources and use these resources effectively (resource enablement).

The comparative merits of 'non-tech', 'low-tech', and 'high-tech' educational resources are discussed. As the topic is so broad, the chapter focuses on the resource needs of learners with visual impairment.

Chapter 10 assesses two contrasting initiatives which sought to address school-based abuse – one which sought to address the abuse experienced by all students, including students with disabilities, and one which focused on changing attitudes and practices towards people with epilepsy.

The last chapter, 'Concluding thoughts', explicitly returns to the research questions outlined in this introduction and offers some analysis in relation to each.

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Note on language

In accordance with United Nations usage, this book uses 'person-first' language which emphasizes the person rather than the disability – for instance, 'people with disabilities', not 'disabled people', 'people with visual impairment', not 'visually impaired people'. An exception is made for deaf people as the Deaf community prefer this term because deafness is a constituent element of many deaf people's cultural identity, especially if they are sign language users. It is also acknowledged that some people prefer the expression 'disabled people' to 'people with disabilities', as it emphasizes the extent to which these individuals are disabled by society, not their condition.

In this book, the term 'learners with disabilities' is often used to refer to all young people with disabilities, including those not in school. The term 'students with disabilities' is used more narrowly to refer to those enrolled in formal education programmes. This distinction recognizes that many learners with disabilities are still excluded from school. It also recognizes that valuable learning happens outside school, in home and community settings, particularly in the early years of a child's life.

In some countries, it is not uncommon to come across students with disabilities in their early twenties in school, even in primary schools. This is because they have entered school in late childhood or even adolescence, 'dropped out' of school for a few years, and/or been 'held back' because they have failed their end-of-year exams. The term 'children and youth with disabilities' is therefore sometimes used to encompass this broad age range.

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1

Conceptualizing Disability

What is disability and what causes disability? These questions need to be answered to identify the challenges faced by learners with disabilities, along with strategies for addressing these challenges.

In the 1990s, academics and activists in the United Kingdom developed what has become known as the 'social model of disability' (Shakespeare, 2006). This states that disability, as defined as the lack of participation of people with disabilities in society, is the result of 'discrimination and social oppression': that is, 'the political, economic and cultural norms of a society which takes little or no account of people who have impairments and thus excludes them from mainstream activity' (Oliver, Sapey, & Thomas, 2012, p 16). This model, along with similarly 'social-contextual' models developed in other Northern countries, proved empowering for many people with disabilities as it posits the barriers they face are 'external' rather than 'internal' to them and therefore can be dismantled through social action and political engagement (Shakespeare, 2006).

Through the lens of the social model, these academics and activists criticized what they termed the medical model of disability. The latter model posits that the problems faced by people with disabilities are due to the impact of their impairments on their functioning. Accordingly, these problems can only be addressed either through interventions that treat the underlying conditions causing people's impairments or by interventions that enable people to better 'manage' their impairments. The former could take the form of surgery, therapy, and medication, and the latter could involve specialist training and tuition (for example, in orientation and mobility), the provision of assistive technology (for example, hearing aids), and impairment-specific environmental adaptations (for example, ramps for wheelchair users). In passing, it should be noted that the medical model was exported worldwide from the 1970s onwards by the World Health Organization (WHO) through its disability classification schemes (Hogan, 2019).

For proponents of the social model, the medical model disregarded the 'deep structures' of social oppression – the ways in which societies are

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methodically organized at every level to marginalize people with disabilities and other demographic groups, such as women and ethnic minorities. The medical model also failed to appreciate the nature and extent of the problems experienced by people with disabilities in their daily lives – in particular, the significance of socially, culturally, and institutionally embedded stigma and discrimination. Even when people with disabilities had difficulties performing certain activities seemingly due to the impact of their impairments on their functioning, these difficulties were due to social factors – namely, the failure of policy makers to make social and physical environments disability accessible and provide people with disabilities with the necessary services and resources. However, while accepting the need to provide people with disabilities with the various types of support that would ensure their impairments no longer negatively impacted on their ability to participate in society, proponents of the social model tend to 'regard with intense suspicion … any attempts to mitigate or cure medical problems' (Shakespeare, 2006, p 31) as such attempts imply the impairment is the problem.

While acknowledging that many of the barriers faced by people with disabilities are partly or, in some cases, primarily caused by social factors, Shakespeare was concerned that the social model clearly distinguishes between impairment and disability. For Shakespeare, this distinction fails to sufficiently appreciate the 'disabling' effects of many impairments and hence the value of impairment-specific interventions, such as the provision of specialist services, resources, and adaptations. In low- and middle-income countries (LAMIC), these interventions are particularly necessary due to the higher prevalence of impairments, along with disabling physical and social environments, but are much less likely to be available than in the Global North (Grech, 2014). For instance, it is particularly necessary for students with visual impairment to learn orientation and mobility skills as they need to navigate school environments lacking physical accessibility. Similarly, it is necessary that severely and profoundly deaf learners (along with their teachers) become proficient sign language users, as they may find it difficult or impossible to use their residual hearing in noisy classrooms, even when they are provided with hearing aids (which are anyway often unavailable in under-resourced education systems). Given the limited capacity of governments and civil society in LAMIC to take the necessary measures to negate (or at least mitigate) the impact of impairments on the functioning of people with disabilities, initiatives which prevent people becoming impaired in the first place are also particularly valuable, such as neglected tropical disease and micronutrient programmes.

Shakespeare further observed that even if the world was transformed so it was as inclusive and accessible as possible, many people with disabilities would still be disadvantaged due to the continuing impact of their impairments on their functioning, and large numbers would continue to experience

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discomfort, even pain, as a result of their conditions. He also noted that impairment not only contributes to disability, but disability to impairment – for instance, if a person with psycho-social difficulties experiences stigma and discrimination, these difficulties will worsen.

As an alternative to the social model, Shakespeare outlined an interactive model of disability. This posits that disability results from the interaction of various factors, including types and levels of impairment, personal characteristics, and social factors. One example of an interactive model is the World Health Organization's 'bio-psycho-social' model of disability which is described in *International Classification of Functioning, Disability and Health: Children and Youth Version* (ICF-CY) (World Health Organization [WHO], 2007b). ICF-CY is bio-medical as it defines disability as 'an umbrella term' for 'impairments' (for example, difficulty moving limbs), 'activity limitations' (for example, difficulty walking), and 'participation restrictions' (for example, difficulty travelling to and from school resulting in sporadic attendance in school) (p 3). Yet it is also social-contextual as it recognizes disability is shaped by 'environmental factors' (which can be both social and physical) and 'personal factors' (p 8). Examples of the former are attitudes and practices, inaccessible infrastructure, and the quality of systems and services. Examples of the latter are the race, gender, socio-economic status, and age of the individual (see Figure 1.1).

To be holistic, the interactive model of disability must accommodate 'disability gain' (see Figure 1.1). This term refers to the inherent capacities of people with disabilities, such as the 'enhanced ability (of people with dyslexia) to process visual-spatial informational holistically' (Kannangara et al, 2018, p 1) – see also the case study on autism in Chapter 8. It also refers to the capacities they acquire through their interactions with the world around them, such as the superior listening skills many people with visual impairment develop due to their greater reliance on their sense of hearing.

Although ICF-CY was developed by a multilateral organization headquartered in Geneva, it is globally relevant as it identifies a universal set of variables shaping the lives of people with disabilities. Furthermore, these variables can take multiple forms and interact in myriad ways, in the process creating an infinite series of permutations that reflects the global diversity of disability.

Despite its strengths, ICF-CY is socially under-conceptualized. First, while it recognizes social factors contribute to disability, disability is still defined bio-medically (discussed earlier). Second, geopolitical and geoeconomic phenomena are not considered, despite their significance – as illustrated by the impact of economic liberalization on employment opportunities for people with disabilities in India (Hiranandani & Sonpal, 2010) and the Russian annexation of Crimea on inclusive education reform (Petryshyn, 2020). Third, the model does not analyse the interplay between environmental and personal

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factors (or within these sets of factors), such as the ways in which the negative attitudes and practices of others not only constrain people with disabilities but can be resisted by them. Fourth, the model does not acknowledge that socio-cultural, socio-economic, and political phenomena – whether local, national, international, or global – not only affect the lives of people with disabilities but can cause them to become impaired in the first place. For instance, it has been estimated that the military conflict in Libya (which has involved both national and international actors) resulted in 42,633 civilians being injured between 2012 and 2017, of whom 14,265 became disabled due to the severity of their injuries and/or lack of access to treatment (Daw, El-Bouzedi, & Dau, 2019).

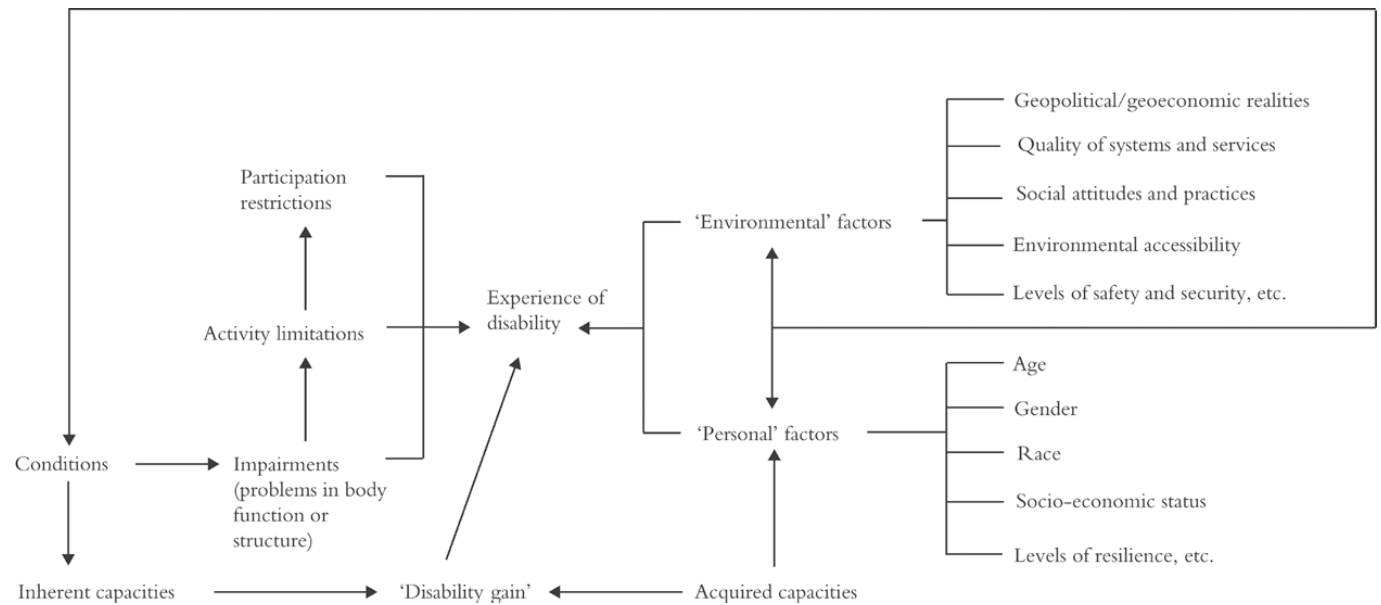
Various quantitative analyses have assessed the impact of globalization (broadly defined as the intensified interconnectedness of the world) on people's health in the Global South. Guzel et al (2021) concluded that it has had a beneficial effect overall, although these countries needed to become more democratic and globally integrated to maximize its benefits. They posit this is because globalization increases government accountability (through 'political globalization'), promotes free trade, capital mobility, and knowledge transfer (through 'economic globalization'), and raises awareness of health issues (through 'social globalization'). Other analyses have highlighted the negative effects of globalization on the mental and physical health of people living in these countries. This is attributed to disruptive social change; increased economic inequality and social stratification; reduced social expenditure due to economic liberalization; and more sedentary lifestyles and unhealthy diets (Ezcurra & Rodríguez Pose, 2013; Goryakin et al, 2015; Farooq et al, 2020). Global warming – largely attributable to fossil fuel companies (from the supply side) and the unsustainable lifestyles of the richest 10 per cent of people in the world (from the demand side) – has disproportionately affected the Global South. In the process, it has impacted on people's health directly – for instance, through increasing the prevalence of infectious disease (Rossati, 2016) – and indirectly through stunting economic development (Diffenbaugh & Burke, 2019). Soldatic (2013, p 747) has termed these processes 'the global production of impairment in the South'.

To address the previous concerns, a modified version of WHO's 'bio-psycho-social' model (WHO, 2007b) will be used as an 'aid to analysis' in this book (see Figure 1.1). Among other changes, this version places disability at the intersection of the bio-medical and the social. The modified version also incorporates disability gain.

Degener (2017) has outlined a fourth model of disability – a human rights model closely aligned with *United Nations Convention on the Rights of Persons with Disabilities* (CRPD). While recognizing the strengths of the social model, Degener claims the human rights model is superior as it specifies the comprehensive, non-negotiable entitlements of people with disabilities while providing a 'road-map' for achieving them. Unlike the social model,

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Figure 1.1: Adapted version of World Health Organization's bio-psycho-social model of disability



Source: WHO, 2007b

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it also recognizes the significance of impairment, 'acknowledges identity issues' (p 49), and accepts 'the need for prevention services in the context of the rights to health' (p 54). Chapter 4 of this book describes the strengths and limitations of CRPD in the field of education, and thus the validity of this model for learners with disabilities in the Global South.

The next chapter outlines the findings of two statistical reports which have drawn on WHO's interactive model of disability to identify educational realities for learners with disabilities around the world and some of the variables shaping those realities.

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2

Educational Realities for Learners with Disabilities: The Panoramic Perspective

1. Introduction

This chapter provides an overview of educational realities for children[1] with disabilities and the factors shaping these realities. It is based on two statistical reports: *Seen, Counted, Included* (United Nations Children's Fund [UNICEF], 2021) and *The Price of Exclusion: Disability and Education* (Wodon et al, 2018). The first report is significant because it not only identified how children with disabilities around the world were faring in education compared to their peers, but disaggregated educational data for these children by sex and level and type of functional difficulty. Furthermore, the report enabled correlations to be made between the educational status of these children and their levels of access to other 'social goods' such as health services, sanitation, and adequate nutrition. The second report is significant because it focused on selected African countries, and, through analysing census data, was able to identify the extent educational realities for children with disabilities in these countries have changed in recent decades.

2. Seen, counted, included

2.1 Data sources

Until relatively recently, childhood disability was assessed using the World Health Organization's (WHO's) *Global Burden of Disease* (GBD) framework (UNICEF, 2021). This assessed disability in terms of the impact of health conditions on people's functioning and was therefore informed by a medical model of disability. As discussed in Chapter 1, this model is problematic as it does not recognize that disability is the result of the interaction of various factors, including social attitudes and practices – meaning someone who is disabled in one context may not be disabled in another context, or may at

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least be less disabled. Disability should therefore be measured in terms of the extent to which someone with an impairment or condition experiences social marginalization, not in terms of the impairment/condition itself. Furthermore, for children to be categorized as disabled according to GBD, they would need to be formally diagnosed – which is only possible if their parents recognize their symptoms and are then able/willing to refer them to relevant health services. Consequently, GBD greatly underestimated the prevalence of disability in low- and middle-income countries (LAMIC). Even when people used different approaches to collect disability data, data sources were often invalid because of the lack of instruments specifically designed for children, as well as hard to compare because different measurement tools and protocols were used to collect the data.

To address these challenges, the United Nations Children's Fund (UNICEF), when planning the report, decided only to include data sources which collected data on functional difficulties and limitations (for example, difficulties carrying out activities such as seeing, walking, and communicating) rated according to severity. Children were accordingly categorized as disabled if their mothers, primary caregivers, or household heads (depending on the survey instrument used) reported they had a 'lot of difficulties or cannot do at all' or were 'limited or severely limited' in terms of their functioning. UNICEF believed this definition of disability was more closely aligned with ICF's interactive model of disability (see Chapter 1) and therefore more meaningful than GBD's. The data sources included in the report were based on population censuses and household surveys, meaning data were in theory collected on entire populations (in the case of censuses) or representative samples of populations (in the case of household surveys). This meant the data sources represented 84 per cent of the world's population and at least 50 per cent of the population of children in each region of the world, enabling global and regional comparisons (UNICEF, 2021).

As census and household survey data were collected on a variety of subjects from households, it was possible to establish statistical relationships (correlations) between variables. This meant that it was not only possible to identify how learners with disabilities were faring in education (for example, whether they were enrolled in school) but establish correlations between their educational situation and other variables, such as their socio-economic background, gender, and location (that is, whether they were living in a rural or urban area).

While these estimates may be more reliable (collected consistently, using standardized instruments) and valid (reflecting the reality they claim to represent) than previous estimates, UNICEF (2021, p 17) acknowledged that, 'despite screening, selecting, and harmonizing data points prior to the estimation process, the resulting data still contained significant variability across countries and regions'. The final estimates should therefore be seen as 'indicating orders of magnitude rather than precise figures'. It should also

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be noted that while it is more meaningful to define disability in terms of severity of functional difficulty than health condition, a truly meaningful measure of disability (aligned with the interactive model of disability) would assess the extent to which people with impairments and conditions are able to lead meaningful and satisfying lives in their communities. Presumably disability data are not collected in this way across large populations because of the additional time, complexity, and expense involved.

2.2 Global prevalence of childhood disability

In *Seen, Counted, Included*, UNICEF estimated there were almost 240 million children aged 0 to 17 with disabilities in the world in 2021, equivalent to one in ten worldwide (UNICEF, 2021). Of these children, disproportionately high numbers lived in the Global South – for instance, 14.9 per cent of children in West and Central Africa, 13.1 per cent of children in the Middle East and North Africa, and 10.4 per cent in Eastern and Southern Africa were estimated to be disabled, as opposed to 5.4 per cent in Europe and Central Asia.

Adopting a medical perspective, Cameron et al (2005) have attributed the comparatively high rates of disability in low-income countries to the higher prevalence of communicable diseases (such as malaria), congenital and non-infectious disorders (such as many musculoskeletal impairments), chronic medical conditions (such as diabetes), and malnutrition, along with the impact of war, trauma, and accidents. As discussed in Chapter 1, these phenomena can be put in the broader contexts of poverty, limitations in health services, environmental degradation, rapid population growth, and social upheaval (for instance). These phenomena in turn can be put in broader geopolitical and geoeconomic contexts. From a social perspective, the higher prevalence of disability in these countries is related to inaccessible environments and institutions in conjunction with disabling social attitudes and practices. These phenomena too can be put in broader contexts (see Figure 1.1).

The report found that in most countries and areas roughly equal numbers of boys and girls were disabled, but, in countries and areas where inequalities were reported, more boys than girls tended to be reported as disabled. Children with disabilities were more likely to experience 'moderate' rather than 'severe' levels of difficulty – in other words, were more likely to find it very difficult rather than impossible to carry out certain activities. Psychosocial difficulties were the most commonly reported type of functional difficulty, with seeing and hearing the least reported.

2.3 Global educational realities for learners with disabilities

Globally, the report found children with disabilities were less likely than their peers to attend early education, primary education, lower secondary,

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Table 2.1: Educational attendance, progression, and outcomes for learners with disabilities compared to learners without disabilities

	Children with disabilities (%)	Children without disabilities (%)
Educational enrolment		
Early education	19	27
Primary	81	87
Lower secondary	79	84
Upper secondary	65	78
Educational progression		
Overage for grade in primary	29	25
Overage for grade in lower secondary	28	24
Repeated a year in primary school	10	7
Educational outcomes (children aged 7–14)		
Demonstrated foundational literacy	20	32
Demonstrated foundational numeracy	10	17

Sample: 104 data sources from 203 countries and areas

Source: UNICEF, 2021

and upper secondary education programmes; more likely to be 'overage for grade' in primary and lower secondary school; and more likely to drop out of primary school (see Table 2.1). Children with disabilities aged 7 to 14 were also more likely to achieve poor educational outcomes as measured by foundational reading and numeracy skills (again, see Table 2.1). It should be stressed that these 'global' estimates concealed significant disparities between the Global North and Global South, as well as national variations (see Section 2.4).

2.4 Variables impacting on educational realities for learners with disabilities

According to the UNICEF report, primary school attendance for children with disabilities varied between selected countries (see Table 2.2). A correlation can be established between this metric and selected countries' respective positions in the 2025 *Human Development Index* (HDI): 'A composite index measuring average achievement in three basic dimensions of human development – a long and healthy life, knowledge and a decent standard of living' (United Nations Development Program [UNDP], 2025, p 305). For instance, Belarus and Argentina are ranked 65 and 47 respectively and Chad ranked 190 in the 2025 HDI. The report also found national variations in the attainment of foundational reading and numeracy

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Table 2.2: Country comparisons of levels of educational disadvantage for children with disabilities

Primary school aged children with disabilities out of primary education (%)		**Children with disabilities aged 7–14 demonstrating foundational reading and numeracy skills (%)**	
Chad	62	Guinea-Bissau	1
Pakistan	24	Madagascar	3
Zimbabwe	8	Kyrgyzstan	8
Argentina	1	Bangladesh	19
Belarus	1	State of Palestine	26

Source: UNICEF, 2021

skills by children with disabilities aged 7 to 14 (again, see Table 2.2). However, the correlation between this metric and the 2025 HDI is less clear-cut. While Bangladesh and Palestine are ranked significantly higher than Guinea-Bissau and Madagascar in the 2025 HDI, Kyrgyzstan is ranked higher than all four other countries. Unfortunately, the UNICEF report only provided data for selected countries so it is not possible to explore these correlations further. It should also be noted that UNICEF's data sources date from 2005 onwards and during this time some countries' positions in the HDI have changed significantly, making comparisons with the 2025 HDI problematic.

As well as experiencing higher rates of educational exclusion and marginalization, the report found children with disabilities were more likely to experience other types of disadvantage, such as a lack of access to nutritious food, sanitation services, clean water, and health care. Self-evidently, these dimensions of poverty not only co-exist but also interact with one another: for instance, a child with a disability who is ill or malnourished is less likely to go to school, and illness/malnutrition may worsen their existing disability. Moreover, their parents are less likely to able to afford to send their children to school as, even if they do not have to pay school fees, there are likely to be associated costs (for example, of educational resources, transport to and from school, and uniforms) and opportunity costs (their children will be less able to contribute to the household).

Unsurprisingly, given their more disadvantaged backgrounds, children with disabilities were less likely than other children to have access to books in the home or be read to at home – a factor negatively impacting on their primary school readiness. They were also more likely to experience violent discipline (in the home, in school, and in their communities) – a factor likely to negatively impact on their willingness to go to school and ability to realize their potential in school. This is discussed further in Chapter 10.

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The report found that certain groups of children with disabilities were particularly educationally disadvantaged.

Girls with disabilities were less likely than boys to be in early education, primary education, and lower secondary education presumably due to 'double discrimination' – oppressive gender attitudes and practices combined with negative beliefs and behaviours directed towards people with disabilities. However, girls with disabilities were marginally more likely to be in upper secondary education than boys.

Children who had difficulties caring for themselves, with communicating, or with hearing were most likely to have never attended school; and children with difficulties communicating, learning, or remembering were least likely to have foundational reading skills. Similarly, it was found that children with more than one functional difficulty and/or severe functional difficulties were more likely to be out of education or fare poorly in education. Adopting a medical perspective, it can be posited these correlations indicate that certain types and levels of functional difficulty impact more significantly than others on children's presence, participation, and achievement in education, as do combinations of functional difficulty. Adopting a social perspective, it can be posited that these children experience disproportionately high levels of institutionally embedded stigma and discrimination.

Children with disabilities living in rural areas were more educationally disadvantaged than those in urban areas. Presumably this is because educational services tend to be more widely dispersed and of poorer quality in rural areas. It may also be related to lower levels of family income and the prevalence of more conservative social attitudes and practices. Low levels of maternal education also impacted on educational enrolment and outcomes for children with disabilities, illustrating the importance of home-based educational support – an issue discussed further in Chapters 4 and 8.

Given the realities described in this section, it is unsurprising that the report found adolescents with disabilities aged 15–17 were more likely to feel discriminated against and unhappy than their peers.

Table 2.3 shows the variables impacting on children with disabilities' educational status (that is, whether they are enrolled in education and, if so, how they are faring in education). Self-evidently, these variables are inter-related, illustrating the extent to which these individuals can be multiply disadvantaged. For instance, the UNICEF report found that children with one or more functional difficulties were more likely to experience multi-dimensional poverty than children with only one functional difficulty, and children with one or more severe functional difficulties were more likely to experience such poverty than those with one or more functional difficulties.

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Table 2.3: Variables impacting on educational status of children with disabilities

Variables correlated with educational status of children with disabilities	Variables likely to affect educational status of children with disabilities
Severity, type, and number of functional difficulties of child	Increased likelihood of experiencing multi-dimensional poverty
Sex of child Location (rural/urban) of child Levels of maternal education	Decreased likelihood of having access to books at home or being read to at home
	Increased likelihood of experiencing violent discipline in the home and community and at school

Source: UNICEF, 2021

3. The price of exclusion: disability and education

3.1 Data sources

This report drew on census data from 11 African countries: Burkina Faso, Ethiopia, Ghana, Kenya, Liberia, Mali, Malawi, Mozambique, South Africa, South Sudan, and Zambia (Wodon et al, 2018). Wodon et al acknowledge the limitations of censuses as instruments for collecting disability data. For instance, they tend to only identify people with severe functional difficulties and often exclude people with certain functional difficulties, and therefore underestimate disability prevalence. Moreover, international variations between disability-related census questions and descriptions negatively impact on the international comparability of data (Pettinicchio & Maroto, 2021). However, Wodon et al believe census data have certain strengths. As data are collected (in theory) on all members of a given population, it is possible to make generalizations about these populations based on these data and establish correlations between variables (such as sex, disability, and socio-economic status). As data are collected on every household member (young and old), it is possible to identify how things have changed over time by comparing the data on different household members. As data on different functional difficulties are collected, it is possible to contrast the life-experiences of people with different functional difficulties.

3.2 Findings from census data

Wodon et al (2018) analysed the census data to assess educational realities for children with disabilities (past and present) across the 11 countries in terms of four indicators: the likelihood of them ever enrolling in education, completing a full course of primary education, completing

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a full course of secondary education, and being considered literate by their parents.

Using regression analysis, Wodon et al were able to assess the impact of selected variables on the achievement of these indicators. They found that number and type of functional difficulty had a significant impact, as children with multiple disabilities and children with psychosocial difficulties (for instance) were less likely to achieve these outcomes than those with physical disabilities. (Data on children with cognitive impairments were not analysed, presumably because such data did not exist.) They also found children with disabilities fared less well in education if they were female, were orphans, came from the poorest households, and lived in rural areas. This shows the importance of intersectionality – the ways in which the different attributes of people with disabilities (such as gender, race, and socio-economic background) combine to shape other people's interactions with them, and consequently the levels and types of exclusion experienced by people with disabilities. However, further regression analysis showed disability had a greater impact than any other variable on children's presence, participation, and achievement in education. This in turn shows the dangers of uncritical intersectionality – deprioritizing disability by subsuming it within a cluster of other variables and, consequently, underestimating its significance.

As data were collected from households containing people of different ages, Wodon et al (2018) were able to identify how the educational situation for children with disabilities had changed over a 20-year period. It was found that their educational situation had significantly improved in certain respects, particularly for girls. For instance, the likelihood of ever being enrolled in school had increased by 6.5 percentage points for boys with disabilities and 20.3 percentage points for girls with disabilities (who had not only 'caught up' with boys with disabilities in terms of enrolment but 'overtaken' them in terms of perceived acquisition of literacy). However, data for 'the youngest appropriate age cohorts for each of the four indicators' (p 13) showed that the 'disability gap' – in other words, the disparity between children with disabilities and their peers – had actually increased over the last 20 years. For instance, boys without disabilities were now 12.6 percentage points more likely to have ever enrolled in education and girls without disabilities 26.6 percentage points more likely. As a result, the disability gap for enrolment had risen to 10.4 percentage points for boys with disabilities and 9.9 percentage points for girls with disabilities (see Table 2.4). In summary, while the educational situation for children with disabilities had improved in absolute terms, it had deteriorated relative to other children.

The disability gaps between boys and girls with disabilities and their peers in enrolment, completion, and literacy are shown in Table 2.4.

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Table 2.4: Disability gaps for education in selected African countries

		No disability (%)	Disability (%)	Disability gap (pp)
Ever enrolled (11 years old)	Boys	76.7	66.3	10.4
	Girls	75.3	65.4	9.9
Primary completed (16 years old)	Boys	50.0	37.2	12.8
	Girls	46.2	36.2	10.0
Secondary completed (20 years old)	Boys	36.1	25.0	11.1
	Girls	28.6	21.6	7.0
Literacy (12 years old)	Boys	65.7	52.7	13.0
	Girls	65.3	53.5	11.8

Note: pp, percentage points.

Sample: 10 censuses

Source: Wodon et al, 2018

4. Conclusion

The two statistical reports discussed in this chapter provided evidence that children with disabilities in LAMIC were significantly less likely to be in education and significantly less likely to fare well in education than their peers. The first report also identified some of the variables shaping these phenomena, such as stigma and discrimination, gender attitudes and practices, geographical location, socio-economic background, and the levels, types, and combinations of functional difficulty of these children. The second report provided evidence that the educational situation for learners with disabilities has improved in selected African countries in recent decades, but also showed the 'disability gap' between them and their peers has actually increased during this time. While these reports adopted a panoramic perspective as, in combination, they looked at global, regional, and national educational realities for children with disabilities, the next chapter adopts a grounded perspective as it focuses on a particular school.

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3

Educational Realities for Learners with Disabilities: The Grounded Perspective

1. Introduction

The previous chapter provided a panoramic overview of educational realities for learners with disabilities around the world. This chapter provides a more 'grounded' picture as it is a case study of a primary school in Papua New Guinea.[1] The school has over 1,800 students enrolled in Grades 3–8 and is a 'model' school: one of 23 in the country 'established to show exactly how inclusive education can be institutionalized in mainstream schools' (National Department of Education [NDOE], 2020, p 42). The school is atypical in terms of its urban location and access to associated services but was selected for the study because it has a significant number of students categorized as disabled, including (at the time) eight deaf children. As became clear during the study, there were many other students experiencing significant difficulties with learning. Drawing on lesson observation, interviews with teachers, and other sources of information, the study identifies the pedagogical practices selected teachers employed to include learners with disabilities in their classes. It also places these practices in their various contexts. The chapter ends with a case study of an initiative supported by the international development community (IDC) to develop and disseminate Papua New Guinea Sign Language.

2. Provision for learners with disabilities in Papua New Guinea

2.1 Country overview

Papua New Guinea is located in the South-West Pacific and constitutes the eastern half of New Guinea, the world's second largest island and a number of smaller offshore islands (see Figure 3.1). It forms part of Melanesia, a

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Figure 3.1: Map showing proximity of Papua New Guinea to Australia and other neighbouring countries



Source: Created using mapchart.net

group of countries connected by proximity and linguistic, cultural, and geographical similarities (Sillitoe, 1998). The land area of Papua New Guinea is 464,000 square kilometres (UNICEF, 2004) and consists of coastal areas, river plains with 'large, meandering rivers' (Sillitoe, 1998, p 3), and rugged mountain-ranges. The country has an estimated population of 13.25 million (National Statistical Office, 2024) and is characterized by great linguistic, cultural, and ethnic diversity with over 700 languages in regular daily use, although the main languages are English, Motu, and Tok Pisin (a creole language spoken throughout the country). It ranked 154 out of 185 countries on the *2023/2024 Human Development Index*, performing particularly poorly on indicators related to gender equality and vulnerability of households to multi-dimensional poverty (UNDP, 2024). As Figure 3.1 shows, the country is situated in close proximity to Australia (less than four kilometres at the nearest point) which as, its former colonial ruler, still has considerable input into government policy-making and implementation.

2.2 Historical context

Western-style education was introduced in Papua New Guinea by missionaries in the 1870s and 1880s (Crossley, 1998). Before then, there existed what McLaughlin has termed 'a forty-thousand-year education tradition' (1994, p 63) in which children were taught 'technical' and 'revealed knowledge' (p 65) in village settings by parents and selected elders.

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For most of the colonial era, there was minimal investment in the country's education system due to the parsimony of the Australian government and the low estimation of the intellectual capacities of the local population by the colonial administration (Dickson, 1976). However, prompted by international criticism and the realization that Papua New Guinea would have to be granted full independence sooner rather than later, the colonial administration significantly increased educational expenditure in the 1960s which meant 'primary education was brought within the reach of a large proportion of the population for the first time' (Smith, 1987, p 233). These years also saw a dramatic expansion in secondary education provision (Smith, 1985) and the introduction of tertiary education, with the University of Papua New Guinea being formally established in 1965 (Murphy, 1985).

Until the 1990s, government policy excluded children with disabilities from mainstream schools (Aiwa, 2013), despite the passage of the 1983 *Education Act* affirming their right to education. Any education provision for these children was segregated, small-scale, sporadic, and delivered by (primarily Catholic) church agencies (Leach, 2024). In response to international trends and pressures, a *National Special Education Policy and Plan* was approved in 1993 which said (where feasible) children with special educational needs should attend regular schools and the government provide necessary support (NDOE, 1993).

2.3 Present-day realities

Since then, a network of 23 Inclusive Education Resource Centres (formerly known as Special Education Resource Centres) has been established, covering 17 of Papua New Guinea's 20 provinces. These IERCs have 178 teaching staff in total (Leach, 2024), and their primary responsibility is supporting the inclusion of children with disabilities in mainstream schools (Kett et al, 2016). These centres are overseen by a Special Needs and Inclusive Education Unit based in Port Moresby, the national capital. Special and inclusive education is covered in pre-service teacher training and can be studied at Diploma and Bachelor level. As well as ratifying international agreements such as *United Nations Convention on the Rights of Persons with Disabilities* (United Nations, 2006), the government has passed legislation and produced policies and plans endorsing disability inclusive education (UNICEF, 2022).

3. Theoretical framework: zone of pedagogical validity

The theoretical framework developed by the author for assessing the teachers' practice posits that valid pedagogical (teaching) approaches need to be both inclusive and feasible. Such approaches therefore fall within the zone of pedagogical validity.

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To be inclusive these pedagogical approaches need to meet the pedagogical needs of students with disabilities.

These needs can be 'common to all' (Corbett & Norwich, 1999, p 119). For instance, all students, disabled and non-disabled, need to acquire basic numeracy and literacy and, because of the similarities in the ways they learn, can all benefit from certain types of pedagogical approach. For instance, if teachers skilfully select mathematical examples and discuss them with their classes, this can enable all their students, including students with disabilities, to better understand concepts and operations (Muir, 2008). Similarly, if teachers introduce new vocabulary at text, paragraph, and word levels, this can improve their reading and writing (Wray et al, 2000).

Second, these needs can be 'specific to some (learners), not others' (Corbett & Norwich, 1999, p 119). In the case of children with disabilities, this is because their impairments have particular effects on their educational functioning. To address these needs, inclusive pedagogical approaches can take the form of 'accommodation' (teachers change how they teach, and therefore how children learn) or 'modification' (teachers change what they teach, and therefore what children learn) (McGlynn & Kelly, 2019). For instance, learners who are blind or severely visually impaired should be provided with sustained opportunities to learn through their non-visual pathways (accommodation) and may also benefit from being provided with opportunities to learn braille (modification) (Douglas & McLinden, 2005). Sometimes approaches beneficial for all learners will need to be 'intensified' for learners with disabilities, such as phonics-based literacy instruction for children with dyslexia. In this study, 'intensification' is regarded as a form of accommodation.

Third, they can be 'unique to (the) individual' (Corbett & Norwich, 1999, p 119). For instance, individualized pedagogical approaches best address the heterogenous needs of deaf children that reflect their degree of hearing loss, age of hearing loss onset, previous academic experience, parental hearing status, and other variables (Marschark, 2007).

While, broadly conceptualized, these needs are the same across contexts and cultures (such as the need to acquire literacy and numeracy), the specific forms these needs take will be shaped by context and culture. For instance, children who are blind or severely visually impaired living in predominantly oral cultures (in which little or no information is available in braille) must acquire the oracy to engage with these cultures. Nevertheless, contextual factors should not be used as a justification for denying children their rights. These children should still learn braille as otherwise they will be denied access to literacy and associated opportunities for self-realization and self-expression (Clark, 2014). Furthermore, contexts can change. In the future, it is likely that these children will have more opportunities to use braille as

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a medium of communication due to technological developments, such as the advent of low-cost electronic braille displays.

To be feasible, these pedagogical approaches need to be practicable and acceptable.

To be practicable, they need to be implementable given teaching and learning realities and teacher capacities. Lewis and Norwich (2005, p 3) distinguished between a 'unique differences' position and a 'general differences position'. The former position recognizes the value of pedagogical approaches which address the 'common needs' and 'unique needs' (see earlier discussion) of learners with disabilities but not the group-specific needs. This is because of the diversity of needs among these groups of learners, such as deaf learners (see Marschark's observation discussed previously). The latter, while accepting the importance of addressing common and unique needs, nevertheless posits group needs exist, even if these needs sometimes need to be quite defined generally to accommodate the diversity within groups. However, even the most dedicated and skilled teachers in less generously resourced education systems in LAMIC will struggle to meet the individual needs of learners with disabilities in their classes and, by default, may need to primarily focus on meeting their common and group ('specific') needs (to the extent that the latter needs exist), even if this means their pedagogical approaches are insensitive to the myriad differences between students. This issue is further addressed in the discussion of Universal Design for Learning in Chapter 8.

To be acceptable, pedagogical approaches need to be compatible with existing regulatory frameworks. These regulations can be formalized, like the stipulations of curricula. They can also be less formalized, such as culturally embedded norms and values. However, it should be stressed that courageous teachers can sometimes challenge established norms and values and, in the process, change them.

Table 3.1 identifies the various criteria for assessing if pedagogical approaches fall within the zone of pedagogical validity.

4. Research methodology

The research was carried out in May/June 2024 by the author and Mevelyn Kawane, a lecturer in special and inclusive education at a teachers' college. As Mevelyn is a Papua New Guinean national, she has first-hand experience of the country's education system. She is also fluent in Melanesian sign language (see case study at the end of this chapter) so was able to converse freely with the deaf students. The research was commissioned by the provincial Division of Education, which wanted to identify good practice in the schools with a view to rolling it out across the province. The research therefore had two questions:

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1. In what ways and to what extent, were selected teachers in the 'model' school including children with disabilities in their classes, in terms of classroom communication and activity selection? (The term 'activity' is defined at the start of Chapter 8.)
2. What variables were shaping their practices?

To answer these questions, the research focused on teachers' classroom communication and activity selection for three reasons. First, these activities are important in any classroom, but likely to be particularly important in Papua New Guinean classrooms given the historic prevalence of teacher-centred, transmission-based pedagogical practices (Avalos, 1991; Guthrie, 2003; Le Fanu, 2013). Second, these processes (unlike, say, lesson planning) are particularly accessible for researchers carrying out classroom-based observation. Third, given the multifaceted complexity of teaching and learning processes, research needs to focus on selected phenomena to be manageable.

The research took the form of a qualitative case study, an appropriate method for studying 'a complex entity operating within a number of contexts' (Stake, 1998, p 91). The research involved classroom-based observation and semi-structured interviews, enabling 'methodological triangulation' (Cohen, Manion, & Morrison, 2000, p 113). As five teachers chose to participate in the study, it also possessed 'data-source triangulation' (Hammersley & Atkinson, 1995, p 230). All the teachers were female, and all were highly experienced senior teachers, except for the Grade 7 teacher who had been teaching for several years.

Over a four-week period, 30 hours of lessons were observed (six hours for five classes spanning Grades 3–7). After the lesson observation,

Table 3.1: Zone of pedagogical validity

Domain	Criteria for assessing pedagogical approaches
Zone of pedagogical inclusiveness	Address common learning needs (common to all students) Address specific types of learning needs (such as the shared needs of deaf learners) Address the needs of individual learners Responsive to context and culture
Zone of pedagogical feasibility	Aligned with teaching and learning realities and teacher capacities, and therefore practicable Compatible with regulatory frameworks (e.g., curricula, culturally embedded norms and values), and therefore acceptable

Sources: Author; Lewis & Norwich, 2005

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semi-structured interviews were held with the teachers which were taped and later transcribed. The researchers originally intended to interview students with disabilities and their parents to obtain their viewpoints, but unfortunately the school closed unexpectedly early due to teacher participation in the national census.

5. Teaching and learning in the case study school

5.1. Illustrative lesson excerpt

The following excerpt from a lesson gives a sense of teaching and learning realities in the school.

The Grade 4 teacher (G4T), a senior teacher with 25 years teaching experience, is standing in front of her class of 32 students – 14 girls and 18 boys, most of whom are aged from 11 to 13. Two of the children are deaf, a boy (aged 17) and a girl (aged 16), but only the boy is present today. He is seated towards the front of the class, side on to the teacher. Seated next to him is a girl who knows some sign language as her brother is deaf.

G4T is revising a question-and-answer sequence introduced to the class the previous day which they have copied into their exercise books:

> 'Can you speak your mother's Tok Ples?'[2]
> 'Yes, I can.'
> 'Can you speak your father's Tok Ples?'
> 'No, I can't.'

The teacher and her class chant the auxiliary verbs in this sequence: 'can', 'can't', 'will', 'won't'. She then explains the words are 'talking about something in the future tense' meaning 'it has yet to happen, or it has not happened yet, or the activity is yet to be done, it's in the future'. She pauses before the words 'future' and 'done', prompting the students to say these words along with her. She provides examples of what she means by the future: 'ten o'clock', 'recess', '12 o'clock', before re-defining future. She explains the meanings of the four verbs in the context of their sentences, before asking her class to chant the verbs again.

After she has read through the question-and-answer sequence with her students, she asks the questions to two of the more confident English speakers in her class who stand up to answer them. She then defines 'future' for a third time, saying 'it is something that is yet to happen', pausing before the word 'happen' to prompt the students to chorus the word. She then asks the class to identify words that can be used an alternative for 'speak'. In response, students provide semantically similar verbs ('talk' and 'whisper') which the teacher writes on the board. To indicate that she wants a semantically broader range of verbs, she says 'What else can you do in the future, what is another

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word? Can you *walk*?' This prompts some students to contribute 'run' and 'play'. To further broaden the selection, the teacher adds 'read', 'write', and 'love', incorporating them in simple three-word questions. Throughout this activity, the teacher has turned her back to the class to write the vocabulary on the board.

G4T explains the activity to her students: to write 'question–answers, one positive and one negative' using the verbs on the board. She then explains it in more detail, dividing it into its constituent stages. After the class have chanted the day's date, she tells them to 'pick up their pencils and start writing'. She then explains the activity for a third time, emphasizing that one answer will start with the word 'Yes' and the other 'No'. Again, she pauses before these words, prompting the class to chant the words with her. She also instructs her class to write neatly, informs them she will be patrolling the class to mark their work, and tells them that, if 'everybody is doing what they are supposed to be doing', she will teach them a song about the environment (at which, some of the students excitedly hiss 'Yes!').

While G4T is explaining the activity, Researcher 2 is signing with the deaf student. Yet, when left alone, he struggles to complete the activity, initially writing 'Can you reading' (with no punctuation). He is rescued by his classmate who signs the full question to him ('Can you read the book?') before amending his work by crossing out '-ing', writing 'the book', and adding a question mark. She signs the correct answer to the question to him: 'Yes, I can.' With her assistance, he completes the activity, taking a full ten minutes while other students complete it in less than a minute and then sit chatting to their neighbours. While most of the students write a full sequence of questions and answers, one student (who perhaps missed the previous lesson) writes a single unpunctuated line: 'I wisper to my friend I can' (sic).

Afterwards, selected students come to the front of the class to relay what they have written, including the deaf student whose classmate provides simultaneous translation in spoken English. G4T instructs the class to give him 'three big claps'.

5.2 Classroom communication approaches

Classroom communication in the school involved oral communication supplemented with visual communication and characteristically took the form of teachers standing at the front of the classroom and transmitting information to their students.

In the previous lesson excerpt, oral communication involved the teacher modelling the correct way to ask and answer questions using the auxiliary verb 'can', providing simple examples and explanations to clarify meaning, and asking closed questions to test for understanding. While the teacher did

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not totally exclude her students from the knowledge transmission process, she allotted them a subsidiary role – for instance, to provide examples of main verbs. Similar communication strategies were prevalent in the other lessons observed, and it was noticeable that on the only recorded occasion on which an open-ended question was asked ('Who wants to tell me what music is?'), the Grade 7 class were reduced to disconcerted silence, presumably due to the question's cognitive and linguistic demands.

Observing a similar approach to classroom communication in schools in Cameroon, Moore (2010, p 216) concluded that it was more accurate to describe it as 'guided repetition' rather than 'rote learning'. This was because it had a clear pedagogical rationale: due to the children's perceived lack of knowledge and capacity, learning needed to consist of a series of graduated steps overseen by the teachers. This rationale was presumably partly justified because the language of classroom communication in Francophone Cameroon is French, a language largely unfamiliar to many of the students. The lessons therefore 'revolved around the animated performance of a mundane conversation, a carefully selected and scripted subset of linguistic forms, the mastery of which was intended to project the child into generative competence in French' (p 217). Similarly in Papua New Guinea, English, the prescribed language of classroom communication, was the second, third, or even fourth language of most of the students. Furthermore, the teachers in Papua New Guinea often communicated with great skill, combining succinct definitions with more elaborate explanations and real-life examples to maximize understanding, and using pitch, tone, and volume to convey meaning (see Section 5.1).

Despite the teachers' communicative capacities, their lack of sign language skills meant deaf students were largely excluded from the communication loop. When talking, some of the teachers also had the habit of moving about the classroom or even writing on the board with their backs turned (see Section 5.1), a habit which reduced their audibility for all students but particularly disadvantaged the deaf students who were reliant on lip-reading to understand what the teachers were saying. The murkiness of the classrooms and the fact the deaf students were seated 'side on' to the teachers exacerbated the difficulties of lip-reading, which even in the most conducive conditions is 'difficult, tiring, and error prone' (Marschark & Hauser, 2012, p 43). As English was the language of classroom communication, it also meant that many of the students, disabled and non-disabled, were thoroughly confused, at least some of the time, despite their teachers' best efforts. If the teachers had felt free to 'code-switch' from English to Tok Pisin[3] and back, they would have communicated more easily, clearly, and interactively with their students.

As the teachers knew little or no sign language, visual communication primarily involved the teachers writing on the blackboards, which stretched across the front of the classroom, to demonstrate operations and

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upload information. The students were sometimes expected to copy this material in their exercise books, a time-consuming and taxing exercise, given the murkiness of the classrooms and poor state of some of the blackboards, combined with the low literacy levels and lack of cursive handwriting skills of many of the students. Visual aids – such as posters, diagrams, and illustrations – were rarely used by the teachers. This, too, was unfortunate as such materials would have been particularly helpful for the deaf students, especially if they had taken the form of 'visual-spatial displays (representing) schematic, relational aspects of a problem' (Marschark & Hauser, 2012, p 117).

5.3 Activity selection

As Section 5.1 illustrates, classroom activities were tightly circumscribed in various ways. First, they were not differentiated, as students were expected to carry out the same activities, with no extension exercises being provided for students who finished early. The only student exempted from this rule was a girl with quadriplegia who was excluded from physical education as unfortunately this subject was perceived as beyond her sphere of competence. In other subjects, certain activities requiring fine motor skills were carried out for her by her classmates. Second, activities tended to take the same recurring forms: seat work which required students to produce a written output in English or Western mathematical language that demonstrated understanding of spoken and/or written instructions. The seat work requirement was particularly irksome for a Grade 5 boy diagnosed with attention deficit/hyperactivity disorder (AD/HD) who periodically absconded from the classroom to roam the school grounds. Third, the activities provided little or no room for flexibility of interpretation and performance, resulting in the students producing the same or similar outputs if the activities were carried out correctly (see Section 5.1). To take two examples from opposite ends of the spectrum, the Grade 3 class were required to write the letter D in upper case and lower letters between lines drawn to precise specifications, and the Grade 7 class were required to write the nine 'gifts of the spirit' on paper leaves which were then hung on the branches of miniature trees they had constructed.[4]

The activities were clearly focused on providing all the students with the building-blocks for learning. As students were expected to reproduce teacher-transmitted content, these activities were arguably aligned with traditional epistemological practices and thus culturally appropriate (see Section 5.4.2). As students were set the same activities, activity-setting did not highlight differences of ability among students, thus avoiding shame and embarrassment. However, in other respects, this pedagogical uniformity lacked inclusiveness because it prescribed the repetitive forms classroom activities should take despite considerable learner diversity.

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The pressures placed on struggling learners were exacerbated by the requirement that they work on their own, rather than together, with the teachers only providing sporadic support when patrolling the classroom – although this requirement was waived for deaf students who were paired with classmates who knew some sign language (see Section 5.1). When this requirement was rigorously enforced in frequently administered tests, the pressures placed on these learners were particularly intense. After one such test, a Grade 3 student was distraught because she had not answered any of the multiple-choice questions, presumably because she did not understand the activity requirements. (In a gesture of solidarity, her classmates answered the questions for her behind the teacher's back.)[5] During tests, these students' plight was worsened by the poor quality of some of the question-setting due to the low literacy skills/lack of subject knowledge of some test-setters.

When required to write in English, the deaf students were highly disadvantaged, as illustrated in Section 5.1. Despite my fellow researcher signing the activity, the student wrote 'reading' rather than 'read', presumably because he was used to using the present participle when writing in the present tense (as in 'I am reading'). He also omitted the question mark, either because he had forgotten he needed to add this, or he was unaware he was writing a question. As it was too complicated for his classmate to sign that he needed to change the main verb and add a question mark, she did it for him. The first sentence he wrote 'Can you reading', was very short, even by the standards of his peers, and it was expanded by his classmate to include 'the book' – illustrating the difficulties many deaf students face with writing exercises due to their more limited vocabularies and less secure grasp of concepts and grammar (Marschark, 2007).

Table 3.2 outlines the teachers' pedagogical practice.

5.4 Variables shaping the teachers' practice

5.4.1 Teaching and learning realities in the case study school

The teachers struggled to provide individualized support as there were between 32 and 40 students in each class,[6] of whom at least 12 were perceived by their teachers as experiencing significant difficulties with learning. The shortage of syllabuses, teachers' guides, and textbooks produced for the new curriculum added to the teachers' difficulties. In particular, the lack of textbooks meant the teachers had to upload large quantities of text on their blackboards which students laboriously copied into their exercise-books (see Section 5.2). The teachers further bemoaned the absence of flash cards, phonics-based graded readers, and other resources which would have enabled them to meet the individual needs of students. In the words of G4T, 'If there are insufficient materials in the classroom, that's when we treat them as all the same.' Unlike the other teachers who wanted resources to support

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Table 3.2: Key features of the case study teachers' pedagogical practice

Type of pedagogical practice	Features
Classroom communication	Teacher-dominated Oral communication combining teacher monologue with closed questions/uncompleted sentences (prompting chorused responses from the classes) Visual communication, primarily in the form of board work with very little signing for deaf learners
Activity selection	Undifferentiated activities, circumscribed in terms of learner demands and flexibility of interpretation and performance Solitary activities, with some allowances made for deaf learners

their existing pedagogies, G5T wanted resources such as manipulatives that would transform her pedagogy, enabling students to learn experientially, kinaesthetically, and collaboratively.

Due to the design of the case study, it was not possible to examine in depth the extent to which school-based systems facilitated or impeded disability inclusion. However, the handover report, passed on to G5T at the start of the new school year by the Grade 4 teacher, provided very little information on her new students with disabilities. As the Deputy Head was responsible for inclusion and consequently over-burdened, it might have been better if this responsibility had been passed on to the three teachers at the school with specialist qualifications in the subject. Finally, talking to the teachers, it became clear that there was very little teacher–parent interaction, other than the once-a-semester meetings in which teachers handed over the students' report cards. If this communication was more regular and meaningful, it would have been possible for teachers and parents to provide joined-up support for students with disabilities. In short, there was a lack of 'horizontal cohesion' within the education system – that is, collaboration between local-level stakeholders focused on addressing the needs of students with disabilities.

5.4.2 Regulatory frameworks

In education, regulatory frameworks can either be explicit, such as curricula, or implicit in the form of culturally embedded beliefs and values (which inform curriculum selection and delivery).

The teachers' pedagogical approaches were shaped by the standards-based curriculum introduced in 2017. While the previous outcomes-based curriculum allowed teachers to design their own programmes of work

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(NDOE, 2003), the new curriculum prescribes what students will be taught and when – although teachers are given some freedom to design activities that accommodate the needs of all learners (NDOE, 2017a; 2017b). The previous curriculum encouraged the use of vernacular, so students could transfer their vernacular skills to English, and emphasized the need for schools to prepare students for their future lives in predominantly rural communities (NDOE, 2003). By contrast, its successor prescribes English as the sole language of classroom communication and stresses the importance of students acquiring the skills to succeed in an increasingly globalized world (NDOE, 2017a). Cultural mathematics is excluded from the new curriculum despite the existence of 'complex, different, and diverse' forms of indigenous mathematical knowledge pre-dating colonialism and still in use today (Paraide et al, 2022, p 21). While the previous curriculum strongly encouraged thematic teaching and learning as it 'reflects more clearly the way children think' (NDOE, 2003, p 21), the only syllabi for the new curriculum that mention these processes are the junior primary Citizenship & Christian Values and Arts syllabi.

It has been argued that the type of 'formalist', transmission-based pedagogical practices observed in the case study school represent 'cultural continuity in teaching style' (Guthrie, 2003, p 57) as they reflect the country's centuries-old tradition of formal education in which knowledge was passed down by elders from generation to generation. However, this tradition also involved informal and non-formal education in which children acquired practical knowledge through 'real life activities' (McLaughlin, 1994, p 71), involving learning 'by observation and imitation' (p 70) and 'personal trial and error' (p 70) 'in the absence of the institutionalized office of the teacher' (p 71), although sometimes under the supervision of knowledgeable adults. Within this parallel tradition, knowledge was thematic, not organized into 'discreet and abstract fields' (Oakeshott, 2025, p 71) – the latter being a form of epistemological organization rooted in the European Enlightenment, as is the case for other 'systems and routines' associated with formal education, such as written examinations (p 72).

This parallel tradition of informal and non-formal education creates space for a much broader range of culturally appropriate pedagogical practices than those observed in the case study school, and provided the rationale for the discarded outcomes-based curriculum. It is also noticeable that the pedagogical approaches of the case study teachers closely resembled those prescribed by the colonial authorities in the 1960s (Barrington-Thomas, 1976), indicating 'formalism is both indigenous and imposed' (Wallangas, 2003, p 91). The selection of English as the sole language of classroom communication further illustrates the degree to which the Papua New Guinea education system has been shaped by exogenous processes, namely colonialism, post-colonialism, and globalization.

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5.4.3 Support systems

Although there was a nearby provincial Inclusive Education Resource Centre (IERC) with five full-time staff, four of the staff largely focused on supporting the 53 students aged 5 to 19+ enrolled in the centre, of whom 17 had multiple disabilities. While the primary purpose of resource centres is to support the inclusion of learners with disabilities in mainstream schools, these students, if enrolled in mainstream education, would have been even more educationally marginalized than the case study students, given the complexity of their needs and unconducive teaching and learning conditions. Furthermore, the covered courtyard outside the IERC providing a space in which primary caregivers interacted with one other at the start and end of the school day, illustrating the extent to which day-centres such as this can become valuable social hubs for parents and guardians. The member of staff in the IERC designated to provide outreach was rarely present in the case study school, as he was expected to provide one-to-one support for a secondary student in another school who was blind. When present, his primary duty was to assist deaf students during tests rather than provide other necessary services, including sign language interpretation and tuition for the deaf students and sign language training for their peers and teachers.

While the centre has optical and audiometric units, potentially capable of providing screening, assessment, and assistive devices for learners with sensory impairments, these units only functioned intermittently as staff salaries were no longer covered by an international non-governmental organization. Unsurprisingly, we encountered a Grade 4 boy with albinism in the case study school whose needs were entirely unmet. Some of the deaf students in the school may also have benefited from hearing aids and associated support. However, students in Papua New Guinea are often reluctant to use assistive devices, like glasses and hearing aids, due to teasing from other children, so a supportive school environment would have to be created first.

The local provincial education division struggles to provide quality assurance for the school as the small team of inspectors is responsible for 800 elementary schools, 300 primary schools, and 36 high and secondary schools. Furthermore, disability inclusive education is primarily seen as the responsibility of the small, overworked unit in the national capital (see Section 2.3).

All the teachers wanted to attend courses in Melanesian sign language so they could communicate with their deaf students. Only one teacher (G5T) expressed concern her teaching and learning practices were insensitive to the broader learner diversity within her class, although this was a problem experienced by all the teachers (see Sections 5.2 and 5.3). In her words: 'It's like we're lecturing to them. They feel bored. And some they switch off.' While these transmission-based pedagogical practices can be placed in the

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Table 3.3: Variables shaping pedagogical practices of the case study teachers

Domain	Elements
Teaching and learning realities	Large class sizes/many students experiencing difficulties with learning Lack of resources Limitations of in-school systems
Regulatory frameworks	Prescriptive standards-based curriculum Cultural traditions Exogenous influences
Support systems	Resource centre prioritizing centre-based provision Lack of services for screening, assessing and providing assistive devices Over-burdened provincial inspectorate Limitations of systems providing in-service training/CPD

context of regulatory frameworks and challenging teaching and learning conditions, they may also reflect the limitations of the teacher-training system in Papua New Guinea which has been criticized for prescribing resource-intensive, impairment-specific pedagogical approaches rather than assisting teachers to adopt multi-layered pedagogies that meet the needs of all learners, including learners with disabilities (Kett et al, 2016). In the case study school, the teachers could not access the good quality continuous professional development (CPD) in inclusive education which might compensate for this deficiency.

In short there was a lack of 'vertical cohesion' within the education system – that is, a misalignment between the needs of local-level stakeholders and the capacities of provincial and national bodies to address those needs.

Table 3.3 outlines the variables shaping the teachers' pedagogical practices.

6. Conclusion

This chapter has discussed the inclusiveness of the pedagogical practices employed in a primary school in Papua New Guinea, focusing particularly on classroom communication and activity-setting, along with the variables shaping these practices. To be inclusive, it was posited these practices needed to address needs which are 'common to all' students (whether disabled or non-disabled), 'specific' to certain groups of students (such as severely and profoundly deaf learners), and particular to individuals (see Table 3.1). It was also posited that the capacity of teachers to employ these practices is constrained and enabled by material and non-material realities (again, see Table 3.1). Drawing on data collected through lesson observation and interviews, it was found that the teachers struggled to transmit skills and

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knowledge to their students and set learning activities responsive to classroom diversity (see Table 3.2). As the teachers were unfamiliar with Melanesian sign language, deaf students were particularly disadvantaged. These practices were placed in the immediate context of challenging teaching and learning realities and the broader contexts of non-inclusive regulatory frameworks and under-resourced provincial and national support systems (see Table 3.3).

Despite these challenges, the chapter has highlighted the ways in which the teachers engaged with their students through 'guided repetition' and, to a limited extent, promoted child-to-child learning in their classrooms. It has also posited that the education system could be made more inclusive for all students through drawing on Papua New Guinea's centuries-old tradition of community-based education and its linguistic and cultural diversity. As part of this process, there is a need to document Papua New Guinea Sign Language and disseminate it throughout the education system, among both deaf stakeholders and their peers (discussed later).

Case study: The Papua New Guinea Sign Language initiative

From the mid-1980s onwards, Callan Services, a national non-governmental organization (NGO), pioneered education provision for deaf children in Papua New Guinea (Leach, 2024). To support this, a Melanesian Sign Language (MSL) dictionary was developed (NDOE, 1994). This largely consisted of signs taken from Australasian Sign Language (Auslan), with some Papua New Guinea-specific signs added, such as those for names of provinces and certain foods and plants.

Over recent decades, the Deaf communities in Port Moresby and other urban areas have developed their own sign language: Papua New Guinea Sign Language (PNGSL). Unlike MSL, many of the signs in PNGSL are indigenous to the country. Unlike MSL, PNGSL also has its own syntax (word order) distinctive from English (Reed & Rumsey, 2020). While MSL signers frequently finger-spell words which have no sign, PNGSL signers tend to 'act out' these signs or find other strategies for conveying the concept.

In 2010, Callan Services National Unit (CSNU) and Light for the World, a disability-focused international non-governmental organization (INGO), organized a 'PNG Deaf Olympics' attended by deaf people from all over the country (Leach, 2024). This was an event of seminal importance as it brought home to deaf people

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the need to document and disseminate PNGSL. Accordingly, a Sign Language Development Committee was established, chaired by the Treasurer of Papua New Guinea Deaf Association, many of whose members were drawn from the Deaf community. Their work was given additional impetus by the decision of the National Executive Council in 2015 to endorse sign language as the fourth language of Papua New Guinea.

Funded by the European Union, workshops were organized across the country to develop a corpus of signs for PNGSL. At these workshops, deaf people went through the MSL dictionary sign by sign, either approving or rejecting each one (Reed & Rumsey, 2020). PNGSL signs were incorporated within the corpus, as were 'culture signs' (p 13): signs used in specific locales by deaf people.

Based on these deliberations, a *Papua New Guinea Sign Language Dictionary* (PNGSLD) was produced by two European academics (Adone & Brück, 2020). The dictionary is a considerable achievement as it contains hundreds of signs organized by themes, each illustrated by a photograph. Many signs from MSL have been included, indicating the extent to which MSL has become embedded in the country. However, some signs have been replaced, such as the signs for woman, *kaukau* (sweet potato), sorry, and agree. Many new signs have also been added, including signs particularly relevant to Papua New Guinea, such as signs for ceremony (of which there are three variants), compensation, and bride price.

Unfortunately, the dictionary was not universally welcomed by the Deaf community in Papua New Guinea. Some members were concerned that the European academics, not the Deaf community, were credited as the main authors and that all the rights to the dictionary were reserved to the German publisher. In short, they felt their language had been appropriated. Furthermore, the photographs of the signs in the dictionary are not as easy to decipher as the line-drawings in the MSL dictionary which were also accompanied by short descriptions.

Since then, CSNU has organized trainings in PNGSL, with funding from Care International, Catholic Church Health Services, and Steamships, a local company. However, significant investment is needed for PNGSL to be rolled out across all 22 provinces of Papua New Guinea. To make this possible, a national cadre of trainers could be established, many of whom would

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be drawn from the Deaf community. Alongside this, courses in PNGSL could be established, leading to professional certification. Accessible PNGSL resources could be developed. These might include handy 'pocket guides'; posters for classrooms, health centres, and other public spaces; a revised dictionary with line drawings and descriptions; and an online video 'sign bank', similar to that which has been developed for Auslan. If Papua New Guinea Sign Language dictionaries were available in PDF format, users could download them to their mobile phones via the internet, as an email attachment (subject to file size limits), or by using Bluetooth or a USB cable. This would mean they would no longer need to access the potentially data-intensive online 'sign bank' to look up a sign, in the process saving a considerable amount on internet data which can be expensive in Papua New Guinea. Unfortunately, the author has been informed that such work does not fall within the scope of the present education programme funded by the Australian government.

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4

Education Provision for Learners with Disabilities: A Social Justice Perspective

1. Introduction

In *Frontiers of Justice*, Martha Nussbaum (2006, pp 1–2) identified the challenge of including people with disabilities 'in existing societies … as citizens on a basis of equality with other citizens' as one of the 'unsolved problems of social justice'. She identified the second problem as 'extending justice to all world citizens'. Both problems, applied to the field of education, are addressed in this book.

To address these problems, it is necessary to establish the standards that education provision for learners with disabilities should meet. This chapter therefore begins by identifying these in the light of the 'neo-Aristotelian conception of human flourishing' (Rasmussen, 1999, p 3). The globally dominant conceptualization of inclusive education (as outlined in Article 24 of *United Nations Convention on the Rights of Persons with Disabilities* and elaborated on in General Comment 4 on Article 24) is then assessed according to these standards, and a revised conceptualization is outlined.

2. Education as human flourishing

2.1 Philosophical basis

In her essay 'Human Functioning and Social Justice', Martha Nussbaum (1992) lamented the lack of a persuasive 'theory of the good' (p 214) for assessing social arrangements and practices in low- and middle-income countries. Cultural relativists defended transparently oppressive and inequitable customs and traditions on the grounds that they possessed a 'radical otherness' (p 203) incomprehensible to their critics. Utilitarians evaluated social provision according to a narrow set of metrics of client satisfaction – in the process failing to consider whether these services

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meaningfully improved people's lives and disregarding the concerns of those people either dissatisfied with these services or excluded from them altogether. Rawlsian liberals focused on people's levels of access to primary goods, such as income and wealth, but not their capacity to convert these goods into valued functionings. To remedy this situation, Nussbaum, drawing on Aristotelian philosophy, proposed that social realities should be assessed in terms of the extent to which they promoted human flourishing. According to VanderWeele (2017, p 8148), such flourishing should cover 'all dimensions of human well-being: mental and physical health, (including) happiness and life satisfaction, meaning and purpose, character and virtue, and close social relationships'.

While this concept draws on Western philosophical traditions, 'theories of the good' which have emerged in the Global South have been similarly preoccupied with human flourishing. African philosophers have visualized societies grounded in *Ubuntu*: 'a comprehensive ancient African worldview' (Letseka, 2012, p 48) which can be summed up in the maxim 'a person is a person through other persons' (p 52). In *The Melanesian Way*, Narokobi (1980, p 11) argued countries such as Papua New Guinea can achieve peace and prosperity through drawing on traditional 'non-exploitative, non-acquisitive and non-colonialist' values to productively engage with modernity. Gandhian social philosophy envisages a world composed of self-sustaining communities in which everyone's needs are met and people are free to fully express their personalities (Koshal & Koshal, 1973). Despite their theological differences, world religions have conceptualized human flourishing as 'social support, a purpose for living, devotion to a reality beyond self, an ultimate source of self-acceptance, hope for the timeless future, and the promotion of positive virtues' (Myers, 2008, p 333).

2.2 Standards for assessing education provision

What standards should be adopted to assess the quality of education provision for learners with disabilities?

As human flourishing covers all dimensions of well-being, education should not narrowly focus on the acquisition of academic skills. As human flourishing is not just something that happens as a result of previous activities and experiences, but something that happens during those activities and experiences, education should not just be a means to an end but meaningful and enjoyable in itself. In the words of Rasmussen (1999, p 5), 'things (should be) done for their own sake (as well as) for the sake of something else'. To be holistic, this provision would not only need to encompass formal education, but also informal and non-formal education (see Glossary) delivered in homes and communities, as this is so important for children's development.

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The provision should recognize the commonalities between learners with disabilities and their peers as a result of their shared humanity and shared experience of being in the world, and therefore ensure these learners:

- Are treated with respect, kindness, and consideration and protected from all abuse (see further discussion in Chapter 10).
- Develop relationships characterized by mutual respect and reciprocity with a wide circle of peers and adults (again, see Chapter 10).
- Develop their diverse talents to the fullest extent, enabling them to engage productively with the world around them, both now and in the future.
- Access a range of additional services associated with formal education, such as school-based health services and school-feeding programmes.

These needs correspond to Maslow's hierarchy of needs as they can be divided into the physiological (that is, the need for learners to not only physically survive but thrive) and the psychological (that is, the need to be provided with the support, stimulation, and guidance that will enable them to develop their diverse and multi-faceted potentials) (McLeod, 2007).

At the same time, this provision should recognize that learners with disabilities not only have needs that are 'common to all' but needs 'specific to some' and 'unique to the individual' (Corbett & Norwich, 1999, p 119) (see Chapter 3). The provision should therefore be as sensitive as possible to the different types of learner diversity. As part of this process, it should be recognized that some learners require more intensive and/or multi-faceted support in order to access learning opportunities of similar quality to other students. In some cases, they may even need to be provided with additional or alternative learning opportunities. Finally, any provision needs to be sensitive to context and culture (which does not mean oppressive and inequitable customs and practices should be uncritically accepted). As Nussbaum (1992, p 224) observes 'a rich sensitivity to the concrete context, to the characters of the agents and their social situation' necessitates 'a plural specification of the good'.

More pragmatically, any proposed model of provision should take into account the capacity of a particular education system to support this provision. At the same time, it should be recognized that new forms of provision may be possible if, for instance, resources are redistributed within government systems or invested in these systems by the international development community (IDC).

3. Conceptualization of education in CRPD

3.1 United Nations Convention on the Rights of Persons with Disabilities

United Nations Convention on the Rights of Persons with Disabilities (CRPD), along with its Optional Protocol, was adopted on 13 December 2006 and

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was the first human rights convention to specifically focus on disability (Harpur, 2012). At the time, CRPD was hailed as representing 'the biggest victory for the disability movement in the three decades of its existence', 'a major step forward for disabled people', and 'a paradigm shift on how we think and act about disability' (Meekosha & Soldatic, 2011, p 1384). To date, it has been ratified by 177 United Nations (UN) member states (International Disability Alliance [IDA], 2025) and has 'precipitated disability inclusion in a range of international and regional human rights instruments, as well as development schemes' (Harpur & Stein, 2022, pp 76–7). However, while States Parties and organizations of people with disabilities (OPDs) from the Global South played a leading role in the initiation and early development of CRPD, their influence thereafter diminished due to their resource constraints. As a result, 'the trajectory of the drafting process tilted from Global South priorities and perspectives toward those of (the) Global North states and (OPDs)' (p 78). The implications of this for the conceptualization of the educational needs of learners with disabilities in CRPD are discussed in this chapter.

Article 24 of CRPD focuses on education and affirms the right of 'persons with disabilities (to) an inclusive, quality and free primary education and secondary education on an equal basis with others in the communities in which they live'. In doing so, it builds on previous international agreements such as *United Nations Convention on the Rights of the Child* (UN, 1989), *The Jomtien Declaration* (UNESCO, 1990), *The Salamanca Statement* (UNESCO, 1994), and *The Dakar Framework for Action* (UNESCO, 2000). These commitments have been enshrined in Sustainable Development Goal 4 of *The 2030 Agenda for Sustainable Development* (UN, 2015). Other CRPD articles relevant to education include Article 7 on the right of children to express their views, Article 9 on physical and informational accessibility, and Article 12 on safeguarding.

Article 34 of CRPD established an elected Committee on the Rights of Persons with Disabilities to monitor the implementation of CRPD, the majority of whose members have been people with disabilities and come from the Global South (Harpur & Stein, 2022). Ten years after the signing of CRPD, this body, concerned that Article 24 was not always being implemented as intended, produced General Comment 4 (UN, 2016) which provides clarification and elaboration on Article 24. The following discussion will primarily focus on the conceptualization of inclusive education in General Comment 4 (GC4), as inclusive education is only sketchily outlined in Article 24.

3.2 Conceptualization of education in General Comment 4

According to General Comment 4 (GC4), children with disabilities should access a continuum of educational support, extending from early childhood

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development through to primary, secondary, and tertiary education. Once enrolled in formal education, these children should be taught in 'regular learning environments' (UN, 2016, paragraph 18) – that is, learn alongside their non-disabled peers in their local schools rather than, say, special schools. This provision should reflect a 'whole person approach' and be responsive 'to different strengths, requirements and learning styles' (paragraph 11). It should be delivered in supportive environments in which 'all members of the community are welcomed equally, with respect to (the different types of) diversity' (paragraph 12) and which are physically accessible – for instance, are easily navigable and adequately illuminated and sound-proofed. Every aspect of this provision should be directed towards maximizing 'the development of the personality, talents and creativity of persons with disabilities' (paragraph 16) and 'the full and equal participation of persons with disabilities in society' (paragraph 46).

GC4 therefore conceptualizes inclusive education longitudinally (in terms of its duration), locationally (in terms of the sites in which it is delivered), pedagogically (in terms of the quality of learning opportunities), environmentally (in terms of social inclusiveness and physically accessibility), phenomenologically (in terms of the inner well-being of learners), and consequentially (in terms of resulting educational and social outcomes) (Le Fanu, 2022).

The discussion of pedagogical inclusion is particularly rich in GC4. First, teachers should employ 'reasonable accommodations' (UN, 2016, paragraph 4) – simple, contextually appropriate teaching and learning adaptations responsive to the needs of students with disabilities. These can take various forms, such as adapting activities (for example, reducing the amount of reading involved) and promoting cooperative learning (in which students support one another's learning). Self-evidently, these learner-friendly accommodations will often be helpful for many students without disabilities. Second, teachers and other staff can provide necessary 'continuous personalized support' (paragraph 32). This can range from the generic kinds of support provided by classroom assistants to the more specific types of support associated with the delivery of the 'plus-curriculum', such as speech and language therapy for those learners who require it. Self-evidently, this support can not only assist students to succeed academically but participate in a full range of school and community activities. Third, students with disabilities should have access to necessary assistive technology. For instance, those with mobility difficulties may require paediatric crutches, customized wheelchairs, and walking frames. Such assistive technology and associated personalized support in turn enables students to access 'augmentative and alternative modes, means and formats of communication' (paragraph 34) – such as sign language for deaf learners, braille for learners who are blind or severely visually impaired, and communication boards for students

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experiencing challenges with communicating orally.[1] Finally, curricula should 'be adapted to meet the needs of all children' (paragraph 72) – for instance, broadened to include braille tuition and sign language instruction.

3.3 Reflections on General Comment 4

General Comment 4 (GC4) significantly addresses Nussbaum's two 'unsolved problems of social justice' (see Introduction). It acknowledges that learners with disabilities in the Global South have the same right as their peers to education provision that not only meets the needs they share with others but those they may possess as a result of the impact of their impairments and conditions on their functioning. Recognizing the importance of social inclusion, it stipulates that learners with disabilities should attend their local mainstream schools where they can socialize with their peers and, in the process, expand their social networks and establish lifelong friendships. In these respects, GC4 is informed by a 'moral intelligence' that recognizes the 'dignity of the human being as an ethical being', 'human sociability', and the 'multiple facts of human need' (Nussbaum, 2006, p 274).

4. The sensitivity critique of General Comment 4

Paragraph 11 of General Comment 4 (GC4) distinguishes between inclusion, integration, segregation, and exclusion. Inclusion happens when learners with disabilities not only attend their local mainstream schools but also participate fully in the lives of these schools. Integration occurs when these learners attend mainstream schools but are marginalized within those schools. Segregation occurs when they are taught in special schools where they have no opportunities to interact with or learn alongside their non-disabled peers. Exclusion occurs when they are excluded from education altogether. According to GC4, segregation is unacceptable, as learners 'are isolated from their peers and receive an inferior quality of provision' (paragraph 3).

While recognizing that locational inclusion alone (that is, full mainstreaming) is, by itself, not a sufficient condition for inclusive education, GC4 nevertheless believes it is a necessary condition for inclusion as, without locational inclusion, learners will experience social isolation and be poorly educated.

This assumption has been challenged by some scholars and practitioners who believe it can be better in some circumstances for some learners with disabilities to be taught apart from their peers, at least for a limited period of time, if they are to receive an education of acceptable quality and in the process realize their potential. In other words, segregated education can sometimes be more compatible than locational inclusion

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with pedagogical, environmental, phenomenological, and consequential inclusion (see Section 3.2).

4.1 Educational placement for deaf learners

As discussed in Chapter 3, many severely and profoundly deaf learners use sign language as a medium of communication or, alternatively, gestures if they have not had the opportunity to learn sign language. By default, this is particularly the case in many low-income countries due to the lack of availability of speech and language therapy, hearing aids, and associated assessment and support services.

CRPD affirms the right of deaf learners to learn sign language and be taught in an educational environment that enables them to learn through sign language. To facilitate this, Article 24(3) says they should be taught by teachers, including deaf teachers, qualified in sign language and that other education personnel should be trained in sign language. Article 24(2) says they should be provided with individualized support (for example, sign language interpreters and note takers) and reasonable accommodations (for example, concrete and visual learning materials appropriate for their learning styles). Article 9(1) says schools should be fully accessible in line with the principles of universal design, and for deaf learners this will involve, among other measures, ensuring schools are adequately sound-proofed (so they can make best use of their residual hearing) and well-illuminated (so they can make best use of their sight). Furthermore, Article 24(3) says schools should not only facilitate the learning of sign language but promote 'the linguistic identity of the deaf community'. All these commitments are recognized in GC4 which in Paragraph 56 expands on Article 24(3), saying schools should recognize 'deaf culture' – that is, deaf people's understandings of and ways of engaging with the world mediated through sign language.

Despite these commitments, the World Federation of the Deaf (WFD) (2018) have raised concerns that Article 24 is not being implemented in mainstream schools while ministries of education are simultaneously transferring resources from special schools and even closing them – thus denying deaf students access to sign language-rich educational environments. Furthermore, some deaf educators believe that even if Article 24 was fully implemented in mainstream schools, it would be insufficient. First, deaf students are much more likely to feel 'at home' in special schools as they are surrounded by other deaf children and much more likely to come into contact with deaf adults, enabling the 'inter- and intra-generational transmission of sign languages and deaf cultures' (Murray et al, 2020, p 692). Second, special schools – or 'congregated spaces' as Murray et al call them (p 693) – have much higher levels of 'informational accessibility' than mainstream schools as all communication is conducted in sign language. Teachers in these schools

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may also have a better understanding of how deaf students learn and will be able to adjust their pedagogies accordingly, especially as a significant number of these teachers are likely to be deaf.

In short, it is claimed deaf learners are more likely to be pedagogically, environmentally, and phenomenologically included in special schools than mainstream schools, either because it is believed that mainstream schools are not yet sufficiently responsive to the present and future needs of these learners or because it is believed these schools are institutionally incapable of becoming so. Post-education, these individuals will also be more socially included (that is, will experience greater levels of consequential inclusion), as they will be more articulate and self-confident and will be embedded within the Deaf community. Indeed, in Africa, the establishment of special schools in the period after World War II has been linked to the growth of urban deaf communities (De Clerck, 2011; Lutalo-Kiingi & De Clerck, 2017).

Critics of full mainstreaming for all children have noted a tension between Article 24 and GC4 (WFD, 2018; Murray et al, 2020). As discussed, GC4 says special schools are 'inferior' as they provide 'segregated' education. By contrast, Article 24, into which World Federation of the Deaf had significant input, is more ambiguous. On one hand, Article 24(2) implies learners with disabilities should attend mainstream schools as it says they should access 'primary education and secondary education on an equal basis with others in the communities in which they live' and 'not be excluded from the general education system'. On the other hand, Article 24(3) says education for 'children, who are blind, deaf or deafblind' should be delivered 'in environments which maximize academic and social development', indicating that flexibility should be shown when determining which educational setting is most 'inclusive' for these learners.[2] There is therefore not only a tension between Article 24 and GC4 but within Article 24, revealing the extent to which Article 24 was a product of negotiation between parties with contrasting agendas (Byrne, 2022).

4.2 Educational placement for other learners with disabilities

In the Global North, some educationalists have expressed doubts about the value of full mainstreaming not only for deaf learners, but those with other disabilities (Shaw, 2017). For instance, Kauffman and Hung (2009) have claimed that mainstream schools in the United States, as presently constituted, are unable to meet the pedagogical needs of learners with moderate or severe intellectual disabilities. From a demand perspective, they argue these learners require: a flexible pace of instruction; an instructional approach intensely focused on the acquisition of specific skills, concepts, or types of behaviour; immediate and explicit reinforcement of learning; an ordered and predictable learning environment; a high teacher–learner

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ratio; personalized curricula; and continual and precise monitoring of learner progress. From a supply perspective, mainstream schools lack the resources, specialist expertise, and curricular and organizational flexibility to meet these requirements. Moreover, large and heterogeneous classes militate against individualized instruction (Kauffman & Badar, 2014). Drawing on their experience working with three mainstream elementary schools in the same country, Vaughn and Schumm (1995) have counter-argued that 'responsible inclusion' (p 265) is possible for learners like these if the right 'educational conditions' (p 264) are in place – high levels of commitment, adequate resourcing, constant monitoring, along with flexible curricula, pedagogies and service delivery models. Furthermore, these learners, once enrolled in mainstream schools, can socialize with their peers, enabling social inclusion.

The relevance of these arguments for the Global South is discussed in the next section.

4.3 Educational placement in the Global South

Interviewing young people with disabilities in Ghana who had gone to different types of school, Gregorius (2016) found the students who had attended mainstream schools had been bullied by their classmates, experienced boredom, confusion, and neglect in lessons, and, in some cases, encountered difficulties negotiating school environments lacking physical accessibility. By contrast, those who had attended special schools had been treated with greater respect and consideration by their teachers, accessed necessary learning resources, and acquired important skills such as braille and sign language. Furthermore, the experience of being with learners with similar impairments and conditions had boosted their self-esteem and self-efficacy. The boarding facilities in these schools also constituted 'discrimination-free spaces' (p 327) where they could escape the abuse they experienced in their homes and communities.

It is impossible to make generalizations based on one case study, or even the many other case studies describing unsatisfactory mainstream education provision for learners with disabilities in the Global South – see, for instance, Le Fanu et al (2022). It should also be noted that special schools in the Global South are sometimes highly problematic institutions. Assessing the 22 special schools enrolling children with visual impairment in South Africa, Fish-Hodgson and Khumalo (2015, p 12) reported a 'range of pressing infrastructural, resource and curriculum-based issues', while highlighting the safeguarding risks associated with residential provision, particularly when it is poorly resourced, maintained, and monitored. Special schooling, especially residential special schooling, is also a comparatively expensive form of provision which absorbs a disproportionate share of

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ministry of education (MoE) budgets (Myers, 2016). Furthermore, children and youth from rural areas are disproportionately likely to be denied access to these often-urban institutions, as are those from comparatively socio-economically disadvantaged backgrounds when there are associated costs such as school fees. Some students enrolled in special schools may not even belong in these institutions as they have relatively mild impairments or are not impaired at all. In their survey of special schools and units for children who are blind or severely visually impaired in Kenya, Malawi, Tanzania and Uganda, Tumwesigye et al (2009) found that 361 (34 per cent) of the children surveyed had a visual acuity of ≥6/60 (that is, at worst, had moderate low vision), of whom 120 had normal vision (≥6/18). Once enrolled in these institutions, or even just taught apart from the other students in another class, there is a danger they may be vulnerable to being stigmatized because of their perceived inferiority to their peers. If they are educated in residential schools for long periods of time, it may be difficult or impossible for them to reintegrate in their communities, post-education – although, as discussed, special schools can facilitate the inclusion of deaf learners in the Deaf community.

However, General Comment 4's approach to this issue is unnecessarily binary.

Rather than refusing to countenance any alternatives to full mainstreaming, ministries of education should first demonstrate that learners with disabilities, including those with severe and complex disabilities, can be successfully included in mainstream schools as long as certain conditions are in place. Where there is a compelling justification for special schooling for a small minority of learners with disabilities, ministries of education, along with their development partners, should consider funding this provision, including non-state provision (see Open Doors case study).[3]

Box 4.1: Centre-based provision in Nigeria as an alternative to mainstreaming

Open Doors Special Education Centre is based in Jos, Plateau State, Nigeria, and was established in 1999 by Professor Joanne Umolu, formerly of the University of Jos. At present, it educates 65 children with disabilities and has 21 staff. The Centre is non-residential, so most of the children live with their families, with a few accommodated in the homes of teachers.

Open Doors caters for children with neurodevelopmental disabilities. This term refers to a range of conditions that affect the development of the brain and can consequently impact on people's cognitive, motor, communication, and social skills (Patel et al, 2010). These conditions typically emerge during childhood and can have lifelong effects. Examples include intellectual disabilities, cerebral palsy, attention deficit/hyperactivity disorder, autism spectrum disorder, and Down syndrome.

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Unlike other special schools in Jos, most of the children in the centre do not follow the regular government curriculum and instead follow individualized curricula tailored to their particular needs. Learning activities are hands-on, activity-based, stage-appropriate, and time-flexible, and therefore provide these learners with opportunities to acquire valuable skills and knowledge.

The children learn vocational skills which prepare them for their future lives in their homes and communities. The Centre has a fish farm and a poultry house to give the students practical experience. Physiotherapy is provided for those with cerebral palsy and others whose conditions affect their physical movement. Speech therapy is also provided for learners with expressive and receptive language difficulties (that is, difficulties expressing themselves orally and understanding what others are saying).

The Centre is facing financial challenges, as it receives no funding from the government. While the Centre charges modest fees of 50,000 Naira per term (equivalent to US$ 32.50), along with additional fees for supplementary services such as physiotherapy, many parents are struggling to pay these fees due to the economic situation in Nigeria. Despite their expertise, Centre staff are paid lower salaries than their colleagues in government schools.

MoEs should also recognize that there are various alternatives to full mainstreaming. First, students with disabilities can transition from one form of education to another when appropriate – for instance, students who are blind or severely visually impaired in Sierra Leone transfer from special to mainstream schools at the end of primary education, by when it is anticipated they will have developed the specialist skills, such as braille literacy, to succeed in mainstream education. In this case, special schooling potentially facilitates inclusion. Second, a spectrum of provision is possible, ranging from special schooling (at one end) to full mainstreaming (at the other), with various options in-between. For instance, in Mongolia, multi-aged 'special classes' for deaf learners were established in mainstream schools at the request of their parents. According to Watkins (2009, p 223), 'Those parents didn't say they wanted to reformulate the schools to make them "inclusive" so that their children would be seen as "opportunities" rather than as "problems" by the teachers. They just wanted their children to get an education, perhaps for the first time'. For similar reasons, units for the deaf were established in mainstream primary schools in a rural district of Uganda, in the process changing parental and community perceptions of these children (Wapling, 2010). When it was believed they could manage, some of these students were transferred to mainstream classes.

As part of this policy formulation exercise, ministries of education should consult with learners with disabilities and their primary caregivers – a

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process that must include learners with severe and complex disabilities. Reviewing the *Concluding Observations of the Committee on the Rights of Persons with Disabilities*, Byrne (2022) noted the lack of references to these learners and observed 'the subtle silencing of those with the most profound disabilities can become manifest as a form of symbolic violence' (p 316). Such consultation would contribute to the realization of Nancy Fraser's tripartite vision of social justice as it would challenge the prevalent discourse of disability, education, and international development and in so doing assist governments and donors to devote more resources more effectively to the education of learners with disabilities. It might even prompt the IDC to broaden its definition of inclusive education to accommodate alternatives to full mainstreaming which meet the present and future needs of learners with disabilities: that is alternatives that are pedagogically, environmentally, phenomenologically, and consequentially inclusive (see Section 3.2). In short, 'representation' ('nothing about us without us') would promote 'redistribution' and 'recognition' (Fraser, 2001, p 21).

5. The sufficiency critique

The previous section raised concerns about the lack of sensitivity of Article 24 and General Comment 4 to the needs of some learners with disabilities. This section raises concerns about the insufficiency of these 'discursive formations', as well as that of CRPD as a whole: namely, their lack of consideration of the need for children with disabilities to access informal and non-formal education delivered in home and community settings, particularly early learning.[4] This subject also seems to have been largely ignored by key global stakeholders in CRPD, as, reviewing *Concluding Observations of the Committee on the Rights of Persons with Disabilities* up to 2019, Byrne found 'limited discussion of early years generally' and only three references to home-based education (in Latvia, Lithuania, and Moldova) and then only in relation to concerns that these children were receiving home schooling and not being educated in formal education institutions (B. Byrne, personal communication 12 December 2024).

5.1 The importance of early learning and other forms of informal and non-formal education

Early learning enables children aged 0 to 6 to develop the competencies, orientations, and social networks that provide the basis for their future development, their transition to formal education, and their inclusion in society (Baker-Henningham, 2014; Lynch et al, 2018). It is thus integral to both longitudinal inclusion and consequential inclusion (see Section 3.2).

Early learning primarily occurs in the home and the community, especially in low-income countries where centre-based provision can be

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scarce and costly. This learning can be informal or non-formal. Informal or 'incidental' learning occurs naturally during the course of childhood (Johnson & Majewska, 2022) and can take multiple forms, such as a child observing an adult or another child, an adult showing something to a child, or a child acquiring a skill while playing outside with their siblings. Non-formal learning is more deliberate and systematic, as when an adult teaches a child a complex skill over an extended period of time – a process that can involve explanation, demonstration, practice, feedback, and frequent repetition.

Home and community-based education provide opportunities for children and youth to acquire skills for life (for example, social skills, communication skills, and self-care skills) and forms part of a broader process of socialization and acculturation. As such learning primarily involves the acquisition of procedural ('how to') knowledge rather than more abstract propositional knowledge, it generally takes the form of learning by doing. Consequently, it is often meaningful and satisfying for learners, as well as characterized by high levels of affectivity due to the emotional ties and physical proximity of the participants (for example, a parent and a son/daughter, a child and a younger sibling, a child, and their peers). Given this closeness, 'Indirect Teaching Behaviours' (Johnson & Majewska, 2022, p 13) – such as use of gesture, tone of voice, and facial expression – play a key role in this process. While this form of learning is particularly important in childhood, it continues through youth and adulthood.

Home and community-based education, especially in its more structured form, is particularly important for children with disabilities and children with developmental delays at risk of becoming disabled. First, these children may not have the same capacity for incidental learning as other children due to their lack of sight, hearing, understanding, mobility, and so on. If so, their primary caregivers need to provide them with carefully considered, tightly structured, and closely supervised learning opportunities. Second, these interactions provide valuable opportunities for these caregivers and their children to bond, especially when the caregiver cannot communicate orally with the child (for example, because the child is deaf) or establish eye contact with the child (for example, because the child is blind or severely visually impaired). Third, such activities develop the capacity the child to carry out chores, boosting the child's self-esteem and enabling them to gain the respect of other family members – something particularly important in more traditional societies where children are expected to contribute to households from an early age (Lancy, 2015). Fourth, it provides the child with the knowledge and skills to participate in community activities, both during childhood and afterwards. Such participation not only further develops the child's capacities and expands their social networks but also changes the ways the community perceives and interacts with the child,

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potentially paving the way for the child's eventual transition to formal education. Fifth, in those contexts where children (and youth) with disabilities are disproportionately excluded from school (see Chapter 2), informal and non-formal education may sadly be the only forms of education available to them.

Primary caregivers in the Global South may struggle to provide children with disabilities with the necessary support and stimulation. As discussed in Chapter 2, these children are particularly likely to come from socio-economically disadvantaged backgrounds, meaning their primary caregivers may be unable to purchase play materials and other stimuli or even ensure their children are adequately fed and clothed. They may also be unable to devote sufficient time and energy to their children as they are struggling to make a living. Although community structures in the Global South can be more supportive of children with disabilities than those in the Global North (Grech, 2011), in many contexts these structures are breaking down due to urban drift, water shortages, resource scarcity, over-population, the impact of climate change, environmental degradation, and high rates of mortality due to diseases such as HIV/AIDS, malaria and tuberculosis (TB) (Lancy, 2015). Moreover, in some contexts, children with disabilities and their families are ostracized because of misconceptions and prejudices (see Chapter 10). The lack of early childhood development services in low- and middle-income countries (LAMIC), encompassing early learning, as well as health, nutrition, and child safeguarding, further exacerbates this situation (Milner et al, 2019; Smythe et al, 2024). When mothers are expected to shoulder most or even all of the responsibility for childcare due to traditional gender roles, the pressures on them can become unbearable – although van der Mark and Verrest (2014) have described how mothers in Zimbabwe managed in the absence of economic opportunities or external services to '(reduce) the effects of poverty on their child by enhancing their living environment and providing physical assistance, hygiene and health' (p 1420) and to 'learn skills that (enabled) them to care for their child themselves (including) skills to generate income, to perform medical treatment and to tutor the child' (p 1421).

Home and community-based learning in the early years can be complemented by centre-based provision in institutions such as kindergartens, nurseries, and pre-schools. When play-based curricula are delivered in these institutions, these centres can provide a bridge between informal education and formal education and therefore promote children's holistic development while simultaneously preparing them for primary school – for instance, by teaching early literacy and numeracy and accustoming the children to routines. Unfortunately, this provision is often unavailable in LAMIC (Raikes et al, 2023) and, when it exists, learners with disabilities are particularly likely to be excluded from it (see Table 2.1 in Chapter 2).

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5.2 The sufficiency critique – further reflections

Given its importance, why there is so little consideration of informal and non-formal education, particularly early learning, in GC4 specifically and CRPD in general?

As discussed in Section 3.1, Harpur and Stein (2022, p 82) concluded that stakeholders from the Global North had disproportionate input into CRPD, meaning the text reflects 'international disability norms' and is not fully aligned with the priorities of people with disabilities in the Global South. This in turn meant CRPD prioritized 'independent living' and 'deinstitutionalization', given the individualistic agenda of the Global North and the comparatively high levels of institutionalized care in Western countries (p 86). As a result, the needs of families were 'deemphasized' (p 68). Self-evidently, this includes the need for families to be supported to provide early learning for young children with disabilities. The disproportionate input of the Global North into CRPD may also explain the high priority attached to formal, school-based education and the comparative disregard of informal and non-formal education. First, formal schooling 'rests on firm cultural foundations associated with Western and East Asian societies … but extremely rare elsewhere' (Lancy, 2015, p 328). Second, formal schooling falls under the auspices of ministries of education, instruments of the nation-state, and the modern nation-state first emerged in Europe and North America and only exists precariously in many LAMIC, particularly low-income countries.

The excessive focus of the global human rights agenda on government services (including formal education) delivered by the 'caring professions' also concerns feminist philosophers who believe it devalues other forms of care involving people who are 'interconnected, interdependent, vulnerable, and located in actual contexts' (Held, 2015, p 636). As Nussbaum (2006) observes, the latter responsibilities tend to fall disproportionately on female family members, particularly mothers, making this an issue of gender justice as well as disability justice.

This section has raised concerns about GC4's (and CRPD's) comparative disregard of early learning and other forms of home and community-based education. This in turn raises the question of what is possible, given that much that is needed 'reaches far beyond the legal systems of individual states and beyond their governments' (Held, 2015, p 627). In short, how can the 'rights to be cared for' (p 632) be guaranteed?

6. The feasibility critique

Human rights frameworks which do not specify the entitlements of rights-holders and obligations of duty-bearers have been criticized for being

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nebulous and ineffectual. In the words of Schrimer (1997, p 162), 'abstract universal standards without the contextualization and follow-up of rights-in-practice … may hinder … a climate for sustainable rights'. Conversely, frameworks which describe these entitlements and obligations in depth and detail may be infeasibly ambitious, particularly if these entitlements are considerable, the contexts of implementation challenging, and the duty-bearers lacking capacity. Cruft et al (2015, p 27) have termed this 'the burdensomeness objection'. If these frameworks are then localized in legislation and policies, national governments will struggle to implement them, in the process not only antagonizing and demoralizing rights-holders but generating widespread disillusionment about rights generally. In the words of Luban (2015, p 263), 'rights inflation devalues the currency of human rights'.

6.1 Assessing the feasibility of GC4

To address the challenge of feasibility, General Comment 4 (GC4) on Article 24 of CRPD reaffirms the principle of progressive realization outlined in Article 4.2 of CRPD. This principle recognizes that most governments cannot speedily and comprehensively implement CRPD and instead requires them to meet certain minimum standards while moving 'as expeditiously and effectively as possible' towards the full implementation of Article 24 (GC4, paragraph 39). To complement this, GC4 affirms the principle of 'reasonable accommodation', also outlined in CRPD. This requires schools to do everything possible to meet the specific and individual needs of learners with disabilities, given local realities. To assist stakeholders, GC4 provides some illustrative examples of these accommodations for learners with social communication difficulties, such as organizing peer-tutoring, seating them close to the teacher, and allowing them to work with other students (Paragraph 34e). Finally, recognizing the crucial role that civil society can play in promoting disability inclusion, particularly when state institutions are weak, GC4 advises schools to work closely with parents, communities, organizations of people with disabilities and 'other functioning support groups, both formal and informal' (Paragraph 12h).

However, concerns have been expressed that GC4 in particular and CRPD in general place excessive demands on formal education systems in low- and middle-income countries (Kalyanpur, 2016; Walton, 2018; Hamel & Falola, 2021). In schools, teachers are expected to eventually adopt super-complex pedagogies responsive to the diverse, flexible, and complex educational needs of all students, not just students with disabilities (see, for instance, Paragraphs 12c, 25, and 69). These pedagogies should be accompanied with Individual Educational Plans (see Glossary) specifically

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designed for students with disabilities. At federal level, ministries of education have an 'immediately applicable' 'minimum core obligation' to make their education systems non-discriminatory and ensure schools offer reasonable accommodation (GC4, paragraph 40). They are further expected to transform their education systems through rolling out a systematically organized, evidence-based, and multi-level programme of educational reform (see, for instance, Paragraphs 3, 24, 25 and 61). All this is expected to be achieved despite the fragility of the education systems in many of these countries, combined, in some contexts, with culturally embedded opposition to the inclusion of learners with disabilities in mainstream education.

6.2 'Ground-up' solutions

In the light of these concerns, more sustainable and scalable education approaches have been identified that more fully utilize locally available resources.

These approaches highlight the value of the social solidarity to be found in many communities in the Global South, as exemplified by *Ubuntu* in Africa (Hamel & Folola, 2021) and the Melanesian tradition of 'sharing and caring' in Papua New Guinea (Nongkas & Tivinarlik, 2004). Drawing on this social solidarity, local stakeholders can stimulate educational demand through forming enabling networks which creating a social climate supportive of inclusive education (McConkey & Mariga 2011; Pather 2011; Stone-MacDonald 2012). They can also strengthen educational supply: for instance, through providing complementary home-based education, contributing goods and services to schools, and organizing field-based learning. Within schools, students without disabilities can play a key role, not only by including children with disabilities in their social networks, but by assisting them with their learning (Deng & Holdsworth, 2007; McConkey & Mariga, 2011).

To complement community-based strategies, curricula can be changed so they incorporate indigenous knowledge systems and allow local languages to be used as languages of classroom communication, making lessons more relevant and accessible for all learners, disabled, and non-disabled (Shizha, 2007; Rajendram, 2023). Similarly, pedagogical practices can be aligned more closely with customary educational practices, such as the Papua New Guinean tradition of children learning through observation and exploration in real-life situations with minimal adult supervision (McLaughlin, 1994; Lancy, 2015). 'Home grown' inclusive pedagogies can also draw on the skills teachers have acquired through conveying unfamiliar material to large classes of students, many of whom have limited grasp of the language of instruction – such as the ability of teachers in Papua New Guinea to provide concise definitions and

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illustrative examples to explain concepts, while using pitch, tone and volume to convey meaning (see Chapter 3).

However, reservations have been expressed about the extent to which these approaches can be rolled out across education systems in the Global South. While appreciating the value of *Ubuntu*, Walton (2018, p 38) points out that tight-knit communities in Africa can be 'oppressive', 'exploitative', and 'exclusionary' as well as inclusive. Furthermore, the social solidarity of many traditional communities is being eroded by modernity (Nongkas & Tivinarlik, 2004; Owusu-Ansah, 2021). Alongside this, parents may be reluctant to engage with a formal education system from which they have become estranged due to 'its methods … the loss of children's labour … the alteration in children's self-image, and … the lost autonomy, among others' (Lancy, 2015, p 360). Paradoxically, Lancy notes these parents may simultaneously be hostile to education reforms that 'localize' pedagogies and curricula or promote the use of vernacular in the classroom, as they see a 'Western-style' education as a pathway to secure, well-paid employment in the formal sector for their children.

6.3 'Top-down' solutions

A contrasting but potentially complementary approach stresses the need for international actors to relieve ministries of education of a greater share of the burden for making their education systems more inclusive. This exemplifies a broader concern that international human rights agreements, such as CRPD, place unrealistic demands on nation-states, particularly when these agreements require nation-states to deliver bundles of goods and services to their citizens (such as disability inclusive education) and particularly when these nation-states are fragile and under-resourced (such as nation-states in low-income countries). Instead, it is argued that those agents best placed to assist nation-states should do so – such as the governments of high-income countries, transnational corporations, and the global wealthiest 1 per cent. When it can be shown that these agents have contributed or are contributing to the difficulties experienced by nation-states in the Global South, it is further argued that these agents are *doubly* obliged to assist. In the words of Pogge (2001, p 60, emphasis in original):

> There are two ways of conceiving global poverty as a moral challenge to us: we may be failing to fulfil our *positive* duty to help people in acute distress. And we may be failing to fulfil our more stringent *negative* duty not to uphold injustice, not to contribute or profit from the unjust impoverishment of others.

In his book, *Reparations Now*, Banner (2024) applied this argument to Britain's former colonies in the Caribbean. He observed that these

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countries are still suffering from the legacy of British rule, as exemplified by their 'low tech' economies over-reliant on tourism and the export of raw materials and their severe government indebtedness due to 'the massive crisis of community poverty and institutionalized unpreparedness for development' (p 104). Poverty and unpreparedness have significantly contributed to 'the extraordinarily high incidences of chronic diseases over many generations' in these countries (p 103). A logical corollary of this is disproportionately large numbers of students with disabilities enrolled in under-resourced education systems still experiencing the after-effects of the lack of investment during the colonial era. In these circumstances, the 'contribution principle' – the assumption that those who have 'contributed to the existence of acute deprivation' should address it – trumps the 'proximity principle' – the assumption that those who are closest should do so (Cruft et al, 2015, pp 27–8).

Soldatic (2013) further points out that making nation-states responsible for CRPD-implementation discriminates against refugees with disabilities, as only citizens of a nation-state can make claims on that state. Presumably this can only be addressed by giving refugees with disabilities the right to make these claims and providing national governments and relevant international organizations such as the United Nations High Commissioner for Refugees with the resources to meet these claims.

6.4 The feasibility critique – further reflections

In accordance with GC4, this chapter has argued that learners with disabilities should be provided with necessary assistive technology and personalized support. Contrary to GC4, it has been argued that alternatives to full mainstreaming for some learners with disabilities may be justified in exceptional circumstances. This may mean that education provision is more costly for these learners, even when steps are taken to minimize these costs – for instance, by training peer-tutors and employing community volunteers as classroom assistants.

Drawing on the capabilities approach, Nussbaum (2006, p 283) has argued 'people vary in their need for resources of different sorts, and also in their ability to convert resources into actual functioning'. She also points out people with disabilities may 'need atypical social arrangements, including varieties of care, if they are to live fully integrated and productive lives' (p 99). Consequently, the right of learners with disabilities to the previously discussed forms of provision is not a new, 'special' right that privileges these learners over others but a right 'derivable from (a) general right' (Nickel in Cruft et al, 2015, p 29) – that is, the right of all learners to education of good quality, or at least to education of equivalent quality.

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Even if these arguments are accepted, it can still be argued that special schooling, especially residential special schooling, is prohibitively costly in low-income countries (Myers, 2016). However, Open Doors (see case study earlier in the chapter) is an example of a comparatively low-cost, non-residential form of provision which meets the needs of learners with complex needs without separating them from their families. Furthermore, special schooling is only justified for a small percentage of the school-age population when alternative provision of acceptable quality is not available. Rather than arguing that funds should be transferred from 'segregated' provision to mainstream provision for learners with disabilities, GC4 should have stressed the need for learners with disabilities to receive good quality education in their local community schools whenever possible while recognizing the validity of alternatives to full mainstreaming in some circumstances for some learners.

7. Conclusion

In the light of the neo-Aristotelian concept of human flourishing and the 'decolonial turn' in international development, this chapter has critiqued the conceptualization of inclusive education in Article 24 of *United Nations Convention on the Rights of Persons with Disabilities* (CRPD) and General Comment 4 (GC4) on Article 24.

The strengths of Article 24 and GC4 have been highlighted, namely their recognition of the multi-layered needs of learners with disabilities and the right of these individuals to learn alongside their peers in mainstream schools. However, concerns have been expressed about GC4 in particular: namely, its lack of sensitivity to the needs of learners with severe and complex disabilities (the sensitivity critique); its lack of consideration of informal and non-formal education (the sufficiency critique); and the excessive demands it places on hard-pressed government systems in the Global South (the feasibility critique). In the light of this critique, this chapter has outlined an expanded and modified conceptualization of quality education for learners with disabilities – in terms of the forms it should take, the ways it can be achieved, and the associated responsibilities of duty-bearers. This chapter has therefore revealed the limitations, as well as the strengths, of a human rights model of disability integrated with CRPD, as well as the comparative advantages of an interactive model of disability responsive to context, culture, and the particular needs of learners (see Chapter 1). It has also shown the need to challenge prevalent assumptions in this field. Field-based research, as well as critical scrutiny, can contribute to this process (see case study).

The next chapter discusses the extent to which the political economy of international development promotes the positive conceptualization of education outlined in this chapter.

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Case study: Participatory research with students with disabilities in Tanzania

Qualitative participatory research can provide unexpected insights into educational realities experienced by learners with disabilities.

Unfortunately, such research is fraught with difficulties. First, students with disabilities may feel compelled to participate in the research due to power inequalities between them and the researchers – inequalities which are exacerbated when they are 'stigmatized and regarded as of reduced worth' (Wickenden, 2024, p 6). Even if this is not the case, they may not fully understand what they are becoming involved in: perhaps because it is beyond their comprehension due to its complexity or perhaps because it has just not been properly explained to them using appropriately inclusive methods. In such circumstances, the notion of 'informed consent' becomes highly problematic (Scott, Wishart, & Bowyer, 2006). Second, they may struggle to communicate their views. This may be because they find this difficult, even in the most conducive circumstances, or because the research methods employed prevent them from doing so (Alderson & Goodey, 1996). Third, the students may be reluctant to express their views – for example, out of deference to authority or fear of the consequences of speaking out (Bessell, 2009). Fourth, researchers may misinterpret what students are saying. For instance, they may be unfamiliar with students' preferred means of communication, take what the students are saying out of context, or sub-consciously 'screen out' what they do not want to hear (Komulainen, 2007). Fifth, the research may not tangibly benefit students with disabilities, given 'the question of how children's views can significantly influence policy and practice within the constraints of budgets, policy cycles and competing priorities' (Bessell, 2009, p 314). Participating in the research may even have adverse consequences for the child – for instance, if it unearths traumatic memories or the views expressed arouse the ire of the authorities. In the words of Komulainen (2007, p 25), 'listening to children is not necessarily "good" but may be, in fact, intrusive and the cause of further distress'.

Working in association with Action on Disability and Development (ADD), a UK-based international non-governmental organization (INGO), an international consultant piloted innovative research approaches with students with disabilities in three districts of Tanzania (Wickenden, 2017). This research was facilitated by 12

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peer-researchers recruited from local schools: six boys and six girls aged 8–17 with diverse impairments and conditions who attended a three-day preparation prior to the training.

The research consisted of a sequence of activities which addressed many of the previously discussed challenges. The children were presented with a stimulating mixture of activities in which they could discuss subjects of interest and importance to them in a supportive, structured, and collaborative environment. 'Multi-modal methods' were employed (Wickenden, 2024, p 6), in the sense that information was presented to the children in different modes (orally, in writing, and pictorially) and the children in turn could express themselves in different modes. The children could, to some extent, set the research agenda by identifying new topics for discussion, and their views were not just accepted at face value – rather they were encouraged to elaborate on them, with probes and prompts being provided by the peer researchers. The activities not only focused on the problems the children experienced but, more upliftingly, on solutions to these problems. At the end of the project, the children were provided with recognition in the form of certificates and (in the case of the peer researchers) participated in a dissemination event. As the research was conducted by ADD which has a close working relationship with the Ministry of Education, Science and Technology in Tanzania, their views could feed into policy design and implementation at all levels of the system.

The research proved valuable in identifying the specific problems faced by individual learners and thus solutions to these problems. These problems included:

- Challenges travelling to and from school (such as the abuse they experienced from their unsupervised peers).
- Difficulties negotiating school environments (for instance because of the amount of litter in school grounds).
- Their need for certain resources (not just assistive devices, but, in one school, a large clock which would help deaf learners to better negotiate the timetable).
- Non-inclusive pedagogical approaches (such as teachers proceeding too fast or, in the case of one student, a girl being physically isolated in class, with no one sitting next to her).

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5

The Political Economy of Disability, Education, and International Development

1. Introduction

The previous chapter outlined a context-sensitive, child-centred conceptualization of disability inclusive education. This chapter will discuss the extent to which the international development community (IDC) can promote this conceptualization, given the 'political economy' shaping its work in this field. This political economy consists of:

- Commitments: the priorities of international development agencies (IDAs), particularly 'key players' such as multilateral and bilateral organizations.
- Discourses: influential sets of beliefs and values which inform debates and discussions, are embedded in various texts, and are constantly articulated and re-articulated.
- Structures: the multi-tiered inequalities between and within organizations which reflect inequalities of capital (financial, human, social, and so on).
- Systems: the established procedures and practices of international development, such as education sector planning processes and the project cycle management framework, as well as the associated work-cultures.

The chapter identifies the forms this political economy should take and, after briefly mapping the organizational landscape, discusses the forms this political economy actually takes.

2. The forms the political economy should take

In *Development as Freedom*, Amartya Sen (1999, p 158) has identified the forms 'public discussion' should take. First, it should not involve 'narrow self-interested behaviour' but 'commitment' to others (p 270), although Sen

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acknowledges that people sometimes behave in socially responsible ways when they recognize it is 'mutually beneficial' (p 263). Second, it should be a rational, evidence-based process, characterized by 'reflection and analysis' (p 273), drawing on 'informational bases' (p 274), and involving 'evolutionary selection' (p 274). Third, it is an inclusive process, characterized by 'openness of communication and arguments' (p 152) and thus sensitive to 'the plurality of different features of our lives and concerns' (Sen, 2010, p 233).

As James Tully (2013, p 229) points out, Sen's approach is 'realization-focused' because it is concerned with 'public acting' as well as 'public reasoning'. As well as discussing and debating, people therefore need to 'walk the talk' and 'cooperate democratically in activities that embody and realize the just response' (p 230). In short, social justice involves both 'saying' and 'doing' (p 230).

3. The organizational landscape

Diverse types of organizations are operating in the field of disability and education.

Multilaterals organizations are multi-country organizations that address globally significant issues. The World Bank, along with the International Monetary Fund (IMF), are key multilateral organizations as they provide loans and grants to governments to 'end poverty' and 'promote shared prosperity' (World Bank, 2025, p 34). Two other multilateral organizations working in the field of education are the United Nations Children's Fund (UNICEF) and United Nations Educational, Scientific and Cultural Organization (UNESCO). While the former implements programmes and projects all over the world, the latter has played a key role in shaping global thinking about inclusive education through organizing international forums and providing policy and programme guidance. Another key multilateral organization, the Global Partnership of Education, is 'the largest global fund solely dedicated to transforming education in lower-income countries' (Global Partnership for Education [GPE], 2025, p 11).

Bilateral organizations are country-specific government organizations that work directly with individual countries to provide development and humanitarian support. Two examples are United States Agency for International Development (USAID) in the United States and the Foreign, Commonwealth & Development Office (FCDO) in the United Kingdom.

Charitable trusts and foundations are entities with private, sustainable incomes. They not only make grants but sometimes manage their own programmes. The most well-known and significant foundation working in the field of international development is the Gates Foundation, which between 2000 and 2025 disbursed US$53.8 billion. The Aga Khan Foundation has a significant presence in the field of education. Alongside this,

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transnational corporations, such as Mastercard and Nestlé, have established foundations for their Corporate Social Responsibility work in this field.

In low- and middle-income countries (LAMIC), international non-governmental organizations (INGOs), such as Save the Children and ActionAid, are involved in managing education programmes, providing technical assistance for ministries of education, and carrying out rights-based advocacy. Some of these INGOs are disability-focused, such as Sightsavers, Humanity & Inclusion, and Light for the World, and some are impairment-specific, such as Deaf Child Worldwide. These INGOs access funding from different sources, including bilateral and multilateral organizations, trusts and foundations, philanthropists, and the general public. In LAMIC, they partner with governments, national NGOs, and civil society organizations, including organizations of persons with disabilities (OPDs). Programmatic work is also carried out by consultancy companies, such as Palladium (managing large national programmes) and Inclusive Development Partners (specializing in disability). Universities and research institutes, both in the Global North and Global South, play a key role in critically scrutinizing and identifying 'what works' in international development.

In addition, there are advocacy coalitions, such as International Disability and Development Consortium (IDDC), a grouping of 34 INGOs (some disability specialists, some not), most of which are based in Western Europe, and International Disability Alliance (IDA), an alliance of 14 global and regional OPDs.

Lastly, international development increasingly takes the form of South-to-South cooperation in which Southern organizations in different countries work together to achieve common goals (Esteves & Assunção, 2014). For instance, the People's Action for Learning (PAL) Network is a partnership of 17 member organizations working to promote children's foundational learning across Africa, Asia, and Latin America through citizen-led assessments and learning intervention programmes.

4. The forms the political economy actually takes

4.1 Levels of commitment

In 2011, it was reported that, of the 32 donor agencies that constituted the Fast Track Initiative, only eight had a general policy on disability issues, only 13 had specifically referenced disability in their education policies, and none had made specific financial commitments to disability and education (Lei & Myers, 2011). Over the last decade, this situation has significantly improved as a result of the cumulative impact of *United Nations Convention on the Rights of Persons with Disabilities* (CRPD), the adoption of *The 2030 Agenda for Sustainable Development*, and effective global advocacy by the disability rights movement. Bilateral and multilateral organizations are increasingly

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committing themselves to incorporating disability inclusive perspectives in all their programmes – see, for instance, FCDO (2022), World Bank (2022a), and USAID (2024). In 2019, the United Nations launched a *Disability Inclusion Strategy* which promised to embed disability inclusion through their entire network (UN, 2019). Through participating in international alliances/networks and events such as Global Disability Summits, Northern and Southern actors committed to disability inclusion can hold these organizations' 'feet to the fire' if they fail to meet their commitments.

However, concerns have been expressed about the gap between rhetoric and reality. Comparing commitments made at the Global Disability Summits in 2018 and 2022, Singal and Wijensinghe (2024) reported that while the number of commitments overall had increased, it was hard to assess their quality and delivery due to a lack of detailed information. While USAID has rightly been praised for its long-standing commitment to the realization of the rights of persons with disabilities (Lei & Myers, 2011), it has been criticized for not being sufficiently disability inclusive in the design, implementation, and evaluation of its programmes (Karr et al, 2022; Altali, Karr, & Hayes, 2025). A survey of small, medium, and large 'mainstream' INGOs has highlighted their unwillingness to include disability perspectives in their programmes due to its perceived cost and technical complexity and the consequent assumption that this work is best left to 'specialists', such as disability-focused INGOs (Niewohner, Pierson, & Meyers, 2020). Analysing the grants made by the 1,000 largest foundations in the United States, Lawrence and Harris (2023) found only 2 per cent of the total funds were devoted to disability. Governments in low and lower-middle-income countries may willingly acquiesce with the lack of IDC commitment to disability inclusion if they have other domestic priorities, especially as there are no mechanisms enforcing their adherence to Article 24 of CRPD (Lang et al, 2011). The Committee on the Rights of Persons with Disabilities (established by CRPD) can exert pressure on governments to do so, but that is all. Similarly, the High Level Political Forum on Sustainable Development cannot enforce implementation of the Sustainable Development Goals (SDGs) in countries, as the SDGs are voluntary targets (Hickmann et al, 2022).

Learners with disabilities in LAMIC are additionally disadvantaged by the lower levels of aid allocated by donors to low-income countries (LICs) than lower-middle income countries, 'not least because the costs of intervention (in LICs) are much higher' (Lewin, 2020, p 2). This is because there are likely to be larger numbers of these learners in LICs. It is also because they are more likely to have severe and complex disabilities due, for instance, to the higher prevalence of malnutrition and/or diseases, combined with more limited availability of health services. Aid allocations are further skewed by the 'foreign policy and commercial trade concerns' of bilateral organizations

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which means geopolitically and geoeconomically peripheral LAMIC are unjustly neglected (Cardwell & Ghazalian, 2018, p 136).

The marginalization of disability in the field of international development is arguably reflected in the criteria used to measure progress towards SDG 4: 'Inclusive and equitable quality education and … lifelong learning opportunities for all' (UN, 2015). First, educational quality (which includes disability inclusiveness) is solely assessed in terms of learners' proficiency in literacy and numeracy (King, 2017). Second, SDG 4 narrowly measures the disability accessibility of schools in terms of 'adapted infrastructure and materials for students with disabilities' (UNESCO/UNESCO Institute for Statistics [UNESCO/UIS], 2019, p 18). Even then, according to UIS, schools are not told what this involves, enabling them to claim they have achieved this indicator, even if their adaptations have not significantly benefited learners with disabilities. Third, while States Parties are required to produce parity indices for learners with disabilities (comparing, for instance, their educational enrolment with that of their peers), these indices do not 'capture forms of social division, discrimination and causes of vulnerability' (Unterhalter, 2019, p 47). Consequently, these indices do not show the intersection between disability and other factors such as gender, ethnicity, location, and socio-economic background. It should be noted, though, these criticisms presume that the Education Management Information Systems of ministries of education, including those in low-income countries, possess the capacity or latent capacity to effectively collect these data – an issue discussed in Chapter 7.

4.2. The discourse of disability, education, and international development

During the colonial era, missionaries established special schools across the Global South – see analyses of India (Das & Shah, 2014), Kenya (Stone-MacDonald & Pinar-Irmak, 2021), and Nigeria (Senu-Oke, 2011). These schools tended to be reserved for children with certain types of impairments, particularly deaf learners and learners with visual impairment. Post-independence, the governments of these countries expanded their special school systems, sometimes combining this with integrated provision through establishing units and resource-centres in mainstream schools. For instance, 81 special schools were established in India between 1960 and 1975 (Das & Shah, 2014).

In the past, disability-focused INGOs have been criticized for supporting these types of 'segregated' provision (Yeo & Moore, 2003; Miles & Singal, 2010; Bines & Lei, 2011). Nowadays, IDC tends to be highly supportive of Article 24 and General Comment 4 (GC4) on Article 24 (see Chapter 4) which promote the inclusion of learners with disabilities in mainstream primary and secondary schools. This is exemplified in the 'purpose and

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objectives' of International Disability and Development Consortium. It is also evident in the policies of key bilateral and multilateral organizations (see, for instance, FCDO, 2022; World Bank, 2022a; GPE, 2024; USAID, 2024). If special schools are funded by large donors, it is usually so they can facilitate educational mainstreaming – as exemplified by a USAID-funded, visual impairment-focused project in Mali which ran from 2017 to 2020.

However, as discussed in Chapter 4, Article 24 and GC4 are problematic in certain respects, indicating the need for development actors in both the Global North and Global South to critically engage with 'taken-for-granted' assumptions about the forms that education provision should take and the best ways of achieving them, especially when advanced by authoritative institutions, such as United Nations agencies. To do so effectively, IDC needs to have a comprehensive understanding of the needs of learners with disabilities, as well as the education systems with which they are working and the contexts shaping these systems. To achieve this goal, IDC should no longer be 'prescribers of norms' (Finnemore, 1993, p 565), but facilitators of dialogue, disseminators of information, and open-minded investigators of multi-faceted social realities, particularly as the evidence-base for 'what works' in disability inclusive education needs to be strengthened (see Box 5.1). The extent to which this is possible, given the systems and structures of international development, is discussed in the next section.

Box 5.1: Knowledge generation from below? The KIX 'applied research mechanism'

In a global review of cost-effective approaches to promoting learning, disability inclusion is hardly mentioned, as 'the quality of evidence (of what works) is generally low' (GEAP, 2020, p 23).

To provide stakeholders in their 66 partner countries with opportunities to access, share, and collectively generate knowledge, Global Partnership for Education [GPE] established the Knowledge and Innovation Exchange (KIX) in 2019 (Cameron et al, 2025). As well as a 'knowledge exchange mechanism' consisting of four regional hubs which enable key stakeholders in different countries to engage with one another, KIX has an 'applied research mechanism' which funds education projects. Priorities for the current portfolio of these projects were agreed after an extensive consultation process with GPE partner countries. The vast majority of these 64 projects are being carried out by research organizations based in the Global South. Fourteen of them have a disability focus whose topics include: home-based learning, early learning, accelerated learning (for out-of-school children), developing school-readiness, and supporting learners at risk of dropping-out of education. These projects therefore address important

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subjects somewhat brushed over by General Comment 4 on Article 24 of CRPD (see previous chapter).

Once completed, the research will potentially fill some of the learning gaps identified in the GEAP report. However, from a supply perspective, GPE and its partners will need to ensure the findings are disseminated as clearly, widely, and accessibly as possible. From a demand perspective, scholars and practitioners must critically engage with these findings rather than passively accept them. In particular, they should recognize that, if an intervention works well in one context, it may not work so well in a different context, either because it is completely inappropriate or because it needs to be adapted to address contextual particularity. As Cornish observed (2015, p 274), 'a pragmatist science of evidence (should) begin with the "mess" of practice and seek to understand complexity and contingency'.

While formally committed to the realization of the educational rights of learners with disabilities in accordance with Article 24 and GC4, it should also be noted that large swathes of IDC have simultaneously adopted the agenda of the World Bank-led 'Global Education Reform Movement' (GERM) (see Glossary). Elements of GERM are arguably antithetical to disability inclusive education, such as GERM's focus on reading and numeracy (which narrows the curriculum), on standardized pedagogical approaches (which prevent teachers responding to learner diversity), and on evaluating schools in terms of their test results (which can discourage them from enrolling students experiencing difficulties with learning) (Sahlberg, 2016; Klees et al, 2020). This illustrates the extent to which international development discourses can be hybrid, containing elements which are nullified, or at least adulterated, by other contrasting elements (Tikly, 2023). Again, this shows the need for IDC to be more self-critical, as well as external actors to subject IDC to more effective scrutiny.

4.3 The structures and systems of disability, education, and international development

The organizational landscape of disability, education, and international development is characterized by multi-structured inequality. At the apex of the 'financial aid chain', the World Bank derives its substantial income from various sources, such as interest from loans and funding from member countries (Ravallion, 2016). Bilateral organizations derive their revenue from the government budgets of their home countries. Charitable trusts and foundations often have historic endowments but can obtain additional revenue from government and non-government sources. INGO funding

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can take the form of 'restricted income' which can only be used for specific purposes, or 'unrestricted income' which can be used as they think fit. The former might take the form of grants from bilateral organizations, the latter of income derived from events, appeals, and trading activities. Government and non-government stakeholders in the Global South sit at the foot of this financial aid chain. There are not only financial inequalities between organizations but inequalities of human and social capital. For instance, World Bank staff are likely to have more advanced professional qualifications and move in more influential social circles than, say, their counterparts in ministries of education in LAMIC. These structural inequalities can exist within, as well as between, organizations – for instance, between the international headquarters of INGOs and their locally staffed country offices. When these inequalities exist between stakeholders in the Global North and the Global South, they reflect the impact of colonialism, postcolonialism, and globalization on international relations (Hutchinson et al, 2023).

These structural inequalities preclude, or at least hinder, 'respectful dialogue between partners' (Mason, Crossley, & Bond, 2019, p 7) and are exacerbated by differences of 'habitus' between stakeholders: that is, contrasting perspectives on the world shaped by 'primary socialization' (that is, social, cultural and economic backgrounds) and 'secondary socialization' (that is, professional environments, cultures and networks) (Nair, 2024, p 2). These inequalities are further reinforced by the procedures and practices (or 'systems') of international development (discussed later). ('Procedures' refers to documented sequences of activities, and 'practices' the actual forms these activities take when implemented.)

Education Sector Plans (ESPs) are policy instruments that outline the long-term goals of ministries of education (MoEs) in the field of education, along with strategies for achieving these goals (UNESCO-IIEP & GPE, 2015). They are therefore potentially powerful instruments for promoting educational access and quality for learners with disabilities, and, encouragingly, a mapping study of Southern and Eastern African countries found evidence that disability inclusive elements are increasingly being prioritized in ESPs (Grimes & dela Cruz, 2023). However, concerns have been expressed that sector-wide approaches (SWAps), as exemplified by ESPs, unduly reflect the priorities of national elites and of donors who provide funding for ESP implementation (Mundy, 2010; Winther-Schmidt, 2011; Bissio, 2013). This is contrary to the principles of the *Paris Declaration on Aid Effectiveness* (OECD, 2005) and the *Accra Agenda on Aid Effectiveness* (2008) which say ESPs should be 'locally owned': that is, developed by MoEs in consultation with local civil society organizations (such as OPDs), with IDC acting as catalysts for this process. While this 'top-down' process may sometimes mean disability inclusive elements are incorporated into ESPs despite stakeholder scepticism or indifference, particularly within the lower

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echelons of MoEs, it may mean these elements are insensitive to local realities and the situated needs of learners with disabilities. Furthermore, while sector-wide approaches (such as ESPs) were introduced to reduce the 'proliferation' and 'fragmentation' of international development (Acahrya, Fuzzo de Lima, & Moore, 2006, p 1), they have been criticized for discouraging innovative, small-scale projects that generate valuable learning (Samoff, 2004).

The impact of the financial aid chain is reflected in development programmes as well as ESPs, not only distorting relations between Southern NGOs and their counterparts in the North (Oller, 2006), but the relationships between Northern NGOs (on one hand) and multilateral and bilateral organizations and private foundations funding these NGOs (on the other) (Srivastava & Oh, 2010). Donor agencies continually monitor recipient agencies through a variety of instruments from the managerialist tool-box, including 'disclosures/reports, performance assessments and evaluations' (Roberts, Jones, & Fröhling, 2005, p 1850) – instruments that not only assist donor agencies to control the work of recipient agencies but absorb so much of the time and energy of the latter that they are diverted from more important tasks (Vincent, 2006). As Ebrahim (2003, p 824) observes, this external surveillance is typically a one-way process as 'upward accountability' is rarely combined with 'downward accountability'. IDAs and their Southern counterparts are not only externally controlled, but increasingly self-regulated, further reducing their ability to be flexible and adaptable (Roberts et al, 2005).

The project cycle management framework (PCMF), which remains extensively used in international development (Golini et al, 2017), reinforces the financial aid chain, as it requires implementing organizations to meet pre-set targets through pre-set activities carried out at pre-set times using pre-set material and non-material resources (Le Fanu, 2014). This can have negative consequences. First, PCMF, due to its pre-determinism, can prevent stakeholders adapting the pace or direction of projects and programmes in response to emerging understandings and changing realities (Bornstein, 2006; Courtney, 2008). Second, PCMF encourages stakeholders to measure the effectiveness of development interventions primarily in terms of their quantitative results (for example, in terms of numbers of learners with disabilities newly enrolled in education) rather than in terms of their qualitative impact (for example, in terms of the extent to which they are meaningfully included in education) (Le Fanu, 2014). Third, the super-complexity of PCMF alienates many local stakeholders, particularly those with limited formal education, and, in the process, perpetuates the dominance within IDC of often Western-educated elites conversant with the elaborate rituals and arcane vocabulary of international development. For instance, PCMF requires the deft deployment of diverse methods to monitor and report on project progress, and the mapping of development

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initiatives in multi-faceted, intra-linked logical-frameworks ('log-frames') (Biggs & Smith, 2003; Barr & Fafchamps, 2005; Bornstein, 2006).

Organizations of persons with disabilities (OPDs) in the Global South are particularly vulnerable to donor control due to their lack of secure funding (see Box 5.2), coupled in some cases with the limited education of their members and their lack of access to resources such as ICT, transport, and office space (see, for instance, van den Brink, Elbers, & Ibrahim, 2021). Analysing the practices of European INGOs, Flower and Wirz (2000) found that, while they shared information with OPDs, they were more reluctant to include them in decision-making or to support OPD initiatives. In Nicaragua, Meyers (2014, 2016) found that some OPDs were pressurized by INGOs to carry out rights-based advocacy, when they preferred to focus on service delivery. This was partly because these OPDs felt best equipped to deliver services but also because they felt this was the most pressing priority, given the lack of government provision. Indeed, some OPDs were sceptical about the value of carrying out rights-based advocacy, given the limited capacity of their government to realize the socio-economic rights of people with disabilities, including their educational rights.

Even when they do not directly exert pressure through the financial aid chain, multilateral bodies (such as UNESCO, Organization for Economic Co-operation and Development [OECD], and the European Union) can (for better or worse) ensure external standards developed under the auspices of these organizations are incorporated in national policies in LAMIC (Dale, 2007; Sriprakash et al, 2023). This can be attributed to the authority they possess as organizations perceived as transcending national self-interest which are also 'sources of research … investors in capacity-building and arenas of … crossborder cooperation' (Eaton, 2016, p 332). Such is the influence of these organizations and their satellites (for example, INGOs, research institutes, advocacy alliances), it may be difficult or impossible for stakeholders in the Global South to articulate, or even conceive, views about certain subjects which challenge accepted orthodoxies, even if those views are in their real interests – an example of the 'three-dimensional' exercise of power (Lukes, 2005, p 29).

Box 5.2: Participation of people with disabilities in international development: findings from the IDA global survey

Article 32 of CRPD recognizes the rights of people with disabilities to participate in international development, and Article 4.3 instructs governments to include them in decision-making processes.

In 2020, International Disability Alliance (IDA) reported the results of their global survey of the participation of OPDs in development. It was found that this had increased overall

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but further progress was needed. Of OPDs which responded, 66 per cent reported positive experiences engaging with funding agencies, 54 per cent with UN agencies, and only 42 per cent with governments.

Various barriers to participation were identified. These included the inaccessibility of physical environments; information not being provided in accessible formats; and negative attitudes to people with disabilities. As many OPDs are reliant on the limited funding provided by disability-focused INGOs, they also struggled to meet the numerous requests made of them, often at short notice, due to 'the number, complexity and lack of coordination between different processes and stakeholders soliciting inputs' (IDA, 2020, p 68). Frustration was also expressed that, while OPDs were often requested to provide information which fed into programme design, they had fewer opportunities to participate in actual programme implementation.

The survey reported that certain groups of people with disabilities were particularly likely to be excluded from development processes. It also provided evidence that they are marginalized within some OPDs. Of the 573 OPD representatives who participated in the survey, 29.8 per cent reported they had physical impairments but only 2.8 per cent reported they had multiple impairments, 2.6 per cent psychosocial disabilities, 1.4 per cent intellectual disabilities, 1.2 per cent autism, and 0.2 per cent cognitive impairments. In contrast, there was a reasonable gender balance among respondents, with 51.6 per cent identifying as male, 47.4 per cent female, and 1.1 per cent identifying as other.

4.4 Further reflections

In the light of the previous analysis, it is possible to construct a hegemonic, top-down model of the political economy of disability, education, and international development. However, development realities are not so straightforward.

First, the organizational ecosystem is more complicated than this model implies (the ecological perspective). INGOs are not solely dependent on grants from multilateral and bilateral organizations but can use their unrestrictive funding to support projects which would not normally attract donor interest, such as small-scale, community-owned initiatives. Frustrated by traditional donors, organizations in the Global South can seek out alternative sources of revenue and in the process establish new types of partnership, including South-to-South partnerships (see Chapter 8). In the words of Esteves and Assunção (2014, p 1787), 'Not only are multiple practices now recognized as legitimate, but also a variety of positioning strategies (ranging from the donor–recipient dyad to horizontal partnerships or public–private partnerships) are now in direct competition.'

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Second, power-relations within the financial aid chain are similarly complex (the agential perspective). While complying with the formal requirements of donors, national and international NGOs can demonstrate 'a commitment to professional practice' which ensures '(what they bring) to each situation goes well beyond a set of delivered services' (Wallace, Bornstein, & Chapman, 2006, p 7). Southern actors are not 'passive receivers in aid interventions' but can 'actively shape project implementation and manage the constraints they are faced with' (Gutheil & Koch, 2024, p 109). When required to carry out activities which they believe are not in the best interests of learners with disabilities, Southern actors can artfully resist the 'truth games' (Foucault, 2003, p 38) of autocratic IDAs through 'playing the same game differently, or playing another game, another hand, with other trump-cards' (p 37). For instance, referring to Article 30 of CRPD, OPDs can assert their right to participate in the design and implementation of international development programmes (see Box 5.2). Due to its ambivalence and ambiguity (see Chapter 4), Article 24 can also be interpreted in different ways.

Third, the model underestimates the capacity of people working in the field of international development to achieve new understandings as a result of internal reflection and discussion and engagement with the outside world and, in the light of these understandings, effectuate organizational change (the constructivist perspective). For instance, Action Aid and Oxfam, conscious of the need to be more grounded in the Global South, have moved their international headquarters to Johannesburg and Nairobi, respectively. FCDO has promoted adaptive management (which allows partners to revise decisions and actions in the light of programme learning),[1] while USAID has promoted locally led development by allowing 'local' and 'non-traditional' actors, such as OPDs, to submit proposals directly to USAID country offices largely staffed by nationals of these countries. Further change is possible once IDC appreciates the 'tacit and community-based knowledge' of local stakeholders and recognizes 'aid should be about mutual learning and autonomy enhancement rather than telling and conditionalities' (McGrath & King, 2004, p 179). This should include recognition of the value of 'situated pedagogies' (Common Worlds Research Collective, 2023, p 57) – endogenous, ecologically sensitive, and communitarian teaching and learning practices delivered in local languages (see Chapters 3 and 8).

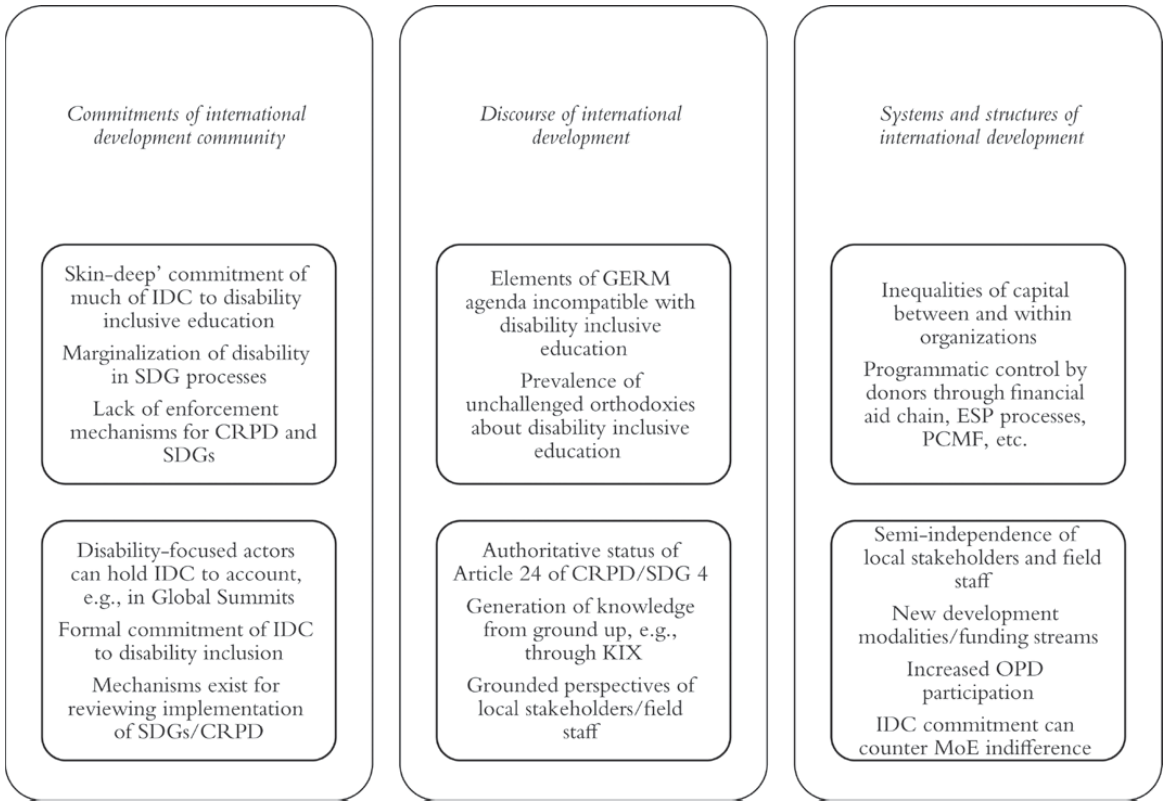
5. Conclusion

This chapter has assessed the disability inclusiveness of the political economy of disability, education, and international development.

In accordance with Article 24 of CRPD and Sustainable Development Goal 4, large swathes of IDC are now committed to promoting sustainable inclusive education of good quality for learners with disabilities. However,

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Figure 5.1: The political economy of disability, education, and international development



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there is often a disparity between rhetoric and reality. Furthermore, this commitment is counterpoised by the agenda of the World Bank-led Global Education Reform Movement which is in certain respects antithetical to disability inclusive education. Even when IDAs demonstrate this commitment, the prevalence in international development circles of largely unquestioned assumptions about the needs of these learners and the best ways they can be met illustrates the need for more applied research and critical thinking in this sphere of activity (see Chapter 4). The work of IDC in this field is further distorted by high levels of multi-faceted inequality, particularly between organizations in the Global North and those in the Global South. These inequalities are reinforced by the systems (procedures, practices, and work cultures) of international development.

Nevertheless, it is simplistic to characterize educational development as a top-down process in which the Global North inexorably imposes its will on the Global South. Notwithstanding the financial aid chain, ministries of education, national NGOs, and community-based organizations in LAMIC often possess significant autonomy (as do the field-level staff of IDAs). There is also increased recognition that organizations of persons with disabilities should participate in educational decision-making. These developments have been facilitated by the emergence of alternative funding streams, new forms of partnership, and South-to-South cooperation. Finally, international development modalities are changing as IDC becomes more aware of the need for international development to become more participatory and inclusive if it is to promote sustainable change that brings meaningful benefits to communities in the Global South.

Figure 5.1 shows the sets of variables shaping the political economy of disability, education, and international development. The upper-tier of variables is non-conducive to the promotion of educational access and quality for learners with disabilities while the lower-tier has the reverse effect. Subsequent chapters will describe how this political economy plays out in various technical areas.

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6

Framing Inclusive Education: The Systems Approach

1. Introduction

Systems thinking has become increasingly influential in all fields of scientific inquiry, including the social sciences (Zokaei, Seddon, & O'Donovan, 2011). In the field of health, the World Health Organization has adopted a system-strengthening approach which conceptualizes health systems as 'building blocks' (WHO, 2010). In education, the World Bank (2020a, p 5) has made system strengthening one of its 'two strategic directions', along with 'building the knowledge base' (p 6). Alongside this, various analyses have discussed the implications of this approach for educational development (Göttelmann-Duret et al, 2012; Faul & Savage, 2023; Silberstein & Spivack, 2023). This interest in the Strengthening Education System Approach (SESA) is attributed by these authors to frustration at the perceived ineffectiveness of interventions lacking SESA's holistic perspective. Sector Wide Approaches (SWAps) (see previous chapter) are compatible with SESA as the former provides a platform for the latter – although they are not the same, as SWAps are 'procedural' and SESA 'conceptual' (Göttelmann-Duret et al, 2012, p 21).

This chapter applies a disability inclusion lens to SESA, drawing on the author's experience working with the Sierra Leone Secondary Education Improvement Programme II (SSEIP II), a large programme funded by the Foreign, Commonwealth and Development Office (FCDO). It identifies the disability inclusion elements that were incorporated in SSEIP II, the ways in which these elements reflected a system-strengthening approach, and the obstacles SSEIP II is likely to face as it endeavours to strengthen the Sierra Leone education system so it is more disability inclusive. To provide a theoretical framework for this discussion, the chapter will begin by conceptualizing a disability inclusive education system.

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2. Conceptualizing a disability inclusive education system

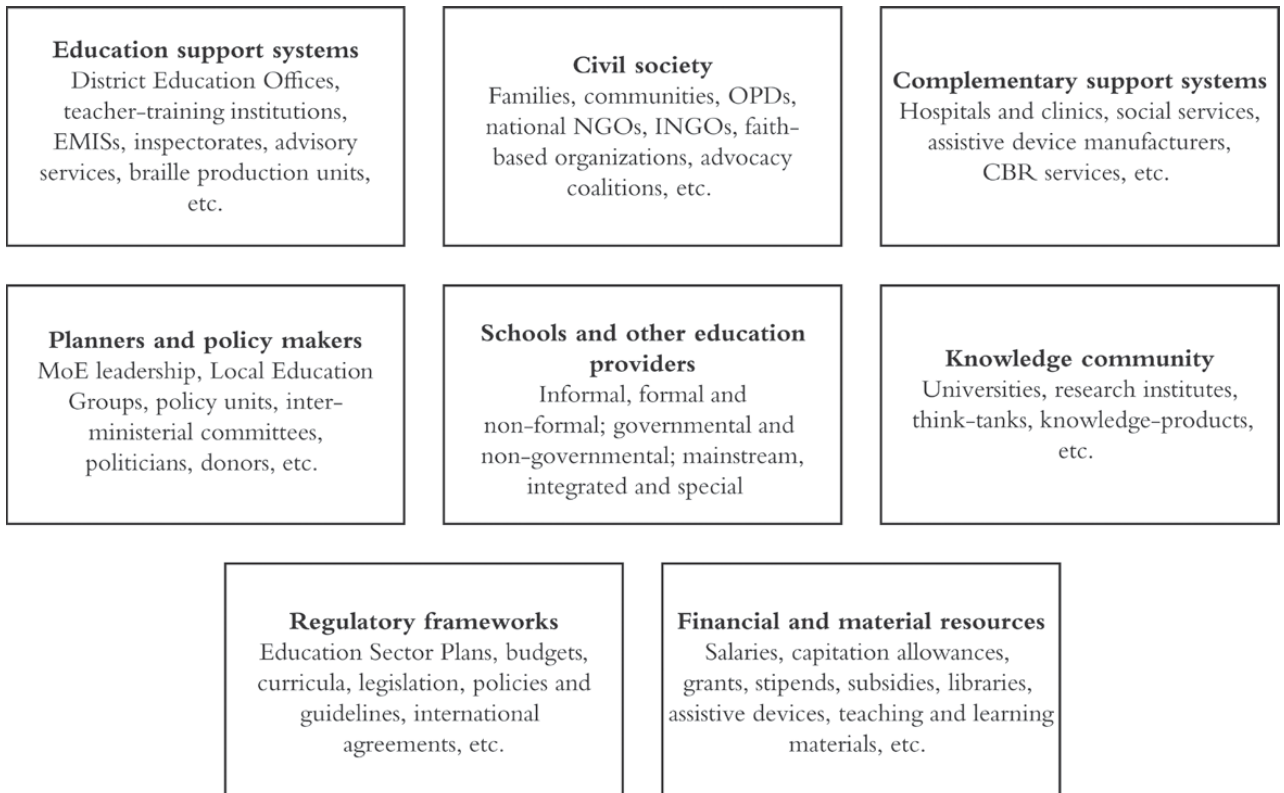
A system can be defined as an entity with formally stated goals, composed of a configuration of elements collectively constituting a particular sphere of activity. Figure 6.1 identifies the various sets of elements that can constitute a disability inclusive education system – that is, a system promoting educational access and quality for learners with disabilities. In Figure 6.1, service providers (one set) are encircled by service enablers (seven sets).

The conceptualization of an education system outlined in Figure 6.1 builds upon the 'framework for disability inclusive education' developed by UNESCO and partners (UNESCO-IIEP et al, 2021, p 41), but it is more detailed (although by no means comprehensive). Unlike the UNESCO framework, it includes informal and non-formal education and acknowledges the significance of the non-governmental sector – not just in terms of advocacy and awareness-raising but service delivery. For instance, in 2009, it was estimated that over 50 per cent of secondary school students in South Asia were enrolled in private schools (World Bank, 2020a). Complementary services (such as health services and community-based rehabilitation) are accorded greater prominence (given the need for such a system to incorporate elements of other systems, including health systems), and it is posited alternatives to full mainstreaming (such as special schooling) can be integral elements of such a system. (These issues are discussed in Chapter 4.) Five of the service enablers are 'agentive' in the sense they are composed of/staffed by individuals with varying degree of agency. These are civil society, education support systems, complementary support systems, planners and policy makers, and the knowledge community. Two of the service enablers are 'constitutive' – regulatory frameworks and financial/material resources – as they both shape the decision-making and are shaped by the decision-making of these agentive elements. It is recognized, though, that many of the individual elements in Figure 6.1 may not exist, or barely exist, in some low-income countries. Furthermore, disability inclusion may be possible, or even more feasible, without some of these elements because systems are more streamlined and less bureaucratic. These elements are themselves embedded in broader contexts (for example, political, socio-cultural, economic, and geographical). While these contexts do not constitute the education system, they shape the education system (and are in turn shaped by the system) (Faul & Savage, 2023). As a result of their contextuality, education systems, like health systems, are 'open' (Göttelmann-Duret et al, 2012, p 18).

Each of the elements within these eight sets serves a particular purpose, with the elements connected to one another through 'complex sets of interactions and feedback loops which cumulatively produce the system's outcomes' (Meadows in Silberstein & Spivack, 2023, p 2). For instance,

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Figure 6.1: Sets of elements composing a disability-inclusive education system



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education inspectors (one element) may visit primary schools (another element) and, in the light of this interaction, produce reports which both shape inspectors' perceptions of (and subsequent interactions with) the schools and impact on the management of the schools (a double feedback loop as both the schools and inspectorate are affected).

The interactions between these elements can be synergetic – for instance, if parents provide home-based educational support, it will boost their children's classroom performance. However, there can also be disconnections, tensions, or even antitheses between these elements which, if not resolved, will reduce the effectiveness of the system. These misalignments can have multiple causes, including poor planning and communication, a lack of investment, and tensions between the system's goals and stakeholder priorities narrowly focused on 'process compliance' or 'short-term clientist objectives' (Silberstein & Spivack, 2023, p 11). For instance, Education Management Information Systems may not collect key data from schools, or schools lack the capacity to deliver curricula (disconnections); provincial and district education offices may indulge in 'turf wars', or special and mainstream schools compete for limited resources (tensions); or curricula and examination systems prioritize contrasting educational outcomes (antitheses). When they exist, agents (stakeholder/s), agencies (for example, inspectorates), frameworks (for example, international agreements), mechanisms (for example, data collection systems), forums (for example, committees), and stocks (for example, of resources, of knowledge) may be utilized to resolve these systemic misalignments. When these misalignments are not resolved satisfactorily, stakeholders may either stoically 'soldier on' or 'vote with their feet', as exemplified by teachers leaving the profession early, children dropping out of school, or parents choosing to educate their children privately.

The traditional project-based approach to educational development has been criticized for (allegedly) failing to appreciate the multiplicity, interconnectedness, and contextuality of education systems – in short, their complexity (World Bank, 2020a). For instance, a ministry of education, with donor support, might introduce a pedagogical intervention (such as activity-based learning) without considering wider systemic realities. First, service providers might lack the capacity to deliver the innovation, and service enablers the capacity to support its introduction (failure to appreciate multiplicity). Second, the innovation might negatively impact on other elements of the education system – for instance, resources might be diverted from elsewhere to fund the innovation (for example, from the budget for instructional materials) – in the process not only adversely affecting students' education but (ironically) reducing the capacity of schools to deliver the intervention (failure to appreciate interconnectedness). Third, teachers might resist the innovation because (for instance) of its incompatibility with

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traditional social and cultural norms (failure to appreciate contextuality). In contrast, SESA potentially enables governments and donors to avoid these pitfalls through recognizing this complexity. While SESA initiatives cannot engage with all the elements of education systems, given their multiplicity and diversity (see Figure 6.1), it is posited that these initiatives, through strengthening strategic configurations of elements spanning education systems, can not only create synergies between these elements but also create synergies between them and other elements.

To provide a context for assessing the applicability of the SESA approach (as encapsulated in SSEIP II) for Sierra Leone, a brief overview of the Sierra Leone education system will now be provided.

3. Sierra Leone and its education system

3.1 Historical background

Sierra Leone is located in West Africa, with the Atlantic Ocean to its West, Guinea Conakry to its North and North-East, and Liberia to its South. It has a land area of 72,180 square kilometres and in 2024 had an estimated population of 8,816,388 (World Population Review, 2025). English is the official language, but (among other languages) Temne is widely spoken in the north and Mende in the south, with Krio (an English-based creole), the de facto national language spoken by 96 per cent of the population.

Formerly a British colony, it achieved independence in 1961. However, post-independence, the country has experienced recurring problems due to the lack of a strong national identity and central government legitimacy, as a result of the urban–rural divide, tensions between chieftains and elites, and inter-ethnic contention (Harris, 2014). Alongside this, the economy remains over-reliant on the diamond sector. These factors contributed to the civil war which ran from 1991 to 2002 and in which tens of thousands of people died and more than 1.5 million were displaced. This was followed by the Ebola outbreak (from 2013 to 2016) and the COVID-19 pandemic (from 2020 to 2023). Despite substantial mineral, agricultural, and fishery reserves, Sierra Leone was ranked 184/193 in the 2023/24 *Human Development Index* and its gross national income (per capita) was estimated at US$1,613 (for 2022) (UNDP, 2024).

3.2 Challenges faced by the education system

The education system has a 6–3–3 structure – six years of primary education followed by three years each of junior secondary and senior secondary education. The system is managed by the Ministry of Basic and Senior Secondary Education (MBSSE), while the Teaching Service Commission (TSC) within MBSSE is responsible for teacher recruitment

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and management. Although TSC is responsible for continuous professional development (CPD), initial teacher training is the responsibility of the Ministry of Technical and Higher Education (MTHE). Each of the 16 districts in Sierra Leone has District Education Offices managed by District Education Officers (DEOs) and Deputy-District Education Officers (DDEOs), as well as TSC Offices. The country has recently established a national network of 160 School Quality Assurance Officers (SQAOs), each of them tasked with responsibility for providing monitoring and guidance for over 70 schools spanning pre-primary to secondary.

Teaching and learning conditions are challenging. In 2021, the student–teacher ratio was estimated at 53:1 in Junior Secondary Schools (JSSs) and 58:1 in Senior Secondary Schools (SSSs) (FCDO, 2021) – although alternative figures in the draft 2024 Annual School Census are much lower than these (MBSSE, 2024). In the same year, it was estimated 24 per cent of primary teachers were unqualified to teach and 27 per cent untrained to teach, while the primary teacher attrition rate (which compares teachers leaving with those entering the profession) was 21 per cent (UNESCO, 2023), indicating bottlenecks in the teacher-training system and low levels of professional morale. (These figures were not available for secondary education.) In the same year, it was estimated that 30 per cent of schools lacked basic toilet and sanitation facilities, 84 per cent lacked electricity, and only 1 per cent used computers for educational purposes.

While the net enrolment rate (NER) in primary education was estimated at 98 per cent in 2021, the NERs for junior secondary and senior secondary education were 51 per cent and 35 per cent (UNESCO, 2023). While girls were slightly more likely than boys to be enrolled in primary education, the reverse was true for secondary education. Education outcomes are another cause of concern, as it was found that 31 per cent of senior secondary students who participated in the Secondary Grade Learning Assessments in 2022 performed at Primary 6 level or below in English and 42 per cent in Maths, with girls performing less well than boys in both subjects (Leh Wi Lan, 2023). Other comparatively poorly performing groups of students included those in remote rural areas, those from economically disadvantaged backgrounds, and those whose home-language was not the language of instruction (that is, English).

3.3 Provision for learners with disabilities

The evidence indicates learners with disabilities are particularly likely to be out of school. While the 2017 Multiple Indicator Cluster Survey (MICS) estimated 23.1 per cent of school-aged children in Sierra Leone have at least one functional difficulty (Statistics Sierra Leone, 2018), the 2022 Annual School Census (ASC) identified only 44,792 learners with disabilities in

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education (22,916 boys and 21,876 girls), equivalent to 1.34 per cent of the total school population (Ministry of Basic and Senior Secondary Education [MBSSE], 2023).[1] There is also evidence that the education outcomes of students with disabilities are worse than those of their classmates, as MICS found both boys and girls aged 7–14 with functional difficulties were achieving lower levels of literacy and numeracy than their peers.

Stigma and discrimination were identified as the main barriers to inclusive education by 44 per cent of children with disabilities and 46 per cent of adults participating in a study carried out in five districts, involving focus group discussions, interviews and a survey (Street Child, 2018). A similarly participatory study, carried out in 11 secondary schools in seven districts reported high levels of bullying of students with disabilities, particularly those with certain conditions (such as albinism) and functional difficulties (such as cognitive impairments) (Cambridge Education, 2024). When the author has taken part in teacher trainings in Sierra Leone, it has been commonly reported by participants that learners with epilepsy face high levels of social isolation as it is believed their saliva is infectious, resulting in them being left alone when having a seizure (see Chapter 10). Other barriers to education identified in the Street Child study were the lack of accessible school facilities and learning materials, the lack of medical and specialist services, and household poverty. (While primary and secondary schooling are theoretically free, schooling has associated costs and opportunity costs – see Chapter 2.) In Sierra Leone, school examination results are made publicly available, and consequently some schools are hesitant to enrol children with disabilities because they are concerned this will depress their results (E. Musa, personal communication, 24 September 2025).

The lack of specialist services for students with disabilities is unsurprising, given there is only one member of staff in the special educational needs and disabilities (SEND) unit in MBSSE, along with a counterpart in TSC. At sub-national level, there are no disability-focused MBSSE staff. Unlike Papua New Guinea (see Chapter 3), there are therefore no inclusive education resource centres providing outreach to schools and communities. Unlike other low- and middle-income countries (LAMIC), such as Kenya, Zambia, and Nigeria, there are also no special educators based in schools. Disability inclusive perspectives have not yet been embedded in initial teacher training, and, until recently, inclusion-focused CPD was not generally available through TSC.

Concerned about high levels of educational exclusion and marginalization, particularly for girls and for children and youth with disabilities, MBSSE introduced its *National Policy on Radical Inclusion in Schools* in 2021 (or '*The Radical Inclusion Policy*' as it is widely known) (MBSSE, 2021). This was guided by four principles: radical inclusion (every child should go to school and receive a good quality education); comprehensive safety

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(children must feel safe, secure, and supported in school); quality teaching and learning (which should include necessary targeted support for students with disabilities); and universal access (schools should be socially, physically, and pedagogically accessible). The policy was aligned with international agreements and domestic legislation and policies, such as the *Child Rights Act* (Government of Sierra Leone [GoSL], 2007), the *National Gender Strategic Plan* (Ministry of Gender and Children's Affairs, 2018), and *The Persons with Disability Act* (GoSL, 2011).

The Radical Inclusion Policy provided the rationale for the second phase of the Sierra Leone Secondary Education Improvement Programme.

4. Sierra Leone Secondary Education Improvement Programme II (SSEIP II)

From 2016 to 2023, the UK government funded a secondary education improvement programme in Sierra Leone (SSEIP I) with a £35 million grant. SSEIP I (also called *Leh Wi Lan*)[2] was implemented by a consortium led by Cambridge Education (the education arm of Mott Macdonald, a UK-based consultancy company with global reach). It aimed to strengthen the capacity of Ministry of Basic and Senior Secondary Education (MBSSE) to manage the secondary school sector while simultaneously promoting sustained improvements in learning conditions and education outcomes in Junior Secondary and Senior Secondary schools across the country, particularly for girls.

Foreign, Commonwealth & Development Office (FCDO) positively rated SSEIP I, in terms of its outputs (for example, the development of widely used tools and resources) and its outcomes (for example, increased enrolment and improved retention rates for girls in secondary education). Given these achievements and the introduction of *The Radical Inclusion Policy*, FCDO decided to build on SSEIP I through funding a second phase programme, SSEIP II.

According to the 'business case' (FCDO, 2021, p 2), SSEIP II would run from 2023 to 2028 and 'improve access to quality education, learning, safety and health outcomes for 1.6 million children (including 800,000 adolescent girls and children with disabilities)'. To achieve this goal, SSEIP II would have three pillars. Pillar 1 would work at national level to develop the capacity of MBSSE to implement *The Radical Inclusion Policy*, strengthen other policies, and plan for inclusion (for example, through collecting sex and disability-disaggregated data through its EMIS). Pillar 2 would work at district and sub-district level to develop the capacity of MBSSE to support inclusive education. Specifically, it would develop the capacity of School Quality Assurance Officers (SQAOs) to provide quality assurance for schools; head teachers to provide instructional leadership; School Safety Committees

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to ensure the safety and well-being of students; Girls' and Boys' Clubs in schools to address students' concerns; and school staff to screen students with disabilities and refer them for assessment. Pillar 3 would work at community level to strengthen local participation in school management and raise awareness of the benefits of inclusive education for girls and learners with disabilities. It would also facilitate the re-enrolment of school 'dropouts' through mobilizing communities, and strengthening non-formal education provision. A Pillar 4, focused on providing materials for schools, was also mentioned in the business case, but nothing more was subsequently heard about this, presumably because of its cost.

Given the scope of the programme, FCDO decided to allot £35 million to SSEIP II over five years – £4 million to Pillar 1, £21 million to Pillar 2, and £10 million to Pillar 3 (FCDO, 2021).

International development agencies (IDAs) were invited to bid for each pillar. At the time the author was employed by Sightsavers, a disability-focused UK-based international non-governmental organization (INGO). While the organization was keen to participate in SSEIP II, it was decided we were better placed to be a 'core partner', providing technical assistance in disability inclusion, than a 'programme-lead'. Fortunately, Sightsavers was an attractive partner for programme-leads assembling consortia as we had a well-connected country office in Sierra Leone, staffed entirely by Sierra Leonean nationals, which had significantly contributed to the development of *The Radical Inclusion Policy* and recently implemented a positively evaluated European Union (EU) funded education project in two districts. Accordingly, we were invited to join a consortium bidding for Pillar 2 (led by Cambridge Education) and another bidding for Pillar 3 (led by Save the Children UK). Over the second half of 2022, my colleagues and I spent hundreds of hours ensuring the programme proposals for Pillars 2 and 3 were as disability inclusive as possible. This involved internal and external meetings (virtual and face-to-face), desk-based research, and the drafting and redrafting of documents. The author also travelled to Sierra Leone to attend a Pillar 3 design workshop. The consortium leads submitted the programme proposal for Pillar 2 in November and for Pillar 3 in December.

In February 2023, we learned that Pillar 3 had been cancelled due to the controversial and by no means inevitable decision to use the official development assistance (ODA) budget to cover the costs of accommodating asylum seekers from Ukraine. All our hard work was consequently wasted. Better news came in March – our proposal for Pillar 2 had won the contract. However, later in the year, there was more bad news: the not-for-profit consultancy company that had been awarded Pillar 1 had been dissolved. Pillar 1 was therefore temporarily suspended until another organization could be found to assume this responsibility. For the foreseeable future,

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SSEIP II would therefore consist of one pillar, depriving the programme of the potential synergies of three pillars.

5. Disability-focused components of SSEIP II

SSEIP II had four output areas, of which one (Output 3) was disability-specific.

5.1 Disability inclusion within Output 3

It was decided to create a national cadre of 1,250 inclusion champions (ICs) in over 600 Junior Secondary Schools (JSSs) and Senior Secondary Schools (SSSs) covering the 16 districts of Sierra Leone. The majority of ICs would be classroom teachers who volunteered to take responsibility for promoting disability inclusion in their schools, although school leaders were also invited to fill this role or at least attend IC trainings (H. Higginson, personal communication, 22 September 2025). Their duties would include: identifying students with disabilities, supporting them in school, and liaising with their parents and guardians and other community members. Alongside this, ICs would be responsible for mentoring and training their colleagues, liaising with their head teachers, and, with them, co-developing and implementing school inclusion plans. These plans would identify low cost/no cost ways in which schools could be made more disability inclusive over fixed periods of time and allocate roles and responsibilities for this task within the school community. To reduce the isolation of ICs, it was planned that there would be at least two ICs in every school. While ICs were not mentioned in FCDO's business case for SSEIP II, a system of ICs had been successfully piloted in an EU-funded project in two districts and consequently incorporated as a recommendation in *The Radical Inclusion Policy*.

Given the large number of ICs, a cascade system of training was adopted. This would involve Pillar 2 staff providing 'training of trainers' for Ministry of Basic and Senior Secondary (MBSSE) staff who would then deliver district-level training to ICs, in the process creating a national cadre of trainers. A bank of training materials was developed in different formats (braille, large and regular print, video), which trainers and trainees could take away with them and re-use post-training. The author was involved in this process and due to time and work pressures felt the process was not always as participatory as it should have been – in particular, it would have been good if there had been more opportunities to identify 'home grown' inclusive pedagogical approaches and incorporate them in the materials, MBSSE permitting. For instance, Rossiter (2021) has described how teachers in Sierra Leone switch from English to Krio and Mende (or another language) to communicate more effectively with their students. This involved them using Krio according to its 'real-life status as the language of interpersonal

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communication outside the family' while using 'the home language (Mende) to relate new to existing knowledge' (p 119).

To complement this, students would have greater access to screening and assessment. Screening would take the form of inclusion champions, along with their fellow teachers, observing if students appeared to have functional difficulties according to pre-established criteria, such as difficulty seeing what was written on the blackboard, hearing what others were saying, or moving around the classroom. These students would then be referred to Primary Health Units for further screening and from there to clinics, hospitals, and centres (as appropriate) for clinical and functional assessments (see Glossary). In the light of these assessments, it was anticipated that these students would be provided with necessary follow-up, such as medication, treatment, therapy, and assistive technology (see Chapter 9). To identify the best ways of achieving this goal, Sightsavers carried out a review in late 2023 and a mapping of service providers in early 2024, the findings of which are discussed in the next section.

In accordance with the principle 'Nothing about us without us', it was decided to facilitate the participation of organizations of persons with disabilities (OPDs) in two key district-level forums: Performance Management Meetings (PMMs) and District Education Meetings (DEMs). PMMs assess SSEIP II performance and identify ways of improving performance in the light of these assessments. After these PMMs, Joint Monitoring Visits (JMVs) are carried out to schools and other sites.[3] Established as part of the educational decentralization process in Sierra Leone, DEMs have the power to review and, if necessary, revise district education plans and associated budgets (E. Musa, personal communication, 2 September 2025). DEMs therefore provide opportunities for OPD representatives to ensure these plans and budgets are disability inclusive – for instance, allocate funding to making school infrastructure more disability-accessible or to purchase assistive technology for students with disabilities. As DEMs are attended by diverse stakeholders, including local councillors, staff from the Ministry of Health and Sanitation (MoHS) and the Ministry of Social Welfare, and representatives of civil society and faith-based organizations, they also provide platforms for promoting integrated approaches to disability inclusion. To facilitate OPD participation, Pillar 2 organized provincial workshops in which OPD representatives could draw on their advocacy experience to collaboratively identify strategies for effectively contributing to PMMs and DEMs, as well as select representatives to attend these meetings. The technical lead for Output 3, Dr Abs Dumbuya, a Sierra Leonean national and himself a person with a disability, has also provided on-going mentoring and coaching for OPDs. At national level, OPD representatives would be members of NTAC (the National Technical Advisory Committee), a body established by Pillar 2 to promote 'joined up' approaches to disability inclusion within

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MBSSE. MoHS, the World Bank, and UNICEF would also be represented on this body, enabling 'horizontal collaboration' (UNESCO, 2020, p 88) at national level.

Finally, it was decided that Output 3 should develop the capacity of schools and districts to more effectively collect disability-disaggregated student data. This issue is discussed in the next chapter.

5.2 Disability inclusion within Outputs 1, 2, and 4

As disability inclusion was a cross-cutting theme of SSEIP II, disability inclusive components were included in Outputs 1, 2, and 4.

Within Output 1, it was decided to develop the capacity of School Quality Assurance Officers (SQAOs) to provide disability inclusive quality assurance for schools. To facilitate this, the possibility was mooted of revising the SQAO school inspection tools so they were more disability inclusive. Within Output 2, it was decided to develop the capacity of head teachers and other school leaders to provide disability inclusive school leadership. To complement this, schools would be capacitated to deliver disability inclusive CPD to their staff. Output 4 focused on improving the safety and well-being of students through gender-specific interventions. Within this output area, it was decided that Girls' and Boys' Clubs in schools would be made more accessible for students with disabilities and provide effective forums for the discussion of school-related disability issues. School Safety Clubs would address the gender-based violence specifically directed towards girls with disabilities, and Sexual and Reproductive Health (S&RH) provision in schools would take into account the needs of students with disabilities. This provision would therefore recognize that girls and young women with disabilities are especially vulnerable to sexual abuse, are often pressurized to marry early, and can be denied access to even the most basic S&RH information (WHO, 2009). This provision would also be delivered in ways that made S&RH messages meaningful and accessible for students with disabilities, both male and female.

Much of this work was at an early stage of planning when the author left the programme in June 2024. However, Sightsavers was already working with the Output 4 team to ensure girls with disabilities knew how to use the menstrual health kits that would shortly be distributed to schools. When mentors (selected teachers) and 'community mamas' (women volunteers) explained to the girls how to use the kits, it was recommended that they speak clearly, regularly check for understanding, allow sufficient time for questions, and provide opportunities for the girls to physically inspect the kits (so the sessions were not overly abstract). Certain students with disabilities, such as those with seeing or hearing difficulties, should be invited to sit at the front of the classroom. Possibilities for delivering the session in Krio or

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other local languages, rather than English, should be explored. Post-session, it was suggested the girls should be encouraged to contact the mentors, community mamas, their mothers, or even selected older girls, if they still had questions or concerns. Self-evidently, all the students would benefit from many of these approaches, not only those with disabilities.

Figure 6.2 shows the various disability inclusive components of SSEIP II.

6. Strengthening Education System Approach of Pillar 2

At the start of this chapter, the Strengthening Education System Approach (SESA) was outlined. What form did this approach take in Pillar 2 in terms of disability inclusion, and what challenges was it likely to encounter?

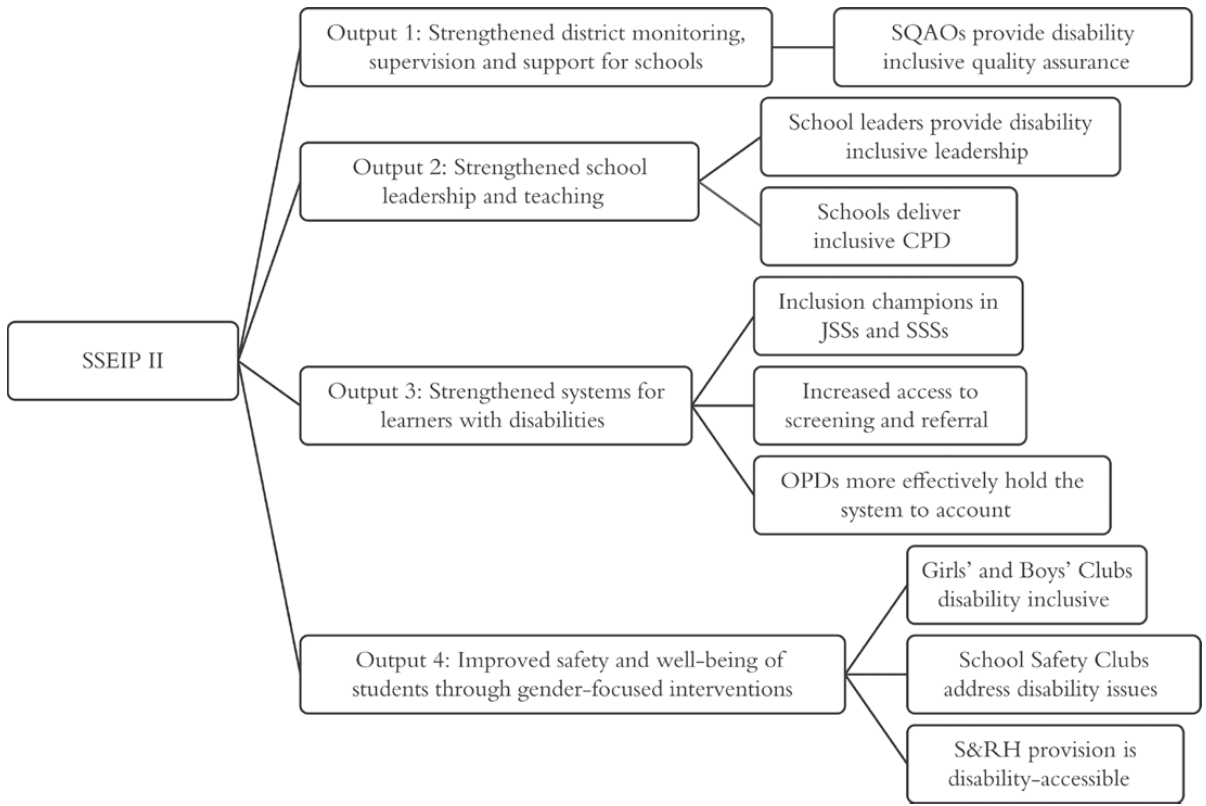
6.1 Strengthening a key element of the education system

SESA emphasizes the need to strengthen education systems holistically through creating synergies between strategic configurations of elements (see Section 2). While Pillar 2 did not neglect this task (discussed later), it particularly concentrated on strengthening a key service provision focused element of the education system, namely schools. To strengthen the disability inclusiveness of this element, it sought to increase the capacity of selected 'sub-elements' of this element to promote disability inclusion: for instance, the capacity of head teachers and their senior management teams to provide inclusive school leadership and Girls' and Boys' Clubs and School Safety Clubs to address disability-related issues (see Figure 6.2). Pillar 2 also 'repurposed' an existing sub-element as selected classroom teachers (inclusion champions) within each Junior Secondary School (JSS) and Senior Secondary School (SSS) were given additional responsibility for promoting 'joined up' approaches to disability inclusion in their schools (again, see Figure 6.2). In the field of disability inclusion, Pillar 2 therefore conceptualized each JSS and SSS as a micro-system whose constituent elements would be coordinated by inclusion champions (ICs) under the supervision of their head teachers.

However as discussed earlier, JSSs and SSSs do not always provide conducive environments for disability inclusion and, even when they do, can only deliver a limited range of primarily pedagogical services for students with disabilities. Moreover, the capacity of inclusion champions (ICs) to effectuate change in their schools was likely to be constrained by their relatively junior status and their need to combine their new responsibilities with their existing responsibilities as classroom teachers. Given limited SSEIP II resources and the large number of ICs (1,250), SSEIP II could only provide ICs with limited support – for instance, three days' initial training and hard copies of the *Inclusion Champions Handbook*. To meet the challenge of training

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Figure 6.2: Disability-inclusive components of Sierra Leone Secondary Education Improvement Programme II (SSEIP II)



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large numbers, a 'cascade' system of training was employed. While cascade training possesses 'scalability' (Leong & Rethinasamy, 2023, p 171), 'content dilution' can occur at successive stages of the training cycle, including (in this case) when the trainees returned to their schools to pass on their skills and knowledge to their colleagues.

To address these challenges, in the field of disability inclusion, Pillar 2 sought to strengthen the links between schools and other elements of the education system.

6.2 Linking schools with other elements of the education system

To develop the capacity of School Quality Assurance Officers (SQAOs) to provide disability inclusive quality assurance for schools, it was decided to incorporate disability inclusive perspectives in the continuous professional development (CPD) provided for them. However, as previously mentioned, each SQAO is expected to provide quality assurance for over 70 schools spanning pre-primary to secondary and has multiple additional responsibilities, including responsibility for assisting schools to submit data for the Annual School Census (see next chapter). Moreover, very few SQAOs had any previous experience or expertise in disability inclusive education due to the marginalization of disability within the education system (see Section 3.3). While the school inspection tools used by SQAOs have been recently revised so, for instance, they assess the disability inclusiveness of teachers' pedagogical practices (E. Musa, personal communication, 3 September 2025), it would be interesting to know to what extent these changes enable SQAOs to assess disability inclusiveness meaningfully, not just according to a few 'tick-box' criteria – assuming such assessment is possible, given SQAOs' heavy workloads and lack of familiarity with disability inclusion.

It was also intended SSEIP II would develop the capacity of schools to screen students for functional difficulties and then refer them to relevant services for further screening and subsequent clinical and functional assessments (see Glossary). It was anticipated that this would result in these students receiving appropriate follow-up, such as medication, treatment, therapy, and assistive technology (see Chapter 9). To identify the best ways of achieving this goal, Sightsavers carried out a review in late 2023 and a mapping of service providers in early 2024. This found multiple challenges.

First, there is no established system in secondary schools for 'screening' students with functional difficulties – that is, for carrying out simple, practical tests that would indicate a student might have a functional difficulty. Second, even if children and youth are referred to Primary Health Units (community health centres and posts) by their primary or secondary caregivers, these Primary Health Units (PHUs) have very limited capacity to screen these individuals. Instead, they provide parents with a note they

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can take to a specialist centre, clinic, or a district or regional hospital – in short, to secondary level services. Third, these secondary level services form a patchwork of provision. While there are numerous service providers in and around the national capital (Freetown), services in other parts of the country tend to be few and far between, particularly in remote rural areas. There is also much greater service provision for certain impairments and conditions than others. For instance, although there is a national eye health programme (supported by Sightsavers), provision for children and youth with certain impairments (for example, cognitive impairments) or conditions (for example, autism) is very limited. Furthermore, these services are generally not free-of-charge and are costly to access if long distances from homes, making them unaffordable for large swathes of the population.[4] Even if families can access these services, service providers have limited capacity to provide necessary follow-up – for instance, to provide assistive devices and subsequently service them and provide guidance in their use. Even if a student receives an assistive device, they may be unwilling to use it because of the teasing and bullying they will experience, unless it is necessary for their very presence in education (such as a pair of crutches or a wheelchair).

Despite these challenges, Pillar 2 can ensure more students with disabilities are referred to PHUs, assessed, and provided with some sort of follow-up. Through evaluating existing provision, Pillar 2 can also assist the Ministry of Basic Senior and Secondary Education (MBSSE) and Ministry of Health and Sanitation to identify ways it can be strengthened. However, to have the greatest impact, Pillar 2 needs to focus on developing the capacity of teachers to identify students experiencing functional difficulties and adapt their pedagogical approaches accordingly. The material provided to inclusion champions therefore contains checklists for identifying these students, along with simple, practicable strategies for meeting their needs.

6.3 Linking organizations of persons with disabilities with policy makers

In the field of disability inclusion, SSEIP II not only endeavoured to strengthen the links between service providers (schools) and service enablers (SQAOs, health services, and manufacturers/distributors of assistive devices), but also to strengthen the links between organizations of persons with disabilities (OPDs) and policy makers at district and national levels.

In their case study of the disability movement in Sierra Leone, van den Brink et al (2021, p 1035) identified 'three main centrifugal forces underlying fragmentation'. These are 'resource scarcity' (which means OPDs have limited capacity and compete for funding and members), 'impairment specific interests' (which means OPDs sometimes have contrasting agendas), and 'capacity differences between impairment types' (which means certain impairment groups, such as polio survivors and people with visual

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impairment, are disproportionately influential). On the other hand, van den Brink et al identify centripetal forces, namely 'interdependence' (the recognition that people with disabilities need to work together to have an impact), 'shared experiences of marginalization', and a 'clear identification of the "other"' (outsiders who do not have their best interests at heart) (p 1035).

The extent to which OPDs can meaningfully contribute to educational policy-making in Sierra Leone will partly depend on whether these centrifugal or centripetal forces predominate. It will also depend on whether policy makers take OPD concerns sufficiently seriously. Even if OPDs are able to significantly input into district education plans and budgets, these plans and budgets may not be implemented as intended due to delays in the disbursement of funds from central government to local councils and from local councils to district education offices, along with the lack of effective monitoring by district government of schools (which means some hard-to-reach schools are never visited by district officials) (Education Partnerships Group [EPG], 2020). Without technical support, school administrations may struggle to utilize funds effectively – for instance, to install ramps with appropriate gradients for wheel-chair users. In short, the fragile links between district governments and schools can negate the value of the strengthened links between OPDs and district governments. OPD representatives may experience similar challenges at national level as they seek to shape MBSSE policy-making through their participation in the National Technical Advisory Committee.

6.4 Working through existing policy frameworks

In the field of disability inclusion, SSEIP II worked through existing policy frameworks. Indeed, SSEIP II was explicitly designed to implement *The Radical Inclusion Policy* (RIP) which aimed to promote educational access and quality for both girls and learners with disabilities, along with other marginalized groups. RIP in turn is aligned with international agreements and other domestic policy frameworks. This meant in theory that SSEIP II initiatives would be complemented by other MBSSE initiatives informed by RIP, maximizing the impact and sustainability of SSEIP II. However, due to the financial challenges faced by the Sierra Leone government, this may only happen to a very limited extent. For instance, the Sierra Leone Education Sector Plan covering the period 2022–26 commits MBSSE to spending the equivalent of over US$500,000 on assistive devices for secondary school students with disabilities (Government of Sierra Leone, 2022). However, MBSSE is not yet able to fulfil this commitment due to the lack of donor funding (E. Musa, personal communication, 2 September 2025). Even if these funds become available, it might be difficult for MBSSE to utilize these funds effectively due to challenges disbursing these funds

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and the lack of service providers with the necessary expertise (see Section 6.2). Furthermore, while the Education Sector Plan 2022–26 commits MBSSE to working with 'specialized ministries and partners to conduct screening of children' (p 36) entering pre-primary and primary schools, no such commitment is made for secondary schools. Without such screening, secondary students with disabilities are less likely to be referred to clinics, hospitals, and centres for assessment, and, without such assessments, their assistive device needs will not be identified.

6.5 Constraints on SSEIP II

The cancellation of Pillars 3 and 4 significantly reduced the impact of SSEIP II. If Pillar 3 (community engagement) had not been cancelled, the links between schools and communities in the field of disability inclusion would have been strengthened. Communities would have been more aware of the need for learners with disabilities to be educated and would have worked more closely with schools to develop and implement 'joined-up' approaches for supporting their enrolment and retention in school. In the process, stigma and discrimination would have been addressed. If Pillar 4 (material inputs) had been operationalized, it would have been possible (for instance) to make school infrastructure more accessible and cover the costs of assessments and assistive technology for students with disabilities. It can be argued that such inputs are the antithesis of SESA as they support rather than strengthen systems. However, it can be counter-argued that they can yield valuable learning that can feed into Education Sector Plans and budgets, as they illustrate what can be achieved through targeted investments in education systems. They also meet the pressing needs of students with disabilities while longer term sustainable solutions are being established.

Even if Pillars 3 and 4 had been operationalized, the restricted scope of SSEIP II would have limited its impact. As SSEIP II primarily worked through Ministry of Basic and Senior Secondary Education (MBSSE), it meant certain important elements of a disability inclusive education system (see Figure 6.1) were not addressed. Initial teacher training (which is the responsibility of Ministry of Technical and Higher Education) was only briefly mentioned in the business case, limiting the potential impact of the programme. Similarly, there was very little consideration of strengthening the links between MBSSE and Ministry of Health and Sanitation to promote joined-up service provision. It is presumed that the business case did not discuss making secondary school examinations arrangements more disability inclusive because this examination is administered by the West African Examinations Council, not MBSSE (MBSSE, 2022b). More perplexing is the absence of reference in SSEIP II to strengthening the links between

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Table 6.1: Pillar 2's system-strengthening approach in the field of disability inclusion

System-strengthening strategies	Challenges
Strengthen disability inclusiveness of sub-elements of one element of the system, i.e. schools	Challenging teaching and learning conditions in schools; disability stigma and discrimination
'Repurpose' a sub-element within the above element (through employing teachers as inclusion champions)	Inclusion champions already have multiple responsibilities; limited support provided by SSEIP II for ICs
Strengthen the link between SQAOs and schools in the field of disability inclusion	SQAOs already have heavy workloads and possess limited disability inclusion expertise
Link schools (one element) to health services and assistive device manufacturers (other elements)	Lack of accessibility, availability, and affordability of these support services, particularly in rural areas
Strengthen links between OPDs (one element) and policy-making bodies (other elements)	Fragility, as well as strengths, of OPDs; policy-implementation gaps at national and district levels
Utilize existing regulatory frameworks, particularly *The Radical Inclusion Policy*	Policy-implementation gap
	Removal of Pillars 3 and 4 deprived SSEIP II of potential synergies; limited funds and duration of Pillar 2, given its scope and ambition; possible design flaws in FCDO's business case

primary and secondary schools to facilitate the transition of students from one phase of education to the next.

Table 6.1 outlines the system-strengthening strategies of Pillar 2 and the potential challenges they faced.

7. Further reflections

Sierra Leone Secondary Education Improvement Programme II (SSEIP II) exemplifies a SESA to disability inclusion as it is designed to strengthen the connections between diverse, multi-tiered elements within the education system while engaging with broader social realities. Given its scope and focus, it is plausible that SSEIP II will raise the capacity of teachers across the country to assist students with disabilities in their classrooms. Certain SSEIP II initiatives may become embedded in the system, such as the National Technical Advisory Committee which has recently approved a workplan with actionable recommendations for strengthening the SEND unit within the Ministry of Basic and Senior Secondary Education (M.

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Lab, personal communication, 22 September 2025). Equally, SSEIP II's impact will be limited by the various challenges discussed in this chapter and summarized in Table 6.1. Benefits are likely to be particularly marginal for learners with more severe and complex disabilities as they tend to experience greater levels of stigma and discrimination (which would have been addressed by Pillar 3) and have a greater need for assistive devices (which would have been addressed by Pillar 4). Furthermore, SSEIP II was not designed to provide these learners with necessary educational support, such as classroom assistance, specialist tuition and training, and access to augmentative and alternative modes, means, and formats of communication. In short, SSEIP II was never intended to meet the 'specific' and 'individual' needs (see Table 3.1) of learners requiring pedagogical modifications and more demanding pedagogical accommodations (see Chapter 3): a decision that should be put into the context of the limited time span and budget of SSEIP II, FCDO's desire to maximize the total number of beneficiaries, and challenging contextual realities.

It has been posited that SESA has exposed the limitations of the traditional project-based approach (PBA) to educational development (Göttelmann-Duret et al, 2012; World Bank, 2020a; Silberstein & Spivack, 2023). First, it is alleged that SESA conceptualizes education systems in their totality whereas projects do not see 'the big picture'. As a result, PBA cannot achieve the synergies of SESA – indeed, can have unfortunate unintended consequences. However, this is not self-evidently the case. If projects are scrupulously designed, monitored, and evaluated, then they can demonstrate a holistic understanding of education systems. Second, it is alleged that small-scale projects are less impactful than programmes because they lack their breadth and depth. While this is certainly true, geographically concentrated projects can still play a valuable role in countries like Sierra Leone where education authorities struggle to provide education providers with support and oversight. This is because these projects, if well-designed, can develop the capacity of clusters of education providers to include learners with disabilities in the absence of this support and oversight. Simultaneously, these projects can pilot 'home-grown' approaches which can be potentially scaled-up by ministries of education in the future – thus enabling inclusive education to emerge from the 'ground up', rather than be imposed from the 'top down'. Indeed, as discussed, SSEIP II benefited from an earlier project which piloted a system of inclusive champions in two districts of Sierra Leone. SESA and PBA can therefore be complementary rather than antithetical. Finally, as ministries of education around the world (including Sierra Leone) are increasingly devolving responsibilities to district and sub-district levels (Faguet & Pöschl, 2015), the case for geographically concentrated projects has arguably strengthened rather than weakened, as these projects can establish what works at these levels.

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8. Conclusion

This chapter has assessed the Strengthening Education System Approach (SESA) in educational development, with particular reference to a system-strengthening programme in Sierra Leone: the FCDO-funded Sierra Leone Secondary Education Improvement Programme II (SSEIP II). The chapter began by defining SESA and outlining the perceived advantages of SESA over the project-based approach in educational development. It then identified the various sets of elements comprising a disability inclusive education system. These consisted of one set of service providers surrounded by seven sets of 'agentive' and 'constitutive' service enablers. After providing an overview of the Sierra Leone education system, the various disability-focused components of SSEIP II were identified, along with the underlying approach to system-strengthening of the programme. The various implementation barriers were described. Some of these were 'external': the result of challenging contexts of implementation. Others were 'internal': potential design flaws in the business case and the limited budget, scope, and duration of SSEIP II. Despite SSEIP II's strengths, these barriers will inevitably limit SSEIP II's impact, particularly for children and youth with more severe and complex disabilities. The chapter ended by arguing the project-based approach is still valid in educational development, both as a means to an end (that is, through identifying 'what works' in a particular context) and as an end in itself (that is, through ensuring learners with disabilities in a particular locality can access education).

Postscript

As part of their swingeing funding cuts, FCDO announced in August 2025 that SSEIP II would close at the end of 2026, rather than in 2028 as anticipated. Presumably, the original targets for SSEIP II will have to be revised as a result of this decision which has also significantly reduced the chances of innovative approaches piloted by the programme becoming firmly embedded in the education system.

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7

Enumerating Inclusive Education: Education Management Information Systems

1. Introduction

Article 31(1) of *United Nations Convention on the Rights of Persons with Disabilities* (CRPD) instructs governments to 'collect appropriate information, including statistical and research data' as this will enable them to 'identify and address the barriers faced by persons with disabilities in exercising their rights' (UN, 2006). This principle is reaffirmed in the 2018 *Inclusive Data Charter* whose 'champions' include government agencies from 15 countries and diverse international development agencies (Global Partnership for Sustainable Development Data [GPSDD], 2025).

This chapter examines the work of the international development community in assisting governments to manage disability data in the field of education, specifically in terms of strengthening the capacity of the Education Management Information Systems (EMISs) of ministries of education in low- and middle-income countries (LAMIC). In particular, it discusses the findings of applied research in Sierra Leone which piloted two versions of the Washington Group Questions (WGQs) in schools to assess their suitability as instruments for collecting data on students with various types and levels of functional difficulty. Comparisons are made with the findings of similar studies in Fiji, Nepal, Senegal, and Uganda. The chapter concludes by identifying ways in which the international development community can contribute to sustainably strengthening the EMISs in Sierra Leone and other LAMIC to manage disability data, given the findings of the studies and the fragility of many of these EMISs.

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2. Conceptualizing disability inclusive EMISs

2.1 EMISs – an overview

EMISs are systems for collecting and utilizing data collected across education systems and are usually headquartered within the planning departments of ministries of education (Wako, 2003).

These data can consist of student-related data (for example, data on student enrolment and attendance), school-related data (for example, data on educational resources and school infrastructure), HR data (for example, data on the number, experience, and qualifications of teachers), and financial data on schools' income and expenditure (World Bank, 2014). Self-evidently, these data need to be reliable (collected consistently, using standardized instruments), valid (reflect the reality they claim to represent), meaningful (insightful about education systems), and comprehensive (collected across education systems and covering key indicators). This in turn is only possible if appropriate data collection instruments, guidelines, and systems are in place. All those involved in generating/inputting data need to access the necessary training, mentoring, and supervision, as well as appropriate technology for recording and subsequently transmitting the data to higher levels of the system so they can be processed. Once processed (entered, cleaned, compiled), the data should be rigorously analysed, arguably at district rather than national level, so EMISs are as decentralized as possible. Again, this process is only possible if the necessary systems (for example, quality assurance checks), technology (for example, IT systems and customized software), and expertise (for example, data-base specialists) are in place. Ministries of education should then release their analyses, along with the tabulated data, in a timely manner in accessible formats to diverse stakeholders, including other relevant ministries, civil society organizations, research institutes, and parents and guardians.

According to the World Bank (2014), effective EMISs are multiply beneficial. First, in-country stakeholders (at all levels of the system), along with international actors, are able to identify how well their country's education system is performing and the variables impacting on its performance – including progress towards internationally agreed commitments such as Article 24 of CRPD and Indicator 4.5 of the Sustainable Development Goals (which focuses on equal access to education at all levels for vulnerable groups, including children and youth with disabilities). Second, national and international policy makers and implementers are better placed to make evidence-based decisions to improve performance – including, at school level, head teachers, senior management teams, and school management committees (or the equivalents). Third, civil society stakeholders, particular parents and guardians, are better able to hold the system to account and make informed decisions about educational placement.

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Unsurprisingly, given its Strengthening Education Systems Approach (see Chapter 6), the World Bank has been heavily involved with EMISs. Between 1998 and 2017, it supported 236 projects with EMIS components, of which 86 were currently active in 2017 (Abdul-Hamid, Saraogi, & Mintz, 2017). Sub-Saharan Africa and Latin America and the Caribbean were the two regions with the highest numbers of such projects. The World Bank's US$50 million 2020–25 Free Education Project in Sierra Leone (whose EMIS is discussed in this chapter) among other activities supported the digitization of the Annual School Census (which is the basis for the Sierra Leone EMIS), the training of district EMIS staff, and the development of a 'coherent, time-based and costed plan' for strengthening educational data collection (World Bank, 2020b, p 19).

2.2 Data requirements of disability inclusive EMISs

According to UNICEF (Mont, 2014) and United Nations Educational, Scientific and Cultural Organization (UNESCO) Institute for Statistics (UNESCO/UIS, 2019, p 9), schools should be required to provide data on students experiencing functional difficulties rather than data on students with disabilities or special needs (although in certain circumstances it may be justified to collect data on students with particular impairments or conditions).[1] Otherwise, there is a danger that students with mild and moderate impairments may not be identified, as they are not perceived as having disabilities or special needs. Similarly, schools should not be asked to provide lists of students with formal medical diagnoses, as only a small proportion of learners with disabilities in development contexts are likely to have received such diagnoses. Furthermore, identifying students with functional difficulties is more in accordance with the biopsychosocial model of disability (see Chapter 1) as it recognizes that disability is not a physical condition, but an activity limitation caused by the interaction of multiple variables, including negative social attitudes and practices. According to UIS (2019, p 9), student data should be further disaggregated by level of functional difficulty (for example, 'some difficulty/a lot of difficulty') and by type of functional difficulty ('vision', 'hearing', 'gross motor', 'fine motor', 'intellectual', 'communication', and 'behaviour and socialization'). To obtain a more graduated picture, ministries of education may choose to collect data on 'a wider range of degree of difficulties' (p 18). The data should also be 'granular' (p 4) – that is, personalized, so it is possible to track the progress of each student through the education system. To do this as fully as possible, data should be collected on various 'measures of student success' (Mont, 2014, p 10), such as enrolment, attendance, repetition, transition, completion, and assessment scores.

To complement student data, data should be collected on the disability accessibility of school infrastructure, such as WASH (Water, Sanitation,

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and Hygiene) facilities, and the availability of different types of assistive and accessible technology (discussed further in Chapter 9) (UNESCO/UIS, 2019), along with data on 'human resources and services' (Mont, 2014, p 10), such as the number of therapists in schools and number of teachers trained in disability inclusive education. Self-evidently, it is also useful if EMISs track schools' financial allocations for students with disabilities.

3. Assessing the Sierra Leone EMIS

3.1 Functionality of the Sierra Leone EMIS

With support from UNESCO, the Sierra Leone EMIS was established in 2006 within the Ministry of Basic and Senior Secondary Education (MBSSE) (Kaindaneh et al, 2024). The basis for the EMIS is the Annual School Census (ASC), first carried out in 2007, which collects data on school enrolment rates that are used by the government and its partners for educational planning purposes. For pre-primary and primary schools, the data collection process involves census forms being sent to the schools which are then completed by head teachers. School Quality Assurance Officers (SQAOs) then visit the schools to verify the data and enter the data on tablets. For secondary schools, head teachers complete ASC forms and enter the information for themselves on tablets. Data are then uploaded to the EMIS server at district level, before being transferred to the central data warehouse where they are exported into Microsoft Excel for data analysis and reporting.

In 2021, Sightsavers carried out a qualitative analysis of the EMIS involving documentary analysis and focus group discussions and interviews with key stakeholders (Kaindaneh et al, 2024). This identified numerous problems affecting the reliability, validity, and completeness of EMIS data, including disability-related data. The ASC data collection process was fraught with difficulty as head teachers struggled to complete the forms, while SQAOs struggled to provide the necessary support and quality assurance due to their heavy workloads combined with the challenging terrain and poor transport and communications infrastructure of Sierra Leone. Moreover, it was reported some head teachers inflated enrolment figures to secure increased funding for their schools. Due to the lack of cloud storage space, data (once uploaded) were stored on laptops or tablets, making them vulnerable to corruption and loss – a danger exacerbated by the lack of regular maintenance of EMIS software and hardware. Once processed and analysed, it was reported that it took four to five months to release ASC data, by which time they were outdated. In fact, the situation may be far worse than this, as the most recent ASC report on the MBSSE website, as of January 2026, was dated 2022 – although draft copies of the 2023 and 2024 censuses are available online (MBSSE, 2024). While an online platform, Education Data Hub, was established to link the ASC with national examination results, this no

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longer appears to be operational. MBSSE district offices find it difficult to make inter-district comparisons as district servers are not linked, meaning they must contact the central warehouse for the required data.

Understandably, given these problems, development partners have established their own data collection platforms (Kaindaneh et al, 2024). Similarly, MBSSE has set-up 'situation rooms' in all districts which frequently obtain real-time data on school enrolment. These data are not uploaded into the EMIS to update existing ASC data, preventing the EMIS from becoming a 'one-stop-hub' for education data: although, in 2025, the Tangerine system used by SSEIP II in conjunction with MBSSE to collect data at school and district levels was in the process of being embedded in the EMIS (E. Musa, personal communication, 2 September 2025).

3.2 Disability inclusiveness of Sierra Leone EMIS

The Sierra Leone EMIS captures data on five areas of disability – 'visual', 'hearing', 'speech', 'learning', and 'physical' – which are further disaggregated by sex and class/grade (MBSSE, 2023, p 39). Since 2022, additional data have been collected on children with kyphosis, albinism, and dwarfism (MBSSE, 2024). (Dwarfism is a medical term used to describe the condition. However, many people with dwarfism, including those in Sierra Leone, object to the term 'dwarf' and prefer the terms 'little person' or 'person of short stature'.) Head teachers are provided with little or no training in collecting the data and their only written guidance is the short and sometimes misleading descriptors in the census form. For instance, for the 2022 ASC, hearing disability was defined as 'being completely deaf (not hearing anything), or partially deaf (cannot hear without the aid of hearing device)' (MBSSE, 2022a, p 1) – even though profoundly deaf learners may be able to hear loud noises, and learners with moderate hearing loss may be able to follow a conversation even without a hearing aid in conducive hearing conditions (National Health Service [NHS] Tayside, 2025). In primary schools, head teachers enter disability data with 'minimal inputs from class teachers' (Kaindaneh et al, 2024, p 5), while in secondary schools, class teachers are brought together to report disability data for their classes.

As schools are asked to collect data on a limited selection of functional difficulties, students with other functional difficulties will not be recorded on the census forms – such as those experiencing psycho-social difficulties and those lacking self-care skills. As schools are asked to identify students with disabilities, rather than those with varying degrees of functional difficulty, students with mild or moderate impairments are also likely to be excluded from the ASC. Given the lack of supervision, training, and clear, structured guidance for head teachers and their staff (see Section 3.1), some students will be inappropriately categorized as disabled ('false positives') which, if

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done insensitively, can be highly stigmatizing and demoralizing for these individuals. Conversely, some students with disabilities will not be picked up ('false negatives'). As primary head teachers (unlike class teachers) are unlikely to be personally acquainted with many of their students, they are likely to find it particularly hard to identify students with disabilities in their schools. Due to these reasons, disability-disaggregated ASC data lack validity, reliability, and completeness. Finally, as the data are not 'granular' (that is, do not take the form of 'individual learner data'), it is neither possible to track the progress of individual students with disabilities through the system nor establish how many have multiple disabilities.

The ASC data are further limited by the lack of other disability-related indicators, as in 2022 there was only one – on the accessibility of school toilets (Kaindaneh et al, 2024). Once collected and processed, disability-related enrolment data were presented in tabulated form in the 2022 ASC report with no accompanying analysis, discussion, and recommendations.

4. Strengthening EMISs through incorporating the Washington Group Questions

This section discusses applied research in Sierra Leone (Sightsavers, 2024; Kaindaneh et al, 2025; de Kadt et al, 2025) which assessed the potential value of two versions of the Washington Group Questions (WGQs) as instruments to be used by teachers to collect data on students with functional difficulties for the Annual School Census. These instruments were assessed subjectively in terms of the teachers' feedback on using the WGQs. They were also assessed objectively – first, in terms of the inter-rater reliability of the teachers' assessments (the consistency of the assessments carried out by different teachers), and second, in terms of the validity of the data collected (the accuracy of the teachers' assessments) across three of the domains of functioning (seeing, hearing, and moving). Comparisons are made with similarly WGQs-focused studies in Fiji (Sprunt, McPake, & Marella, 2019), Nepal (School-to-School International, 2023), Senegal (Brus, Deleu, & Loeb, 2019), and Uganda (Brus, 2023).

4.1 The Washington Group Questions

In 2001, the United Nations Statistical Commission established the Washington Group on Disability Statistics (WG) to address the pressing need for governments around the world for reliable, valid, and comprehensive disability-disaggregated data that could inform policy and practice and enable cross-national comparisons. This need was reaffirmed in Article 31(1) of CRPD (2006) and in the SDGs (United Nations, 2015).

To meet this challenge, WG developed the Washington Group Short Set of six questions (WG-SS). WG-SS covers six domains of functioning – vision,

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hearing, mobility, cognition, self-care, and communication, and was validated for use with individuals aged 5 years and older. In accordance with the biopsychosocial model of disability (see Chapter 1), WG-SS recognizes that disability is 'the outcome of the interaction between a person with a functional limitation (difficulties doing basic activities) and an unaccommodating environment resulting in the inability to fully participate in society' (Loeb et al, 2018, pp 1–2), and therefore assesses individuals' ability to carry out basic activities such as hearing and climbing steps. WG-SS also recognizes that disability is a continuum, ranging from minor difficulties to severe difficulties that have a major impact on people's lives, and therefore provides 'response options' – namely 'no difficulty', 'some difficulty', 'a lot of difficulty', and 'cannot do at all'. By 2020, WG-SS had been used in censuses and surveys in over 80 countries (Washington Group on Disability Statistics [WGDS], 2020).

Despite its strengths, WG-SS led to underestimates of the prevalence of childhood disability, as it did not cover some important domains of child development, such as psycho-social well-being and ability to cope with change. To remedy this, WG produced another version of the Washington Group Questions – the Washington Group/UNICEF Module on Child Functioning (CFM) (finalized in 2016). CFM covers a broader range of functional domains more relevant for child development than WG-SS: eight domains in the case of the CFM developed for children aged 2–4, and 12 in the CFM for children aged 5–17 (Madans, Loeb, & Eide, 2017). CFM therefore provides more comprehensive data than WG-SS and has accordingly been incorporated into Multiple Cluster Indicator Surveys (MICS) collecting data in low- and middle-income countries.

Alongside the two versions of the Child Functioning Module mentioned previously, the Washington Group developed a Teacher Version of the Child Functioning Module (CFM-TV) (officially launched in 2024). This collects data on 12 domains of functioning: seeing, hearing, walking, speaking, learning, remembering, concentrating, accepting changes in routine, controlling behaviour, making friends, and vulnerability to anxiety and to depression. CFM-TV can potentially be used by teachers to collect disability-disaggregated student data that feeds into EMISs, as can WG-SS.

4.2 Research findings

4.2.1 Research design and results

The Sierra Leone research was carried out by Sightsavers in 2022 in primary and junior secondary schools in Bombali and Karene Districts in the north and north-west of the country (Kaindaneh et al, 2025). Two trainings were organized for the teachers (one per district), each of three days' duration. Both WG-SS and CFM-TV were used to assess students aged 5–17. WG-SS and

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CFM-TV were initially piloted in two schools. In-depth interviews and focus group discussions were then held with the teachers to assess the feasibility of the tools. WG-SS and CFM-TV were then piloted again in another four primary and four secondary schools. In total, 3,273 children aged 5 to 17 were assessed by 65 teachers. Students were classified as having a functional difficulty if it was reported by their teachers that they encountered 'a lot of difficulty' or 'cannot do at all' any activity or if they 'daily' experienced anxiety or depression. Unsurprisingly, the prevalence rate of functional difficulty for students assessed by CFM-TV identified was far higher (14.9 per cent) than the prevalence rate for those assessed by WG-SS (1.1 per cent). For CFM-TV, the most commonly occurring domains were anxiety (6.5 per cent) and depression (5.1 per cent), as they were when the 2017 Multiple Indicator Cluster Survey was conducted in Sierra Leone (Statistics Sierra Leone, 2018). The overall prevalence rate was similar for boys and girls and increased with age.

4.2.2 The teachers' perspectives

Despite the training the teachers received prior to data collection and the support they provided one another during this process, they reported a number of challenges using the WGQs, especially CFM-TV. These challenges impacted on ease-of-use, as reflected in the fact it took teachers on average 15 minutes to assess each student with CFM-TV, even after practice. They also impacted on effectiveness-of-use, as reflected in the reliability and validity of the data.

Some of these challenges were related to the use of teachers (rather than say, household members) as data collectors. First, teachers struggled to assess or wrongly assessed students because of their lack of familiarity with them, not helped by large class sizes (see Chapter 6). While the teachers reported they found it easy to assess their students in terms of seeing, hearing, and moving (CF1-3 and CF7-9 of CFM-TV), some teachers misremembered if individual students wore glasses or used hearing or mobility aids. Some teachers also reported it was hard to assess if students were experiencing depression (CF-18), arguing that this required in-depth knowledge of the child. Second, teachers revealed they tended to assess their students in terms of the extent to which these students met their pedagogical expectations, not in terms of their general functionality. For instance, most of the teachers initially thought CF10 (speaking) required them to assess students' ability to express themselves in English (the language of classroom communication in Sierra Leone), not to orally communicate with others (for instance, in their mother tongue). The same tendency to interpret the questions through a pedagogical lens was evident in their assessments for CF-11 (relating to ability to learn) and CF-14 (relating to ability to accept change).

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Other challenges were more closely related to CFM-TV itself. First, the length of the form and (initially) the 'skip patterns' caused some difficulty for the teachers. Second, some domains of functional difficulty were harder to assess than others. While the teachers thought seeing, hearing, moving, and speaking were relatively straightforward to assess (although, as discussed, this was not in fact always the case), other domains were more problematic. In the case of controlling behaviour (CF-15) and anxiety (CF-17), this was because of the ambiguity of these concepts and consequently the tendency of teachers to interpret these questions differently. In the case of remembering (CF-12), it was because of the day-to-day variability of the phenomenon – for instance, teachers reported students were more forgetful when they were hungry. In the case of concentration (CF-13), it was because of the perceived lack of detectability of the phenomenon – for instance, teachers reported a pupil might appear to be concentrating when in fact their mind was elsewhere. Third, the teachers reported difficulties associated with the rating scale – particularly in deciding whether a student was experiencing 'some difficulty' or a 'lot of difficulty'.

Although teachers encountered challenges, they still reported that using the WGQs to assess students was less stigmatizing and more effective than previous methods (observation, interviewing, and simple tests) which were only applied to children with visible impairments.

4.2.3 Reliability and validity of the teachers' assessments

In Sierra Leone, 180 of the children were assessed by pairs of teachers. It was found that there were higher levels of disagreement with CFM-TV than WG-SS. Disagreement on the exact level of difficulty was highest in the domains which had proved difficult to assess (see Section 4.2.2). When teachers assessed these children without consulting one another, it was found that 'of the 33 children assessed as having a functional difficulty, there were only six instances in which this assessment was initially made by both teachers' (Kaindaneh et al, 2025, p 25). However, after participating in debriefs, 'teachers agreed on a child's functional difficulty status in 85 per cent of cases' (p 25). For CFM-TV, outliers were identified, including three teachers who indicated over 70 per cent of the students in their classes had functional difficulties.

To assess the validity of the data collected on students in the domains of hearing, seeing, and moving, these students were referred for clinical tests (Sightsavers, 2024). All the students reported as having seeing difficulties were found to have eye conditions (but not impairments as defined by World Health Organization) and all the children reported as having hearing difficulties were found to have an impairment. One of the three students reported as having moving difficulties had an impairment. In addition,

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another seven students were referred for assessment who had not been identified as having functional difficulties (but about whom their teachers had concerns). Four of these were found to have impairments, raising concerns about the thoroughness of the WGQ data-collection process.

As the Washington Group on Disability Statistics (WGDS) points out, WGQs are not designed to collect data which possess a strict degree of accuracy and therefore 'cannot and should not be used for assessment at the individual level' (WGDS, 2020, p 8). However, as the WGQs can be used as 'a screen for referral' (p 8), it is not unreasonable to expect the data collected to possess some degree of accuracy, assuming data collectors use the WGQs effectively. Specifically, WGQs should identify individuals' types of functional difficulty, with minimal numbers of false negatives and false positives – although, it would presumably be unreasonable to expect WGQs to assess the level of functional difficulty with any meaningful degree of accuracy.

4.2.4 Comparisons with other studies

Other pilot studies have assessed the value of the WGQs as instruments for collecting data on students with functional difficulties. These were conducted in Fiji (Sprunt et al, 2019), Nepal (School-to-School International, 2023), Senegal (Brus, Deleu & Loeb, 2019), and Uganda (Brus, 2023).

Unlike Sierra Leone, the Child Functioning Module-Teacher Version (CFM-TV) was the only assessment instrument used by the teachers in Nepal, Senegal, and Uganda. In Fiji, another version of the Child Functioning Module (CFM) was used, presumably because CFM-TV had not been developed by then. In Fiji, Nepal, and Uganda, primary caregivers, as well as teachers, assessed the students, enabling the 'inter-rater' reliability of the two sets of assessments to be measured. In Uganda, students aged 12–17 were asked to self-identify if they had a functional difficulty so their self-assessments could be compared with those of their teachers. In Fiji, Sierra Leone, and Nepal, students were clinically tested to assess the validity (accuracy) of their teachers' assessments. In the case of Fiji, these tests covered seven of the 13 domains of functioning of CFM-13, as tests were undertaken for vision, hearing, musculoskeletal impairment, speech, and cognition. In Sierra Leone and Nepal, the tests covered only three domains of functioning (seeing, hearing, and mobility). Uniquely, the study in Uganda was conducted in a refugee settlement. The projects were managed by international organizations in partnership with local actors (see Table 7.1).

In Nepal, Senegal, and Uganda, the teachers reported that CFM-TV was in most respects user-friendly, although certain questions were perceived as more challenging than others (discussed later). Teachers also reported that applying the CFM-TV to their students made them more aware of the diversity of student needs and prompted them to think about ways of meeting those needs.

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Table 7.1: Pilot studies assessing Washington Group Questions as instruments for collecting data on students with functional difficulties

Country	Sierra Leone	Fiji	Nepal	Senegal	Uganda
Lead agency	Sightsavers	University of Melbourne	All Children Reading	Humanity and Inclusion	Humanity and Inclusion
Year of data collection	2022	2015	2022	2019	2023
Sample size (students)	3273	472	2222	443	1926
Age of students	5–17	5–17	5–18	11–21	5–17
Tools employed	WG-SS and CFM-TV	CFM-13	CFM-TV and CFM	CFM-TV	CFM-TV and CFM
Feasibility assessed	✓	X	✓	✓	✓
Reliability assessed	✓	✓	✓	✓	✓
Validity assessed	✓ (3 domains)	✓ (7 domains)	✓ (3 domains)	X	X

Notes: WG-SS: Washington Group Short Set (of Questions). CFM: Child Functioning Module. CFM-TV: Child Functioning Module-Teacher Version. CFM-13: CFM covering 13 areas of functioning. 'Feasibility' refers to the feasibility of using WGQs in the particular development context. 'Reliability' and 'validity' refer to the reliability and the validity of the data collected.

Sources: Brus, Deleu, & Loeb, 2019; Sprunt et al, 2019; Brus, 2023; School-to-School International, 2023; Sightsavers, 2024; Kaindaneh et al, 2025

As in Sierra Leone, the studies found CFM showed 'moderate' levels of reliability across domains of functioning such as hearing, seeing, and moving, but lower reliability across more complex and less straightforwardly assessable domains such as learning, remembering, and concentrating. In Nepal, regression analysis revealed a number of other factors impacting on inter-rater reliability (and, by extension, validity). These included: teachers' familiarity with their students; teachers' levels of comfort working with students with disabilities; teachers' previous exposure to training in functional difficulties; and the language into which CFM-TV had been translated.[2] As in Sierra Leone, it was found that the teachers in Nepal, Senegal, and Uganda sometimes assessed their students in terms of their pedagogical expectations, not the students' general functionality.

In terms of validity, it was found that teachers in Nepal under-reported children experiencing difficulties with vision, hearing, and mobility, particularly hearing. In Fiji, it was found that CFM's accuracy varied from

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'excellent' to 'poor' across the domains – highest in the domains of seeing, hearing, walking, and speaking, and lowest in learning, remembering, and focusing attention (Sprunt & Marella, 2021).

While the teachers achieved some success in identifying students' types of functional difficulty, the Fiji study highlighted the challenges they encountered when identifying levels of functional difficulty. Analysing the teachers' 'some difficulty' responses, it was found that these included both students with no functional difficulties and those with the greatest functional difficulties. At the school level in particular, it is important that these assessments are correct, as otherwise students with additional learning needs may not be provided with sufficient support or even any support at all. The Fiji study also noted that, contrary to the intentions of the Washington Group, the response categories 'do not relate to the same levels of severity across different functioning domains' (Sprunt et al, 2019, p 13), as, while relatively significant numbers of students were assessed as 'cannot do at all' in domains such as hearing, walking, speaking and seeing, almost no students were similarly assessed for learning, remembering and concentrating. Again, at school level, this can result in students with complex learning needs being denied the levels of support they require.

5. Further reflections

The preceding analysis has revealed the fragility of the Sierra Leone EMIS, along with the challenges faced by teachers in primary and junior secondary schools when they endeavoured to collect disability-disaggregated student data using two versions of the WGQs. It is therefore clear that the capacity of the Sierra Leone EMIS will need to be significantly strengthened if it is to collect valid, reliable, and comprehensive disability data. This will not only necessitate investment in the EMIS at all levels (national, district, and school) but investment in digital infrastructure (hardware, software, communication systems, and online data-sharing platforms), as a paper-based system is inadequate for managing the data beyond school level and the Sierra Leone education system scores poorly across all six pillars of the EdTech Readiness Index (World Bank, 2022b). As EMIS data are supposed to inform policy making and implementation at all levels, the education system will also need to be strengthened (see previous chapter) so policy makers and implementers (including district education officials and school leaders) have the capacity to act on the data to promote the presence, participation, and achievement of learners with disabilities in education. Even if this were accomplished, it would probably be more feasible for MBSSE to collect data through WG-SS, at least initially, with perhaps the addition of an extra question on depression, given the prevalence of this condition among children in Sierra Leone (Statistics Sierra Leone, 2018).

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The analysis has also raised more fundamental questions about the value of ministries of education in LAMIC collecting large quantitative datasets ('Big Data') through their EMISs when the data are often such poor quality and data-collection processes place considerable demands on already over-stretched systems. As Steiner-Khamsi (2013) has pointed out, this also creates the risk that ministries of education and their development partners will make ill-informed policy decisions based on unreliable datasets. For instance, as discussed, data collected through the Sierra Leone ASC gives a misleading impression of the number of students with disabilities in the education system and the prevalence of different types of functional difficulty among those students. Accordingly, it could be argued resources at present allotted to data collection could be more productively diverted to service provision. However, as discussed in Chapter 2, large quantitative datasets, as long as they meet certain minimum criteria for reliability and validity, can indicate the extent to which students with disabilities are included in education. Drawing on these datasets, it is also possible to establish correlations between 'measures of student success' such as enrolment (on one hand) and variables such as type and level of functional difficulty, teaching and learning conditions, and gender (on the other). Furthermore, qualitative data (which EMISs are also expected to process) can enable more nuanced interpretations of quantitative data, as demonstrated by the case study in Chapter 3 which captured the interplay of factors contributing to the educational marginalization of students with disabilities in a particular locale. In the words of the *Inclusive Data Charter*, we need to make children and youth with disabilities 'visible in the data to understand their lives … and include them in the development process' (GPSDD, 2025).

6. Conclusion

This chapter has discussed the challenges that IDC needs to address to work effectively in a key area of education system strengthening: developing the capacity of Education Management Information Systems (EMISs) in LAMIC to manage disability-related data. To do this, it began by assessing the present capacity of the Sierra Leone EMIS to perform this task. It was found the disability-disaggregated student data at present collected by the Annual School Census are incomplete (as they only cover five areas of functional difficulty) and lack reliability and validity (due to the dysfunctionality of data-collection processes). Moreover, school-related data is only collected on the accessibility of toilets. Once collected, the Ministry of Basic and Senior Secondary Education (MBSSE) has limited capacity to store, process, and analyse the data, and then produce EMIS reports based on this analysis. The chapter then discussed a pilot project which assessed the capacity of primary and secondary teachers in Sierra Leone to identify children with different

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types and levels of functional difficulty in their classes, using two versions of the Washington Group Questions. It was found the teachers struggled to perform these tasks and that the data collected lacked reliability and validity, particularly when the teachers were required to collect data on less easily identifiable domains of functional difficulty and to assess the severity of functional difficulty. When asked to perform similar tasks, teachers in Fiji, Nepal, Senegal, and Uganda experienced similar challenges.

It is recognized that it is potentially valuable for EMISs to collect disability-disaggregated student data to track the presence, participation, and achievement of these individuals in education systems. It is also potentially valuable to collect school data to assess the extent to which schools provide enabling environments for these students. However, this chapter has revealed the need for IDC to proceed with care in this field. IDC should not expect EMISs to perform tasks beyond their spheres of competence. If new demands are placed on these EMISs, sustained investments in these EMISs may be necessary. IDC should also be mindful that ministries of education not only need to manage disability-related EMIS data, but possess the capacity to convert EMIS findings into evidence-based policies and programmes that promote educational access and quality for learners with disabilities.

The last two chapters have discussed the technical work of IDC from an education systems perspective. The next three chapters are more concerned with the day-to-day realities of teaching and learning: pedagogical practices; educational resourcing; and creating safe and supportive learning environments for students with disabilities.

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8

Enacting Inclusive Education: Pedagogical Reform

1. Introduction

This chapter discusses the work of the international development community (IDC) in the field of pedagogical reform. To do this, it begins by conceptualizing pedagogy and, in the light of this conceptualization, identifying some of the challenges associated with working in this field: the challenges of inclusiveness, feasibility, and transmissibility. The chapter then assesses three illustrative examples of pedagogical approaches which have been promoted by the international development community: Care for Child Development (CCD), Teaching at the Right Level (TaRL), and Universal Design for Learning (UDL). CCD is a package that particularly focuses on home-based learning, TaRL is an intervention that can be delivered through 'learning camps' as well as established education systems, and UDL is a framework employed in schools and colleges. The section on CCD focuses on a version adapted for the primary caregivers of young children with visual impairment (CCD-VI). In the light of this analysis, the chapter identifies how IDC can work more effectively in this field. The chapter ends with a case study of pedagogical practices for young children with autism in India.

2. Conceptualizing pedagogy

Alexander (2000, p 540) defined pedagogy as both the 'act' and 'discourse' of teaching. The former involves the setting of 'tasks' (the learning challenge) and 'activities' (the form the challenge takes) (p 350). It also involves various types of 'task and activity facilitation' (the author's phrase, not Alexander's). In schools, this facilitation takes multiple forms, such as planning and programming; assessment and reporting; classroom communication; classroom management; and resource-generation and deployment. The latter refers to the discussions and debates at different levels of education systems

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that inform the act of teaching. As Alexander pointed out, this discourse is culturally embedded, even when it takes the form of abstruse theorizing. As he also observed, culture exists on both a 'macro' level as a system that transcends people's subjectivities and on a 'micro' level as something that composes those subjectivities. Due to their pervasiveness, certain 'discursive formations' (prevalent networks of beliefs and values) may inform educators' pedagogical practices, whether they are aware of this or not. When these formations are incorporated in regulatory frameworks such as curricula and school policies, they may also be imposed on their pedagogical practices.

Drawing on Oakeshott's theory of knowledge (Neill, 2013) and Dreyfus's 'five stage skill-acquisition model' (Dreyfus & Dreyfus, 2004), this conceptualization of pedagogy is expanded to include the 'craft' of teaching. This refers to the 'practical knowledge' (Oakeshott's phrase) that educators (primary caregivers, as well as teachers) acquire as a result of their interactions with learners and pedagogical situations and their reactions to and reflections on these interactions. While these educators might initially apply models handed down to them by others (for example, by their parents, by teacher trainers), over time these models are amended, supplemented, and even discarded to be replaced with others. These educators tend to find it very difficult to explain to others what they are doing and why – except somewhat imprecisely or anecdotally, as their knowledge is 'tacit': an almost instinctive, internalized awareness of 'what works' in certain pedagogical situations. Oakeshott contrasted practical knowledge with 'technical knowledge' which consists of explicit precepts and rationalizations, but, because it is explicit, is somewhat reductive and abstract, and thus less comprehensive and useful than practical knowledge.

Both the 'discourse' and the 'craft' of teaching inform the 'act' of teaching. They also interact with one another. Discursive formations shape educators' pedagogical interactions and interpretations of those interactions. Conversely, pedagogical interactions may confirm the validity of discursive formations in the eyes of educators. Alternatively, educators may amend or even reject these formations in the light of these pedagogical interactions, especially when there are alternative sets of discursive formations in circulation on which they can draw.

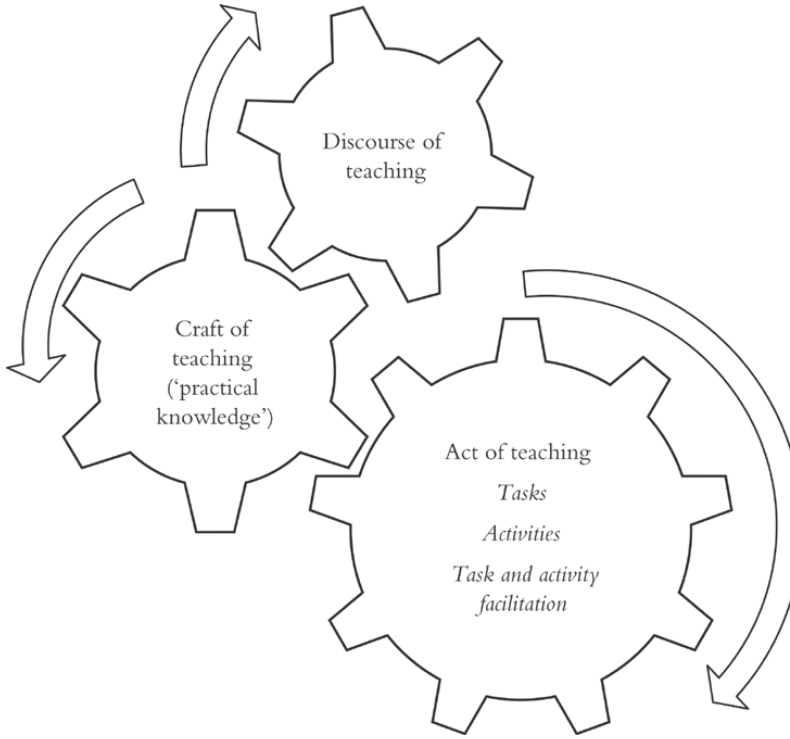
The relationships between these elements are shown in Figure 8.1.

3. Challenges of pedagogical reform for IDC

IDC needs to ensure the pedagogical approaches it promotes are inclusive: that is meet the 'common', 'specific', and 'individual' pedagogical needs of learners with disabilities as fully as possible (see Table 3.1). Although these needs, broadly defined, may be similar across contexts and cultures, the particular forms they take may vary across contexts and cultures (see

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Figure 8.1: Tripartite conceptualization of pedagogy



Chapter 3). The pedagogical approaches promoted by IDC also need to be feasible: that is, practicable and acceptable (again, see Table 3.1). Here again, IDC needs to demonstrate contextual and cultural sensitivity, as otherwise their approaches may be rejected by local educators who understandably prefer their own experiential, situated approaches. If educators adopt these alien approaches, it will either be because these approaches are centrally imposed by the government or because these educators have little or no previous experience working with learners with disabilities, and are therefore willing to accept any guidance, however inappropriate: in either case, it will prove detrimental for learners with disabilities.

Even if IDC surmounts the challenges of inclusiveness and feasibility, it must address the challenge of transmissibility: the need to communicate somewhat abstract sets of precepts (that is, technical knowledge) to experienced educators who may perceive these precepts as lacking the breadth, depth, familiarity, and consequent utility of their 'hands on' expertise (that is, practical knowledge), along with inexperienced educators who may struggle to make sense of these precepts because they cannot place them in the context of their previous professional experience. If IDC decides to

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compensate for this by producing informational materials in different media which describe/explain their chosen pedagogical approaches in exhaustive detail, this may not only be prohibitively expensive but swamp educators with information, making them 'unable to see the wood for the trees'.

4. Care for Child Development

Care for Child Development (CCD) is an early learning package which, by 2023, had been or was being implemented in 54 low and middle-income countries or territories and had been integrated into government services in 26 countries (Ahun et al, 2023). This was developed by United Nations Children's Fund (UNICEF) and World Health Organization (WHO) to assist primary caregivers (usually a mother or father) to develop the physical, social, cognitive, and emotional skills of children aged 0–5 (WHO, 2012a). It is based on the assumptions that early childhood is a crucial period for child development; that young children learn best in safe, supportive, and loving environments; and that learning should involve play, experimentation, observation, and imitation. The package focuses on two types of activity – play and communication – which, it is believed, are crucial both for strengthening the child–caregiver relationship and promoting the child's development. In the first few months of the child's life, recommended activities include establishing eye contact with the child, showing the child objects, and smiling and laughing with the child. By the time the child is two years old, this has progressed to helping the child to count, conversing with the child, and teaching the child stories, songs, and games. The package is delivered by trained 'counsellors' who are instructed to closely observe the interaction between caregivers and children, praise caregivers for their parenting skills whenever possible, recommend or devise a play or communication activity in the light of the child's age and the child-caregiver relationship, and then assist the caregiver to introduce the activity. Where appropriate, the counsellors and caregivers should identify or make toys that can be incorporated into play activities.

The strengths and limitations of the CCD approach will be discussed with particular reference to one group of young children – children with visual impairment (that is, children who are blind and children with low vision).[1] Dale and Salt (2007) have described the developmental challenges faced by these children. First, they often struggle to make sense of what is happening around them, as vision is 'the coordinating sense' that integrates other sensory inputs, such as touch and hearing (p 685). Second, they may be reluctant to explore the world around them as they lack the visual incentives to do so. This not only negatively impacts on their cognitive development but means they are slower to develop the physical dexterity and strength, and associated mobility skills, necessary for more ambitious exploration of

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their environments. Third, it is more difficult for them to bond with their caregivers, and vice-versa, due to the lack or absence of visual interaction. While bonding, the range of games they play with their caregivers may predominantly consist of 'vocal' games rather than 'social' games such as 'give and take' games with toys. Due to their lack of sight, they do not develop, or may only develop a limited capacity, for 'visual referencing' (gathering information from looking at others) and 'co-referencing' (being conscious of looking at something simultaneously with others) which helps children to develop their sense of being with others and belonging with others. Fourth, due to this lack of referencing, children with visual impairment may have more limited communication skills than their peers. While they may use the same range of syntactical structures when speaking, they are likely to have a smaller vocabulary and less conceptual understanding. They may also be less interested in sustained and meaningful communication with others due to the social isolation and sensory deprivation they have experienced from their birth onwards. Fifth, they can find it harder to acquire daily living skills due to their lack of opportunities for visual imitation and lack of physical dexterity and strength (discussed previously). These developmental challenges, unless addressed, can prevent them achieving their potential and leading meaningful and satisfying lives in their communities.

In order to identify 'what works' in terms of early intervention for children with developmental disabilities, Smythe et al (2024) analysed all the reviews of evidence into this subject. Sadly, they found none of these reviews had been carried out in low-income countries where, as they point out, the prevalence of these disabilities is highest. Despite this, it is plausible that the CCD package, if delivered effectively, could be beneficial for children with visual impairment, along with other children with disabilities, assuming one accepts children everywhere benefit from multi-sensory play-based learning in safe and supportive environments. As the activities are depicted pictorially with minimal explanatory text (see Figure 8.2), and as counsellors can explain and demonstrate these activities to primary caregivers, addressing any concerns the caregivers may have, the package has a high degree of transmissibility. As counsellors and caregivers are free to adapt activities or devise activities based on the child's needs and home circumstances, the package can be customized (increasing its inclusiveness, acceptability, and practicability).

However, many of the activities in the CCD package assume that children have significant levels of sight and can use this sight effectively. For instance, one of the communication activities instructs caregivers to 'Look into baby's eyes and talk to your baby … Even a newborn baby sees your face and hears your voice.' Similarly, one of the play activities instructs caregivers to 'Hide a child's favourite toy under a cloth or box. See if the child can find it' (WHO, 2012b). Self-evidently, to be meaningful and enjoyable, these activities need to be adapted for the caregivers of children who are blind or severely

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Figure 8.2: Card from the CCD-VI package



Sources: From *Early childhood development and vision impairment training pack: Improving play and communication in home and early years settings* (p 2) by M. McLinden et al, 2019. Vision Impairment Centre for Teaching and Research [VICTAR], University of Birmingham. Copyright 2019 by VICTAR. Reprinted with permission.

visually impaired. For instance, the caregiver could provide a sound clue to give the children an indication of the toy's whereabouts. Even children with low vision will need stimulus and support to actively participate in these activities. For instance, if they are first given the opportunity to play with the toy, they will be more motivated to use their residual vision to find it. If the toy is quite obtrusive, it will be easier for the child to locate it. Later on, as the child's visual perceptual skills develop, they can be asked to locate smaller, less distinguishable toys which will further develop these skills. Supplementary activities for children with visual impairment will need to be added to CCD, given the developmental challenges described earlier – for instance, they will particularly benefit from 'hand-over-hand' assistance to carry out daily living activities (such as putting on clothes) as they will find it difficult or impossible to observe what others are doing and copy them.

To address these challenges, scholars and practitioners in the United Kingdom and Malawi, developed a training package for caregivers of young children with visual impairment (CCD-VI) with funding from Sightsavers, an international non-governmental organization based in the UK (Lynch et al, 2018). This work was carried out in close consultation with community stakeholders in Malawi, including government extension workers and primary caregivers. This package consisted of 16 laminated cards, each demonstrating illustrative examples of play and communication activities for children of different ages, along with a poster containing all 16 pieces of advice. Instructions were provided in both English and Chichewa (the local

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language), and the cards were subsequently adapted to accommodate the needs of children with additional needs, such as those with cerebral palsy. Fifteen community workers were then trained who visited families in one urban and two rural districts of Malawi 12 times over a six-month period. Alongside this, locally sourced toys were provided.

The activities described in the cards accommodated the needs of young children with visual impairment in various ways (McLinden et al, 2019) (see Figure 8.2). Children were provided with alerts, so they knew they were being referred to, along with instructions, so they knew what was expected of them (for example, 'Blessings, try and pull'; 'Ball. You throw the ball to Chifona'). These instructions were sometimes phrased as challenges ('Can you …?') to incentivize the child. To perform these activities, the children were provided with necessary props and assistance: for instance, Blessings was asked to pull a string with easily graspable beads which was physically placed in her hand. Activities were challenging but manageable: for instance, a play object was attached to a child's clothes, so it was locatable, and the child encouraged to feel along the string with their fingers to locate the object. Learning was made as multi-sensory as possible ('Can you smell the sweet mango, Safina?', 'Oh listen. The boxes fell down. Can you push the boxes down, Chifundo?'). While saying 'These are your toes!', a mother touched her baby's toes. In the cards, caregivers named objects (mangoes, rattles, boxes, and so on) to progressively build their children's vocabulary. Recognizing the social isolation children with visual impairment sometimes experience, several of the cards showed ways in which these children could be encouraged to play with their peers, and vice versa. Recognizing the frustration and disappointment these children may feel because they are not able to carry out some of the same activities as their peers (such as climbing a tree), one card shows a mother consoling and reassuring her child.

Post-intervention, in-depth interviews and a focus group discussion were carried out to assess the intervention's impact. These found parents were more accepting of their children's disabilities, had a better understanding of their children's needs, and had incorporated an element of play into everyday activities (Lynch et al, 2018). It was also reported that children were more involved in community activities and, as a result of their increased visibility, community attitudes to them had changed. CCD-VI therefore enabled caregivers not only to meet the 'common' needs that children with visual impairment share with their peers (such as their need to explore the world around them) but their 'specific' needs (related to the impact of their visual impairment on their functioning) and their 'individual' needs (as counsellors and parents were able to adapt or devise activities to accommodate the needs of particular children).

Despite these achievements, the principal researcher has raised concerns about the capacity of existing district systems in Malawi to roll out CCD-VI,

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as it was difficult to find sufficient government staff to deliver even a small-scale pilot (P. Lynch, personal communication, 11 March 2025). This was despite the fact that CCD-VI is much simpler than packages employed in high-income countries, such as the *Development Journal for Babies and Young Children with Visual Impairment* which provides 'finely graded steps' covering five areas of key developmental sequences (unlike the two in CCD) (Dale & Salt, 2007, p 687). Even if CCD-VI could be rolled out effectively by government systems in Malawi, there would be a moral imperative to roll out similar packages for other children with disabilities (such as deaf children) which would cumulatively place unmanageable demands on these systems. The CCD-VI pilot therefore illustrates the challenge of delivering ECCE services in low-income countries that are scalable and sustainable (on one hand) and meet the specific and individual needs of children with disabilities (on the other hand).

According to the anthropologist of childhood David Lancy (2015, pp 405–6), infants and toddlers in traditional village-based communities in the Global South 'receive little attention from adults and no instruction *per se*' and 'spend far more time in the company of, being cared by, and learning from their peers' – although he notes that childrearing practices among the urban middle classes increasingly resemble those in wealthy countries and, furthermore, evidence from South Asia calls Lancy's generalization into question.[2] As CCD assumes that intimate and reciprocal interactions between young children and their primary caregivers (particularly mothers) are of paramount importance for their development, this raises questions about the cultural acceptability of CCD in certain settings. However, it can be counter-argued that the situation is different for children with disabilities as they are so dependent on the support and stimulation these child–caregiver interactions provide. Furthermore, CCD-VI, recognizing young children with visual impairment are at particular risk of being excluded from community activities, places more emphasis than CCD on broader social inclusion.

5. Teaching at the Right Level

Teaching at the Right Level (TaRL), an intervention designed to promote the reading and numeracy skills of Grade 4 and 5 students, was developed by Pratham, an Indian non-governmental organization founded in 1995. By the end of the programme, children are expected to be able to read a paragraph of basic text, demonstrate improved oracy and writing skills, have number knowledge to at least two-digit numbers, and perform basic mathematical operations (Pratham, 2017). In India, two TaRL delivery models were established – one involving 'high-intensity, short-burst "learning camps"' managed by local village volunteers, and another delivered in school hours through the formal education system (Banerjee et al, 2016, p 2). The programmes are delivered by 'instructors' who receive on-site support

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and supervision from 'mentors'. At the start of the intervention, children are individually assessed and, in this light of this, grouped by learning level (rather than age or grade), as this makes it easier for instructors to set learners' activities of appropriate difficulty. Every day, an hour is allotted to three or four TaRL activities, some of which are the same for all the groups and some adapted for particular groups, with learners continuously assessed to measure their progress. Teaching and learning materials are low cost and locally sourced (Banerji & Chavan, 2016), and TaRL providers can adapt or devise assessment materials and TaRL activities in response to local realities (Pratham, 2025a; 2025b).

TaRL has been delivered at scale in India and evaluations have established its effectiveness (Banerjee et al, 2016). Given TaRL's scalability and impact, along with growing concern about low student attainment in low- and middle-income countries (LAMIC) (World Bank, 2018), multilateral and bilateral organizations and private foundations have assisted Pratham and partners to export it overseas (J-PAL, 2025). By 2021, TaRL had been introduced in ten African countries, including Zambia where it has been rolled out in 1,800 schools (Pershad, 2021) and Nigeria where it has been implemented across five states, reaching more than 331,000 students (UNICEF Nigeria, 2023). In both countries, there is evidence it has significantly improved learning outcomes. Other countries in which TaRL has been introduced include Mexico, Nepal, Pakistan, Indonesia, and the Philippines. The spread of TaRL is therefore an example of South-to-South cooperation, albeit one facilitated by significant investments from the Global North.

There are five baseline assessments activities for reading (Pratham, 2025b).[3] These require learners to read letters, words, a paragraph composed of short sentences and a one paragraph story, and then answer comprehension questions on the story. Learners are first assessed at paragraph level and, depending on their performance, are given easier or harder activities. During the TaRL programme itself, they are formatively assessed. The baseline assessments are designed to give instructors a 'broad-brush' understanding of children's reading levels. As the assessments processes are relatively straightforward and clearly communicated, it means they can be delivered cost-effectively to large numbers of children by instructors who do not require extensive training and supervision.

However, unless various steps are taken (that is, pedagogical modifications and accommodations, environmental adaptations, educational resourcing strategies), there is a danger that learners with sensory impairments will not be able to demonstrate their reading skills in the baseline assessments and will accordingly be placed in groups in which they are presented with insufficiently demanding reading activities. If deaf children are sign language users or communicate in a variety of ways (Total Communication), the assessor should be familiar with these communication methods. As reading is a slower

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and more effortful process for learners with visual impairment (both braille and print users), they should be provided with additional time to complete activities. Assessment materials should be available in braille or legible print in various font sizes, as appropriate. For print users who are visually impaired (particularly those with nystagmus or tunnel vision), the assessor will need to point out the individual items of text on the letter and word charts as the text is scattered over the charts and therefore hard to follow. If learners with sensory impairments use assistive devices (such as spectacles, magnifiers, or hearing aids), it is important that they are available and in good working order on the day. Assessment environments should be adequately illuminated (so learners with low vision can make best use of their residual vision, and learners with hearing impairment can lip read and/or see what is being signed to them) and adequately soundproofed (as learners with visual impairment are particularly reliant on their sense of hearing, and so learners who are hard of hearing can make best use of their residual hearing). As learners with sensory impairments may struggle to pick up incidental information (because of their lack of hearing and/or sight), the assessor needs to clearly explain assessment purposes and processes at the start of the assessments. Self-evidently, many of the discussed measures will benefit all learners, disabled and non-disabled, not just those with sensory impairments.

As TaRL assessment processes are so straightforward, it means that they are designed to broadly identify the 'reading levels' of learners, not capture detailed information on their reading strengths and weaknesses – unlike 'miscue analysis', a lengthier and more complex approach (Browne, 1998). For instance, TaRL assessors are not able to identify if readers are over-reliant on using initial letter signs to decode words, or stymied by their lack of familiarity with common syntactical structures, or are not trying to make sense of what they are reading. This in turn means TaRL assessors are not collecting information which could provide the basis for one-to-one or small group instruction tailored to the needs of those learners who find reading particularly challenging, such as those with specific reading difficulties (dyslexia) or cognitive impairment.

In short, while TaRL assessment processes are practicable and user-friendly, this has sometimes been achieved at the expense of disability inclusiveness (see Holdsworth, 2002).

The TaRL reading activities promote an 'interactive' model of reading (Browne, 1998, p 20) that recognizes reading is not just a 'ground-up' process (in which readers phonically decode words), but a 'top-down' process (in which readers use their word recognition skills, along with their linguistic, textual, and contextual knowledge, to engage with texts). The activities also recognize that children learn best if they are actively involved in the learning process rather than required to repetitively carry out decontextualized and cognitively undemanding activities. Accordingly,

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learners are not only expected to practise reading 'phonetic-syllabic charts' (Activity 5) and copying letters from the board (Activity 6), but are provided with opportunities to talk about their own experiences (Activity 1), produce 'mind maps' of related words (Activity 4), and speculate on the content of a story based on its title (before writing the story themselves, either as a whole group, in small groups, or individually) (Activity 10) (Pratham, 2025a).

However, there is a danger that certain learners with disabilities may fall further and further behind their peers during these activities. First, as was the case with baseline assessments, various measures need to be taken for learners with sensory impairments to participate in a number of the activities. For instance, students learning to read and write braille need to be taught braille-specific sets of skills and learn braille signs in a particular order (to avoid confusion, as some signs are so similar). And students with hearing impairment will benefit from the support that enables them to make sense of unfamiliar concepts, master the unfamiliar grammatical structures of texts (particularly if sign language is their primary means of communication), and grasp phoneme–grapheme correspondences (if they communicate orally/aurally). Second, TaRL activities do not accommodate those learners (such as those with cognitive impairment or specific reading difficulties) who require 'high intensity' approaches to reading which are 'explicit and teacher-led', in which activities are differentiated according to their needs and consist of 'small discrete steps, (with) short-term objectives emphasized', in which they are provided with 'immediate, frequent, explicit, focused (and) extrinsic' feedback, and where their progress is closely monitored (Lewis & Norwich, 2005, p 6).

TaRL is a carefully constructed intervention of proven effectiveness and contextual appropriateness. If deployed effectively in the primary classrooms in Papua New Guinea described in Chapter 3, it is likely the vast majority of students would have enthusiastically participated in TaRL reading activities and benefited accordingly. It seeks to address the 'common' needs of all learners to participate in reading activities which are participatory, varied, meaningful, and broadly aligned with their reading levels. As TaRL interventions are short term and only take up an hour of the school day, students grouped according to their 'learning level' do not experience the demoralization and stigmatization associated with 'setting' and 'streaming' (Hamilton & O'Hara, 2011; Hallam & Parsons, 2014). However, this chapter has raised concerns about the extent to which TaRL addresses the 'specific' and 'individual' needs of certain learners with disabilities.

In what ways, then, could TaRL be made more disability inclusive? Any recommendations would need to recognize that contextual realities in LAMIC preclude educators adopting the resource-intensive instructional approaches to teaching numeracy and literacy employed in high-income countries as described by Fuchs et al (2008) and Zagona et al (2021),

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unless they are working in elite private schools. Instead, TaRL guidance could be produced that identified simple low/no cost disability inclusive measures, many of which would benefit all learners. Alongside this, TaRL providers could be encouraged to refer children to specialist services (when they exist) so (for instance) they can receive assistive devices or tuition and training in key skill areas. A pilot project could explore ways in which community stakeholders, including stakeholders who are braillists and sign language users, could provide individualized or small group instruction for learners facing particular difficulties with reading and numeracy. Assessment processes could be adapted so it is possible for instructors to identify these learners, and TaRL activities and materials amended or developed accordingly.

6. Universal Design for Learning

Developed in the 1990s by the Center for Applied Special Technology (CAST) in the United States, Universal Design for Learning (UDL) is a framework which over time has been progressively refined and elaborated. It consists of a learning theory and associated pedagogical precepts which have significant implications for teachers, schools, and education systems.

UDL assumes that all students possess diverse interests, aptitudes, and backgrounds, and that education systems should celebrate and encourage this diversity. It also assumes that all students have the capacity to become 'experts' – that is, analytical, reflective, motivated, determined, and self-regulating – and should be provided for opportunities to become so (Meyer, Rose, & Gordon, 2014, p 22). Drawing on brain science, it proposes that students will only acquire this capacity if three key neural networks are stimulated. These are the affective network (that governs how students respond to what they perceive), the recognition network (that enables them to make sense of what they perceive), and the strategic network (that enables them to purposefully engage with the world based on these understandings). UDL therefore has three 'principles' (p 110). Namely the need for students to be presented with:

- Multiple means of engagement (motivational activities that stimulate the affective network).
- Multiple means of representation (information presented in diverse ways that stimulates the recognition network).
- Multiple means of action and expression (accessible and appropriate activities that stimulate the strategic network).

These three 'principles' have 'goals', such as 'purposeful, motivated learners' for multiple means of engagement, and 'guidelines', such as 'provide options

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for self-regulation' for multiple means of engagement (Meyer et al, 2014, p 111). Each guideline in turn has several 'checkpoints', such as 'develop self-assessment and reflection' for the fore-mentioned guideline (p 111). For this framework to be delivered across education systems, these systems need to be designed down so they promote a UDL curriculum 'defined … by how adequately it can support and accommodate the diversity and variability of learners' (p 128). UDL is therefore 'an educational application of universal design principles' for making environments, products, and services accessible for all without the need for adaptations for particular individuals (Villa et al, 2005, p 35).

In his critical analysis of empirical studies cited on CAST's website and provided as evidence for three UDL guidelines (discussed previously), Boysen (2024) cast doubts about the scientific basis for UDL. First, he was not able to identify any neuroscientific studies, undermining CAST's claim that UDL's 'principles correspond to knowledge about the brain' (p 1223). Second, he found the studies either did not measure learning or did not do so meaningfully, undermining CAST's claim that UDL is based on research about how people learn. Third, the studies did not make the case that it is beneficial to provide learners with the choice of multiple means of learning: while they provided some evidence choice improves motivation and attitudes, they did not show choice has a positive effect on learning. Fourth, the studies cited were often unrelated to the checkpoints (discussed earlier) with which they were supposed to correspond. Boysen concluded that there was an urgent need for large-scale implementation studies to rigorously and comprehensively assess UDL's effectiveness, as the evidence-base is at present so weak.

A review of UDL in LAMIC found 'many challenges and sparse application … (but) quite strong recognition that the approach has a lot of potential' (McKenzie et al, 2021, p 29). Notwithstanding the lack of evidence for UDL's feasibility and effectiveness in the Global South (and indeed the Global North), USAID incorporated UDL principles in 26 per cent of its education solicitations in 2021 (Altali et al, 2025). Alongside this, the World Bank funded innovative approaches incorporating UDL principles into student assessment (World Bank, 2021a) and teaching (World Bank, 2021b). UDL has even found its way into the inclusive education policy for Papua New Guinea (NDOE, 2023).

If UDL were implemented in LAMIC, it would mean all students, including students with disabilities, would be provided with learning opportunities responsive to their kaleidoscopic needs and interests, with information presented as clearly, logically, and engagingly as possible in diverse forms, and with expressive opportunities which enabled them to demonstrate their knowledge and skills in multiple ways. Alongside this, they would be provided with the guidance and support which would enable

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them to seize these learning opportunities as well as create their own learning opportunities. This spectrum of provision would continually be reconfigured in response to their evolving learning profiles.

To consider the appropriateness of UDL for education systems in development contexts, it is useful to consider its potential value for the classrooms in the Papua New Guinean school discussed in Chapter 3. The pedagogical approaches in these classrooms were largely antithetical to UDL. Classroom communication was teacher dominated with deaf students largely excluded from the communication loop and other students denied opportunities to communicate through their first languages (see Table 3.2). Classroom activities took repetitive, undifferentiated, desk-bound forms, and provided little opportunity for flexibility of interpretation (again, see Table 3.2). Chapter 3 proposed these practices were circumscribed by teaching and learning realities (such as shortage of instructional materials), regulatory frameworks (including the standards-based curriculum), and the fragility of local support systems (see Table 3.3). But it was also noted that the teaching and learning approaches had certain strengths. For instance, what might be dismissed as rote learning resembled the 'guided repetition' Moore (2010, p 216) found in Cameroon: 'a complex and context-sensitive practice for teaching and learning', consisting of four phases 'modelling, imitation, rehearsal, and performance – each of which entails particular rights and obligations for both teacher and student'.

Given these teaching and learning realities, what scope would there be for introducing UDL in this school in Papua New Guinea?

First, UDL would lack practicability as teachers, due to their lack of familiarity with UDL, would lack the particular skill sets to deliver it (while possessing other skill sets). Even if this were not the case, they would be stymied by large class sizes, the severity and complexity of many of their students' educational needs, the lack of appropriate teaching and learning materials and facilitative technology,[4] unconducive educational infrastructure,[5] and the lack of access to support services, informational materials, and UDL-focused continuous professional development. Teachers would be further constrained by the new standards-based curriculum which prescribes what should be taught when, has largely displaced indigenous knowledge from teaching and learning, and decreed that English should be the sole language of classroom communication (see Chapter 3).

Second, UDL would lack acceptability. As Alexander (2000) discovered when researching teaching and learning in India, France, Russia, England, and the United States, culturally embedded assumptions about learners and learning inform pedagogical practices in education systems. These assumptions and pedagogical practices are (non-pejoratively) termed 'folk psychologies' and 'folk pedagogies' respectively by Olson and Bruner (1996).

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The folk psychology/pedagogy of UDL reflects the liberal individualism of the 'Anglosphere' and therefore assumes:

- Every learner is an individual and, as this individuality is supremely important, they should be provided with opportunities which enable them to follow their unique learning trajectories.
- Every learner possesses a multifaceted complexity and therefore should be provided with diverse learning opportunities tailored to their particular needs and interests.
- Every learner has the potential to critically and creatively engage with the world and in the process construct their own knowledge, and therefore should be provided with opportunities to demonstrate and develop this capacity.

These assumptions are at odds with the assumptions about learners and learning still prevalent in more traditional societies such as Papua New Guinea's, even though these assumptions have been eroded by colonialism, neo-colonialism, and globalization. In these societies, there is more of a sense that individuals are defined not in terms of their individuating characteristics but their relationships to their cultures and communities, that the commonalities and connections between learners are more significant than their differences, and that knowledge is not protean and subjective but a 'fixed' and 'bounded' entity passed down by respected elders from one generation to the next (Hofstede, 1986; Serbessa, 2006; Moore, 2010). This 'folk psychology' not only provides a justification for the 'transmission-based' pedagogical practices of teachers but is to some extent internalized by the students themselves. Consequently, it is plausible these students would feel bewildered and uneasy if exposed to overly UDL pedagogical practices. To use UDL terminology, they would struggle to cope with the disjuncture between UDL and their affective, recognition, and strategic networks shaped by their previous educational experiences and their broader acculturation in the home and the community.

Third, UDL would lack transmissibility. This is not only because UDL's lack of practicability and acceptability would provoke resistance from practising teachers, but because of the multi-tiered complexity of the approach.

Consequently, it is not surprising that Schweisfurth (2011), in her survey of the relevant literature, identified numerous implementation problems associated with learner-centred education initiatives in the Global South.

What then would be the best way of promoting inclusive teaching and learning in the classrooms of the school in Papua New Guinea, not only for children with disabilities but their peers?

Teachers could be provided with the support that would enable them to employ their existing pedagogical practices more effectively. As already discussed, whole class communication is not only perceived to be the most

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effective process for disseminating knowledge widely but one that establishes a pedagogical relationship based on mutual trust and understanding while simultaneously creating a sense of classroom camaraderie. To facilitate this process, blackboards could be refurbished, electric lighting installed in classrooms, visual aids supplied, teachers trained in sign language, and sign language interpreters employed (funding permitting). If the curriculum was relaxed so teachers could 'code switch' from English to Tok Pisin to explain challenging concepts, this would further facilitate the communication process.

Teachers could be simultaneously assisted to modestly extend their pedagogical practices. If students had textbooks, it would be easier for their teachers to set them activities more attuned to their capacities and interests, and if graded readers were available, reading activities could be made more level-appropriate (again, funding permitting). As teachers are already employing child-to-child approaches in the classroom to a limited extent, this process could be extended to encourage more peer learning. Drawing on Papua New Guinea's centuries-old tradition of informal and non-formal community-based education, students could be provided with opportunities to learn incidentally in groups and under the guided supervision of community members – for instance, through tending gardens within the extensive school grounds. If the curriculum was expanded to include the study of indigenous knowledge and vernacular languages, this would further promote community participation while enabling students to 'trans-language' and compare cultures and, in the process, 'support one another's language learning, build rapport, resolve conflict, (and) assert their cultural identity' (Rajendram, 2023, p 595).

Although these changes would not provide students with multiple means of representation (as the communication process would still be somewhat teacher dominated) or multiple means of engagement and of action and expression (as tasks and activities would still be limited in scope), teaching and learning processes would become more pluralistic and therefore more responsive to learner diversity. Furthermore, these changes would reduce, though not remove, inequalities of education provision between students – particularly the virtual exclusion of deaf students from classroom communication.

The previously discussed accommodations and modifications can be termed 'UDL-lite', but more closely resemble Differentiated Instruction (DI). According to some scholars (Griful-Freixinet et al, 2020), DI is 'reactive' as it involves teachers responding to learner diversity in the light of educational realities and their emerging understanding of the needs of their students. By contrast, UDL is 'proactive' as education provision is designed so all students' needs can be met from the outset, including those of students with disabilities. Franz, Ivy, and McKissick (2016) also believe that DI, unlike UDL, particularly focuses on addressing the needs of the most marginalized students – presumably because education systems configured according to

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UDL principles would be inclusive for all, so marginalized students would not exist. If this definition of DI is accepted, many of the purportedly UDL instructional practices adopted in Ghana (Inclusive Development Partners, 2021), South Africa (Song, 2016), and Malawi (Ministry of Education, Science and Technology, 2020) are more accurately termed DI, as they are gradational (rather than transformational), pragmatic (rather than utopian), and particularly target struggling students (rather than apply equally to all students).

As UDL is more 'fashionable' than DI within international development circles, it is plausible that DI approaches will increasingly be 'packaged' as UDL to secure funding from international donors. However, this should not be allowed to disguise the true nature of this approach. Any attempt to 'transform' teaching and learning in LAMIC through UDL will need to answer the questions raised in this section.

7. Conclusion

This chapter has discussed the inclusiveness, feasibility, and transmissibility of three pedagogical approaches promoted by the international development community (IDC): a visual impairment-focused version of Care for Child Development (CCD-VI), Teaching at the Right Level (TaRL), and Universal Design for Learning (UDL).

CCD-VI is an accessible and adaptable package of materials that enabled primary caregivers to more effectively meet the needs of young children with visual impairment in Malawi. However, government systems in low-income countries would need to be significantly strengthened for CCD-VI to be rolled out effectively, along with similar packages for learners with other functional difficulties (in the interests of equity). Until this happens, it is therefore recommended that UNICEF and WHO develop a modified version of CCD which is more accommodative of learner diversity and could be employed in such contexts. TaRL is a similarly accessible and adaptable package of materials that is designed to provide primary-aged learners with stimulating and varied learning opportunities of appropriate difficulty to acquire reading and numeracy skills. However, it was concluded that TaRL needs to be amended to meet the needs of those learners with disabilities who require pedagogical accommodations and modifications (see Chapter 3), along with environmental adaptations and assistive technology (see Chapter 9). If implemented effectively, UDL in theory would provide students with disabilities with myriad learning opportunities that fully met their present and future needs. However, concerns were expressed about UDL's practicability in LAMIC (given the demands it would place on education systems), its acceptability (given its individualistic ethos and constructivist theory of learning), and its transmissibility (given its complexity). It was therefore proposed that Differentiated Instruction (DI) is a more appropriate approach.

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This chapter has therefore shown the need for IDC to proceed with care in the field of pedagogical reform. Whenever possible, ministries of education and other concerned stakeholders should be encouraged to build on endogenous disability inclusive pedagogical approaches. If it is necessary to introduce new approaches, these should not only address as fully as possible the common, specific, and individual needs of learners with disabilities, but be aligned, or adapted so they are aligned, with cultural and contextual realities (see case study). Before being considered for replication and scale-up, these approaches should be extensively piloted, and any replication and scale-up should be facilitated by necessary investments in education systems.

This chapter has discussed the forms disability inclusive teaching and learning should take. The next chapter discusses the educational resources that learners with disabilities require for this teaching and learning to happen.

Case study: Pedagogical approaches for young children with autism in India

Autism is a neuro-developmental condition with life-long effects that impacts people's ability to understand social behaviour, engage verbally and non-verbally with others, and think and behave flexibly (Frederickson & Cline, 2009). Conversely, people with autism[6] can have corresponding strengths, such as attention to detail, pattern recognition, and empathy, not only for other people with autism but people with disabilities generally (Cope & Remington, 2022). Autism is 'a spectrum' as people with autism possess these characteristics to different extents and express them in different ways. Given such diversity, this spectrum is often depicted not as a line (distinguishing 'more' autistic people from 'less' autistic people) but as a multi-dimensional circle with various traits (communication differences, special interests, and so on) spread across its surface.

An experienced teacher has described the distress young children with autism can feel when their rituals are interrupted, they are separated from an object that is precious to them, they experience sensory overload, or they are unable to communicate requests (Willis, 2015). Shepherd et al (2024) have discussed the problems experienced by older children and youth. Parenting a child with autism can be equally stressful. Merry Barua, the founder of Action For Autism (AFA), a national NGO in India, has recalled the challenges she encountered as the mother of a young boy not yet diagnosed as autistic – her concern when she observed his lack of interest in playing with others, her perplexity at his

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non-responsiveness when she spoke to him, and her anguish when her son pushed her away when she tried to cuddle him. When her son aged six was diagnosed with autism her 'world fell apart' as she realized her son's behaviour was not a 'passing phase' (Barua, 2007, p 31).

Recognizing the need for parents to possess 'hands on' skills, service providers in India have promoted demonstration-based training strategies, such as 'floor time' in which outreach workers sit down with children with autism and, observed by the parents, engage with the children, modelling appropriate approaches (Lal & Chhabria, 2013). The parents then employ these approaches while being observed by the field workers. Although based on Western models, these approaches are contextually appropriate as they take the form of simple, practical activities that can be delivered by primary caregivers using locally available materials. Many of these activities are also relevant for young children with other impairments and conditions, reducing the need to establish expensive specialist services for young children with autism (McConkey, 2022). These approaches include:

- Following the child's lead and therefore creating a non-stressful environment in which the child does not feel they are being forced in a particular direction (Lal & Chhabria, 2013).
- Taking turns when carrying out an activity – in the process not only introducing the child to turn-taking but establishing two-way communication and building a relationship based on mutuality and trust (Malhotra et al, 2010; Lal & Chhabria, 2013).
- Building on what the child is already doing and therefore gradationally developing their skills and understanding (Lal & Chhabria, 2013).
- Carrying out an activity with the child – for instance, though the 'hand over hand' approach – and thus giving the child a sense of the rhythm of the activity and strengthening the parent–child relationship (Nair et al, 2014).
- Organizing 'manipulative activities' – for instance, activities which require beads to be threaded through a string – and in the process building the child's sensory awareness and fine motor skills (Lal & Chhabria, 2013).
- Using alternative and augmentative communication to promote two-way communication – for instance, through using flash cards depicting happy and sad faces to help the child to understand feelings (Lal & Chhabria, 2013), introducing the child to

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Indian Makaton vocabulary[7] (Lal, 2010), and downloading locally developed software on an iPad so the child can point to picture icons to express thoughts and feelings (Sankardas & Rajanahally, 2017).

- Addressing co-occurring conditions – for instance, dealing with sleep issues through 'creating a calming sleep routine, adaptations in the sleep environment or avoiding daytime naps' (Divan et al, 2019, p 330).

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9

Equipping Inclusive Education: Educational Resources

1. Introduction

The right of children and youth with disabilities to educational resources (EdRes) is recognized in Article 4(1) of *United Nations Convention on the Rights of Persons with Disabilities* which requires States Parties, along with their development partners, 'to promote the availability and use of new technologies … giving priority to technologies at an affordable cost' (UN, 2006). This is reinforced by Indicator 4.a.1 of Target 4a of Sustainable Development Goal 4 which commits these actors to providing learners with disabilities with 'adapted' and 'accessible' materials (UNICEF, 2025a). Those governments that have ratified the *Marrakesh Treaty* (2013) are further required to waive or relax copyright law so people with visual impairment and other individuals with 'print-disabilities'[1] can access printed texts in accessible formats such as braille and digital audio.

This chapter will discuss two projects, one in Zambia and one in India, that sought to realize these rights. It draws on semi-structured interviews with project staff, project appraisals, and the author's own experience with both initiatives. The educational resourcing strategies of these initiatives will be assessed in terms of the extent to which they promoted the use of functionally and contextually appropriate educational resources (resource promotion). They will also be assessed in terms of the extent to which they created enabling conditions for educational resourcing (resource enablement) (see Section 3.1). As the topic is so broad, the discussion will focus on the resource needs of learners with visual impairment. This particular group of learners has also been selected because they have distinctive EdRes requirements due to the impact of their impairments on their educational functioning. These learners can be blind (that is, have no sight or greatly reduced sight) or have low vision (that is, have significant levels of residual vision that can enable them, for instance, to read print).

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2. Educational resources for learners with disabilities

In this chapter, educational resources (EdRes) are holistically defined as the devices and products required by learners with disabilities for their presence, participation, and achievement in formal, non-formal, and informal education. EdRes therefore not only refers to devices and products directly involved in learning, but those which facilitate learning, such as mobility aids that assist learners with physical impairments to travel to and from school and navigate school environments. The term is defined in this way as it is essential that agencies working in this field adopt a holistic perspective. These resources can be 'non-tech' (for example, manipulatives),[2] 'low-tech' (for example, solar-powered hearing aids), or 'high-tech' (for example, computers with interactive touchscreens). When high-tech, they often take the form of 'educational technology' (EdTech) – namely, digital tools and resources used to enhance teaching and learning (Lynch, Singal, & Francis, 2021). The potential and limitations of EdTech for learners with disabilities in the Global South are considered in this chapter.

EdRes can sometimes take the form of assistive technology – devices and products primarily designed for learners with disabilities. Table 9.1 provides some illustrative examples of non-tech, low-tech, and high-tech assistive

Table 9.1: Illustrative examples and functions of assistive technology for learners with visual impairment

Illustrative examples	Functions
Optical low vision aids such as customized spectacles, magnifiers, and telescopes; non-optical low vision aids such as work-stands and task lighting; enlarged, simplified and tactile diagrams	To access visual information
Braille texts (for learners who are blind); large print texts (for learners with low vision); text-to-speech software, audio recordings	To access printed texts
Braille writing equipment (for learners who are blind); thick-tipped pens, bold/wide-lined paper and writing guides (for learners with low vision)	To write
Measuring devices with large, high-contrast markings, digital thermometers, talking calculators, abacuses, and spur wheels	To perform other activities
Manipulatives, large print number lines, and three-dimensional geometric shapes	To grasp and formulate concepts
White canes	To access and navigate learning environments

Source: Le Fanu et al, 2018

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technology for learners with visual impairment and identifies their functions. See WHO (2015) and Lynch et al (2021) for lists of devices and products for learners with various functional difficulties.

As well as assistive technology, EdRes for learners with disabilities can take the forms of accessible technology (sometimes called adaptive technology) and majority technology. The former refers to devices and products designed for general use, but which can be customized by these learners to meet their specific needs, such as SMART phones with features that enhance accessibility. The latter refers to devices and products designed for general use (for example, pens, pencils, textbooks) which are still useful for learners with disabilities because of the educational needs they share with their peers. Self-evidently, there is not always a clear-cut distinction between these three different types of technology. For instance, enlarged or simplified diagrams, maps, and illustrations not only benefit learners with low vision but also other learners, whether disabled or non-disabled. Similarly, while learners with low vision often require customized spectacles to function effectively in education, they are also required by learners with correctable refractive errors (who are not generally regarded as disabled).

3. Assessing educational resourcing strategies

Effective educational resourcing strategies should promote the use of appropriate educational resources (EdRes). To be appropriate, these EdRes need to be 'functionally appropriate': potentially capable of assisting learners with disabilities to acquire valuable capacities and perform valuable functions (both now and in the future), given the type and severity of their functional difficulties (see Table 9.1). They also need to be 'contextually appropriate'. To be so, they need to be 'locationally appropriate': capable of being used productively by these learners, given local educational realities. These realities include pedagogical practices, curricular requirements, teacher capacities, school budgets, cultural norms and values, and teaching and learning conditions in schools, homes, and communities. These EdRes also need to be 'systemically appropriate': capable of being used productively by learners, given broader systemic realities. One of these systemic realities is the effectiveness and availability of service providers, such as services for assessing learners with disabilities and then providing them with EdRes tailored to their particular requirements. Another systemic reality is the quality of communications, transport, and power infrastructure. A third is the regulatory environment – for instance, prescribed curricula and government plans, policies, and financial allocations.

However, effective educational resourcing strategies should not only ensure learners with disabilities can access appropriate EdRes given existing realities (appropriate resource promotion), but change these realities so learners are

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Table 9.2: Criteria for effective educational resourcing strategies for learners with disabilities

Appropriate resource promotion	
Resources are functionally appropriate	Resources meet functional needs of learners
Resources are contextually appropriate	Resources are appropriate, given local conditions
	Resources are appropriate, given systemic realities
Effective resource enablement	
Systemic change	The education system is strengthened so learners have greater access to an expanded range of more appropriate and enabling resources

Source: Author

not only able to make best use of these resources but can potentially access an expanded, more enabling range of EdRes in the future (effective resource enablement). Resource enablement can take place at different levels of the education system and take various forms, as will be discussed in this chapter. Table 9.2 outlines these elements.

4. The *Tusambilile Chapamo* project in Zambia

The first phase of the *Tusambilile Chapamo*[3] project ran from 2021 to 2025. The project was managed by the country office of Sightsavers, a UK-based international non-governmental organization, in partnership with Zambian Federation of Disability Organizations (ZAFOD), with funding provided by the European Union. In accordance with the business case developed by the EU, the project aimed to create a scalable continuum of good quality education provision for students with disabilities spanning pre-primary, primary, secondary, and technical and vocational education (EuropeAid, 2019). This would be facilitated by community engagement, capacity building for service providers, and advocacy (again, as required by the European Union, EU). The project was based in Chinsali and Kapwepe zones in Muchinga Province in the rural north-east. This province was selected as it is particularly socio-economically disadvantaged with the highest percentage of the population living in poverty (82.6 per cent), along with net attendance rates for primary and secondary education of 27.0 per cent and 11.3 per cent, even lower than the national average (28.7 per cent and 17.4 per cent) (Zambia Statistics Agency, 2022).

By August 2024, the project was supporting 900 students with disabilities (48 per cent male, 52 per cent female) in 20 schools and other demonstration centres. Alongside this, 79 per cent of a tracked cohort of students had transitioned to the next academic year, indicating both project impact and

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residual barriers to the retention of students with disabilities in education (Bolza-Schünemann et al, 2025). Although the project supported students with diverse impairments and conditions, this discussion will focus on students with visual impairment.

4.1. Resource promotion

4.1.1 Types of resources provided

Students with visual impairment were provisionally identified by their class teachers using a simple screening tool. Staff from the district eye clinic then visited the schools to conduct formal assessments. Post-assessment, these students were provided with necessary assistive technology, including customized spectacles if they had low vision. Non-tech devices included: magnifiers, braille slates and styluses, braille reading materials, thick-tipped pens, wide-lined paper, spur wheels, tactile rulers, and white canes (see Le Fanu et al, 2018, for a discussion of these resources). Talking calculators (a low-tech device) were also provided, along with digital recorders (a high-tech device). The latter were predominantly used by students to record lessons, thus reducing the burden of note-taking – a particularly effortful and time-consuming activity for braille-users reliant on slates and styluses. To complement these resources, some teachers made resources from local materials – for instance, by sticking sorghum seeds on paper to make raised diagrams. Rattle-balls were distributed to schools so students with visual impairment could participate in ball games. Menstrual hygiene kits were provided to those female students with visual impairment who required them, along with other female students with disabilities.

4.1.2 Functional and contextual appropriateness

The devices and products were functionally appropriate as they provided students with visual impairment with the tools to participate in a variety of activities inside and outside the classroom – even though they would have still found it more difficult to participate in certain activities due to various challenges. In particular, reading is a more effortful and time-consuming activity for braille-users as they have to identify each braille character with their finger pads. At times, the limitations of the EdRes with which they were provided exacerbated these difficulties. For instance, writing with a slate is a demanding activity for braille-users, as they have to manually emboss each configuration of raised dots on braille paper with a stylus (writing backwards, so when the paper is taken out of the slate and flipped over, the braille is readable from left to right).

Most of the resources provided to the students were non-tech or low tech (except the digital recorders). This meant they were comparatively

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inexpensive and could, in theory, be provided to future generations of students, given increased government investment and the strengthening of systems for procuring and distributing these devices and products. This included the spectacles and magnifiers which were available at a subsidized price through the government's National Health Plan. It also meant these resources functioned despite the lack of internet access and a reliable electricity supply in the schools. For the same reason, teachers did not need to possess information and communication technology (ICT) expertise to assist students to use these devices. Although optical aids were the only locally manufactured resources provided to these students, the other resources could be obtained from a local retail outlet. Although the braille embosser and thermoform machine are high-tech and therefore require skilled maintenance, a local company has the capacity to perform this task.

4.2 Resource enablement

4.2.1 School and community level

To extend the life of these resources and ensure their availability for future generations of students, students were not able to take the education-specific resources (such as the braille slates) home with them at the end of the day, although they were given the resources perceived as necessary for their general functioning (glasses and white canes). While understandable, this measure inevitably limited student access to these resources. To develop the capacity of teachers to assist students to use these resources, teachers were provided with short-course training by special school teachers, local technicians, and project staff. Infrastructural work was carried out in the schools to facilitate the use of these resources. Windows were installed or widened in some classrooms, improving illumination as well as ventilation, and thus enabling students with low vision to make more effective use of their optical and non-optical low vision aids. Raised pathways were constructed so students with visual impairment could navigate school environments independently and safely and, in the process, practise their white cane skills. Self-evidently, other students in the schools, both disabled and non-disabled, also benefited from these improvements. To support all aspects of inclusive education, including resourcing, head teachers were asked to identify Inclusive Education Coordinators (teacher volunteers) willing to fill this role. Parent Support Groups were also established in communities to mobilize support for inclusive education.

4.2.2 District and national level

To hold local government more effectively to account, Sightsavers and ZAFOD (Zambia Federation of Disability Associations) assisted people with disabilities across the province to form their own organizations of

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persons with disabilities (OPDs). These OPDs were then incorporated into an expanded and invigorated Chinsali Advocacy Network – a network of OPDs which at the outset of the project had only three member organizations but which by its end had 24. Advocacy training was provided for these OPDs which, along with the Parent Support Groups, successfully applied for funding from the Constituency Development Fund and Citizens Economic Empowerment Commission.

To ensure braille-users could access a range of braille texts and other tactile materials, an electronic braille embosser and a thermoform machine were installed in the District Education Resource Centre. It is expected that these texts and materials will continue to be provided in the future, as the district Ministry of Education is formally committed to maintaining this technology, as well as supplying braille paper for the embosser and plastic sheets for the thermoform machine. Even if these machines are temporarily out of action, teachers in the schools now have the capacity to produce their own tactile resources. While EdRes were purchased through project funds, project advocacy contributed to the government issuing a directive instructing Zambia Association for Persons with Disabilities (ZAPD), a semi-autonomous public body, to assume national responsibility for providing assistive technology, starting with customized wheelchairs and crutches (Bolza-Schünemann et al, 2025). In the second phase of the project, Sightsavers and ZAFOD will continue to advocate for a dedicated budget line in the Education Sector Plan for these resources. To increase the availability of hygiene kits for *all* female students, not just those with disabilities, the project made local schools aware of pathways for obtaining government funding for these resources. Unfortunately, at present this funding tends to be sporadic, meaning that even schools who receive this funding are not always available to provide students with these kits.

Table 9.3 summarizes the educational resourcing strategies employed by the project.

4.3 A contrasting approach: UNICEF's 'Learning Passports'

Sightsavers' approach contrasts with the high-tech approach adopted by UNICEF in Zambia which sought to 'bridge the digital divide' by distributing 'Learning Passports' (tablets on which interactive learning activities have been downloaded) to 6,000 learners, including learners with disabilities (UNICEF, 2025b). As schools have encountered difficulties using the devices due to a lack of internet access, the Ministry of Education is considering establishing an offline hub. However, even if this happens, the Learning Passport, as presently configured, lacks accessibility for learners with visual impairment, as learners need to be sighted to carry

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Table 9.3: Educational resourcing strategies of *Tusambilile Chapamo* initiative in Zambia

Resource promotion	
Types of resources provided	Predominantly non-tech & low-tech
Functional appropriateness	Enabled students to carry out key functions, but the technology had limited capacity as it was non-tech/low-tech
Contextual appropriateness	High level of appropriateness, given situational and systemic realities
Resource enablement	
School and community level	Some EdRes given to students, some kept in schools for re-use Teachers capacitated Infrastructural improvements in schools Inclusive Education Coordinators appointed in schools Parent Support Groups established in communities
District and national level	Investments in District Education Resource Centre Strengthening of Chinsali Advocacy Network Advocacy with ministry of education Schools made aware of pathways for obtaining funding for hygiene kits

Sources: Bolza-Schünemann et al, 2025; personal communication with Sightsavers Zambia Country Office, 2025

out many of the activities. In the context of Zambia, the cost of tablets and the lack of services for repairing and maintaining them also need to be considered.

5. Sightsavers India's inclusive education programme

Sightsavers India is a national non-governmental organization (NGO) which works closely with Sightsavers in the UK. At present, its education programme covers nine states across central India extending from Rajasthan in the west to Bihar and West Bengal in the east. Eight of these states are among the ten most socio-economically disadvantaged in India (Sharma & Vashishth, 2017), and Sightsavers India's education programme is largely concentrated in rural areas where there are the highest levels of poverty (Thorat et al, 2017). In 2025, Sightsavers India directly supported the education of 3,280 students with visual impairment in elementary, primary, and secondary schools, 53 per cent male, 47 per cent female. Of these students, 852 were blind and 2,428 had low vision. The organization has an established presence in most of these states where it has supported schools in selected districts for many years. In each of the states, it employs Inclusive

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Education Facilitators who coordinate programme implementation and work closely with schools, teachers, and students.

5.1 Resource promotion

5.1.1 Resources provided

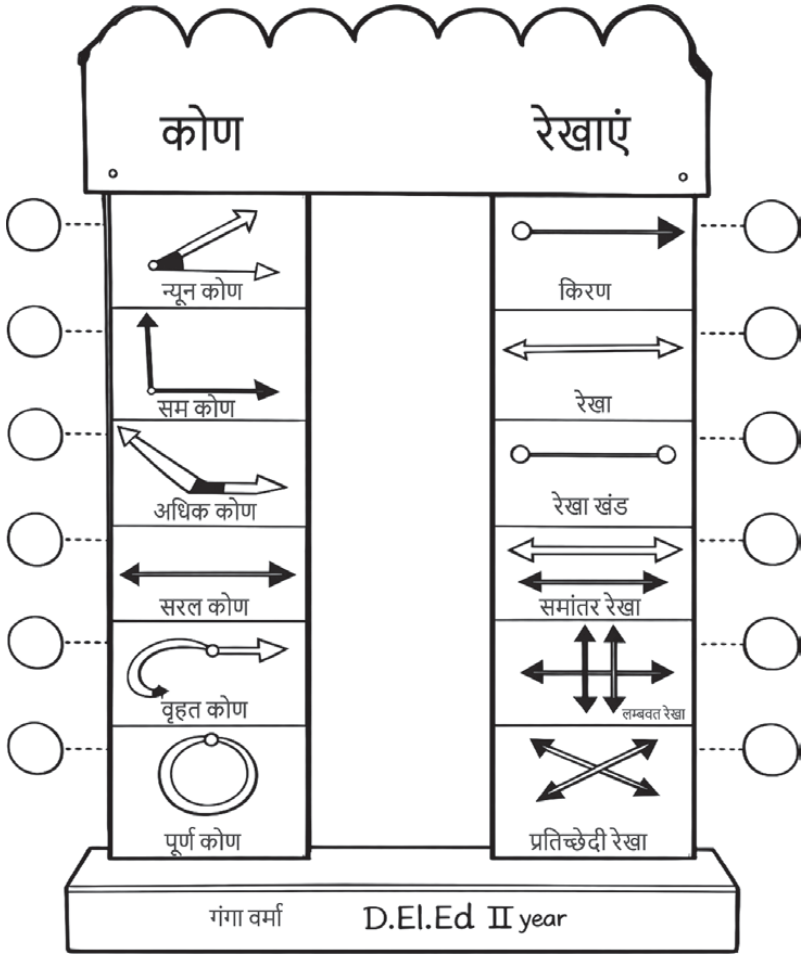
Sightsavers India supplies students with visual impairment with the types of non-tech and low-tech resource mentioned in the previous section, as well as other such resources, such as Taylor frames and abacuses commonly used in India. Teachers are also encouraged to produce their own 'home grown' tactile resources (see Figure 9.1). However, unlike Zambia, these students are also provided with DAISY Players,[4] smartphones with built-in accessibility, and laptops with screen-reading software in English, Hindi, and 16 regional languages in-built. Unlike Zambia, these students have 24/7 access to these resources, as they can take them home and keep them when they progress to a new phase of education or leave education altogether. To complement these devices, Sightsavers India has established an e-library of audio materials, consisting of half a million books including school textbooks, which students can listen to on their ICT devices. In the Block Resource Centres managed by State Education Departments, these students can learn to use other forms of EdTech, such as refreshable braille displays and Smart/Interactive Boards, with technical support being provided by the resource teachers in these centres, as well as Sightsavers' Inclusive Education Facilitators. Again, these resources are supplied by Sightsavers India.

5.1.2 Functional and contextual appropriateness

As a result of accessing this spectrum of EdRes, students can develop diverse capacities and carry out various activities (see Table 9.1). As these students have their own sets of EdRes (non-tech, low-tech, and high-tech), they can study at home as well as at school (which proved particularly valuable during the COVID pandemic). They can use the ICT devices (EdTech) to listen to diverse texts or read them in accessible formats, either through surfing the internet or reviewing material already uploaded on these devices. Using these devices, they can create their own electronic texts, using text-to-speech software to organize, edit, and format these documents. While EdTech increases the capacity of these students to study independently, it also provides them with opportunities to work collaboratively, periodically sharing documents with others and keeping in touch with them through low-cost messaging platforms such as WhatsApp. EdTech therefore has the potential to reduce the pedagogical and social isolation sometimes experienced by students with visual impairment. Furthermore, students

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Figure 9.1: Line drawing of tactile resource illustrating geometric angles



Source: Copyright 2025 Sightsavers India. Reprinted by permission.

with visual impairment can develop fine-motor, tactile, and cognitive skills through using non-tech EdRes: for instance, through inserting pegs in star-shaped slots in Taylor frames, and then making mathematical calculations based on the protrusions on the tips of these pegs and their orientations in the slots.

Providing students with this spectrum of EdRes is contextually appropriate as well as functionally appropriate. First, providing them with non-tech and low-tech EdRes reduces the likelihood that they will become overly dependent on EdTech. This is important in Indian educational contexts where internet access and electricity supply may be unreliable and school staff lack the expertise to assist students with visual impairment

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to fully utilize ICT, particularly ICT which has been configured to meet the specific needs of these students (Asrani, 2022). Second, providing students with high-tech EdRes arguably makes more sense than it would in Zambia, as the Government of India has invested heavily in digital learning through the Samagra Shiksha Scheme, in digital infrastructure through the Bharat Net Project, and in digital training through the CM-Rise Teacher Professional Development programme, although significant regional disparities remain (Asrani, 2022; Rawal, 2024). Furthermore, post-education, these learners are better placed to obtain employment in India's increasingly digitalized work environment, although they must still overcome considerable social and physical barriers to do so (Pal & Lakshmanan, 2012; Suresh & Dyaram, 2020).

In Zambia, the cost of EdRes was kept to a minimum in an attempt to promote a sustainable model of provision in one of the poorest countries in the world. In India, to reduce costs, teachers are encouraged to produce their own resources using locally available materials (see Figure 9.1), and no-cost text-to-speech INDO-NVDA software[5] is downloaded on the laptops supplied to students. Furthermore, when students are using EdTech, they can access the internet at a much lower cost than in Zambia (Cable.co.uk, 2023). However, the EdRes costs for the India initiative are inevitably much greater than the EdRes costs for the Zambia initiative. These costs are at present covered by the Corporate Social Responsibility (CSR) foundations of large corporations who are legally required to spend 2 per cent of their profits on CSR activities. While these foundations will not meet these costs for ever (raising questions about the scalability and sustainability of the initiative), Sightsavers India has achieved significant leverage with Departments of Education in the states in which it works through piloting this technology in schools (see Section 5.2.2).

5.2 Resource enablement

5.2.1 School and community level

As previously mentioned, providing students with their own sets of EdRes enables them to use these EdRes in their homes and communities as well as at school, potentially enabling them to not only carry out diverse activities but also develop diverse capacities. These students are trained in this technology by the Inclusive Education Facilitators (IEFs) employed by Sightsavers India, as the over-stretched Resource Teachers (RTs) in the Block Resource Centres (BRCs) do not have the time and, in some cases, the capacity to do this. Once these students have been trained by the IEFs, teachers in their schools and 'social animators' in their homes and communities provide further support. The latter are family members or community members who volunteer to assist these individuals with their

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learning. Both the teachers and the social animators are trained by the IEFs, with the RTs providing peripatetic support for teachers and students whenever possible.

5.2.2 District and state level

Sightsavers India has strengthened the capacity of the BRCs to familiarize students with visual impairment with EdRes through providing BRCs with a range of devices and products, including sophisticated forms of ICT (such as refreshable braille displays) not available in the schools.

Through demonstrating its model of education provision in selected districts, Sightsavers India has persuaded State Departments of Education (SDEs) to replicate this provision in other districts. This contributed, for instance, to four of these SDEs allocating 110 million INR (equivalent to US$1,285,449) to ICT for students with visual impairment in their 2023–24 budgets.

Table 9.4 summarizes the educational resourcing strategies of the initiative.

5.3 Equity considerations

Given the spectrum of educational resources (EdRes) provided to them, learners with visual impairment in Sightsavers India's programme area

Table 9.4: Educational resourcing strategies of Sightsavers India initiative

Resource promotion	
Types of resources provided	Mixture of non-tech, low-tech and high-tech
Functional appropriateness	Potentially enabled students to carry out wide range of functions effectively
Contextual appropriateness	Potential high level of appropriateness given available support-services and government investments in digital learning, infrastructure, and training
Resource enablement	
School and community level	EdRes given to students Students trained by Inclusive Education Facilitators (IEFs) Social animators as well as education personnel supported students Students supported by Resource Teachers in Block Resource Centres (BRCs) Teachers and social animators trained by IEFs
District and state level	Investment in BRCs Advocacy with State Departments of Education

Sources: Sightsavers India, 2023; personal communication with Sightsavers India, 2025

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are much more generously resourced than students without disabilities. However, this is arguably an equitable arrangement as it means these students are now less educationally disadvantaged than their peers – for instance, they can now auditorily access a full set of textbooks. In short, equality of educational opportunity for learners with disabilities, or something approximating equality of opportunity, sometimes requires inequality of education provision. According to Sightsavers India, students with other disabilities in the programme area can access necessary EdRes, including assistive devices, under the ADIP[6] scheme of the Government of India. However, it would be worth establishing if the needs of these students are as comprehensively met as those of students with visual impairment – for example, the need of students with intellectual disabilities for non-tech EdRes, such as 'easy read' handouts and worksheets, low-tech EdRes, such as variable speed recorders and talking calculators, and high-tech EdRes, such as computers with speech synthesizers/screen readers that can read text typed on a computer screen by a user, text on the internet, and text which has been scanned into the computer.

6. Further reflections

To further assess the effectiveness of both initiatives in terms of resource promotion and enablement, it would have been valuable if non-formal or formal research had been carried out which would have explored the ways the students in Zambia and India used the EdRes, the efficacy of this usage, and the variables shaping this usage. Among other factors, this research would need to consider:

- The impact of teaching and learning conditions (inside and outside the classroom). For instance, to what extent were the students in Zambia able to acquire orientation and mobility skills, given the limited expertise and multiple responsibilities of their instructors (that is, their class teachers)? To what extent were their primary caregivers able to help them to develop and practise these skills?
- The significance of curricula and pedagogies. For instance, to what extent did teachers in India provide students with opportunities to use their EdTech to carry out independent research and/or work collaboratively with their peers, given curricular requirements and teachers' pedagogical orientations?
- The effect of culturally embedded norms and values. For instance, in more collectivist societies, learners will be more inclined to adopt 'a relationship focus' than 'a task focus' when working with others on online activities (McLoughlin, 1999, p 233). In 'high context' cultures,

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learners are more likely to require cues, examples, and explanations to make sense of decontextualized information on the internet (p 233). To what extent, was this the case in India?

This knowledge could feed into project/programme implementation, ensuring the initiatives met the EdRes needs of students with disability more effectively. It could also be disseminated externally to raise awareness of EdRes issues in LAMIC – although this would need to be done sensitively, in ways which recognised the precarity of our interpretations of social situations and the consequent dangers of making sweeping generalizations based on those interpretations. Furthermore, ways would need to be found of conveying this knowledge accessibly to diverse audiences without simplifying the complexity of the issues involved. If this could be done, such knowledge would reveal the limitations of project evaluations and reviews which draw primarily on data 'already in the organizational system', have narrow terms of reference, and must be delivered within short timeframes (Vaessen, Lemire, & Befani, 2020, p 16). Without such knowledge, there is a danger that IDC will succumb to 'techno-centrism' – the uncritical transfer of high-tech EdRes (EdTech) from the Global North to the Global South, irrespective of whether it meets the real-life needs of learners with disabilities and is contextually and culturally appropriate (Lynch et al, 2021; Global Disability Hub [GDH], World Bank, 2022; UNESCO, 2023).

7. Conclusion

This chapter has discussed the educational resourcing strategies of two development initiatives, one in Zambia and one in India. Both initiatives endeavoured to ensure students with visual impairment could access functionally and contextually appropriate resources (resource promotion). Both also sought to create conditions that would enable students to utilize these resources as effectively as possible, both now and in the future (resource enablement). However, there were significant differences between the two projects in terms of the types of educational resources (EdRes) promoted. There were also differences in terms of the roles and responsibilities of project staff, civil society stakeholders, and ministries of education at national and sub-national level. These differences reflected contextual realities – such as in-country teaching and learning conditions and levels of investment in digital training and infrastructure, but were also shaped by donor conditionalities, such as the willingness of donors to approve the purchase of certain types of EdRes and the relative priority they attached to creating a sustainable model of EdRes provision. The chapter has therefore not only shown the limitations of a 'one size fits all'

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approach in this field, but also the need for donors to ensure the terms of reference for projects and programmes adequately address EdRes issues, including the need for these initiatives to generate and disseminate programme learning.

The next chapter also discusses two contrasting initiatives – but, this time, projects addressing the school-based abuse of students with disabilities.

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10

Enabling Inclusive Education: Creating Nurturing Learning Environments

1. Introduction

United Nations Convention on the Rights of the Child (1989)[1] and *United Nations Convention on the Rights of Persons with Disabilities* (2006)[2] affirm the right of students with disabilities to learn in safe and supportive environments free from all types of abuse. This abuse can take the often-overlapping forms of 'physical', 'sexual', and 'mental' violence and 'neglect or negligent treatment' (UNICEF, 2024, p 10), and can be inflicted by students on other students, as well as by teachers and other school staff. Unfortunately, learners with disabilities often experience disproportionately high levels of abuse due to unaddressed 'stigma' – namely, the negativity directed towards people who possess certain attributes perceived as socially and culturally undesirable (Andersen, Varga, & Folker, 2022). This victimization may be exacerbated by:

- The extreme stigma attached to certain impairments and conditions in some cultures (see case study on albinism later in this chapter).
- The comparative frailty of some students with disabilities and thus their diminished capacity to resist physical abuse.
- The difficulties some students face identifying their abuser (for example, because they are blind) or reporting their abuse (for example, because they communicate through sign language and their teachers are unfamiliar with sign language).
- The failure of responsible adults to take this abuse sufficiently seriously, especially adults with negative attitudes towards people with disabilities.
- The socio-economic background, ethnicity, gender, and other personal characteristics of students with disabilities.

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If students with disabilities are excluded from certain school activities perceived as too 'difficult' or 'dangerous' for them (see Chapter 3), there is a danger that this will further isolate and differentiate them from their peers.

In the light of research findings from Africa, this chapter will consider ways in which the international development community (IDC) can assist ministries of education in the Global South to address such abuse. It will focus on two contrasting interventions, one in Uganda and the other in Ethiopia and Madagascar, but will begin by discussing realities in selected African contexts.

2. Realities in schools

Due to the lack of reliable, valid, and comprehensive data, global reviews have concluded it is impossible to make generalizations about school-based attitudes and practices towards learners with disabilities in the Global South (de Boer, Pijl, & Minnaert, 2012; UNESCO, 2019; Fang et al, 2022). Even regional generalizations are impossible: mapping the evidence in East Africa, Winters, Langer, and Geniets (2017) bemoaned the lack of data and identified only one study (Devries et al, 2014) which applied a rigorous methodological design to investigate this subject. This chapter therefore discusses three context-specific analyses.[3]

Analysing quantitative data collected from 3,706 students (disabled and non-disabled) aged 11–14 in 42 primary schools in a district of Uganda, Devries et al (2014) found school-based violence was endemic, reportedly experienced at some time by virtually all students, irrespective of their disability status or sex. However, students with disabilities, both male and female, were more likely than non-disabled students to have experienced physical, sexual, or emotional violence from their male peers; and girls with disabilities were nearly twice as likely as girls without disabilities to have experienced sexual violence from either staff or students (23.6 per cent, opposed to 12.3 per cent). These learners identified school staff as the main perpetrators of emotional violence and neglect, male students as the main perpetrators of sexual violence, and (in the case of girls with disabilities) female students as the main perpetrators of emotional violence. School staff were more likely to inflict physical violence on girls with disabilities than other girls, although boys experienced similar levels of such violence irrespective of disability status. Younger children with disabilities were at higher risk of experiencing violence, presumably because of their more limited capacity to resist. Schools, rather than homes and communities, were identified as the main sites of violence. When the data were further disaggregated, it was found that students with hearing and communication difficulties were more likely than learners with other functional difficulties to report experiencing violence over the past week (Devries et al, 2018).

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While the quantitative Ugandan analysis identified the prevalence of different types of violence in school settings, qualitative studies in Malawi and Zambia have examined the contexts for violence and its impact on children's functioning and well-being.

Analysing data collected from 75 children with musculoskeletal impairments (CMSIs) aged 2–10 in four districts of Malawi, along with data from adult stakeholders, Alavi et al (2012) found CMSIs were frequently mocked and bullied by their peers. Although all CMSIs (even those with multiple and severe impairments) had friends without disabilities, child-to-child interactions (rather than adult-to-child interactions) were identified as the most distressing for CMSIs. While adult community members did not actively participate in abusing CMSIs, some condoned this abuse, including the parents of some CMSIs. In schools, CMSIs were 'left out' of or 'left behind' due to the lack of training received by teachers and the indifference of other students. Significantly, Alavi et al pointed out that the suffering experienced by CMSIs was not just the result of social attitudes and practices but also challenging home and school conditions. For instance, CMSIs were more likely to experience hunger than their peers due to their parents' poverty and the challenges they faced foraging for food; and using the pit-toilets in schools was particularly humiliating and degrading for those CMSIs with mobility difficulties. Cumulatively, these sources of stress, discomfort, and unhappiness impacted on CMSIs' willingness to attend school and participate in class – in other words, 'enacted stigma' (the negative behaviour of others) had become 'felt stigma' (apprehension, even fear, of others) (Scambler, 1998, p 1054).

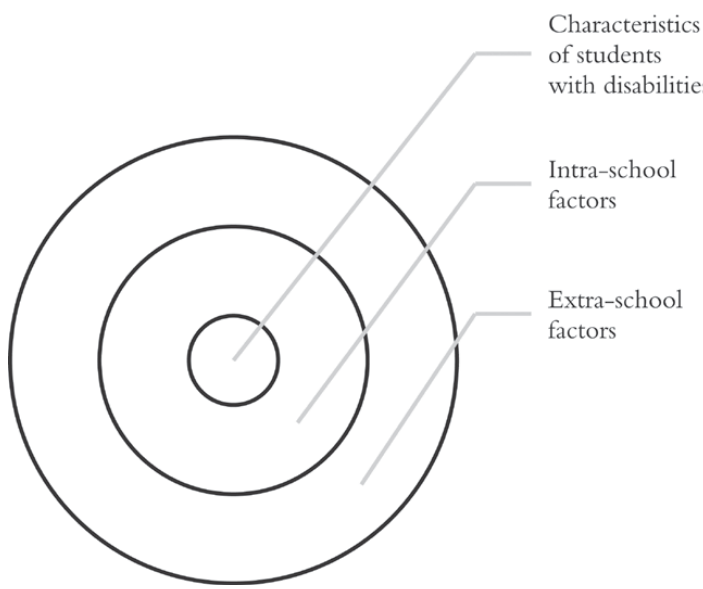
Analysing data collected from 90 primary and secondary students with diverse impairments and 45 parents and teachers in two provinces of Zambia, Njelesani, Si, and Swarm (2022) found these students experienced high levels of physical and mental violence and neglect from their peers. Teachers rarely addressed this abuse – indeed often condoned it and even blamed students with disabilities for it. When teachers intervened, they tended to physically punish the perpetrator rather than seek to address the underlying causes of the abuse. This abuse was placed by Njelesani et al in the context of 'the cultural and social norms that support school violence' (p 37) – namely, the beliefs that bullying is a rite of passage for boys which toughens them up and that students are ultimately responsible for one another's welfare. It was also placed in the context of traditional beliefs about the causes of disability justifying the ostracism of people with disabilities, along with prejudices against people with particular types of disability. As a result, the special education teachers experienced 'affiliative stigma' (Misra et al, 2021, p 487) due to their association with the learners with disabilities they were tasked with supporting. Finally, the abuse was placed in the institutional context of the absence of effective child safeguarding

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systems and the pressures placed on teachers not to report abuse externally in order to protect schools' reputations. Due to a lack of staff training in disability inclusion, some teachers were unable to identify less visible areas of functional difficulty, such as deafness and cognitive impairment. Consequently, these teachers were sceptical when informed that these students were being bullied because of their disabilities.

Given the lack of evidence, it is impossible to make generalizations about the prevalence, severity, and types of disability-related school-based abuse in the Global South. However, in the light of the previous findings, it is possible to construct a simple, top-line explanatory model of the variables causing (or preventing) such abuse. These variables are the particular characteristics of the students with disabilities (for example, type and level of functional difficulty, age, sex, socio-economic background); intra-school factors (for example, capacities and orientations of school staff, attitudes of other students, effectiveness of child safeguarding systems); and extra-school factors (such as social and cultural beliefs and practices, and the capacity of ministries of education and other relevant agencies – governmental and non-governmental – to provide schools with the necessary types and levels of support and oversight) (see Figure 10.1).

Figure 10.1: Variables shaping prevalence, severity, and types of school-based abuse of students with disabilities



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Box 10.1: Vulnerability of children with albinism

Albinism is an inherited condition resulting in a lack of pigment in the hair, skin, and eyes. Albinism is always associated with poor eyesight from birth, along with extreme sensitivity to the damaging effects of the sun. Due to this sensitivity, students with this condition need sunglasses with UV protection, sunscreen with the highest possible sun protection factor (SPF), long-sleeved shirts with collars, and wide-brimmed hats (Lynch & Lund, 2011). They should not spend extended periods outside.

People with albinism have experienced high levels of persecution in many parts of Africa south of the Sahara (Benyah, 2024). This is not only because they look markedly different from the darker-skinned populace but also because of myths and superstitions surrounding the condition. In some countries, this has meant people with albinism have been murdered because it is believed their body parts have magical properties. It is believed this violence has been exacerbated by rapid social and economic changes in Africa, including growing inequality, due to the impact of neo-liberalism and globalization (Franklin et al, 2018).

In Malawi, it was found that some parents and guardians chose not to enrol their children with albinism in local mainstream schools due to concerns they would be considered 'not worth educating' or even be in physical danger. Instead, they were sent to residential resource centres for children with visual impairment attached to mainstream schools. In these centres, they were taught to read and write braille, along with their classmates, even though this was not necessary as they had significant levels of sight (Lynch, Lund, & Massah, 2014). In short, parents and guardians prioritized social protection for these children over 'pedagogical inclusion' (see Chapter 4).

3. Addressing the abuse of learners with disabilities

International development agencies (IDAs) working in this field can face a number of challenges: the prevalence and embeddedness of disability stigma; the diversity and complexity of social and cultural contexts; IDAs' limited understanding of/connection with these contexts; and the limited capacities of service providers at all levels of the education system to address abuse. They are further hindered by the lack of robust studies assessing the effectiveness of stigma-reduction interventions related to disability (Smythe, Adelson, & Polack, 2020). This chapter will discuss two such school-based initiatives. The first, in Uganda, was a generic, multi-component, sequential behaviour-change intervention: that is, was intended to benefit all students (disabled and non-disabled) and consisted of a series of measures implemented over

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an extended period of time. The second, in Ethiopia and Madagascar, was a targeted (epilepsy-specific), single-component, non-sequential intervention. These school-based initiatives can be contrasted with the approach adopted by the Zambia Country Office of Catholic Medical Missions Board, a faith-based international NGO. This sought to combat stigma in communities through sensitization events in health facilities, churches and community spaces (Hearst et al, 2022).

3.1 The Good School Toolkit (GSTK)

GSTK is a behaviour change intervention designed to reduce violence towards both students with disabilities and their peers (Devries et al, 2018). It was produced by Raising Voices (2025), a national NGO based in Kampala, Uganda, which has received funding from overseas trusts and foundations. The London School of Hygiene and Tropical Medicine in the United Kingdom has contributed to refining and developing GSTK and to accessibility-testing new materials. Originally produced for primary schools in Uganda, it has since been adapted for secondary schools (Devries et al, 2024).

GSTK implementation involves six stages: 'pre-contemplation' (for example, establishing a 'good school' committee); 'contemplation' (for example, collecting baseline information); 'preparing for action' (through school-wide reflection); 'action' (through establishing a new school-wide culture); 'maintenance of action' (for example, creating a positive learning environment); and 'consolidation of gains' (transferring responsibility for GSTK to the school leadership team) (Devries et al, 2018, p 304). The process is coordinated by two lead teachers and two student representatives, with training being provided for the teachers and their head teacher. Materials consist of books, booklets, posters, and facilitation guides for about 60 activities, many of which are commonly employed in schools in the Global North. These activities include: giving pupils opportunities to co-develop classroom rules; establishing 'walls of fame' to celebrate students' achievements; providing suggestion boxes for collecting students' ideas and concerns; and instituting student courts to handle minor disciplinary cases. A central focus of GSTK is 'positive discipline': an approach originally developed in the United States in which teachers address student misbehaviour through considering the variables responsible for this behaviour and, in the light of this analysis, taking steps to minimize it – for instance, through treating students with respect and consideration, ensuring classroom rules are thoroughly understood, and providing students with incentives. When misbehaviour occurs, teachers should intervene constructively to prevent it recurring through 'asking students to reflect on their decisions, plan and carry out corrections, make commitments, and discuss what they have learned' (Strahan et al, 2005, p 26).

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To assess the effectiveness of GSTK as an instrument for reducing physical violence, a cluster randomized control trial was conducted in the 42 primary schools from which data on school-related abuse had earlier been collected (see Section 2). These schools were randomly assigned to two groups – a waitlisted control group and an intervention group which received GSTK for 18 months. All 21 intervention schools completed the six stages of the GSTK programme, although it was reported the intensity and quality of each stage varied between schools (Knight et al, 2018). It was found that GSTK had significantly reduced the average prevalence of violence experienced by all students, disabled and non-disabled (Devries et al, 2018). In the case of students with disabilities, 58.6 per cent of learners in the intervention group reported experiencing violence from staff or students over the past week compared with 83.7 per cent of those in the control group (although the former percentage is still of course unacceptably high). While there was no decrease in reported physical violence in five of the intervention schools, this can be attributed to these schools having less exposure to the toolkit (Knight et al, 2018). A qualitative study found teachers particularly valued positive and peer-to-peer discipline as strategies for improving student behaviour (Kyegombe et al, 2017).

3.2 We'll Make It

In 2012, Sanofi, a French multinational pharmaceutical and healthcare company headquartered in Paris, and its local partners in Kenya – the ministries of health and education and the national association for people with epilepsy – launched an educational comic book *We'll Make It* (Tekle-Haimanot et al, 2016). This has since been translated into various languages, including French, and used in other African countries (see Figure 10.2). Another comic book (*Guitar Heroes*) has been produced by Sanofi and partners for use in South American contexts (Cicero et al, 2020). This section will discuss the effectiveness of *We'll Make It* in addressing the misconceptions, superstitions, and prejudices of students in Ethiopia and Madagascar about people with epilepsy, drawing upon the findings of analyses by Tekle-Haimanot et al (2016) and Mioramalala et al (2021).

The Sanofi initiative assumed it was possible to educate students about epilepsy by providing them with the necessary information and, as a result, change their attitudes and behaviour towards people with this condition. Comic books can be an effective medium for disseminating such information as the pictures in comic books aid meaning-making and, globally, communication is increasingly visual (Norton, 2003). Comic books also tend to have a high level of acceptability among students as they are not a genre associated with formal education and, indeed, are often disparaged by teachers, parents, and other authority figures. Through

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Figure 10.2: Multiple panel sequence from *We'll Make It*, showing Lamine, the central character, experiencing an absence seizure



Source: From *We'll Make It* (p 12) by P. Genton and V. Ringler (n.d.). Sanofi. Copyright by Sanofi. Reprinted with permission.

reading them together and discussing them afterwards, children can form informal communities, enabling the retention and dissemination of key messages. More generally, comic strips tell stories, and stories not only entertain, but 'teach us how to be human' through assisting us to see the world through other people's eyes and learn about the consequences of our actions (Sanders, 1997, p 11).

Epilepsy is a neurological condition which causes people to have seizures that start in the brain. The causes are complex and can be hard to identify. Some researchers have concluded that the condition is always genetically linked to some extent, but a person may start having seizures for different reasons, including damage caused by head injury, infections, a stroke, or a tumour (Epilepsy Society, 2019). Epileptic seizures can be convulsive in which 'there is a loss of consciousness, the body stiffens and the limbs jerk' or non-convulsive, 'characterized by brief periods of loss of consciousness that may occur many times a day' (Kingsfold Medical Centre, 2025). The latter are sometimes termed 'absence seizures' (Epilepsy Action, 2026). People in low-income countries (LICs) are more than twice as likely to have epilepsy than those in high-income countries because the risk factors are higher, and accordingly, the median lifetime prevalence of epilepsy in LICs is 14 per 1,000 people (Newton & Garcia, 2012). While up to 70 per cent of people with epilepsy can have their seizures controlled if they have access to the

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correct anti-epileptic drugs, in LICs there is an enormous 'treatment gap' due to the fact that people either do not have access to these drugs or are receiving inadequate treatment.

A systematic review of the available literature on epilepsy conceptions in African countries south of the Sahara found widespread misunderstanding about the causes, transmissibility, and treatment of epilepsy (Kaddumukasa et al, 2018, p 25). While people with higher levels of educational attainment tended to be better informed, this was not always the case. In Uganda, 45% of medical students surveyed believed epilepsy was a mental illness. A high percentage of teachers in Ethiopia considered epilepsy a psychiatric illness linked to insanity. Health workers in Ghana reported that epilepsy was contagious, a punishment for social wrongs, and/or due to taboos, spiritual or supernatural causes. Proposed interventions were sometimes dangerous (for example, placing a spoon between someone's teeth or putting a sweet in their mouth during a seizure) and sometimes supernatural rather than medical (for example, sacrificing to the gods or wearing an amulet). As a result of these beliefs, there were high levels of epilepsy stigma in these countries. For instance, in Kano, Nigeria, 25.5 per cent of school teachers were unwilling to have a student with epilepsy in their classes, and, in rural Cameroon, over 60 per cent of adult residents would not allow their children to play with or marry a person with epilepsy.

In Ethiopia, an Amharic translation of the comic book was distributed to 116 students from an urban high school and 110 from a rural high school aged 16 to 20+ (226 students altogether) (Tekle-Haimanot et al, 2016). In Madagascar, a Malagasy version was distributed to 119 students from an urban primary school and 125 from a rural primary school with a mean age of 11.4 (244 altogether) (Mioramalala et al, 2021). In both countries, the same structured Knowledge, Attitudes and Practices (KAP) questionnaire, with some variations, was distributed to the students before and after reading the comic book (see Table 10.1).

As Table 10.1 shows, the comic book had a significant impact in the Ethiopian schools where there was a dramatic fall in the percentages of students believing epilepsy was caused by an evil spirit. Instead, many more students recognized it as neurological condition that could be treated medically, although disappointingly the large majority of students would not put a student having a convulsive seizure into the recovery position – this may partly be because only one of the panels in the comic book showed someone being put into this position but may also be partly because these students still feared physical contact at such times. A large majority reported they were now willing for their siblings to marry someone with epilepsy. The changes were less dramatic in the Madagascan schools. It is plausible that this was because the students were younger and therefore found it more difficult to critically examine their prejudices. It is also likely they found the

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Table 10.1: Comparison of responses to KAP survey of urban and rural students in Ethiopia and Madagascar before and after reading comic book

	Ethiopia				Madagascar			
	Urban school (n=116)		Rural school (n=110)		Urban school (n=119)		Rural school (n=125)	
	Before %	After %	Before %	After %	Before %	After %	Before %	After %
Knowledge								
Epilepsy caused by an evil spirit	56.5	4.6	22.5	7.9	53.7	42.0	48.0	50.4
Epilepsy caused by curse	NA	NA	NA	NA	77.3	89.0	75.2	68.8
Epilepsy caused by brain disease (BD)/head trauma (HT)	13.1	82.7	53.0	87.0	44.5 (BD) 36.9 (HT)	52.1 58.8	45.6 42.4	74.4 58.4
Is epilepsy contagious?								
a) Yes	6.0	10.3	40.9	25.5	68.1	63.9	59.2	33.6
b) No	44.0	87.1	36.4	70.9	22.7	32.8	36.0	55.2
c) Not sure (E)/no answer (M)	50.0	2.6	22.7	3.6	9.2	3.4	4.8	11.2
Awareness of modern medication (E)/effective drugs for epilepsy (M)	37.1	92.2	38.2	97.3	47.9	68.9	49.6	61.6
Attitudes and practices								
To assist someone having a seizure, you should …								
a) Put them in the recovery position	9.8	13.9	10.3	8.9	15.1	21.0	13.6	24.0
b) Call a doctor	4.9	25.2	9.5	64.0	62.1	84.0	68.0	80.8
c) Strike a match	26.2	14.0	11.2	2.6	NA	NA	NA	NA
d) Throw green leaves/water on them	NA	NA	NA	NA	39.5	57.1	65.6	64.8
e) Pray for them	9.1	8.4	12.1	4.4	28.0	45.0	34.0	47.0
Willing to pull someone having a seizure from open fire (E)/move them away from danger (M)	85.3	94.0	92.7	97.3	13.4	15.9	20.0	28.0
If you found out one of your friends suffers from epilepsy, would you …								
a) Ask to be moved to another class?	NA	NA	NA	NA	75.6	71.4	76.8	76.8
b) Avoid contact with them?	NA	NA	NA	NA	77.3	70.5	77.6	83.2
Willing to allow a sibling (E)/support a sibling (M) to marry someone with epilepsy	51.7	81.9	39.1	85.5	45.4	47.9	48.8	48.0

Note: E: Ethiopia, M: Madagascar, NA: Not Applicable.

Sources: Tekle-Haimanot et al, 2016; Mioramalala et al, 2021

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lengthy 40-page comic book with its sophisticated plot and often challenging language somewhat hard to follow. While more Madagascan students were aware that epilepsy had a neurological basis, significant numbers continued to believe it was caused by a curse/evil spirit – in fact the numbers believing it was caused by a curse increased in the urban school from 77.3 per cent to 89.0 per cent. While an increased percentage of students was aware epilepsy is not contagious, significant numbers continued to believe the opposite (63.9 per cent of students in the urban school). The fact that one city-based character in the comic book (Lamine) developed epilepsy after he had encountered another character (Keifa) with epilepsy in a rural setting may have contributed to the resilience of this belief. More students were aware of the value of calling a doctor during a seizure, but many continued to value non-medical approaches, such as throwing green leaves or water over the individual. The large majority of students in both Madagascan schools remained averse to social or physical contact with a student with epilepsy. Post-intervention, significant numbers of students in both countries simultaneously held contrasting, even contradictory, beliefs about the causes and treatment of epilepsy, echoing the findings of a study in East Africa which found it was 'not uncommon' for people to 'use multiple categories of beliefs' when discussing the causes of disability (Stone-MacDonald & Butera, 2012, p 5).

4. Further reflections

In Uganda, *The Good School Toolkit* (GSTK) reduced the levels of school-based abuse experienced by students with disabilities and their peers. In Ethiopia and Madagascar, *We'll Make It* corrected the misconceptions about epilepsy of significant numbers of students. However, both interventions had a limited impact.

4.1 Efficacy of GSTK

GSTK was a sophisticated behaviour change communication intervention which appears to have been informed by social learning theory (as outlined by Briscoe & Aboud, 2012). On the one hand, school stakeholders (staff and students) were provided with responsibility for collaboratively developing a school-wide strategy (thus increasing their sense of ownership of the initiative). On the other hand, they were provided with materials identifying challenges to be addressed and ways of addressing them (thus being provided with supportive scaffolding). Once a strategy was developed, messages were disseminated through processes such as staff trainings and forums such as staff meetings and school assemblies. As a result of these awareness-raising activities, it was anticipated that dedicated teachers would model new ways of interacting with their students inside and outside the classroom, in the

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process encouraging their colleagues to emulate them. Following the good example set by their teachers and inspired to change their behaviour by incentives such as 'Boards of Fame' and events such as 'School Pride Day', students too would start to change the ways they engaged with one another and their teachers. New bodies would be established, such as student courts to deal with minor disciplinary matters, and new practices introduced, such as suggestion boxes and behaviour contracts, to catalyse and institutionalize change in the schools.

While GSTK did not specifically address disability stigma and discrimination, it did not disregard students with disabilities as they possess 'common needs' which they share with their peers (see Chapter 3) – in this case, the need to be treated with kindness, respect, and consideration. Thus, generic initiatives to address school-based abuse can benefit these individuals along with their peers, and may particularly benefit them as they are likely to experience higher levels of abuse. Furthermore, students with disabilities often feature as narrators in the 'cartoon pamphlets' of GSTK, emphasizing their equal moral status and consequent right to have their voices heard. However, generic interventions like GSTK (that is, interventions that are administered to all members of a group whether or not they are disabled) are unlikely to be sufficient when negative attitudes and practices towards people with disabilities are culturally and institutionally embedded and even incorporated into supernatural belief systems (as is the case for albinism and epilepsy in some contexts). This is to some extent confirmed by the GSTK post-intervention data which showed students with disabilities still experienced disproportionate levels of physical abuse over the past week compared to their peers (58.6 per cent of the former opposed to 37.8 per cent of the latter). (Data were not collected on their exposure to other forms of abuse.) There is therefore a strong case for revising GSTK so it is more disability focused.

4.2 Efficacy of We'll Make It

Unlike GSTK, *We'll Make It* was a disability-specific (indeed, a condition-specific) intervention. The pre-intervention and post-intervention responses of the students in Ethiopia indicate that the comic book engaged with widely held misconceptions about the causes, transmissibility, and treatment of epilepsy, with a view to changing attitudes and behaviour towards people with the condition. As discussed in Section 3, the comic book format is an effective medium for capturing children's attention while simultaneously delivering key messages. However, Miormalala et al (2021) believe the comic book would have been more effective if there had been a page of 'Dos and Don'ts' at the end reinforcing these messages. Reflecting on the book's introduction in Mauritius, Altayyar et al (2025) suggested the comic

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book could have been made more locally relevant: for instance, through having characters that looked less generically African and more Mauritian. As Mauritian schools are comparatively ICT-rich environments, messages could also have been delivered through social media or incorporated in computer games.

Unfortunately, the mode of delivery adopted in Ethiopia and Madagascar was pedagogically simplistic. First, it assumed that students, working on their own, had the capacity to extract the underlying messages in the text and pictures. The evidence indicates that this was not the case for a significant minority of students in Ethiopia and a majority of those in Madagascar. Unsurprisingly, in Bolivia, it was found asking groups of students to reenact sections from an epilepsy comic book in front of their classmates was a more effective learning strategy than solitary reading (Cicero et al, 2020). Second, it was assumed that a single activity would be sufficient for the students to internalize the messages, despite evidence that initiatives in the field of epilepsy should take multiple forms, given the complexity of the subject and the social and cultural embeddedness of misconceptions about the condition (Fernandes et al, 2011). As discussed in Section 3, it was found that most students, after reading the book, were still largely ignorant of the need to put someone having a seizure in the recovery position. If students had been provided with opportunities to physically practise this technique with their peers, this might not have been the case. Finally, it would be useful to know if the students were allowed to take the books away with them post-reading. Although this would have made the intervention less sustainable (as new sets of the book would have to be printed for future classes), this would have facilitated the dissemination of messages in schools and communities as the well-thumbed books were passed between readers.

4.3 Need for further learning

It is important that interventions in this field are rigorously researched, so ways of strengthening these interventions, along with key learnings, can be identified (Smythe et al, 2020).

In Uganda, it would have been valuable if qualitative research had been carried out which would have explored in detail how the educational experiences of learners with disabilities had changed as a result of GSTK, with findings disaggregated by age, sex, and type/level of functional difficulty. As a number of approaches in GSTK have been previously employed in Western countries, it would also be interesting to know what forms they actually took in a Ugandan context. For instance, were the positive discipline strategies employed by the teachers in the intervention schools characterized by the extreme reflectivity advocated by proponents of this approach in

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the Global North? (This seems unlikely.) It would also be interesting to know more about the extent and ways in which students actively shaped the delivery of GSTK, given the reported reluctance of children and youth in more traditional societies to participate in decision-making due to social and cultural expectations, institutional contexts, and even apprehension about the consequences of such participation (White, 2007; Bessell, 2009).

In Ethiopia and Madagascar, it would have been useful to know if the students retained the messages from the comic book several months or a year after reading it, and, if so, whether/how they changed their behaviour towards any individuals with epilepsy in their schools and communities. (Even if people know how they should feel and behave towards others, they are not necessarily able to make this transition, especially if their negative attitudes and practices are reinforced by their peers.) It would also have been valuable to obtain the views of students with epilepsy in the schools, as interventions in this field should not only address the 'enacted stigma' expressed in words and deeds by perpetrators but the 'anticipated' and/or 'internalized' stigma experienced by their victims (Cross et al, 2011).

If it is found that such interventions have demonstrated effectiveness, they should be comprehensively described so they can be replicated and, if necessary, adapted to address cultural and contextual particularity (Smythe et al, 2020). As part of this process, project materials should be made publicly available: while this was the case for GSTK, the author was only able to access *We'll Make It* after much searching, as Sanofi did not have a copy of the PDF available to share.

5. Conclusion

This chapter has sought to identify ways in which the international development community (IDC) can address the school-based abuse of students with disabilities. It began by explaining why these individuals often experience disproportionate levels of such abuse and identifying the forms it takes, before discussing three contextual studies of this abuse. In the light of this analysis, a model was developed identifying the variables shaping the prevalence, severity, and types of abuse experienced by these individuals. The chapter then discussed two interventions which addressed this problem. In Uganda, this took the form of a generic intervention (GSTK) that sought to reduce the prevalence of abuse among all students, disabled and non-disabled. In contrast, the Ethiopian and Madagascan intervention (*We'll Make It*) targeted epilepsy misconceptions, superstitions, and prejudices: that is, the potential causes of abuse. In the case of Uganda, the intervention involved a series of activities carried out over an extended period of time involving entire school communities and impacting on multiple elements of school functioning. In Ethiopia and Madagascar, it took the form of a

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single, classroom-based measure (the children read an instructional comic book in class). While the toolkit significantly reduced the prevalence of physical abuse among students with disabilities, they still continued to experience disproportionately high levels of such abuse. While the comic book changed the expressed beliefs and attitudes of significant numbers of students, many students (particularly the younger students in Madagascar) remained misinformed about epilepsy and antipathetic towards people with this condition. This illustrates the social and cultural embeddedness of disability stigma and discrimination, particularly when directed towards people with certain conditions, such as epilepsy and albinism. It therefore shows the need for interventions in this field to be carefully designed, precisely targeted, adequately resourced, and rigorously evaluated. Learning from such initiatives should be disseminated as widely as possible, along with informational materials of proven effectiveness.

The next chapter synthesizes learning from the book and, in the light of that synthesis, identifies the best ways in which IDC can promote sustainable inclusive education of good quality for learners with disabilities in low- and middle-income countries.

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11

Concluding Thoughts

1. Introduction

This book has discussed the work of the international development community (IDC) in the field of disability and education.

To do so, it began by mapping existing educational realities (Chapters 1–4): that is, the extent to which learners with disabilities in low- and middle-income countries (LAMIC) are able to access education provision which meets their multiple needs and the factors contributing to this state-of-affairs. It then assessed the extent to which the political economy of disability, education, and international development enables IDC to engage with these realities (Chapters 4–5). Finally, it reviewed the work of IDC in various technical areas (Chapters 6–10). In each of these technical areas, recommendations were made for improving the quality of IDC's work.

2. Educational realities for learners with disabilities

The book has proposed that education provision should promote 'human flourishing' and therefore should not be only enjoyable in itself but also provide learners with disabilities with the capacities to lead meaningful and fulfilling lives in their communities. For this to be possible, learners with disabilities should access a continuum of provision, starting with early childhood care and education (ECCE) delivered in home and community settings and extending to primary and secondary schooling and beyond. This provision should meet the pedagogical needs of these individuals that are 'common' (shared by all learners, disabled and non-disabled), 'specific' (shared by learners with similar types and levels of functional difficulty), and 'individual' (reflecting their multi-faceted individuality) (Corbett & Norwich, 1999). It was noted that some learners with disabilities have more complex 'specific' and 'individual' needs than others, necessitating intensified, supplementary, or even alternative education provision.

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Due to poverty, social isolation, and a lack of support services, primary caregivers in LAMIC often struggle to provide young children with disabilities and young children at risk of becoming disabled with the nurturing care necessary for their cognitive, social, emotional, and physical development (Milner et al, 2019; Smythe et al, 2024). Subsequently, these children are more likely to be excluded from pre-primary, primary, and secondary education, or, if enrolled, more likely to drop out early and achieve poor educational results (UNICEF, 2021). This can be attributed to the interaction of supply and demand factors. Examples of the former are non-inclusive curricula and pedagogical practices, as illustrated in the case study of a Papua New Guinea school in Chapter 3. Examples of the latter are negative social attitudes and practices and the associated costs of education, as discussed in Chapter 2. Certain groups of learners are particularly educationally disadvantaged. These include learners with certain types, levels, and combinations of functional difficulties. They also include girls, those living in rural locations, and those from particularly socio-economically disadvantaged backgrounds (again, see Chapter 2). While there is evidence that the educational situation for learners with disabilities in certain African countries has improved in recent decades, the 'disability gap' between them and their peers has actually widened during this period (Wodon et al, 2018).

3. Political economy of disability, education, and international development

Large swathes of IDC are formally committed to promoting inclusive education of good quality for learners with disabilities in LAMIC in accordance with Article 24 of *United Nations Convention on the Rights of Persons with Disabilities* (CRPD) and Sustainable Development Goal 4 (SDG 4). However, this book, while recognizing the value of Article 24 and the influential General Comment 4 (GC4) on Article 24, has raised concerns about these discursive formations, particularly GC4: namely, the lack of appreciation of alternatives to full mainstreaming (the sensitivity critique); the lack of consideration for informal and non-formal education, particularly early learning (the sufficiency critique); and the impracticability of some of the strategies proposed for making education systems more disability inclusive (the feasibility critique). Many international development agencies are also failing to fulfil their commitments, given the lack of donor investment in the education of learners with disabilities and the marginalization of disability in projects and programmes. Furthermore, these commitments have been undermined by the countervailing agenda of the World Bank-led Global Education Reform Movement.

Even when IDC is willing to invest in disability inclusive education, international development is distorted by structural inequalities of wealth, power, and influence – inequalities which can exist within as well as between

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organizations. These inequalities can exist between stakeholders in the Global North, such as donors and grant-dependent international NGOs, but characteristically take the form of inequalities between stakeholders in the Global North and Global South – illustrating the impact of colonialism, postcolonialism, and globalization on international relations. Such inequalities inhibit the development of authentic 'two way' partnerships, and consequently projects and programmes which are sensitive to context, culture, and the situated needs of learners with disabilities (see Crossley, 2019). Local organizations of people with disabilities (OPDs) in the Global South are particularly disadvantaged in this respect. These structural inequalities are reinforced by the systems of international development – such as education sector planning processes which can be overly influenced by large donors and stifle the voices of local civil society organizations (such as OPDs), along with the project cycle management framework which can impose a rigid structure on development initiatives. However, these hegemonic pressures are counterbalanced by the diversity of the organizational eco-system (the ecological perspective), the capacity of local stakeholders to achieve a certain autonomy (the agential perspective), and the capacity of IDC to reform itself from within (the constructivist perspective). Furthermore, disability-focused actors, including OPDs, are increasingly able to hold IDC and ministries of education in LAMIC to account in disability summits and other forums, despite the lack of mechanisms enforcing the implementation of CRPD and the SDGs on national governments and IDC.

4. Technical work of the international development community

Having provided an overview of the political economy of disability, education, and international development, the book assessed the work of IDC in various technical areas: system-strengthening; capacitating Education Management Information Systems (EMISs); pedagogical reform; educational resourcing; and addressing the school-based abuse of students with disabilities.

4.1 Education system-strengthening

Chapter 6 discussed a Foreign, Commonwealth & Development Office (FCDO) funded system-strengthening programme in Sierra Leone: the Sierra Leone Secondary Education Improvement Programme II (SSEIP II). This showed the value of the Strengthening Education System Approach (SESA) as SSEIP II identified key elements in the education system which if strengthened would promote educational access and quality for secondary-aged learners with disabilities across the country. To complement this, SSEIP II established a new catalytic element within the education system: the

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National Technical Advisory Committee. However, it was posited that SSEIP II's impact on the Sierra Leone education system will be constrained by internal limitations and external challenges. The former includes SSEIP II's limited budget and FCDO's decisions to terminate the programme two years early and not to fund community-focused Pillar 3. The latter includes the multi-level fragility of the education system, the lack of disability-specific services, and deep-seated stigma and discrimination. As a result, it was posited that the benefits of SSEIP II are likely to be particularly marginal for learners with more severe and complex disabilities, especially as SSEIP II was not designed with those learners in mind – and instead focused on maximizing the total number of beneficiaries. In passing, it should be noted that while SESA has largely displaced the project-based approach in international development, SSEIP II was informed by learning from a previous project in Sierra Leone, indicating the two approaches can be synergetic rather than antithetical. Moreover, projects can provide opportunities for schools to pilot contextually appropriate forms of provision, enabling endogenous models of disability inclusive education to emerge.

4.2 Capacitating EMISs

Chapter 7 showed the need for IDC to rigorously pilot innovative approaches before advocating for their replication and scale-up in Education Management Information Systems (EMISs). In this case, teachers in Sierra Leone were required to collect disability disaggregated student data using two versions of the Washington Group Questions – the Teacher Version of the Child Functioning Module and the Washington Group Short Set of Questions. Based on analysis of the data collected and feedback from the teachers, it was found the teachers struggled both to identify students with certain domains of functional difficulty and to assess their levels of functional difficulty across all the domains. Similar challenges were encountered in pilot projects in Senegal, Uganda, Nepal, and Fiji. This illustrates the dangers of IDC pressurizing or incentivizing ministries of education (MoEs) to delegate additional disability-related responsibilities to EMISs when these EMISs have very limited capacity – unless IDC is willing to make the necessary short-, medium-, and long-term investments in these EMISs and their associated systems and structures. MoEs also need to possess the capacity to act on EMIS findings: that is, to design and implement evidence-based initiatives that sustainably improve educational access and quality for learners with disabilities.

4.3 Pedagogical reform

Chapter 8 assessed three pedagogical approaches promoted by IDC in terms of their inclusiveness, feasibility, and transmissibility: a visual

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impairment-focused version of Care for Child Development (CCD-VI), Teaching at the Right Level (TaRL), and Universal Design for Learning (UDL). Concerns were expressed about the practicability of UDL due to the considerable demands it places on education systems, as well as its acceptability in more traditional societies, given UDL's individualistic ethos and constructivist epistemology. While CCD-VI was developed with high levels of local participation and was successfully piloted in Malawi, fragile early childhood care and education (ECCE) systems in LAMIC are unlikely to possess the capacity to roll out this package despite CCD-VI's adaptability and simplicity. TaRL is an approach of proven effectiveness which has been implemented in numerous LAMIC. However, it needs to be adapted to meet the needs of those learners with disabilities who require pedagogical accommodations and modifications (terms defined in Chapter 3) and other forms of support. The chapter ended by identifying ways in which IDC could work more effectively in this field and by providing a case study of contextually appropriate ECCE approaches for children with autism in India.

4.4 Educational resourcing

Chapter 9 discussed two initiatives – one in Zambia, the other in India – which provided students with visual impairment with increased access to functionally and contextually appropriate Educational Resources, or EdRes (resource promotion). The initiatives also sought to create the conditions that would enable these learners to use these EdRes effectively, both now and in the future (resource enablement). However, due to contextual realities and donor conditionalities, there were significant differences between the initiatives in terms of the types of EdRes promoted and levels of government ownership and civil society participation. Although both projects were strategic, it would have been valuable if field-based research had been carried out which would have sensitively analysed resource usage in depth and detail. Without such learning, there is a danger that IDC will succumb to 'techno-centrism' – the uncritical transfer of high-tech EdRes (EdTech) from the Global North to the Global South, irrespective of whether it meets the real-life needs of learners with disabilities and is contextually and culturally appropriate.

4.5 Addressing school-based abuse

Chapter 10 discussed two interventions supported by IDC, one in Uganda and the other in Ethiopia and Madagascar, which addressed negative attitudes and practices towards children and youth with disabilities. The former (*The Good School Toolkit*) consisted of a series of activities implemented over an extended period of time designed to reduce the prevalence of abuse in the intervention schools, as experienced by both students with disabilities and their peers. The

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latter (*We'll Make It*) consisted of a single, epilepsy-focused activity (children read an instructional comic book in class). While the former reduced the prevalence of physical abuse among students with disabilities, they continued to experience disproportionately high levels of such abuse. While the latter positively impacted on the beliefs and attitudes of significant numbers of students (particularly in Ethiopia), it had little or no effect on others (particularly in Madagascar). The limited impact of the two initiatives illustrates the need for interventions to take into account the resilience of disability stigma and discrimination in certain contexts, particularly when it is socially and culturally embedded and directed towards students with certain impairments and conditions.

4.6 Reflection

In light of the preceding analysis of the work of the international development community (IDC) in selected technical areas, various learnings emerge – namely, the need for:

1. Sustained, sufficient, and targeted investments in education systems to significantly improve educational access and quality for learners with disabilities, given the fragility of these systems and challenging contexts of implementation, particularly in low-income countries.
2. Development initiatives to be as contextually and culturally sensitive as possible, rather than uncritically transfer policy and practice from the Global North to the Global South.
3. Such initiatives to build on existing systems as much as possible, rather than replace or seek to 'transform' what is already there.
4. IDC to recognize and respect the situated, often tacit knowledge of local stakeholders, and thus enable disability inclusive education to emerge from the 'ground-up', rather than be imposed from the 'top down'.
5. IDC to recognize that learners with disabilities should access a continuum of education from early childhood onwards delivered in a variety of settings by primary and secondary caregivers.
6. Development initiatives to acknowledge the strength of the stigma and discrimination experienced by these learners in various contexts, particularly those with certain impairments and conditions.
7. IDC to address the disproportionately high levels of educational exclusion and marginalization experienced by certain demographic groups, especially learners with severe and complex disabilities.
8. IDC to recognize that learners with disabilities have 'common', 'specific', and 'individual' needs (see Chapter 3), and be sensitive to that complexity.
9. IDC to provide meaningful, accessible, and non-exploitative opportunities for these learners to express their views and concerns, whenever possible and appropriate.

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10. Interventions in this field to be knowledge-based and generate knowledge, while recognizing the precarity of this knowledge and the challenges involved in capturing, documenting, and disseminating it.

For these ends to be achieved, the political economy of disability, education, and international development will need to change (see Section 3). Specifically, it will need to be less stratified by inequalities (structural change) and more collaborative, participatory, and dialogic in terms of its procedures, practices, and cultures (systemic change). Alongside this, agents and agencies will need to be more committed to the well-being of learners with disabilities, as well as more open-minded and enquiring, and thus willing to challenge established assumptions about the needs of these learners and the best ways these needs can be met (discursive change). Having made this commitment, IDC must convert rhetoric into reality.

5. Conclusion

At the start of this book, an interactive model of disability was outlined that posits disability results from the interaction of various factors, including types and levels of impairment, personal characteristics, and social factors. This model explains why children and youth with disabilities in low- and middle-income countries face disproportionate levels of educational marginalization and exclusion. It also explains why they are often denied other forms of social provision, such as health care, sanitation, and adequate nutrition. Post-education, these individuals continue to encounter barriers that impact on their ability to enjoy meaningful and satisfying lives and, in many cases, experience a minimum standard of living. These barriers can be placed in the immediate context of the communities in which they live but, to be properly understood, should also be placed in national, regional and global contexts. In such circumstances, educational development, however effective, can only have a limited impact. Instead, there is a need for a much broader range of interventions, along with a reordering of the social, economic, and political arrangements that oppress people with disabilities around the world, as well as other marginalized demographic groups.

However, pragmatic, realization-focused approaches in the field of international development recognize that agents and agencies can only do what is practicably possible, given their capacities, the resources at their disposal, and their spatiotemporal locations. Furthermore, effective interventions in the field of disability and education not only bring immediate benefits for children and youth with disabilities, along with their families, but promote wider social change through empowering these

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individuals, breaking down barriers between them and their peers, and publicly acknowledging their equal moral status and educational potential. Sen (1999, p 298) has described development as 'a momentous engagement with freedom's possibilities'. This book describes the forms this engagement can take in the field of disability and education.

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Glossary

assessment

Can take various forms (for example, educational, clinical, functional), be carried out in different contexts (for example, the home, the school, the health centre), and involve a variety of procedures, instruments, and actors. Skilled and sensitive assessment can provide valuable information about learners with disabilities and lead to improved education provision, as long as primary and secondary caregivers are provided with the support to make good use of this information.

assistive technology

Refers to devices and products primarily designed for people with disabilities. Chapter 9 explains the differences between assistive, accessible, and majority technology.

bilateral/multilateral organizations

Bilateral organizations, such as the Foreign, Commonwealth & Development Office (FCDO) and United States Agency for International Development (USAID), are government agencies that provide development assistance directly to another country. Multilateral organizations, such as the World Bank and United Nations Children's Fund (UNICEF), are multi-country organizations that address global challenges.

braille

A form of written language for people who are blind or severely visually impaired, in which letters, words, numbers, punctuation

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	marks, and mathematical symbols are represented by patterns of raised dots that are felt with the pads of fingers.
children/youth	United Nations defines a child as any person under the age of 18, unless national laws recognize an earlier age of majority. For statistical purposes, United Nations applies the term youth to anyone aged between 15 and 24.
Community-Based Rehabilitation (CBR)	'CBR is a strategy within general community development for the rehabilitation, equalization of opportunities and social inclusion of all people with disabilities … CBR is implemented through the combined efforts of people with disabilities themselves, their families, organizations and communities, and the relevant non-governmental, health, education, vocational, social and other services' (International Labor Office [ILO], UNESCO, & WHO 2004, p 2).
curriculum/ plus-curriculum	Curriculum refers to the full range of learning opportunities available to students. Plus-curriculum refers to the additional learning opportunities sometimes required by students with disabilities. For instance, children with communication difficulties can benefit from speech and language therapy.
duty-bearers	Those individuals defined in international law as having obligations for the respect, protection, and fulfilment of the rights of rights-holders, or having obligations for the delivery of certain duties to rights-holders. The state is the primary duty bearer, as well as those employed by the state. Other duty bearers include parents, carers, and guardians.

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early childhood care and education (ECCE)	Refers to the provision of learning opportunities and other forms of support for young children (aged 0–8). ECCE is provided in the home and the community by family members, community members, and professionals.
Education Management Information Systems (EMISs)	Systems for the collection, storage, processing, and analysis of educational data – for instance, data on student enrolment and on transition and completion rates. Ideally, EMIS data should be used to inform policy-making and implementation at all levels of education systems.
Education Sector Plans (ESPs)	Developed by ministries of education (MoEs), in association with their development partners, these identify MoEs' aims and objectives in the field of education, the measures which will be adopted to achieve these aims and objectives, and the financial implications of these measures. ESPs are based on Education Sector Analyses (ESAs).
enrolment	When someone is registered in a formal programme of education.
formal/non-formal/ informal education	Formal education occurs within established education systems and leads to formal accreditation and transition from one type of learning institution to another. Non-formal education occurs outside established education systems and often complements the learning provided through formal education. Informal education is the natural accompaniment to everyday life – for instance, the learning that children acquire in their homes and communities. Chapter 4 discusses this in more detail.
gender parity/equity	In terms of schooling, gender parity means the same proportion of girls and boys enter

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and complete school. Gender equity is a broader and more significant aspiration, as it is concerned with the provision of educational and post-educational opportunities of good quality for both sexes.

Global Education Reform Movement (GERM)

GERM emerged in the 1980s and is increasingly influential in education systems around the world, including those in low- and middle-income countries. According to Sahlberg (2012), the key elements of GERM are a focus on:

1. *Core subjects*: schools should particularly focus on literacy and numeracy instruction.
2. *Standardization*: schools, teachers, and students are expected to meet pre-set performance standards.
3. *Test-based accountability*: to determine if schools, teachers, and students are meeting these standards, standardized tests, and external evaluations are necessary.
4. *Teaching-to-the-test*: pedagogical approaches should focus on providing students with the skills and knowledge to perform effectively in tests.
5. *Policy-borrowing*: approaches that are successful in one context (such as particular teaching and learning strategies) can work equally successfully in other contexts.

Global South/Global North

Global South is a term used to describe low- and middle-income countries in Africa, Asia, Latin America, and the Caribbean that face challenges such as poverty and limited education and healthcare systems. Global North is a term used to describe more technologically advanced, high-income countries, primarily in North America and Europe. While the term refers to the geographical position of these countries, it also refers to the extent to which and ways in which present-day realities in these countries

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	reflect their shared experience of colonialism, postcolonialism, and globalization.
impairment/disability	According to the World Health Organization (n.d.), impairments are 'problems in body functions or structures'. In contrast, disability is 'a complex phenomenon, reflecting the interaction between features of a person's body and features of the society in which he or she lives'. WHO's interactive model of disability is discussed in Chapter 1, as are other models of disability.
inclusive education (IE)	According to Article 24 of CRPD, inclusive education involves the presence, participation, and achievement of learners with disabilities in their regular community schools. This is only possible if these individuals receive necessary 'reasonable accommodation', 'individualized support', and 'access to alternative modes, means and formats of communication' (UN, 2006). This book critically engages with this conceptualization to produce a revised conceptualization in Chapter 4 which encompasses longitudinal, environmental, pedagogical, phenomenological, and consequential inclusion.
Individual Education Plans/Programmes (IEPs)	Describe the extra educational support that students with disabilities/special educational needs will receive over a specified period of time – namely, the forms this support should take, who should provide it, where it should be provided, what resources will be involved, and how the progress of the student will be measured. Ideally, IEPs should be collectively developed and monitored by all concerned stakeholders, including the student.
integrated education	Occurs when learners with disabilities/ special educational needs attend mainstream schools, but do not participate fully in the

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	life of these schools. For instance, they might be periodically withdrawn from certain subjects in order to receive specialist tuition in a resource room.
intersectionality	Refers to the ways in which various factors interact to shape the experiences of people with disabilities. For instance, a student with a disability may face discrimination not only because of their disability but also because of their gender and socio-economic background.
itinerant teachers	Travel from school to school, providing support for students, their teachers, and their families.
mainstreaming	The enrolment of students in mainstream schools. It is important to note that mainstreaming does not necessarily lead to educational inclusion for students with disabilities, as these children may not be fully included in the lives of the schools they attend.
manipulatives	Objects that can be grasped and manipulated as well as scrutinized and thus promote multi-sensory learning. They include tangrams, abacuses, protractors, marker pens, wooden blocks, fraction bars, markers, coins, probability spinners, flashcards, tactile symbols, magnetic words, and colouring sheets.
organizations of persons with disabilities (OPDs)	Organizations in which people with disabilities provide leadership and constitute the majority of the staff, board members, and volunteers.
orientation and mobility (O&M)	Children with visual impairment need to learn orientation and mobility skills. These skills enable these children to travel from one place to another safely and easily, either

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	independently or accompanied by another person. As part of their O&M training, these children may need to learn white cane skills – that is, the particular set of skills which enables them to make effective use of a white cane.
pedagogy	Pedagogy refers to the 'act', 'discourse', and 'craft' of teaching (see Chapter 8).
primary/secondary caregivers	'Primary caregivers' refers to the people who provide the majority of care and support for a child – typically, their parents or guardians. 'Secondary caregivers' also provide care and support but are not the main caregivers. Teachers are examples of secondary caregivers.
ratification (of treaties)	The action of giving formal consent to a treaty (that is, a formal international agreement) after it has been signed, making it officially valid. Normally, a treaty only applies to a state after it has both signed and ratified by the state, such as through a vote in its parliament. Some treaties require a minimum number of ratifications before they apply to any state.
reasonable accommodation	Are the adaptations and adjustments schools and colleges must make to accommodate students with disabilities. These should not impose 'a disproportionate or undue burden' on the learning institution, according to CRPD (UN, 2006, Article 2).
resource rooms	Students with disabilities/special educational needs may be taught separately from the other students in resource rooms by resource teachers for either part or the whole of the school day. Resource rooms are associated with integrated education.
social inclusion	Much broader than educational inclusion, and refers to the inclusion of people with disabilities into every aspect of social life.

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special educational needs (SEN)

Students with SEN are regarded as having particular educational requirements due to the impact of their impairments/conditions on their functioning. They may therefore require additional assistance, assistive technology, adapted pedagogies and curricula, Individual Education Plans (IEPs), and so on.

special schools

Schools reserved for students with disabilities. Traditionally, special schools have been residential and have tended to cater for students with particular types of impairment.

stigma and discrimination

In this book, stigma refers to negative beliefs about people with disabilities based on ignorance and fear. Discrimination refers to the forms that stigma takes in practice.

Sustainable Development Goals (SDGs)

The SDGs are 17 global goals adopted by all United Nations member states in 2015 as part of *The 2030 Agenda for Sustainable Development*. They are a shared blueprint for peace and prosperity for people and the planet, to be achieved by 2030. SDG 4 focuses specifically on education.

transition/progression/completion

Transition refers to the movement of students from one academic year to the next or from one phase of education to another (for example, from primary school to secondary school); progression refers more generally to the movement of students through education systems (Dunlop & Fabian, 2002). Completion refers to the successful completion of a full cycle of education by students – for example, a full cycle of primary education.

twin-track approach (TTA)

In this book, TTA is defined as a twofold approach for promoting disability inclusive

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education. On the one hand, TTA involves strengthening the capacity of education providers to deliver a better standard of education for all learners, including those with disabilities. On the other hand, it involves strengthening these providers so they meet the 'specific' and 'individual' educational needs of learners with disabilities more effectively.

United Nations Convention on the Rights of Persons with Disabilities (CRPD) (2006)

United Nations Convention on the Rights of Persons with Disabilities (CRPD) is an international treaty aimed at ensuring the human rights of people with disabilities are upheld. It emphasizes that people with disabilities should enjoy the same rights and freedoms as everyone else, and it promotes their full and equal participation in society.

universal design

CRPD defines universal design as 'the design of products, environments, programmes, and services to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design. 'Universal design' shall not exclude assistive devices for particular groups of persons with disabilities where this is needed' (UN, 2006, Article 2). Schools which reflect universal design principles are therefore accessible and 'learning-friendly' for all, not just in terms of their buildings and grounds but in terms of every aspect of education provision. Universal Design for Learning is the application of universal design principles to teaching and learning.

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Notes

Introduction

[1] Cavalcanti et al (2025) estimated the USAID cuts will cause the deaths of 689,900 children younger than 5 years in 2025 and 4,537,157 by 2030. It is plausible that many more children than this will survive the experience of disease and malnutrition but be left permanently disabled.

[2] 'A humanitarian setting is one in which an event (for example, armed conflict, natural disaster, epidemic, famine) or series of events has resulted in a critical threat to the health, safety, security and well-being of a community or other large group of people' (Khasnabis et al, 2010, p 1).

Chapter 2

[1] United Nations defines a child as any person under the age of 18, unless national laws recognize an earlier age of majority. This definition is primarily based on the *United Nations Convention on the Rights of the Child*.

Chapter 3

[1] An extended version of this case study was published as an open access article in *International Journal of Educational Development* in 2025.

[2] Tok Ples: Indigenous language.

[3] It would not have been possible to use Tok Ples as the sole or principal language of classroom communication because the students came from different parts of the country and therefore spoke different Tok Ples.

[4] The lesson observation was carried out in the morning when academic subjects were taught. In the afternoon, when arts and physical education were taught, the activity setting would have taken freer, less desk-bound forms.

[5] We saw no signs of bullying of children with disabilities in the school. However, outside lessons, the deaf children socialized with their deaf peers in other classes, as they were unable to converse freely with their hearing classmates who knew little or no sign language.

[6] In Papua New Guinea, classes can be much larger than this. A study of another urban school found classes sizes varied from 50 to 88 (Loh Epri, 2016).

Chapter 4

[1] A communication board is a sheet of symbols or images that a child can point to when communicating with others.

[2] *African Protocol on the Rights of Persons with Disabilities* similarly decrees States Parties should ensure 'appropriate schooling choices are available to persons who may prefer to learn in particular environments' (African Union, 2018, Article 16.3e).

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[3] This section has wrestled with what Norwich (2008, p 7) has termed 'dilemmas of difference'. On the one hand, identifying children as having a disability and then providing them with access to a modified curriculum and educating them for at least part of the time in an alternative location can mean their specific needs are more effectively addressed. On the other hand, it may mean these children are more stigmatized and socially isolated – although, as Gregorius (2016) has described, the opposite can be true. Unless education authorities are careful, it may also mean they have less access to a broad and balanced curriculum.

[4] Article 24(3) only obliquely refers to early learning when it says persons with disabilities should be provided with opportunities 'to learn life and social development skills'. Article 26(1) merely says States Parties should strengthen 'habilitation and rehabilitation programmes', including those in the field of education.

Chapter 5

[1] Although obtaining the necessary authorization from FCDO can be a laborious and time-consuming business, in the author's experience.

Chapter 6

[1] The ASC figure is not only low because large numbers of children and youth with disabilities are out of school but because those enrolled in education are not being identified by ASC (see Chapter 7).

[2] *Leh Wi Lan* is Krio for 'Let Us Learn'.

[3] Unfortunately, OPD participation in JMVs has proved challenging as there are no funds aligned to these visits and locations are often difficult to access (H. Higginson, personal communication, 22 September 2025).

[4] Sometimes secondary health services provide outreach services for communities, such as eye camps. However, these are often dependent on intermittent donor-funding.

Chapter 7

[1] For instance, in those countries in which children and youth with albinism experience particularly high levels of stigma and discrimination, it makes sense to track their progress within education systems.

[2] In Nepal, CFM-TV was translated into Nepali. Consequently, in areas where Nepali was not the language of instruction, teachers tended to find it harder to understand the tool.

Chapter 8

[1] The term children with visual impairment covers both children who are blind and children with low vision. The former have a visual acuity of 3/60 or worse, or a corresponding field loss to less than 10° in the better eye with best possible correction, while the latter have a visual acuity of less than 6/18 but equal to or better than 3/60, or a corresponding visual field loss of less than 20° in the better eye with the best possible correction (WHO, 2007a). A significant minority of these children have additional disabilities – for instance, have dual sensory loss or a cognitive impairment.

[2] According to Daley (2004) and White (2007), the relationships between mothers and young children in India and Bangladesh have traditionally been characterized by high levels of social relatedness.

[3] For simplicity's sake, this section focuses on TaRL's approach to reading.

[4] This explains why UDL is closely associated with information technology, as computer-based learning enables learning materials and activities to take diverse forms which continually change according to student responses and inputs.

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5 For instance, group work is very hard to organize in noisy, crowded classrooms.
6 It is acknowledged that while the expression 'people with autism' reflects international usage, the term 'autistic people' is often preferred by people with this condition in the UK, as they see autism as a fundamental part of their identity.
7 Makaton is a unique communication programme that combines symbols (pictures), signs (gestures), and speech.

Chapter 9

1 Print disability is defined as a difficulty or inability to read printed material due to perceptual, physical, or visual difficulties. People who lack the manual dexterity to physically handle books can therefore be regarded as print disabled, as can those with a specific learning difficulty such as dyslexia (to provide two examples).
2 See Glossary.
3 Bemba for 'Let's Learn Together'.
4 DAISY is an acronym for 'Digital Accessible Information System'. DAISY players are digital reading systems which help make audio books accessible to people with visual impairment.
5 INDO-NVDA is based on the NVDA (Non-Visual Desktop Access) software developed by two software designers in Australia who are themselves blind. NVDA can be downloaded free of charge and is used by people with visual impairment and others with print disabilities all over the world.
6 Scheme of Assistance to Persons with Disabilities for Purchase/Fitting of Aids/Appliances.

Chapter 10

1 Particularly Articles 3, 19, 23, 28, 29, 32, and 34.
2 Particularly Articles 12, 16, and 24.
3 It should be stressed that school-based abuse of learners with disabilities is not a phenomenon confined to the Global South. In the United States, a study found a prevalence rate of 'bully victimization' ranging from 24.5 per cent in elementary schools to 34.1 per cent in middle schools (Blake et al, 2012).

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