HEART
HEALTH & EDUCATION ADVICE & RESOURCE TEAM

Inclusive Learning

Children with disabilities and difficulties in learning

Topic Guide

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Photo on front cover: Teacher helping blind student write, Sudan © Albert Gonzalez Farran / UNAMID

Introduction

Inclusive learning is the result of effective teaching practice, an adapted learning environment and teaching approaches which ensure that all children are included, engaged and supported.

This HEART Topic Guide brings together evidence on what works in inclusive learning for children aged 3 to 12 years with disabilities[1] and/or difficulties in learning[2] in low and middle income countries, and explores the role of inclusive approaches in contributing to inclusive societies and ultimately inclusive growth. The Topic Guide addresses some of the contested and debated issues around terminology, labelling, and segregated, integrated and inclusive schooling; reviews the limited evidence that exists from low and middle income countries around the outcomes of inclusive learning; and identifies future research directions.

The evidence underpinning inclusive learning in low and middle income countries is weak and fragmented. In the absence of systematic reviews of high quality, the body of evidence cited here includes empirical studies and conceptual research considered to be of good quality. The evidence is summarised for each section, and includes a range of sources from UN agencies, international non-governmental organisations and academic studies.

Although the primary focus of the Topic Guide is on inclusive learning for children who are at risk of failure and educational exclusion due to their disability or their difficulties in learning, the approaches and evidence discussed have the potential to benefit the learning of children from all disadvantaged or marginalised areas or groups, such as children from remote or nomadic populations, children living in conflict-affected states, malnourished children, and children from linguistic, ethnic or cultural minorities. It has often been said that by meeting the needs of children with disabilities, the needs of all children will be met.

The broader context

Unprecedented progress has been made in addressing barriers to universal basic education, including the achievement of a large proportion of primary school enrolment in East Asia and North Africa and gender parity in enrolment in Latin America and the Caribbean, South Eastern and Southern Asia (UNESCO, 2013). The abolition of school fees has rapidly accelerated progress in many countries, ensuring that the number of children out of school around the world almost halved between 2000 and 2011, dropping from 102 million to 57 million.

Strategies to achieve mass access to education have made schooling a reality for boys and girls from urban centres, high income households and for those fortunate enough to live in countries where supply and demand side factors have created opportunity for equitable and meaningful access to

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[1] The Topic Guide uses the term 'children with disabilities', as it is now more commonly used internationally - it is argued that this emphasises that people with disabilities are 'people first'. However the term, 'disabled children', is commonly used in much of the literature cited.

[2] The term 'difficulties in learning' is used in the Topic Guide to refer to children who may experience difficulties at different stages in their school career leading to failure and/or dropping out – this includes children who may be malnourished and have related cognitive difficulties. Some children who experience difficulties in learning may also have a disability, but not all children with disabilities have difficulties in learning. The terms 'special needs' and 'special educational needs' (SEN) are sometimes associated with educational failure or low academic ability, and often used interchangeably with disability.

quality education (CREATE, 2008). For example, in the period 2006-2009, Lao People's Democratic Republic (PDR), Vietnam and Rwanda all reduced their out-of-school populations by 85% (UNESCO, 2014) and considerable progress was made in increasing net enrolment by more than 25% in Benin, Bhutan, Burkina Faso, Ethiopia, Guinea, Mali, Mozambique and Niger between 1999 and 2009 (UN, 2011). Such gains come as a result of the transformative momentum brought to bear by international commitment, government policies, civil society engagement and economic growth (UN, 2013b).

However, factors affecting disadvantage rarely act in isolation. Gender often interacts with poverty and geographical location to create even greater disadvantage in learning opportunities within countries. In 2011, in Ethiopia, wide disparities were evident between the proportions of girls and boys who had ever been to school. In Addis Ababa, almost all children from rich households had been to school, while 43% from the pastoralist region of Afar had never done so. These disparities become amplified when comparing the situation of girls and boys from the poorest households living in Afar, where two thirds of poor girls (65%) had never been to school compared with around one half of poor boys (53%) (UNESCO, 2013: 4). Gender also interacts with disability to create disadvantage for girls with disabilities, for example, Lynch et al. (2014) reported that the number of girls with albinism attending resource centres in Malawi is significantly lower than boys.

Progress has stalled

Global net enrolment increased at a slower rate than in previous years, from 87% in 2005 to 89% in 2011 (UNESCO, 2013: 1). Between 2008 and 2011, the number of out-of-school children fell by only 3 million (UN, 2013a), a rate too slow to achieve the Education for All (EFA) target of 97% enrolment by 2015. Sub-Saharan Africa is the region which is furthest behind. No progress has been made since 2011, when 22% of primary school age children were still out of school. On current rates of progress, 53 million children across the world are expected to remain out of school in 2015 (UNESCO, 2014: 52-53). This is in spite of a number of landmark reports which raised the alarm on the failure to reach marginalised girls and boys, including the Education for All Global Monitoring Report 2010 (UNESCO, 2010), the Millennium Development Goals (MDGs) progress report in the same year (UN, 2010) and the first ever World Report on Disability (WHO, 2011).

Fee-free schooling has not been a panacea for the achievement of universal enrolment and many social, cultural, geographic, linguistic and economic barriers remain to be able to include all children. Of the 57 million children currently out of school, 49% will never enter school, 23% have dropped out and 28% will start late (UNESCO, 2013: 3), and at least 250 million children cannot read or count, even if they have spent 4 years in school (UNESCO, 2012). Millions of children remain untouched by the benefits of economic growth and the gains brought by progress towards the MDGs.

Children living in countries affected by armed conflict make up more than half of the out-of-school population, but little is known about those who have disabilities, either prior to, or as a direct result of, the conflict. Afghanistan, the Democratic Republic of Congo, Somalia and pre-secession Sudan all have out-of-school populations over 1 million (UNESCO, 2014: 55). Girls, whose education is often considered of less value than boys', make up 54% of those out of school. That figure increases to 60% in Arab states, a proportion that has remained unchanged since 1999 (UNESCO, 2014). Faced with the prospect of social stigmatisation and schooling in a language that is not their own, children

from ethnic minorities can face insurmountable barriers to education, while 'wealth based inequalities are a universal source of disadvantage' (UNESCO, 2010: 140).

Access to good quality basic education drives down poverty and improves livelihoods, as well as enabling people to fulfil their potential and contribute to open, inclusive and economically vibrant societies (DFID, 2013). The costs of exclusion are high. In Bangladesh for example, foregone income due to lack of schooling and employment, both of people with disabilities and their caregivers, is estimated at US$1.2 billion annually, or 1.74% of Gross Domestic Product (GDP) (World Bank, 2008: 14). The economic costs of out-of-school children is estimated to be 'greater than the value of an entire year of GDP growth' in nine countries, namely Burkina Faso, Cote d'Ivoire, Gambia, Lesotho, Liberia, Mali, Nigeria, Senegal and Yemen (Thomas and Burnett, 2013: 38). Even for large middle income countries with low out-of-school populations, such as Brazil and Indonesia, the costs of having children out of school outweigh the additional public spending required to enrol them, making it an equitable and cost effective investment (Thomas and Burnett, 2013).

Recognising the continuing scale of the challenge, the Report of the High Level Panel of Eminent Persons recommended that the post-2015 development agenda 'leaves no one behind' by ensuring that the new goals are designed to reach the excluded, incorporating social protection measures and tracking progress at all income levels (UN, 2013b). By building on the renewed global focus on learning, this Topic Guide responds to growing concerns about the estimated 250 million children who are unable to read and count after 4 years of schooling (UNESCO, 2012), many of whom are likely to have disabilities and/or difficulties in learning which could be addressed through inclusive learning. It also highlights the importance of ensuring that global strategies prioritise the diverse learning needs of the most marginalised children, many of whom have disabilities and/or experience difficulties in learning.

The most marginalised

Disability continues to be one of the primary causes of educational disadvantage and exclusion, creating the largest single group of girls and boys who remain out of school. Even in those countries close to achieving universal primary enrolment, children with disabilities continue to miss out on education and opportunities to access meaningful employment and sustainable routes out of poverty. The lack of political will and commitment needed to drive improvements in data availability and management to date has been insufficient (UNICEF, 2014), and this has limited the ability of governments, donors and others to assess, monitor and address the situation of children with disabilities (UNESCO, 2010).

The Topic Guide outlines new survey tools, guidelines, toolkits and capacity building programmes, led by the Washington Group and UNICEF. A lack of evidence of learning outcomes in low income settings more broadly, as well as for girls and boys with disabilities and difficulties in learning in particular, presents a further challenge to our understanding of how school systems can better respond to children's individual learning needs. In acknowledging the tensions and complexities in the global discourse on inclusive learning, this Topic Guide has sought to bring greater conceptual clarity to inform policy and practice.

Systemic challenges, such as divided ministerial responsibility for children with disabilities – across education, health and social protection – have shifted the focus on to social welfare and 'special'

treatment, rather than inclusion and equity (WHO, 2011). The absence, or inadequacy, of legislation, strategies and targets prevents the inclusion of children with disabilities in education, along with school-level barriers including physical access, inflexible and inappropriate curricula and pedagogy, inadequate teacher training, labelling and discriminatory attitudes that reinforce marginalisation (WHO, 2011).

The complexities in addressing the specific needs of children who have disabilities and/or difficulties in learning have challenged policymakers, as their needs tend not to be met by interventions designed for other marginalised groups, such as those living in slums or remote rural areas. Extending education opportunity to all children needs more than the general expansion of education provision and the improvement of average learning achievement (UNESCO, 2010). Policies and other system-wide interventions that directly target children with disabilities and the underlying causes of disadvantage require political support and leadership to be effective. However, one size does not fit all. All countries face their own specific constraints, challenges and opportunities. Action to ensure the inclusion of children with disabilities and/or difficulties in learning works best when it is tailored to local and individual circumstances.

Most of the literature focuses on concepts and definitions of 'inclusive education', access to basic education, policy recommendations, and on teacher attitudes, but evidence on implementation and on learning outcomes is scattered and inconclusive. The Topic Guide provides illustrative examples from the limited evidence that exists which highlight the urgent need for further research – for example, teachers' difficulties in adapting their classroom practice and differentiating curricula without adequate human resources to support their ongoing capacity development (Johnstone and Chapman, 2009).

Provision of even the most low-cost and relatively straightforward assistive devices, such as spectacles, is often inadequate or unaffordable, especially in rural areas, and, when made available in Gansu, China, social stigma had a negative impact on their uptake (Glewwe et al., 2012). Peer-to-peer approaches have assisted learning and built self-esteem and friendship networks in some contexts (Grimes, 2009), but little is known about their impact on learning outcomes. Similarly, there is evidence to suggest that parent engagement in learning and community-based support services, can promote engagement in learning (Deng and Holdsworth, 2007). The evidence gaps in inclusive learning highlighted in this Topic Guide are considerable, and high quality research is urgently needed to inform future developments.

The Topic Guide begins by discussing key concepts associated with inclusion and inclusive learning, terminology related to disability, and the difficulties faced in collecting appropriate data (Section 1). Section 1 also addresses some of the dilemmas of the twin-track approach, which involves providing specialist support for children with disabilities, while at the same time promoting generic inclusive strategies. The main body of evidence on inclusive learning is presented in Section 2, and is divided into four broad areas: classroom practice; teacher education; school leadership; and community engagement. Finally, Section 3 explores the relationship between inclusive learning and the development of inclusive societies and inclusive growth.

Section 1: Key concepts in inclusive learning

Inclusive learning is a relatively new concept which draws attention to the need for more flexible approaches to support the learning of girls and boys who have traditionally been excluded from formal learning, and those whose individual learning needs are currently not being met in formal education. Although this Topic Guide focuses on the diverse educational needs of children with a disability, and those with difficulties in learning, it raises issues of broader relevance to improving the quality of teaching and learning for all.

Research on disability, inclusion and education has been neglected in developing country contexts, and the evidence base is both scattered and scarce. This is arguably due to the predominance of a rights agenda, and a strong focus on advocacy. The little research that has taken place has tended to be small scale, and has focused on teacher attitudes, rather than classroom practice and learning outcomes. However this is beginning to change, and there are signs of a shift taking place to including children in a developing country context who have a disability or difficulties in learning.

This section of the Topic Guide summarises the following: definitions of key terms, concepts and debates related to inclusive learning; current efforts to strengthen the collection of statistics on the number of learners who experience difficulties in learning, and on learners with a disability; the various forms of specialist provision, including special schools, and resource rooms; and a review of the 'twin-track' approach which ensures both specialist and mainstream provision. In acknowledging the tensions in global debates about inclusion, this section seeks to bring greater conceptual clarity to these complex debates in order to inform policy and practice.

The concept of inclusive learning

Inclusive learning[3] focuses on the capacity of educational institutions to understand and respond to an individual learner's educational requirements and entitlements, and girls and boys are seen as individuals who learn in different ways. In this way, the labelling and stigmatising of learners is avoided, and instead, priority is given to the creation of appropriate and responsive educational environments. Diversity in education is simply a reflection of diversity in society.

The aim of inclusive learning is to move beyond simply focusing on 'access', to understanding ways of increasing active participation and engagement in learning. Achieving the optimum level of participation of all girls and boys, and introducing gender-sensitive and learner-centred approaches to suit diverse learning styles, has implications for the way schools are organised, such as: curriculum change; teaching, learning and assessment adjustments; and a shift in emphasis of school leadership. Inclusive learning moves beyond providing individuals with support to fundamental changes being made to the way teaching and learning is organised.

Inclusive learning can be seen as 'a principled approach to education' (Ainscow and Miles, 2008: 5) which involves:

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[3] The definition of inclusive learning presented here has been created for the HEART Topic Guide. Most of the literature refers to the term 'inclusive education', which is a broader concept than inclusive learning.

- the process of increasing the participation of students in, and reducing their exclusion from, the curricula, cultures and communities of local schools
- restructuring the cultures, policies and practices in schools so that they respond to the diversity of students in their locality
- the presence, participation and achievement of all students vulnerable to exclusionary pressures, not only those with impairments or those who are categorised as 'having special educational needs' (Ainscow and Miles, 2008: 5).

The Salamanca Statement and Framework for Action (UNESCO, 1994) called for a broad approach to the inclusion of all marginalised groups of children in education, and claimed that inclusive learning is the most effective means of tackling discrimination, building inclusive societies, achieving education for all, and improving the efficiency and cost effectiveness of the entire education system. It put forward three justifications for inclusive learning:

- Educational: It is a way of producing higher quality schools.
- Social: Inclusive learning is the basis of a just and non-discriminatory society.
- Economic: It is less costly to establish and maintain schools which educate all girls and boys, rather than funding a complex system of different types of schools.

Salamanca also called for 'a major reform of the ordinary school' (UNESCO, 1994: iii-iv), arguing that inclusive learning, 'has to form part of an overall educational strategy and, indeed, of new social and economic policies'.

In summary, inclusive learning is concerned with a significant proportion of learners who experience educational difficulties and who subsequently fail and drop out of school. In developed countries, the percentage of children in mainstream schools who have, at some point, been identified as having difficulties in learning (often referred to as 'special educational needs'), including those who have a disability, is estimated to be between 15% and 20% (WHO, 2011: 209). It seems likely that a similar proportion of children will experience difficulties in learning at some stage in their school career in low and middle-income countries.

A focus on disability

Disability is one of the most neglected causes of educational disadvantage and children with disabilities are disproportionately represented among those excluded from schooling (UN, 2010). In Malawi and the United Republic of Tanzania, having a disability doubles the probability of never having attended school and in Burkina Faso, it increases the risk of children being out of school by two and a half times (UNESCO, 2010). Children with disabilities represent the majority of those who are excluded in countries close to achieving universal primary education. Net enrolment ratios for children aged 7 to 15 years old were over 90% in Romania and Bulgaria in 2002, but only 58% for children with disabilities (UN, 2010: 58). Disability also makes it less likely for children to complete their schooling. People with disabilities of working age in 14 out of 15 low and middle income countries surveyed were one third less likely to have completed primary school (UNESCO, 2014).

Although reliable, comparable data is difficult to obtain, an estimated 15% of the global population, or more than 1 billion people, are currently living with a disability and prevalence rates are set to rise (WHO, 2011). Of these 1 billion, around 93 million children under the age of 14 years old have a severe or moderate disability, and 4 out of every 5 children with disabilities live in developing

countries, with the highest levels of moderate and severe disabilities being found in sub-Saharan Africa (UNESCO, 2010). Poverty, undernutrition, poor health and an unsafe, or insanitary, home environment may increase a child's cognitive, motor and social and emotional development, putting them at greater risk of disability and educational exclusion (WHO, 2011).

Just as there are greater challenges in ensuring that all girls complete a full course of primary education, there are additional challenges associated with ensuring that all girls identified as having a disability attend school. In Vietnam, for example, Nguyen and Mitchell (2014: 10) found that, 'girls with disabilities have been much more disadvantaged than boys with disabilities and more disadvantaged than girls without disabilities in terms of opportunities and access to education'. While both girls and boys with albinism are 'at risk of violence on the way to school' (Nguyen and Mitchell (2014: 8), girls with disabilities face the increased risk of sexual abuse.

Progress in stepping up efforts to support enrolment, learning and progression has been slow, in spite of a number of internationally-agreed conventions and statements relevant to inclusive learning, which are summarised in Box 1.

Milestones and momentum for inclusive learning: Conventions, statements and major reports

1989: UN Convention on the Rights of the Child expresses the right of all children to quality education (Article 28) and the responsibility of all governments to ensure children with disabilities also enjoy that right (Article 23).

1994: **Salamanca World Conference on Special Needs Education 1994** was attended by 92 governments and 25 organisations who endorsed the **Salamanca Statement and Framework for Action.** The Framework for Action contains guidance on the development of inclusive schools which is still relevant today. It argues for changes to be made to school structures, classroom practice, school leadership and national education systems which make schools more effective and raise teachers' expectations for all children. Governments were called upon to give the highest legislative, policy and budgetary priority to improve education systems to ensure inclusive enrolment.

2000: World Declaration on Education For All states that, in addition to active commitment to other marginalised groups, the learning needs of children with disabilities 'demand special attention' and specific steps must be taken to 'provide equal access to education to every category of disabled persons as an integral part of the education system.'

2006: UN Convention on the Rights of Persons with Disabilities (UNCRPD) calls on States Parties to ensure inclusive education systems at all levels and lifelong learning, the right of persons with disabilities to a free, inclusive, quality primary education and the provision of 'reasonable accommodation of the individual's requirements' and effective individualised support (Article 24). The UNCRPD stresses the importance of international cooperation 'in support of national efforts' and measures aimed at ensuring accessibility of development programmes, facilitating capacity building, research, and technical and economic assistance (Article 32).

2010: UNESCO **EFA Global Monitoring Report** highlights how failure to put inclusion at the heart of the Education for All agenda is holding back progress and singles out disability as 'one of the

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least visible but most potent factors in educational marginalisation.' The **Millennium Development Goal Report** (2010) notes that even in countries that are close to achieving universal primary education, children with disabilities 'are the majority of those excluded.'

2011: First ever **World Report on Disability** focuses on systemic and institutional changes needed to remove barriers to the participation of disabled learners.

2013: UN **High Level Meeting** on Disability and Development considers a disability inclusive development agenda towards 2015 and beyond.

Box 1: Milestones towards inclusive learning.

Data challenges

The World Report on Disability (WHO, 2011) highlights the substantial variations between prevalence rates of children with disabilities, due to differences in definition and measurement of disability. The report provides in-depth insights into the difficulty of generating data on disability, given the lack of international consensus on definitions, and the difficulty of generating comparable data sets.

> 'The number of children aged 0–14 years experiencing "moderate or severe disability" [is] 93 million (5.1%), with 13 million (0.7%) children experiencing severe difficulties. In 2005, the United Nations Children's Fund (UNICEF) estimated the number of children with disabilities under age 18 at 150 million. A recent review of the literature in low- and middle-income countries reports child disability prevalence from 0.4% to 12.7% depending on the study and assessment tool,' (WHO, 2011: 36).

One of the challenges faced in collecting reliable and comparable data is the changing nature of this population, due to the continued disabling impact of preventable childhood diseases; the consequences of armed conflict, disasters and emergencies; and advances in medical science.[4] This is coupled with social, cultural and economic developments, leading to greater recognition of educational difficulties. Children who are malnourished are not only likely to be stunted in their physical growth, but are highly likely to experience cognitive difficulties and delays in learning. In countries affected by conflict, boys face distinct risks, as they are more involved in outdoor activities such as herding livestock, gathering wood and food or collecting scrap metal. They are more likely than girls to come across mines or explosive remnants of war, placing them at increased risk of injury.

A lack of disaggregated data, by sex and by type of disability and level of functioning, makes educational planning for inclusive learning extremely difficult. Furthermore, evidence on the number of children identified as having a disability which affects their learning, and those who may have an unidentified difficulty in learning leading to poor outcomes, is scarce.

The difficulties associated with the lack of consensus on definitions have slowed progress, but this is starting to change. Mont (2014) has been influential in arguing for the development of data collection tools that help countries to better understand how children with different types of

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[4] Advances in medical science lead to greater survival rates following illness and accidents. It also means that premature babies, and girls and boys with complex conditions, are more likely to survive than had done previously.

impairment interact with their school environment. Some of the problems with current survey instruments for collecting data on disability and education are as follows:

- asking if a child has a disability – only identifies children with the most severe impairments
- asking if a child is receiving special support – problematic because the answer relates to both the function of the child's disability, the policy and how the policy is implemented
- asking about diagnoses – problematic because many children do not have a diagnosis; children can have very different abilities and needs, yet have the same diagnosis; the list of diagnoses is never complete (Mont, 2014).

Mont (2014) has also recommended that information is collected about the school environment, not just about the children in schools. This includes:

- physical accessibility (school grounds, entrance, classrooms, toilets, etc.)
- human resources (e.g. teacher training)
- materials (e.g. aids and appliances, such as magnifying glasses, wheelchairs)
- services (e.g. physiotherapy, orthopaedic support, speech therapy).

These recommendations have been acted upon by UNICEF (2014: 1) with positive results for more reliable data collection in the future:

> 'UNICEF and the Washington Group are developing a new survey module to measure the school environment and children's participation in education. The module will measure the barriers and facilitators to education by children with/without disabilities. This module will complement the module on child functioning and disability. Together, they will provide a comprehensive measurement of disability – assessing activity limitations, as well as children's interactions within their environment. The module will cover: attitudes, accessibility, getting to school, and affordability. Once finalized, the module will undergo cognitive testing and field testing. It is expected to be ready for actual data collection and use by countries in early 2015'.

This represents a major step forward in providing governments with a useful tool to establish the particular difficulties facing both individual learners, and the education system. The tool will be relevant regardless of the stage of development in a particular country, and will impact upon children with a disability as well as those who experience difficulties in learning. However, improvements in data collection will only lead to improved policy and practice if there is a greater understanding of the principles of inclusive learning.

Croft (2013: 240) has argued for a 'bottom-up', 'service-based' approach to the ethical collection of quantitative data which would simultaneously deepen the understanding of educational practitioners and planners of 'the kind of information that is needed to improve education for disabled children.' Learning lessons in this way from existing educational, Croft (2013: 240) argues, could help, 'inform broader analysis of national needs so that education can play a positive role in breaking the link between disability and poverty'. Collecting data about disability prevalence in contexts where learners with disabilities are already enrolled in schools, would provide a higher quality of data on the barriers experienced (as proposed by Mont, 2014), than in contexts where children with disabilities have been excluded from education (Croft, 2013).

Approaches to educating children who have a disability

Children tend to be either seen as 'normal', with common characteristics, and so educated in a mainstream school; or 'special' because of their particular individual or group characteristics, and educated in a special school, or in a specialist unit attached to a mainstream school (see EENET, 2006: 27, for an illustration of these different forms of provision). Alternatively, all learners are seen as having a common educational aim, and so the quality of teaching and learning is regarded as the main priority, with additional support being provided, where necessary, as part of an inclusive learning approach. The inter-relationship between common, individual and group characteristics is illustrated in a diagram entitled Inclusive Pedagogy (see Figure 3).

The arguments about the most appropriate location for the education of children with disabilities are influenced by culturally defined and evolving concepts and by the availability of educational options, but in many countries there is only one option – that of attending the local school. Alternative options include special, residential or day schools, resource rooms or special units, specialist support from a visiting itinerant teacher, and home-based education (sometimes in preparation for formal education), supported by community-based rehabilitation (CBR) workers, where available.

Special schools

Special schools can be a source of specialist expertise and facilities, and provide education for those with profound and complex disabilities. When they are well managed and resourced, they are an efficient way of concentrating resources in one location. No statistics are available on special school attendance in developing countries, but in the European context 2.3% of learners are educated in segregated settings, either in separate classes in mainstream schools, or in a special school (WHO, 2011: 210). The number of special schools has increased in India, in line with the development of inclusive education (Singal, 2008), but they tend to be urban-based, and so this does not necessarily involve separation from families and communities, as would be the case with attendance of a residential special school.

Special schools for deaf learners provide a focus for the development of sign language. The employment of deaf teachers and support staff further strengthens such specialist provision. This is difficult to achieve in a resource room or unit attached to a mainstream school (due to the smaller number of learners with just one specially trained teacher), and much more difficult to achieve in an inclusive setting with limited resources. Similar arguments are posed from the perspective of specialisms, such as autism, deaf-blindness and profound and complex disability. Indeed, in some countries, those with severe impairments are often considered to be 'ineducable', and so are excluded from both mainstream and special school settings.

Special schools tend to be perceived to provide a superior form of education for girls and boys with disabilities. Disabled people's organisations and parents' groups in Uganda reported that their preference was for special school provision, partly because of the overcrowding and poor resourcing of mainstream schools, together with their conviction that special schools provide a higher quality of education, leading to employment (Lang and Murangira, 2009). Similarly, parents of girls and boys with albinism in Malawi expressed a strong preference for education to take place in a specialist resource unit because they believed that the quality of learning and support far exceeded that to be

found in a mainstream school (Lynch and Lund, 2011). Both deaf students and those with intellectual impairments have argued that mainstreaming is not always a positive experience, due to the low quality of specialist provision (WHO, 2011: 211). Yet there is also evidence of poor quality specialist provision in a study of special schools in Uganda, where some of the teachers had little or no specialist expertise, and specialist equipment was not available (Kristensen et al., 2006).

Singal et al. (2011) report the experience of 30 Indian young people with disabilities (from communities with few resources, whose parents had little education) in attending both special and mainstream schools. The young people benefited from attending special schools, particularly in the early years, as they were able to learn basic life skills; access appropriate specialist equipment; have exposure to positive role models, such as blind teachers; and develop friendships in a safe space. They appreciated the opportunity in later years to broaden their educational opportunities by attending mainstream schools, but some experienced high levels of frustration due to the lack of appropriate resources, a narrow and irrelevant curriculum, teachers' inability to engage them and their lack of friendships.

Residential settings not only separate children from formal learning, but also separate them from opportunities for social learning in their families and communities. Children with disabilities are vulnerable to physical and sexual abuse in all settings (and girls are more vulnerable than boys), but residential special schools can be particularly unsafe in this respect.

These arguments and examples highlight the difficulties involved in comparing special school provision with mainstream settings. Poor quality education is bad for all children, not just those with a disability. The challenge is to raise standards of teaching and learning for all children in all schools and this involves ensuring that all schools are effective and promote quality education, regardless of the location.

Resource rooms

Resource rooms are sometimes referred to as 'special units', and as 'transitory classes' in French speaking countries. They enable the provision of specialist support within a mainstream educational setting, ideally as close to learners' homes as possible. However, they can either reinforce the principles of inclusive learning, or they can be exclusionary – as is the case with any form, or location, of educational provision. Usually, a resource room is staffed by one specially trained teacher, who manages the learning of a multi-grade classroom of approximately 8 to 10 learners with sensory and/or intellectual disabilities. The initial purpose of locating a resource room adjacent to a mainstream school was to enable opportunities for inclusive learning and/or socialising, and to support team teaching and whole school approaches to inclusive learning for the benefit of all children. However there is a tendency for resource rooms to become small special schools, and for there to be few links with the host school. For examples of the use of resource rooms, see Section 2 and Stubbs (2008: 104-105).

The shift from segregated to inclusive learning

There are discernible patterns of development in all country contexts in the way school systems across the world have responded to children who have disabilities and/or experience difficulties in learning. This has involved a gradual move from exclusion and segregation, to an emphasis on

integration, through to inclusion, but the pace of change varies enormously. The cartoon in Figure 1 reflects two contrasting approaches: a school making theoretical preparations for including children with disabilities; and a school willing to learn from experience.

Figure 1: A tale of two schools (Giangreco, 2007).

Evidence of the impact of attending special or mainstream schools for learners who have a disability is not conclusive, even in developed countries, due to inconsistencies in the methodologies used to study both the settings, and the type and intensity of specialist services provided (WHO, 2011: 211-212).

The little research that has been conducted in low and middle income country contexts tends to focus on the most visible impairments, such as physical and sensory impairments, for which there are straightforward technical solutions, while relatively little attention is paid to learners who experience difficulties in learning, but have no visible disability (Section 2). In high income countries, by contrast, advances in medical science have led to a rise in the numbers, and complexity, of learners who require high levels of specialist knowledge and support, as reflected in the literature

which is dominated by studies of girls and boys with autism and with severe intellectual impairments in a range of educational settings (Bakhshi et al., 2013).

Even where research exists, drawing the appropriate conclusions is challenging. A review of studies on inclusion (pre-1995) found that there were slightly better academic outcomes for students with learning disabilities in special education settings, and higher numbers of learners with emotional difficulties dropping out of mainstream schools (WHO, 2011: 211). Similarly, there is some evidence that the acquisition of communication, social and behavioural skills is superior in inclusive classes or schools, and that the inclusion of students with disabilities is generally not considered to have a negative impact on those without disabilities (WHO, 2011: 212). Again, these results cannot be used to draw conclusions about location and type of provision, where the mainstream schools in question have not made a conscious effort to promote inclusive learning – in terms of presence, practice, achievement and participation.

'Global inclusionism', Le Fanu (2014) argues, has led to the withdrawal of support for, and ultimate closure of, special schools by some large international non-governmental organisations , without first investing in the development of support systems for inclusive learning. The closure of specialist facilities has had a devastating impact on the lives of people with disabilities, especially those children with complex educational needs, as alternative forms of educational support and social protection have not been provided by national governments (Le Fanu, 2014).

The twin-track approach

The twin-track approach advocates removing the environmental, attitudinal and institutional barriers to addressing inequalities in education, while recognising that girls and boys with disabilities have *additional* individual needs which need to be addressed (see Figure 2).
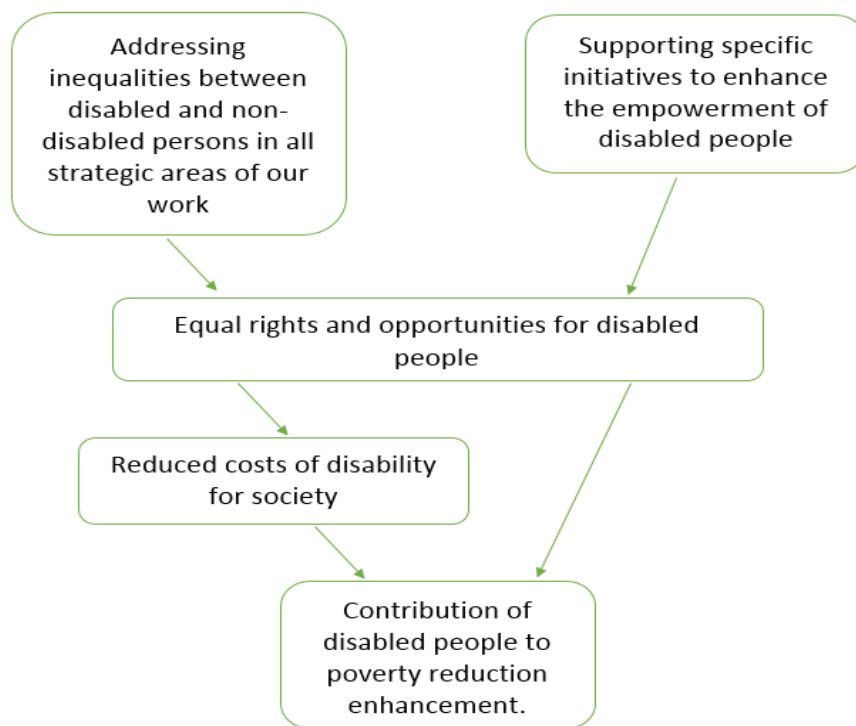
Figure 2: DFID's twin-track approach to disability, poverty and development (adapted from DFID, 2000, cited in Yeo and Moore, 2003: 582).

Bines and Lei (2011) suggest that the continuation of some specialised provision through the twin-track approach is advisable in developing country contexts until more inclusive practice has been developed. They also argue that since special schools in developing countries tend to be located in urban areas, different models may need to be developed in remote rural areas, and suggest that the twin-track approach could support rural schools in developing specialist expertise.

> 'In Southern countries, special provision is very limited, and the policy choice centres on whether to develop inclusive regular schooling and/or provide some interim specialist provision, as a twin-track approach' (Bines and Lei, 2011: 422).

In India, twin-track approaches are commonplace, with the number of special schools having doubled between 1992 and 2002 at the same time as financial incentives being made available for the inclusion of girls and boys with disabilities into mainstream schools (Singal, 2008).

Individualised education plans are used widely in developed country contexts, and to a limited extent in developing countries (WHO, 2011: 218), with varying degrees of success to support learning in a range of settings. The aim of an individualised education plan is to ensure that learning needs are understood by all professionals involved, and that changing learning needs are constantly reviewed. They have been reported to be useful for those who need individualised learning support, but more research is needed on the implementation of individualised education plans in promoting inclusive learning in countries with few resources and limited teacher education.

As with all the concepts discussed here, the twin-track approach can be misrepresented and misunderstood unless it pays attention to the underlying principles, practices and ethos of inclusive learning. It can lead to an increased reliance on specialist support, which, in turn, can undermine teacher confidence and capacity. However, it has great potential to promote fully resourced and supported inclusive learning.

Conclusion

This section has discussed the concept of 'inclusive learning' developed for the writing of this Topic Guide. It has also discussed the difficulties faced in generating accurate and comparable data (disaggregated by sex and by type of impairment or difficulty), rather than simply collecting quantitative data on prevalence of disability and of school attendance and the potential for collecting service-based data at the same time as deepening teachers' understanding of difficulties in learning.

The provision of specialist facilities and the widely recommended twin-track approach for ensuring that the educational needs of specific groups of learners are met alongside efforts to promote an inclusive learning environment have been discussed in this section. In Section 2, evidence is presented of the practical difficulties involved in developing 'grounded' and contextually specific approaches to inclusive learning.

Section 2: Evidence on inclusive learning

This section brings together the available evidence on inclusive learning in low and middle income countries, with a particular focus on children with disabilities and those who experience difficulties in learning, for the first time. It seeks to identify practices and approaches from low and middle income countries that have made efforts to include all girls and boys in learning. The research methodology is outlined, along with its limitations. Thematic research questions are addressed across four key areas: teacher education; classroom practice; management and administration of educational leadership; and beyond school factors. The section highlights the key challenges, identifies knowledge gaps and suggests agendas for future research on equitable and inclusive learning.

Part A: Research methodology and its limitations

> **Summary of the limitations of the evidence**
>
> The evidence base on inclusive learning for children with disabilities and difficulties in learning focuses largely on high income countries, particularly the US and UK, and there are challenges in identifying good quality evidence from low and middle income countries. These include:
>
> - There is a lack of reliable data on prevalence of disability and difficulties in learning in school-age populations.
> - There is a lack of reliable data on attendance at pre- and primary schools.
> - Evidence focuses on concepts and definitions of 'inclusive education', access to basic education and policy recommendations but evidence on implementation and on learning outcomes is patchy.
> - The most substantial body of literature focuses on teacher attitudes towards disability, but findings are varied and inconclusive.
> - Much of the available evidence has been generated by international non-governmental organisations, but this often lacks academic rigour and sample sizes are small.
> - Little evidence is available on inclusive learning in early childhood education.

The evidence summarised here on inclusive learning in low and middle income countries was identified through a rigorous review of literature from five education databases linked to ProQuest,[5] using a set of relevant search terms.[6] A total of 60 journal articles were identified through this process, 23 of which

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[5] The ProQuest database collection spans six centuries, all disciplines and the diverse content types needed by researchers, providing the world's largest collection of dissertations and theses; three centuries of newspapers; more than 450,000 academic ebooks; collections of important scholarly journals and other content such as data and unique digital vaults of primary source materials.

[6] Search terms included: teaching, learning, school, education; in combination with: leadership, organisation, effectiveness, early childhood development, management, policy, teacher education, universal design, disadvantage, participation, twin-track, developing countries, inclusion, inclusive, special, needs and disability. Publications from the year 2000 to date were included.

focused on teacher attitudes. Only eight articles were deemed to be of direct relevance to the practice of inclusive learning, and so included in this review. Further searches were conducted of literature recommended by key stakeholders in the international non-governmental organisation (NGO) and UK-based research community. Only three systematic literature reviews have been included: access to education for children with disabilities (Bakhshi et al., 2013); teacher attitudes (de Boer et al., 2011); the economic costs of exclusion and gains of inclusion (Morgon Banks and Polack, 2014). The majority of the literature is drawn from small-scale studies conducted by international agencies and academics based in the North.

The issues of teacher attitudes and self-efficacy in relation to inclusive education are over-represented in the literature identified for the review (23 out of 60 articles identified in the initial review of the literature). There is a clear gap in the literature in relation to inclusive learning processes, strategies and outcomes at both teacher education and classroom level. The preoccupation with the barriers created by negative attitudes towards inclusion has arguably led to a lack of resourcing of research into classroom-based inclusive learning strategies. It is also indicative of the current phase of global advocacy around inclusive education. There has been a predominance of policy advocacy in the grey literature which has been primarily concerned with developing and delivering key messages from the inclusive education discourse to influence decision makers and mobilise popular campaigns. However, this has not translated into investment in research and the absence of evidence on learning outcomes for learners with disabilities reflects the dearth of evidence on the topic in general.

Further reviews of literature generated in developing country contexts highlighted gaps in the knowledge base. Such reviews tend not to be included in international databases. However they are likely to be identifiable through consultation with practitioners and academics in those contexts, but this approach requires additional resources. For example, as part of the consultation with UK-based academics, a national achievement survey was identified that had been conducted on the learning outcomes of students in Class 5 (around age 10) of Indian elementary schools, including learners with physical difficulties (National Council of Educational Research and Training, 2012). This more complex process of literature searching was beyond the scope of this review.

The first systematic review of the literature which focused on the accessibility of education for people with disabilities in both developed and developing countries found that:

> 'there have been virtually no studies in the academic literature that have looked at the impact of an intervention to improve accessibility of children with disabilities to formal school settings in low- and middle-income countries in the past decade' (Bakhshi et al., 2013: 28).

They also found that the literature from low and middle-income countries on the issue of education of children with disabilities consists primarily of 'commentaries, discussion papers, opinion pieces or reviews', and that there is an absence of evaluations of effectiveness (Bakhshi et al., 2013: 28).

Most of the studies identified by Bakhshi et al. focused on learning disabilities and autism (reflecting research trends in the US and UK) and there was a notable lack of attention to blindness, visual impairment or physical disabilities, which are 'very prevalent impairments in low-income countries'

(Bakhshi et al., 2013: 28). Of those studies identified, the implications for policy and programming lacked substance:

> '…although these studies present a picture of what and how well children with various disabilities can do within classrooms, these measures alone do not provide the required information for making recommendations in terms of policy and programming; in other words although most studies might hold scientific validity, their external validity is not very strong' (Bakhshi et al., 2013: 24).

The implications of the Bakhshi et al. (2013) review are that:

> '…some of the questions about education for children with disabilities in middle- and low-income countries are still unanswered;' (Bakhshi et al., 2013: 29).

They conclude that 'it is not possible to draw any formal conclusions about the most effective approaches (in terms of impact or indeed cost) to increase the accessibility of education for children with disabilities' in developed or developing countries (Bakhshi et al., 2013: 34).

A rigorous literature study was conducted in 2012 to identify projects in low and middle income countries in the preceding 10 year period which aimed to make education more inclusive, and to identify the effects of these projects (Srivastava et al., 2013). Of the 157 references identified in 30 databases and from international organisations, 11 studies and 4 reports were selected for review, and only 2 projects reported positive effects in terms of increased attendance of children with disabilities; these were: Deng and Holdsworth (2007) and Villa et al. (2003), studies identified for review in the process of writing the Topic Guide.

Much of the evidence on inclusive learning in low and middle income countries which was reviewed for this Topic Guide focuses on girls and boys who have more prominent, often physical, impairments and who are already attending school. The findings presented in this section reflect the conclusions of the Bakhshi et al. (2013) and Srivastava et al. (2013) reviews, and further expose the limited evidence available on the effectiveness of inclusive learning for children with disabilities, and for those who experience difficulties in learning. There is an emerging body of literature focused on the education of learners with visual impairments, including those with albinism. Many girls and boys who experience difficulties in learning and who would benefit from more inclusive forms of education, tend to go unrecognised in developing country contexts (Villa et al., 2003). This reflects the ways in which impairments, disability and difficulties in learning are defined in particular contexts, as discussed in Section 1. The research questions addressed in this section of the Guide focus on some of the limited evidence that does exist, and its practical implications.

Part B: What forms of teacher education enable teachers to promote inclusive learning for girls and boys aged 3 to 12 years old?

Summary of evidence

Teacher attitudes and confidence

Numerous studies have focused on teacher attitudes in both pre-service and in-service teacher education. Findings are varied and include:

- Teacher attitudes are important to the reduction of stigma and discrimination and the active participation of learners with disabilities and difficulties in learning
- Teachers who perceive their school to be supportive of inclusive learning, and teachers who have had contact with students with disabilities, tend to have more positive attitudes than those who have had little contact.
- Teachers with the least experience of teaching have more positive attitudes than those who have been teaching for a longer period of time.
- Teacher confidence can be low among the newly qualified who tend to feel they do not have the requisite skills and experience to teach inclusively.

Approaches to teacher education

- In-service teacher education plays a key role in tackling stigma, reducing discrimination and raising teachers' expectations of learners with disabilities and those with difficulties in learning.
- Inadequate human resources at ministry level to support the ongoing development of teacher capacity is one of the major reasons for teachers' difficulty in differentiating their teaching.
- An extensive range of generic toolkits and manuals have been produced to prepare teachers for, and promote, inclusive education.

Teacher attitudes, confidence, knowledge and expectations, in relation to teaching girls and boys with diverse learning needs, are inextricably linked and can be affected, both positively and negatively, by pre-service and in-service training, by teaching experience, and by social and cultural values. In the absence of national policies, strategies or statutory teacher education on inclusive learning, much of the training available in low and middle income countries is fragmented and inconsistent. Many of the examples cited here involve sustained efforts to provide in-service teacher education. However, there are challenges in sustaining such efforts due to a shortage of experienced advisory level staff, as well as leadership commitment. Yet, teacher education is one of the most urgent priorities and most sustainable investments, given expectations placed on teachers to deliver inclusive learning.

Teacher attitudes

The negative attitudes and behaviour of teachers towards children with disabilities and those who experience difficulties in learning can inhibit academic progress. Numerous studies have focused on

teachers' attitudes towards inclusion, and on the impact of attitudes on the effectiveness of inclusive teaching practices, and the findings are varied.

When universal primary education was first introduced in Uganda, initiating a large influx of previously excluded groups, schools were overwhelmed. They reported problems with discipline, performance and drop-out rates, and teachers who were opposed to inclusion made little or no effort to support students with impairments (Arbeiter and Hartley, 2002). A systematic literature review covering a range of countries, including China, India, Iran, Palestine and Zimbabwe, found that 'teachers with the least general teaching experience had more positive attitudes than those with longer service' (de Boer et al., 2011). Teachers who are better educated or have personal experience of people with disabilities tend, unsurprisingly perhaps, to take a more supportive approach to inclusion (Parasuram, 2006).

A study of 738 teachers working in 293 government primary schools in Bangladesh found that 'perceived school support for inclusive teaching practices' and a range of demographic variables including successful contact and experience of teaching students with disabilities were associated with more positive attitudes of the teachers towards inclusive education more generally (Ahmmed et al., 2012).

Similarly, in Lao PDR, teacher attitudes were found to be fundamental in developing innovative and inclusive practice. In particular:

> '… where teachers engage with the idea of changing lessons so that all children are participating and achieving, then their attitudes begin to change. As well as enjoying their teaching more and becoming increasingly motivated, they are also enabled to understand how children with disabilities and special needs can be included in ordinary lessons in mainstream schools.' (Grimes, 2009: 139).

Approaches to in-service teacher education

International and national NGOs have a long history of working in parallel and in partnership with government initiatives to provide teacher training for inclusive learning, through differentiated approaches to teaching style and content. These programmes can be small scale and unsustainable (Le Fanu, 2014) due to high transaction costs and short-term project financing from donors. This fragmented approach makes it harder to introduce, consolidate and sustain more inclusive approaches to learning at classroom level and, while it can provide scalable, contextualised models of practice, is thus not sustainable on a national basis in the longer term.

In Rwanda, 19 of the 25 NGOs working with children with disabilities have developed their own inclusive teacher training for both mainstream and special schools (Karangwa, 2013). This training is not recognised by the Ministry of Education because it 'does not follow the nationally recognised accreditation and qualification frameworks' (Karangwa, 2013: 4) and is therefore not rewarded with increases in salaries or promotion. This can disincentivise teachers from engaging in these development programmes. Karangwa suggests that many such courses tend to be 'specialist' by design, inadvertently discouraging teachers from taking responsibility for the learning of all children. In order to address the problems arising from this fragmentation in Rwanda, Handicap International has supported the development of a government recognised Diploma programme on inclusive

education, developed by the 'Task Force for the Development of Inclusive Education in Rwanda.' This programme is now working with a range of education stakeholders including 40 model schools, 8 district education offices, education inspectors, the Rwanda Education Board, the Ministry of Education and Kigali Institute of Education (Handicap International, no date).

In Lao PDR, in-service training was prioritised by teachers and policymakers as a central pillar of the national inclusive education programme that began in 1993 with initial support from Save the Children Fund UK. However, it was found to be ineffective as a stand-alone initiative and failed to improve classroom practice (Grimes, 2009). A subsequent phase of in-service teacher training, which took place for 60 days over a 2 year period, was introduced in combination with ongoing advice and guidance at school level, an approach that proved to be more effective. This advice and guidance was provided through a range of initiatives, designed to support teachers: resource centres; cluster schools; itinerant teachers; support for leadership; inclusive school development; governance programmes; mentoring; peer-to-peer support for pupils and staff; and continuing professional development training and events.

A national in-service teacher education programme was initiated in 1991 in Lesotho, with support from Save the Children Fund UK and UNICEF. It prioritised the in-service training of all 77 teachers in 10 pilot schools across 8 districts, led by Ministry of Education staff (Khatleli et al., 1995). The training of all teachers was a deliberate strategy to avoid the difficulties that can arise when one teacher is perceived as the 'specialist' in disability issues. The training was conducted in the school holidays by a wide range of education stakeholders, all based in Lesotho, including disabled people's organisations, parents' organisations, specially trained teachers from the special schools, and rehabilitation professionals. Follow-up visits were made on a regular basis to support the teachers in pilot schools, which subsequently became a regional resource for neighbouring schools.

In 2005, a doctoral study analysed the impact of this national teacher education programme in Lesotho. The study was conducted in 21 of the 82 primary schools (Johnstone and Chapman, 2009: 139), some of which had been involved in the training described by Khateli et al. (1995). It found that, 'Many of Lesotho's teachers can adequately (informally) screen student academic and sensory functioning, and do care deeply for students with disabilities'. As a result, many teachers are able to adequately, though informally, screen students' academic and sensory functioning. However, the training had not prepared them to differentiate or accommodate the educational needs of a diverse range of learners in the context of large classes. Inadequate Ministry capacity to provide sustained support to ongoing teacher development was identified as one of the major barriers to the development of teachers' skills in differentiation.

Deluca et al. (2014) present evidence from a school-based survey in four districts in the north of Zimbabwe of knowledge, attitudes and beliefs, barriers, concerns and daily practices related to disability and inclusive education. Their findings demonstrate the need for further specific training on inclusive approaches for teachers and head teachers in order to improve the quality of teaching and learning outcomes for girls and boys with disabilities. Although attitudes and beliefs were generally positive, the long distances between home and school, a lack of assistive devices and lack of adequate transport continued to be major barriers to school attendance, as were the direct and indirect costs of schooling, suggesting the need for a variety of support mechanisms to make

inclusive learning a reality. Large class sizes and poor sanitation arrangements were additional barriers.

Five strategies for training, recruiting and supporting inclusive teachers have been identified by the International Disability and Development Consortium (2013), and these include: ensuring that all teachers receive training on inclusion in their initial teacher training; balancing theoretical understandings of inclusive learning with practical experience; ensuring that teacher trainers have a good grasp of inclusive principles; involving people with disabilities in teacher education processes; recruiting a diverse range of people as teachers.

Teacher expectations

Raising teacher expectations and challenging negative attitudes through high quality in-service teacher development programmes are critical for inclusive learning to succeed.

In Vietnam two pilot projects were set up in 1995, one in an urban and the other in a rural district. Within 4 years, 1,000 of the 1,078 girls and boys with disabilities identified in their homes with mild, moderate and severe disabilities had gained access to their local schools (Villa et al., 2003). The evidence reviewed only provides details of the process of identifying the girls and boys, and supporting their access to school, it does not provide information about the nature of their engagement, or their learning outcomes. 'Prior to the project there had been minimal in-service training of any sort' (Villa et al., 2003: 27), but through the process of in-service education, teachers' expectations of learners' abilities were raised.

Research directions

The evidence reviewed indicates the following gaps in the literature, which are worthy of attention in future research:

- the content and impact of pre-service training on inclusive learning
- the knowledge and skills that teachers need to support, develop and sustain inclusive learning
- learning needs of teachers at different stages of their career about teaching inclusively and managing the diverse learning needs of children
- the role of inclusive learning in early childhood education in preparing children for formal schooling and in preventing future difficulties in learning
- training needs of educational leaders, including at ministry and local government level.

Part C: What forms of classroom practice can promote inclusion in participation and learning?

> **Summary of evidence**
>
> - The economic benefits of providing girls and boys with eye glasses outweigh the costs while also improving test scores, but social stigma and lack of access and affordability can impact negatively on uptake.
> - Teachers' positive attitudes and ability to screen for disabilities and diverse learning needs does not necessarily translate into adapted classroom practice or an ability to provide differentiated curricula and learning opportunities.
> - Peer-to-peer approaches have assisted learning and built self-esteem and friendship networks in some contexts, but little is known about their impact on learning outcomes.
> - Multi-grade teaching has potential benefits in promoting inclusive pedagogy and teacher awareness of learner diversity.

Effective teaching practice is important for inclusive learning. This includes differentiation and accessibility of lessons. Adaptations need to be made to the learning environment and to the pedagogy, according to the variable needs of the learners. Sometimes learners require individual assistive devices to support their learning and ensure that they can access the curriculum. Effective teaching ensures that all girls and boys are included, engaged in learning and supported to achieve their potential. Similarly, gender-sensitive teaching approaches can help to ensure that the learning outcomes of girls and boys with disabilities are not adversely affected by gender-prescribed roles and expectations.

Inclusive classroom practice

In Lao PDR, girls and boys with mild to moderate disabilities were successfully included in classrooms by teachers who actively supported them using skills they had learnt in their training, which included:

- actively providing additional classroom support to help children with specific skills and comprehension
- enabling peer-to-peer support, which not only assisted learning but built self-esteem and friendship networks
- using locally-produced resources (e.g. stones/chopsticks for maths, flashcards for literacy), often produced by community members
- actively engaging parents to support children's learning at home (Grimes, 2009: 106-107).

Similarly, the DFID supported Gansu Basic Education Project (GBEP) in China introduced 'measures to ensure good learning opportunities for children with special educational needs' (Deng and Holdsworth, 2007: 507). Baseline data revealed that, prior to GBEP's launch, approximately 30% of children with mild physical or sensory disabilities had been accepted for enrolment in schools 'out of sympathy,' but were 'found in the corners of the classrooms' and received no extra help, effectively being excluded in an 'inclusive' setting. Parents reported fears of sending their children to school due to bullying and doubts about the value of their education. Within 2 years of the project's

inception, enrolment of girls and boys with disabilities and difficulties in learning had risen to about 60% as a result of improved parent and community awareness.

A study of teachers in Lesotho observed that there was a lack of emphasis on differentiation or accommodation of learners' needs in large group settings, in spite of in-service training provided by the Special Education Unit at the Ministry of Education. This highlights inadequacies in teacher education, discussed above, which leave teachers ill-equipped to teach girls and boys with specific learning needs in an inclusive classroom. At the same time, the Lesotho study found that teachers had positive attitudes, and some offered lessons in their spare time to girls and boys with disabilities and those who experienced difficulty in learning (Johnstone and Chapman, 2009).

Peer-to-peer learning and child-friendly approaches

Encouraging cooperation between students through peer-to-peer learning (also referred to as child-to-child approaches), has the potential to maximise participation as well as achieve high learning standards for all. A study in India found that:

> 'A common practice adopted by all teachers was to involve other children in helping the child with disabilities. This was done primarily through making changes to the classroom seating arrangement. Teachers made the child with disabilities sit with a 'good' student, who was then instructed to help her/his partner' (Singal, 2008: 1523).

However, concerns were raised by teachers that a great deal was expected of the most able students, who sometimes became proxy teaching assistants. As with any inclusive learning strategy, the quality of the intervention varies considerably and a great deal depends on the quality of the teachers involved.

In Pakistan, a 2007 pilot programme to introduce inclusive schools in Balochistan found that child-friendly teaching and learning methodologies improved average academic performance of all children, including those with disabilities (Acedo et al., 2011). This pilot led to the Islamabad Commitment on Inclusive and Child-Friendly Education and the establishment of 3,000 child-friendly schools targeting 700,000 children with disabilities. The Commitment is supported by the Ministry of Education and UNICEF.

In contrast to this confidence in the child-friendly approach, a recent survey of 12,576 government schools in rural India found that child-friendly approaches, though 'well intentioned' and designed to increase inclusion in learning environments, had insignificant effects on test scores (Das, 2014: 1). The study was the first quantitative evidence of the impact of child-friendly approaches in India and looked at pedagogical practices through high quality classroom observations. Das (2014) found that the popularity of child-friendly approaches in policy discourse was disproportionate to their actual impact on learning outcomes, thus highlighting potentially substantial flaws in the available evidence base on child-friendly approaches. However children with disabilities and/or with identified difficulties in learning were not included in this study.

Specialist support to mainstream schools

This section reviews a range of specialist interventions including the deployment of itinerant teachers, resource rooms, sometimes referred to as special units, and the provision of assistive devices and learning materials.

Itinerant teachers

In Kenya, Uganda and Malawi specialist support is provided to children with visual impairments and their teachers in mainstream classrooms through the employment of 'itinerant' teachers. This model was first introduced in Kenya by Sightsavers in the 1980s, and more recently has been introduced to support children with hearing and intellectual impairments in Malawi.

In Malawi, itinerant teachers work full-time in their role as specialist itinerant teachers, whereas in Kenya and Uganda they are employed as mainstream class teachers with permission to conduct itinerant teacher duties. Kenya has the most well-developed and successful system of itinerant teachers. Evidence of the progress of itinerant teacher programmes has been studied by researchers based at the Visual Impairment Centre for Teaching and Research (VICTAR), established in 2001 at Birmingham University, (see for example, Lynch et al., 2011). Trained in inclusive or special education, itinerant teachers aim to ensure that assistive devices are working, provide advice, support and resources to children, families and teachers about the importance of education for children with disabilities (this includes attending church services and village elders' meetings to raise awareness in Uganda; Lynch et al., 2011), and liaise with teachers to strengthen inclusive classroom learning and practice.

Itinerant teachers are considered to have a key role to play in supporting participation and learning in the classroom. They may provide technical one-to-one support (e.g. teaching numeracy with an abacus, teaching sign language, transcribing tests into Braille), support transitions from home to mainstream classrooms and enable girls and boys with disabilities to engage with the curriculum. They may also provide regular advice and guidance to mainstream teachers on inclusion issues and challenges, such as best placement of pupils within the classroom, basic adaptations of learning materials and so on.

One of the limitations of the itinerant teacher approach is that caseloads tend to be very large and distances too great, preventing teachers from making regular school visits and meaning that coverage can be patchy. The difficulty of balancing regular teaching responsibilities with the demands of the itinerant teacher caseload is another limitation (Lynch et al., 2011).

Resource rooms

Resource rooms (sometimes referred to as 'special units', 'support rooms', or 'transitory classes' can facilitate the inclusion of girls and boys with disabilities in mainstream schools by providing additional specialist services, with a view to supporting transition into a mainstream class, although children often remain in the resource room setting. In Rwanda, resource rooms have been developed and equipped with locally-made educational resources in over 27 schools in order to ensure access to, and support for, the education of students with disabilities, including those who are deaf. Parents work with teachers on a rota basis in the resource rooms to develop educational materials (Karangwa, 2013).

Mainstream primary schools in El Salvador similarly have 'support rooms' which provide assessments of needs, individual or small group instruction, support for regular teachers, speech and language therapy, and work closely with parents, receiving a budget from the Ministry of Education. By 2005, 10% of all primary schools had such support rooms (WHO, 2011: 221).

In Uganda, a total of 123 deaf children are supported by 14 units attached to primary schools in Bushenyi District – this amounts to around 8% of the deaf school-age population in the district being registered as attending school, compared to only 2% nationally (Miles et al., 2011). Prior to these units, early identification of children with disabilities and formal education was provided by Danida-funded resource centres (1984-2000, after when external funding ceased). The later, less resource intensive initiative, focusing on deaf children, was supported by Deaf Child Worldwide and VSO and paid particular attention to teaching parents, teachers and pupils Ugandan Sign Language, and on addressing the negative attitudes in the community to the inclusion of deaf girls and boys in primary schools. The first cohort of teachers to receive training was exposed to good practice, learned sign language, and went on to teach a second cohort of teachers using a cascade model. An evaluation found that the language competency of this second cohort was weak and as a result children's own language acquisition and development was constrained (Wapling, 2010). The evaluation recommended that opportunities be created for deaf girls and boys to meet with deaf adults or students with advanced sign language competence to enhance their language development.

While there are clear benefits to enhancing access and inclusion of disabled learners in mainstream settings, the establishment of resource units and rooms in low and middle income countries is fraught with challenges. Stubbs (2008) does not recommend resource units as a strategy for inclusive learning, and has identified the following barriers to implementation:

- Substantial additional funding for resource rooms can lead to resentment among teachers who have under-resourced classrooms and large class sizes.
- Teachers with additional qualifications in special education tend to receive higher salaries, which can also fuel resentment.
- Teachers who do not have specialist qualifications often struggle to teach 'problem' children, and so label them as having 'special needs' in order to shift responsibility for them to the resource room teachers.
- Children with a wide range of impairments tend to be grouped together according to their characteristics, rather than their learning needs.
- Stigma and separation are perpetuated, as some girls and boys remain in the resource rooms on a permanent basis.
- Children and teachers in regular classrooms do not receive adequate support (Stubbs, 2008: 44-45).

Assistive devices and learning materials

Recognising the diversity of educationally significant impairments and providing assistive devices, where possible, is a critical component of support for inclusive learning. Ensuring the provision of the right assistive devices (spectacles, magnifying glasses, telescopes, hearing aids, mobility aids) and adapted materials (Braille textbooks, large print materials) is an essential part of well-supported inclusive learning. There can, however, be considerable logistical challenges in providing such additional resources, especially in rural and low income settings. Limited finance, lack of collaboration between ministries of health, education and social welfare, social stigma, and the need

to train and deploy professionals to monitor, maintain and evaluate these devices (Lynch and Lund, 2011) are some of the key barriers.

Eye glasses are one of the most straightforward and least expensive assistive devices and in China's Gansu province the economic benefits of giving glasses to children has been shown to outweigh the costs, as well as to improve test scores:

> 'A randomized control trial was implemented in 25 townships of two counties in Gansu, which included about 19,000 children in 165 schools, of whom about 12% had poor vision. The results indicate that offering eyeglasses to children with poor vision increases their test scores (averaged over three subjects) by between 0.11 to 0.16 standard deviations of the distribution of those test scores, depending on the estimation method used' (Glewwe et al., 2012: 34-35).

In spite of these results, around one third of children or household heads refused the glasses because of social stigma associated with having an impairment, and a larger number of boys (74%) than girls (66%) accepted the prescription of eyeglasses (Glewwe et al., 2012). The Gansu province experience helps explain why so many disability-focused organisations prioritise awareness raising and the addressing of negative attitudes, and why there is so little evidence on the impact of inclusive learning initiatives in developing countries.

Programmes in southern Africa which address the particular needs of children with albinism routinely address extreme stigma, alongside delivering practical help to address poor eye sight and reduce the risk of skin cancer. In Malawi, it is reported that:

> 'The most effective, cheapest and most accepted form of 'aid' is a wide brimmed hat and dark glasses. If children with albinism are allowed to wear a hat both inside and outside the classroom, this will help protect their very sensitive eyes from bright light and improve their vision. Hand held magnifiers are also useful, but compliance may be low. Prescription spectacles will correct some visual problems such as astigmatism, which will improve visual performance, *but these are relatively expensive, may get broken and require regular check-ups at optometrists'* [italics added] (Lynch and Lund, 2011: 38).

Lynch et al. (2011) found that itinerant teachers in Kenya were making effective use of local materials to support the learning of children with low vision. However, high pupil-to-textbook ratios were found to be problematic, when students had to share texts and those with visual impairments struggled to access the materials. As a result some itinerant teachers transcribed textbooks by hand into large print during the holidays, but this is clearly neither an efficient use of their time, nor a sustainable approach (Lynch et al., 2011). Girls and boys with severe visual impairments also need specialised assistance: brailling of textbooks is essential and these books must be made durable; video magnifiers (also known as closed circuit television systems, or CCTVs) have been made available in some Nairobi resource centres but are impractical in rural primary schools which do not have electricity supplies, and so are rare outside of urban contexts (Lynch et al., 2011).

In a study of the barriers to full educational access for learners with albinism in central and southern Malawi, Lynch et al. (2014) reported that, 'Although albinism affects both genders equally, the

number of girls attending resource centres is significantly lower than boys', and that one of the possible explanations is parental concerns about girls attending centres managed primarily by male staff. This observation is indicative of many other studies reviewed here, where occasional observations are made about gender inequality, but gender analysis was not built into the study design. This indicates a need for a greater awareness of intersectionality and more gender-sensitive approaches to research and development work, as UNICEF (2013) suggests, 'Integrating age, gender and diversity awareness, including paying special attention to the multiple discrimination faced by women and girls with disabilities is critical for disability-inclusive programming'.

Regular breaks

Inclusive classroom practice recognises the importance of play and breaks during lessons. Play fosters critical skills, such as problem solving, planning, turn taking and sharing. Wapling (2010) argues that children with disabilities have often not been given the freedom to play and socialise because they may have been rejected by their peers or kept at home by overprotective parents. Breaks between activities are particularly helpful for all girls and boys, but particularly those with hearing impairments who can find transitioning between lessons and subjects a challenge, and need time to prepare for a new topic or activity. Deaf children find learning tiring, due to the level of concentration required, and so benefit from short breaks in between lessons, with opportunities to play and interact with their peers. This can help them concentrate better, develop essential social and linguistic skills and maximise their time in class (Wapling, 2010).

Pedagogy

In many classrooms, teaching and learning is aimed at the majority, who are perceived to have common characteristics and common learning needs. The concept of 'inclusive pedagogy' is relatively new in high income contexts, and virtually non-existent in low and middle income countries. There are ongoing debates about the extent to which learners with disabilities require a specific, adapted 'special' pedagogy, sensitive to the needs of sub-groups (such as visually-impaired learners) while other scholars argue that it is sufficient to promote the development of pedagogies that treat all children as individuals (Croft, 2013).

See Figure 3 for an illustration of inclusive pedagogy: as a dynamic relationship between responding to learners as having common characteristics; as sharing the characteristics of a sub-group; and as a way of understanding individuals. Most children have a complex mixture of individual, group and common characteristics, and inclusive pedagogy aims to address the diverse educational needs arising from children's characteristics and their personal circumstances (e.g. orphaned, displaced).
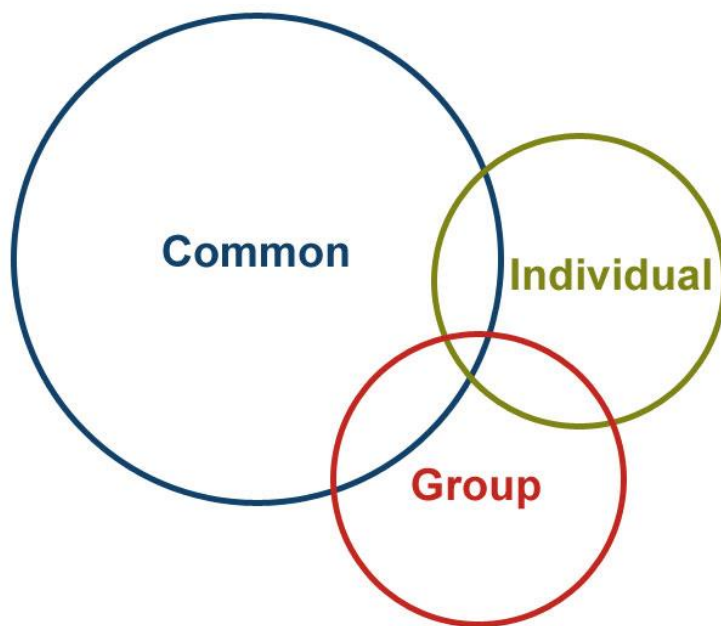
Figure 3: Inclusive pedagogy: a response to learners' common, group and individual characteristics and situations (adapted with permission from Croft, 2013: 235).

The way teachers understand and conceptualise 'difference' in broad terms (gender, disability, ethnicity, culture) is integral to inclusive pedagogy, as are the repertoires, or range of techniques that teachers use to respond to those differences, and in particular to those who experience difficulties in learning.

> 'Inclusive pedagogy … accepts that learners have individual differences but sees pedagogically significant differences as located in the interaction between the learner and the school and therefore within the teacher's influence and responsibility' (Croft 2010: 28).

Pedagogical practice that labels girls and boys 'special' or 'slow' can lead to stigmatisation, exclusion and low expectations of learners by their teachers. In Mpika, Zambia, 'Most of the teachers believed that inclusive education was not their responsibility. They saw it as a specialist issue associated with 'special needs' and disabilities' (Miles, 2009: 616). Teachers in Mpika collaborated in a process of problem-based learning, involving reflective writing and regular after-school discussions led by an in-service teacher educator, and they began to realise that they already had significant skills in managing large inclusive classes, and in responding to children with diverse needs such as those who were poor attenders, orphans and teenage mothers (Miles, 2009). Engaging in this process helped the teachers to appreciate their existing skills, grow in confidence, and take risks in developing greater competence as inclusive teachers.

Multi-grade teaching

Multi-grade teaching is challenging even for the most committed and well trained teachers, though it has often been presented as the only viable approach for governments wishing to expand access and deliver Education for All (Croft, 2006). Where teachers and schools have successfully adapted to multi-grade teaching this has been recognised as potentially beneficial in promoting greater teacher awareness of learner diversity, an appreciation of the importance of differentiating learning. It also has a wider impact on progression through grades, transition from primary to secondary and better learning outcomes (Croft, 2006).

Multi-grade teaching approaches can help teachers better understand that 'difference' is not something that only applies to learners with disabilities or with obvious physical impairments. However, this understanding also needs to include recognition of diversity within sub-groups of learners. Many specialised resource units attached to mainstream schools cater to girls and boys of different ages and grade levels. In a study of units catering to deaf Ugandan girls and boys, Wapling (2010: 11) found that 'whilst staff were generally very good at differentiating work according to assumed primary grade level there was much less attention being paid to the children's varying abilities within those grades'. This had particular consequence for language acquisition and demonstrates the complexity of the challenges faced by teachers in their classrooms day to day.

Research directions

The evidence reviewed indicates the following gaps in the literature, which are worthy of attention in future research:

- the impact of low-cost aids and appliances on learning outcomes (wide-brimmed hats, dark glasses, regular eye glasses, magnifiers, mobility aids, adapted furniture, accessible toilets)
- the role of technology in supporting inclusive learning (personalised computer-based learning for learners with visual difficulties and cognitive impairments, hearing aids)
- resource modelling for assistive devices, including education workforce development and deployment
- the impact of education offered in resource rooms on learning outcomes, and on progression to secondary education, and employment
- effectiveness of peer support strategies in promoting inclusive learning and improving learning outcomes
- differentiated teaching strategies and flexible classroom practices for responding to children with diverse learning needs
- studies of inclusive learning disaggregated by gender and type of disability and difficulty in learning.

Part D: What does the move towards more inclusive learning mean for school organisation and leadership, and what are the implications for financing, curriculum and assessment?

Summary of evidence

Accountability mechanisms can play a potentially useful role in identifying challenges to inclusive learning.

- Various models exist for the financing of inclusive learning.
- Leadership teams can play a role in sustaining inclusive learning.
- Building physically accessible schools is more cost effective than making subsequent adaptations.

This section summarises the limited evidence available on some of the practical school management considerations in the implementation of inclusive learning approaches. This includes the physical accessibility of the learning environment; the adaptation of curricula and assessment structures; and financing and investment for inclusion.

School leadership and organisation

The World Report on Disability underlines the importance, and 'cost-neutral' nature, of 'strong and continuous leadership at the national and school levels' of an inclusive education system (WHO, 2011: 216). Experience from China shows that commitment from local leadership and working groups made up of representatives from county, prefecture and province, can underpin and ensure successful implementation of inclusive learning approaches. Ten 'outstanding' individuals were identified from the Gansu Basic Education Project to become members of a team tasked with developing locally relevant special education training materials (Deng and Holdsworth, 2007). Supported by international and national consultants, they became 'local experts in special education' and played a leadership role in cascade training, consultation and mobilisation.

The Special Education Needs Division of the Ghana Education Service has recently developed a monitoring tool to enable mainstream schools to self-assess their progress on the inclusion and learning of girls and boys with disabilities. Supported by UNICEF, this was implemented across 12 districts in the 2013/14 academic year and there are plans to expand nationally. The Inclusive Education Management Tool enables the collection of data on access, participation and academic success, and consists of:

- a checklist of 25 indicators plus a comment box
- a list of 15 statistical items on children with disabilities, data disaggregated by impairment/needs
- a guide for monitoring process (scoring, weighting, frequency, school visits, etc.).

While it is too early for a detailed assessment of the tool's effectiveness, initial testing suggests that it successfully highlights challenges to inclusion, such as teacher shortages, absenteeism and poor teaching methodologies (Otaah et al., 2013).

Based on their review of education sector planning and provision in 28 low and middle income countries, Bines and Lei (2011: 423) suggest that it is important to identify a 'local service delivery unit which can then be developed as a locus for both resources allocation and capacity development in relation to inclusion'. At school level they recommend the development of whole school policies, with the employment of 'at least one trained specialist teacher per school' (Bines and Lei, 2011: 423).

A focus on school management, and greater links between leadership and improving the quality of education for all learners, led to positive educational outcomes (such as grade passing, primary retention and completion rates) in inclusive schools in Lao PDR (Grimes, 2009). Teachers became more actively engaged, motivated and positively committed to their work, as a result of these improvements.

Figure 4 is an example of a tool which can be used in a relatively straightforward way by teachers and educational administrators to analyse in a systematic way the reforms that are needed in a given context to develop a more flexible, responsive and inclusive education system.

Level of education system

Type of access	International	National	Region	District	School	Department (in larger schools)	Class/ Teacher	Students: Individuals or groups
Physical and bureaucratic access to school, within the school, within the classroom								
***Access to teaching, learning and assessment**								

* Relevant curriculum and materials, motivation and emotional security, teaching and learning in a comprehensible language, participation in constructing and applying knowledge, fair assessment for pedagogic and social purposes

Figure 4: Sites of possible educational interventions to support the access of disabled children and youth to schooling (Croft, 2013: p236).

Financing inclusive learning – what works?

The World Report on Disability summarises three ways of financing inclusive learning (WHO, 2011: 218):

  i.   national: through sector budgets
  ii.   institutional: through materials, teaching aids, operational support
  iii.   individual: through support to specific needs of learners.

Many countries use a blend of financing methods. The WHO report (2011: 219) concludes that whichever approach is taken, funding models should be easily comprehensible, flexible as well as predictable, provide adequate resource, be 'cost-based and allow for cost control,' embed special education within general education provision and 'be neutral in identification and placement'. Furthermore:

> 'While the costs of special schools and inclusive schools are difficult to determine it is generally agreed that inclusive settings are more cost-effective. Inclusion has the best chance of success when school funding is decentralized, budgets are delegated to the local level, and funds are based on total enrolment and other indicators' (WHO, 2011: 220).

This is reflected in findings from a study in Vietnam which found that the, 'per pupil cost … has averaged US$58 per year, as compared with the US$400 average for services in segregated schools and the US$20 average for general education students' (Villa et al., 2003: 25-26). While this clearly shows that the cost of including a disabled child within the mainstream classroom is higher than that of 'general education students,' inclusion is not only cost effective but less costly than segregated forms of education, and exclusion. This finding is mirrored at the macro-economic level, and is illustrated in Section 3 (Thomas and Burnett, 2013).

Common approaches to the financing of inclusive services are highlighted by Bines and Lei (2011) in their review of education sector plans submitted to the Fast Track Initiative (now Global Partnership for Education). The following three approaches are indicative of the recent trend to decentralise education systems:

- funding tied to individual pupils identified as having a disability or special educational need and distributed through a mediating local authority or directly to the school/institution
- funding based on services provided, for example providing additional resources to schools which include children with disabilities. This resource-based approach can incentivise inclusion. In Uganda, schools are being provided with direct grants to enhance inclusion without 'much increase in transaction costs' by supporting accessible infrastructure, curricula and teaching methodologies.
- output-based models which provide funding on the basis of student attainment and outcomes exist, but are unpopular and 'difficult to implement fairly'.

The Bushenyi District Education Office in Uganda built units for deaf children in response to demands from parents (Miles et al., 2011). The financing is built into the general education planning and budgeting system. Increased demand for services has put pressure on the government to provide more specially trained teachers through the main education budget. Demand has risen steadily, providing educational administrators with numbers of children needing more specialist provision.

Curriculum

An inclusive curriculum which accommodates all learners' needs requires structure with flexibility. It must have the capacity to accommodate a range of learning styles, to emphasise the acquisition of relevant knowledge and skills, and be structured around varying levels of entry skills to enable assessment of progress in ways that allow all learners to experience success (Acedo et al., 2011).

In India, the National Curriculum Framework for School Education made recommendations for modifications to the content, presentation and transaction strategies to enable children with special needs to enter inclusive schools. This included preparing teachers and developing learning-friendly evaluation procedures. However, these have not yet been addressed in any sustained way (Singal, 2009: 28).

Teachers in Lao PDR found the provision of differentiated curriculum activities for children with disabilities a significant challenge, as was developing more complex classroom management strategies to maintain the engagement of children in their work. Teachers struggled to develop the skills needed to deliver a differentiated curriculum in maths and science in particular. Older students with visual impairments reported loss of motivation because of the challenges of accessing the curriculum at Upper Secondary Level (Grimes, 2009: 99).

Malaysia's Curriculum Development Centre produced an alternative 'Integrative Curriculum' in 2008 that focused more on the 'life skills' thought appropriate for children with disabilities (Acedo et al., 2011). Achieving a balance between high teacher expectations in relation to children's learning, and the development of relevant and meaningful curricula suitable for children with diverse learning needs, is a major challenge to developing inclusive learning.

Evidence from developing countries suggests that blind children may present particular challenges for teachers and curricula in mainstream settings as these learners require an expanded core curriculum that includes the development of orientation and mobility skills, self-help and independence skills, Braille literacy, and listening skills (Lynch et al., 2011).

Extra-curricular activities, including after-school and holiday clubs, have been found to be useful in supporting the learning and skills acquisition of children with disabilities, particularly in their pre-school years, and in the early stages of their enrolment in formal education. Wapling (2010) recommends the introduction of extra-curricular activities for deaf children's language development in Uganda to enable children to become fluent enough in a first language (oral or sign) before they are placed into the first grade to enable their access to the mainstream syllabus. Lynch and McCall (2007) suggest that 'Braille schools' could be provided during the holidays for teachers and children, to enable the development and refinement of Braille skills, and exposure to additional reading materials.

Curriculum changes to promote inclusion were introduced in Papua New Guinea with the support of the Australian Aid Programme. Designed to respond to the diverse needs of students, the curriculum has been critiqued for being shaped by Western educational ideology, rooted in pedagogical ideals which conflict with local or school level understandings of education, and inappropriate for the national context. As a result, the 'stakeholders were unable and unwilling to adopt many of the precepts of the new curriculum' (Le Fanu, 2013: 139). These findings have led Le Fanu (2013) to emphasise the importance of contextualising the concept of inclusive learning, to critique 'global inclusionism', as promoted by UNESCO, and argue instead for 'grounded inclusionism', rooted in, and sensitive to, local realities.

Assessment: Recognising and addressing individual differences

There is debate about how best to assess and measure learning outcomes for girls and boys who experience difficulties in learning, or who need adaptations to be made to the assessment process. Learner-centred approaches recognise individual differences and ways of learning and therefore curricula, teaching methods and materials, assessment and examination systems, and classroom management need to respond to this. There is still a long way to go: a 2008 survey in Tanzania found that children with disabilities who attended primary school progressed to higher levels of education at only half the rate of children without disabilities (UNICEF, 2013).

The World Report on Disability (WHO, 2011) suggested that assessment practices can facilitate or hinder inclusion. Streaming by ability and focusing on academic attainment promotes exclusion, while mixed ability and multi-grade teaching has the potential to be more inclusive. The WHO Report suggests that:

- Assessment procedures should promote learning for all students.
- All students should be entitled to be part of all assessment procedures.
- The needs of students with disabilities should be considered within all general assessment policies, as well as within policies on disability-specific assessment.
- The assessment procedures should complement each other.
- The assessment procedures should aim to promote diversity by identifying and valuing the progress and achievements of each student.
- Inclusive assessment procedures should explicitly aim to prevent segregation by avoiding – as far as possible – forms of labelling. Instead, assessments should focus on learning and teaching practices that lead to more inclusion in a mainstream setting (WHO, 2011: 220).

Evidence of the learning outcomes of children with disabilities is uncommon because they tend not to participate in assessments, and because data is not yet disaggregated in this way (UNESCO, 2014). Sample sizes are often too small to allow analysis even when they are broken down. In Uganda, literacy rates of young people with different types of impairment have been compared in a rare example of the sample size being sufficiently large:

> 'In 2011, around 60% of young people with no identified impairment were literate. By contrast, only 47% of young people with physical or hearing impairments were literate. Those with mental impairments were least likely to be literate: only 38% could read or write a simple sentence. Other sources confirm the scale of this disadvantage. In the United Republic of Tanzania, a survey on disability found that the literacy rate for people with a disability was 52%, compared with 75% for people without a disability' (UNESCO, 2014).

Inclusive and accessible design

Building schools which are physically accessible is cost effective. Research has demonstrated that the cost of accessibility is generally less than 1% of total construction cost, but the cost of making adaptations after a building is completed is far greater (Steinfield, 2005). While the design of accessible school buildings (such as wide, wheelchair accessible doorways, ramps, large windows, and painting classroom walls white) may be beyond the control of many teachers, there are some straightforward adaptations that can be made to the physical structure and furniture of the classroom which can, in turn, make a big difference to the quality of teaching and learning for all children. See INEE (2009; 2010) for some practical examples of ways that teachers can overcome the

common challenges of poor quality lighting, inadequate or inflexible furniture, and noisy, over-crowded classrooms. See Figure 5, which illustrates an inclusive (modern and well equipped) classroom environment.
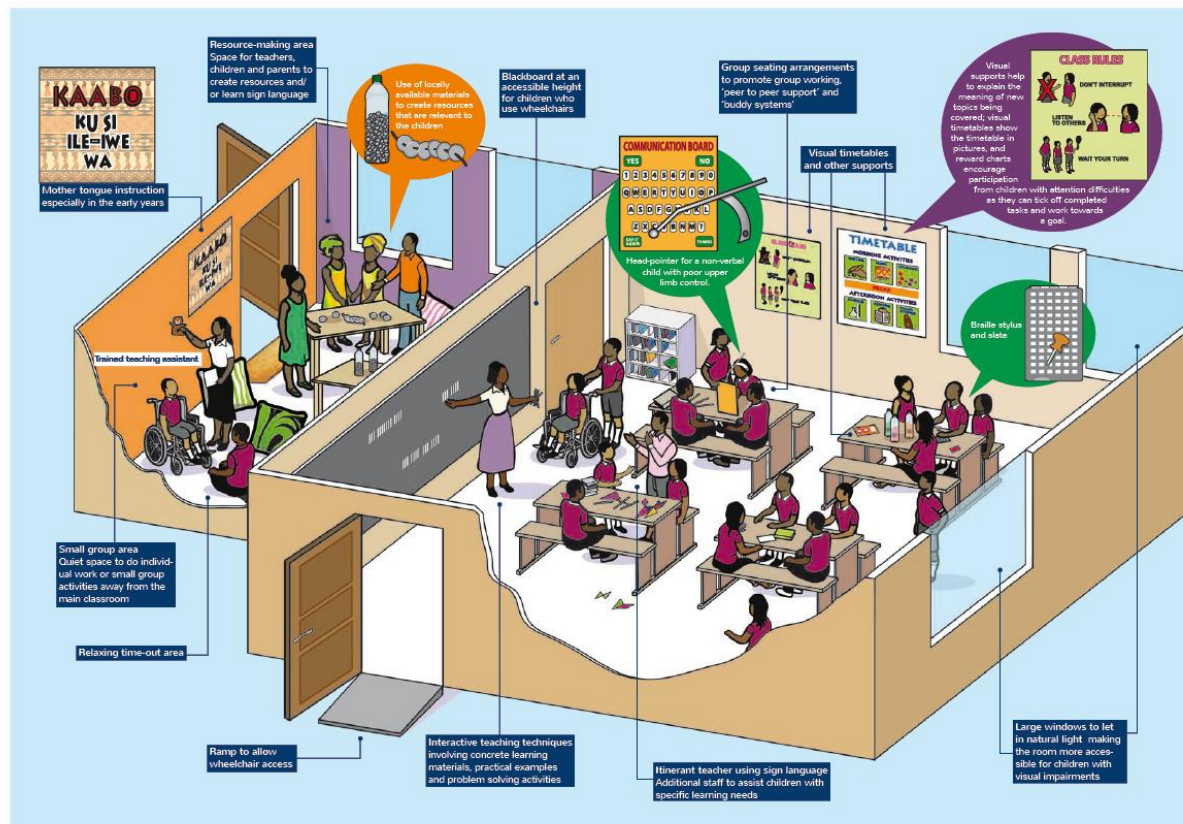
Figure 5: Inclusive classroom environment (Illustration by Dave McTaggart www.davemctaggart.co.uk, reproduced from Global Campaign for Education, 2014).

Research directions

The evidence reviewed indicates the following gaps in the literature, which are worthy of attention in future research:

- the relationship between leadership and inclusive classroom practice
- measuring and assessing learning outcomes of learners with disabilities
- the relationship between learning metrics and inclusive learning
- flexible arrangements for children with disabilities and difficulties in learning to participate in examinations
- finance models for inclusive learning
- the cost of providing assistive devices to facilitate inclusive learning.

Part E: What evidence is there of the importance of broader links to families, community, primary health care and early identification?

> **Summary of evidence**
>
> - Engagement with parents and local communities reduces stigma and discrimination and can improve enrolment, attendance and learning outcomes.
> - Community-based rehabilitation (CBR) services can provide important linkages between families, schools and the wider community that tackle discrimination and promote engagement in learning.
> - Local communities can play an active role in producing resources and promoting inclusion.
> - Extra-curricular activities can support inclusive learning, but are often NGO dependent and difficult to sustain.

Children and young people need to feel supported within a wider network of family and community in order for inclusive learning to be effective and is an essential component of the broader process of social inclusion. Similarly, integrated planning and cooperation between health, education and social care sectors can ensure appropriate rehabilitation support is provided, and improve identification, management and prevention of disabilities.

Community engagement

The importance of community ownership and support for inclusive learning to be successful is recognised in the literature. Villa et al.'s (2003) study from Vietnam identifies this as a key lesson for the international community to adopt. Religious leaders, representatives from the Farmer's and Women's Unions, district education staff, the Communist Party and other stakeholders were brought together to learn about the benefits of inclusion. The group went door-to-door in each commune (made up of 5,000 to7,000 residents) to identify girls and boys with disabilities who were being left at home and encourage parents to send them to school. In addition to advocacy and awareness-raising, the group carried out practical tasks that helped to cement and sustain inclusion within the community, or as the researchers put it:

> 'This is the group that finds an old tricycle that a kindergartner can use as a wheelchair substitute when no resources exist to fund a wheelchair. This is the group that guts and renovates an abandoned downtown office to create an inclusive pre-school, so the commune's pre-schoolers with and without disabilities can be educated together. This is the group that can talk to the leadership down the road about their commitment, creative solution finding and success' (Villa et al., 2003: 31).

Research by the DFID-funded EdQual consortium into educational disadvantage more broadly suggests that home and community environment can be an important influence on learning outcomes, especially for those children who are most socio-economically disadvantaged (EdQual, 2010a). 'Living outside of a stable family environment, lacking basic resources, poor nutrition, and learning in a language not commonly used outside of school are all predictors of low levels of literacy and numeracy' (EdQual, 2010b). EdQual (2010b) research indicates the positive benefits of an enabling home and community environment that promotes learning needs, parental support and education; community voice and stakeholder engagement in governance; the provision of resources

and a place to study at home; links between home and school; and the availability of school meals to aid concentration as well as cognitive development.

Community-based rehabilitation (CBR) services include early identification and prevention, referrals of children to appropriate schools, advocacy, supporting teachers and bridging gaps between home and school (WHO, 2011: 247). Like itinerant teachers, CBR workers can advise on accessibility, galvanise community support in building low-cost ramps for wheelchair access, provide assistive devices, campaign for inclusive sanitation, arrange medical treatment, and secure training and employment as learners prepare for the transition to employment

Inter-sectoral collaboration, especially between health, social care and education, is essential to ensure that rehabilitation programmes are accessible and supportive of education. It is recommended that stronger links are developed between efforts to promote inclusive early childhood education and screening and intervention services for children with disabilities (Yousafzai et al., 2014). Basic health prevention measures such as awareness of, and treatment for, middle ear disease (otitis media), for example, can be critical in preventing children from losing their hearing and so staying in school.

As indicated already, parents have a key role to play in facilitating their children's learning and there are precedents in Lebanon, Panama and Zanzibar of parents actively engaging with governments through legal processes to deliver inclusive school-based learning and community-based teacher development programmes (WHO, 2011: 249). Children of parents who are involved in their education do better, offering a low-cost solution to educational exclusion (WHO, 2011: 251).

Training for parents and communities is a common approach of inclusive initiatives aimed at reducing stigma and discrimination. In Afghanistan, in 2009-2011 a pilot inclusive education programme led by the Ministry of Education, UNICEF and UNESCO saw the training of 100 teachers and 350 parents in inclusive approaches (Acedo et al., 2011). In the slums of Kolkata, India, the Institute of Cerebral Palsy has trained parents (particularly mothers) and others in communities to help teach children and provide training for others using a bespoke package (Bines and Lei, 2011: 423). In this way, parents and communities have supported the capacity of education systems and schools to deliver good quality inclusive education.

In Uganda, parents of deaf children overcame their initial scepticism and resistance to their children's enrolment in school through attending sign language classes (Wapling, 2010). Parents have played an important role in identifying their children's deafness and supporting their education in a wide range of countries and this has been documented by Deaf Child Worldwide (Wilson et al., 2008).

In Lao PDR, Save the Children found that inclusive schools with good working relationships with local communities were more likely to be successful; they had demonstrable reductions in grade repetition and improved attendance (Grimes, 2009). Community members were, for example, drawn upon to produce resources to support classroom learning.

In Mongolia, a teacher education programme developed a community outreach component for which sign language classes were provided to parents and classmates of deaf children. Sign language was subsequently used in class to support the learning of deaf children. A review by Save the

Children found that such processes led to significant attitudinal shifts, reducing stigma and discrimination of children with disabilities within their communities (Save the Children, 2008).

In Bangladesh, local and national networking has helped to support and promote access to and retention in local schools for children with disabilities. Blind adults belonging to self-help groups, with links to CBR programmes, have played a key role in this process (Miles et al., 2012). This complex web of networking relationships includes government departments concerned with health, education and social welfare, disability-focused NGOs, and mainstream development agencies and networks.

Disabled people's organisations, though often poorly resourced, have a key role to play in promoting education, encouraging parents to send their children to school, building confidence and providing role models which address stigma and discrimination. The Southern Africa Federation of the Disabled, for example, has been running programmes for 15 years to promote the inclusion of disabled children in education (WHO, 2011).

Education in humanitarian contexts can help protect children with disabilities from risks and reduce vulnerability, as well as building their resilience and empowering them to develop knowledge of health, communications technologies and politics. Failure to reach these children and their parents, however, has been shown to be the norm for a range of humanitarian interventions in conflict-affected countries and has unintentionally recreated the experience of exclusion already felt by children with disabilities and their families (Trani et al., 2011). Interventions in these circumstances have the opportunity to 'build back better' by encouraging parents of children with disabilities to engage with parent-teacher associations or school management committees to ensure they have a voice in creating an enabling environment for their children and that schools provide a channel for medical, social, nutritional and developmental resources, as well as education (Trani et al., 2011: 1200).

Research directions

The evidence reviewed indicates the following gaps in the literature, which are worthy of attention in future research:

- links between CBR programmes and inclusive learning initiatives
- parent engagement in, and support for, inclusive learning
- children's experience of inclusive learning
- protective benefits of inclusive learning in humanitarian emergencies
- benefits of, and models for, effective inter-ministerial collaboration, including education, health, social welfare/protection, and finance.

Conclusion

Section 2 has summarised the available evidence from low and middle income countries on the types and effectiveness of approaches to inclusive learning. It identifies clear gaps in the literature on the impact of teaching and classroom strategies on learning outcomes for children with disabilities and difficulties in learning, contrasted with an over-representation of evidence on teacher attitudes towards inclusion.

Although the evidence base does not allow for conclusive or substantive recommendations to be made on the most enabling approaches to inclusive learning, it is clear that some strategies do have a positive impact on children with disabilities and those who experience difficulties in learning. These include enabling policy environments, targeted financing, multi-sectoral coordination, compulsory and accredited teacher development programmes which enable teachers to differentiate and adapt the classroom environment to improve accessibility, inclusive curricula and assessment and outreach to parents and communities that breaks down stigma and discrimination and strengthens relationships.

Research in education, disability and inclusion now needs a clearer, more focused agenda drawing on both qualitative and quantitative approaches – including case study-based research – to establish attendance rates and learning outcomes of children with disabilities, disaggregated by sex and impairment, in low and middle income countries. This will help national governments and donors better understand how investments can deliver good quality inclusive learning for all.

Section 3: Inclusive societies

This section considers how educational exclusion creates poverty and impacts on GDP. It also explores the ripple effect of inclusive learning on wider communities. The evidence shows that to be more inclusive, societies must ensure that all citizens have the opportunities they need to fulfil their potential, and that of their communities. It is also critical that transitions from education to the workplace are nurtured and supported, as this can have economic and social benefits for individuals, families, communities and the state.

Summary of evidence

- One in five of the world's poorest men and women are thought to be living with disabilities.
- Education has social and economic benefits for girls and boys with disabilities, their families and communities.
- Education has a role to play in encouraging acceptance of diversity and creating more tolerant and inclusive societies.
- The costs of maintaining large out-of-school populations are greater than the economic benefits to GDP of universal primary enrolment.
- The economic and social costs of disability are significant but hard to quantify.
- Children and young people with disabilities can benefit from early childhood education and tertiary provision – not just primary education.
- Teachers with and without disabilities can influence others by modelling inclusive practice in the classroom and community.
- Better educated individuals earn more, have greater job security and experience less unemployment.
- Environmental and attitudinal barriers can block transitions to employment.

Inclusive societies and inclusive growth

Economic growth does not automatically lead to benefits for poor and marginalised people. Discrimination and ill health, along with low levels of formal and vocational education, prevent poor women and men from enjoying the advantages of expanded economic opportunities. Sustainable inclusive growth requires the active removal of structural barriers that prevent poor and marginalised people, including men and women with disabilities, from finding jobs and increasing their incomes (DFID, 2014).

It is estimated that around one in five of the world's poorest people are living with disabilities (Elwan, 1999). Poverty is both the root cause, and result, of disability, and 'Disabled people have a higher likelihood of experiencing poverty because of the institutional, environmental and attitudinal discrimination faced, from birth or the moment of disablement onward (Yeo and Moore, 2003: 572). There is 'a worrisome vicious cycle of low schooling attainment and subsequent poverty among people with disabilities in developing countries' (Filmer, 2008: 141).

Inclusive growth is equitable, offers equality of opportunity to all as well as protection in market and employment transitions (Commission on Growth and Development, 2008). A necessary precondition for inclusive growth is a society which does not exclude or discriminate against its citizens on the basis of disability, caste, race, gender, family or community, a society which 'levels the playing field for investment' and leaves no one behind (Lanchovichina and Lundstrom, 2009: 3; UN, 2013b). In a study in Zambia of young adults who had been exposed to inclusive learning a decade previously, Serpell et al. (2011) found that their education could be attributed to civic participation, a greater appreciation of diversity, nurturing younger members, and helping those in need. Increased confidence, respect in the family and new friendships were attributed to inclusion in education in Nepal, as well as economic independence resulting from employment (Lamichhane, 2012). Although education did not always lead to economic benefits in India, young people with disabilities reported that it had boosted their social capital, enabling them to manage social relationships beyond the household (Singal et al., 2011).

Economic benefits of inclusion

According to UNESCO Institute of Statistics data, nearly 58 million children of primary school age were not enrolled in 2012 (UIS, 2014). While the cost of investments for universal primary education may be considerable, the costs of educational exclusion can be substantially higher in some countries. A study of 20 low and middle income countries found that enrolling children in primary education is a productive investment and that many economies suffer greater losses from maintaining large out-of-school populations than they would from increasing public spending to enrol those children in primary school (Thomas and Burnett, 2013).

The estimated costs of exclusion vary across countries, ranging from 1% of GDP in Thailand to 10% of GDP in Gambia. In nine countries with high out-of-school populations, the economic benefits of including all children in primary education are greater than multiple years of economic growth (Thomas and Burnett, 2013: 13). This includes Nigeria and Mali where the cost of out-of-school children is estimated to be more than 'two years of average GDP growth' (Thomas and Burnett, 2013: 13). Even in countries such as Brazil and Indonesia, where there are relatively low out-of-school populations, the economic gains of including marginalised groups in education are still greater than the public spending costs of enrolment (Thomas and Burnett, 2013).

Exclusion from education – and the economic opportunities that schooling creates for individuals – pushes people into poverty. Yet educating children with disabilities reduces welfare costs and future dependence; releases other household members from caring responsibilities, allowing them to engage in employment and other productive activities; and increases children's potential productivity and wealth creation which in turn helps to alleviate poverty (Peters, 2003).

Filmer (2008: 141) found that 'adults with disabilities typically live in poorer than average households: disability is associated with about a 10 percentage point probability of falling in the two poorest quintiles' and that 'each additional year of schooling is associated with about a 2 to 5 percentage point reduction in the probability of being in the two poorest quintiles' (Filmer, 2008: 150). Children with disabilities are less likely to attend school and acquire the human capital that will enable them to earn higher incomes than other children, suggesting that disability is associated with long-term poverty (Filmer, 2008).

'They are also less likely to start school, and in some countries they have lower transition rates. The school participation disability deficit is typically larger than deficits associated with characteristics such as gender, rural residence, or economic status' (Filmer, 2008: 159).

Filmer (2008) argues that, since the attainment gap between children with and without disabilities begins in Grade 1, and the disability deficit widens each year, efforts need to be made to increase enrolment and ensure retention in the early years of schooling.

Research from a wide range of economic contexts indicates that better educated individuals earn more, have greater job security, stronger social networks and experience less unemployment than their less well educated counterparts (Lamichhane, 2013). Education exerts a significant influence on wages, with one study from Nepal estimating returns to education for people with disabilities ranging from 19.3% to 25.6% (Lamichhane and Sawada, 2013: 86).

A similar study in the Philippines found that higher earnings among people with disabilities were associated with increased schooling, generating returns of more than 25% (Mori and Yamagata, 2009); and in China each additional year of schooling results in wage increases for people with disabilities of around 5% for rural residents and 8% for urban (Liao and Zhao, 2013). Lamichhane and Sawada (2013) found that the benefits of education to children with disabilities can be higher than those to people without disabilities, but they also found that returns diminish when learners with particular impairments (such as hearing impairments) do not receive the required support.

The findings of a systematic literature review on the economic costs of exclusion (focusing on health, education and employment) provide 'a robust empirical basis to support the theorised disability-poverty link', as a link between poverty and disability was reported in 80% of the studies (Morgon Banks and Polack, 2014: ii). The review also suggested that promoting inclusion in education can potentially offer social as well as financial gains to individuals, families, communities and the state as well as positive impacts on health, child and maternal mortality, population growth, gender empowerment, citizenship and crime, but 'further empirical research is urgently needed to understand the extent, magnitude and scope of exclusion costs and the impact of inclusive interventions' (Morgon Banks and Polack, 2014: v). Figure 6 highlights the broad impact of being included in education upon health, wealth and employment.
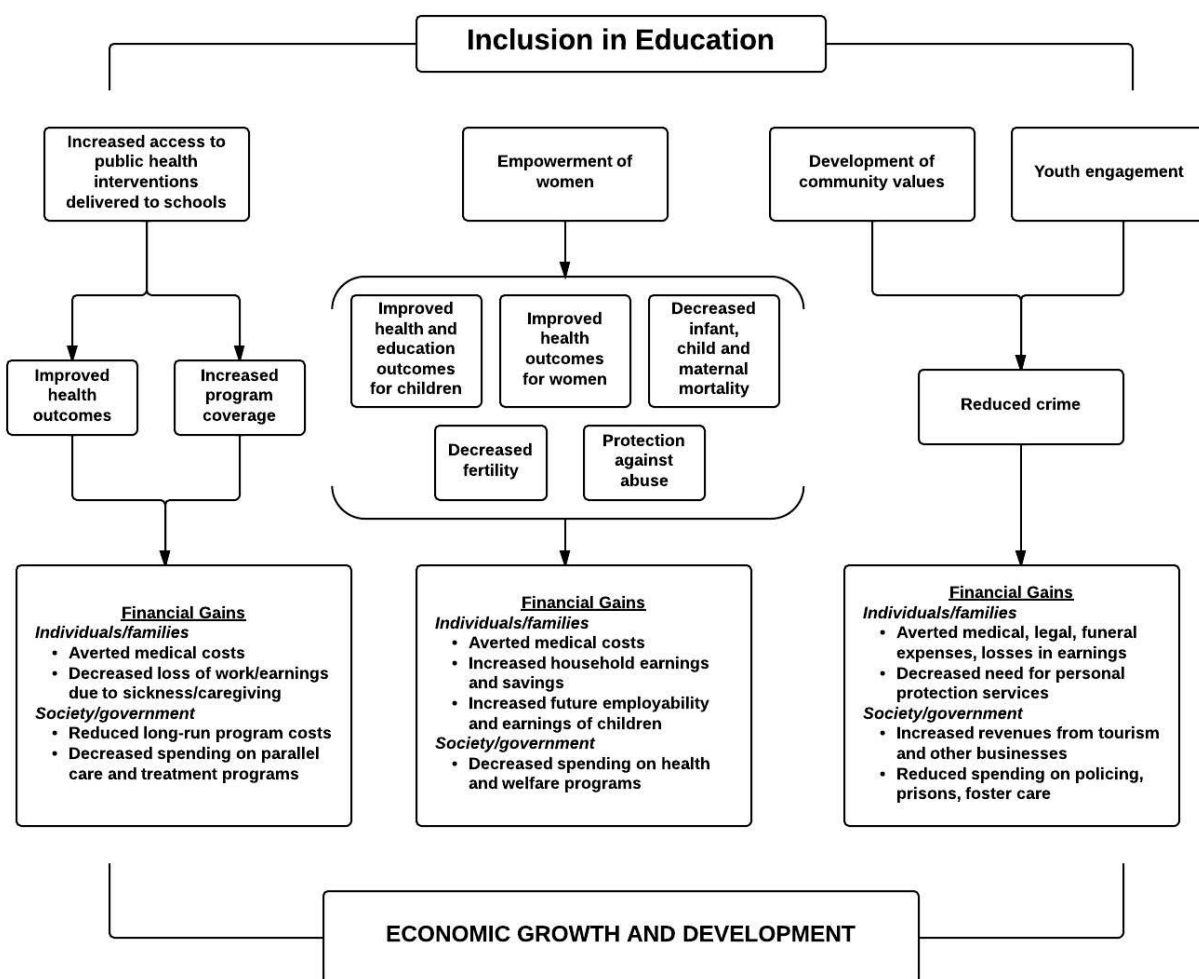
Inclusion in Education

Increased access to public health interventions delivered to schools

Empowerment of women

Development of community values

Youth engagement

Improved health outcomes

Increased program coverage

Improved health and education outcomes for children

Improved health outcomes for women

Decreased infant, child and maternal mortality

Decreased fertility

Protection against abuse

Reduced crime

Financial Gains
Individuals/families
- Averted medical costs
- Decreased loss of work/earnings due to sickness/caregiving
Society/government
- Reduced long-run program costs
- Decreased spending on parallel care and treatment programs

Financial Gains
Individuals/families
- Averted medical costs
- Increased household earnings and savings
- Increased future employability and earnings of children
Society/government
- Decreased spending on health and welfare programs

Financial Gains
Individuals/families
- Averted medical, legal, funeral expenses, losses in earnings
- Decreased need for personal protection services
Society/government
- Increased revenues from tourism and other businesses
- Reduced spending on policing, prisons, foster care

ECONOMIC GROWTH AND DEVELOPMENT

Figure 6: Education pathway 2 – non-employment costs and benefits (Morgon Banks and Polack, 2014: 32).

It is not just primary education that can benefit children with disabilities, but also education from early childhood through to tertiary provision for young people. Portage-based interventions,[7] jointly delivered by professionals and community volunteers in Zambia and in Vietnam, assisted young children with disabilities to develop motor, communication and daily living skills, and simultaneously increased the cohesion and resilience of their families (Le Fanu, 2014). Lamichhane (2012: 471) found that access to higher education influences the likelihood of people with disabilities achieving gainful and satisfying employment, and reports findings from studies conducted in Turkey and South Korea which found that higher education was a good predictor for employment success for people with visual impairments (Lamichhane, 2012: 472).

Men and women with disabilities face many barriers in accessing employment, even if they have completed higher education and jobs are available due to inaccessible physical environments. A survey of 400 adults with physical, hearing, and visual impairments in Nepal conducted by

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[7] Portage is a home-visiting educational service for pre-school children with additional support needs and their families. http://www.portage.org.uk/

Lamichhane (2012), a blind Nepali researcher, revealed that employment opportunities would remain limited due to the inaccessibility of buildings, toilets and roads.

The role of teachers in inclusive societies

Teachers have a powerful role to play in modelling inclusive attitudes and expectations through the classroom, influencing not only the children that they teach, but also their colleagues, leadership teams, parents and the wider community. Teachers with disabilities, as well as those who have been sensitised to inclusion, can be instrumental in tackling stigma and discrimination, 'promoting positive identities in children with disabilities and in breaking down prejudices of non-disabled children' (Mpokosa and Ndarahutse, 2008: 47).

There can be challenges to the recruitment of teachers with disabilities. Young men and women with disabilities can face barriers to achieving the requisite level of education needed to train as a teacher. The University of Delhi, India, created 1,300 places for students with special educational needs but was only able to fill 300 of those places due to the limited number graduating from secondary schools (Le Fanu, 2014). Le Fanu (2014) suggests that flexible policies for entry into teacher training colleges, along with supportive resources and scholarships may offer one solution. In Bangladesh allocating ground floor hostel rooms, adapted seating and classroom assistants had promoted the inclusion of students in tertiary institutions (Ehsan, 2011: ix).

Following the lobbying efforts of the organisation of people with visual impairments in 1989, the Ministry of Education in Nepal introduced 'a quota-based system, allocating a certain number of teaching jobs for people with visual impairments. At present, there are nearly 350 teachers with visual impairments' working in mainstream schools all over the country (Lamichhane, 2012: 481). An employment survey of adults with disabilities found that 43% of the visually impaired respondents worked as teachers in mainstream schools in Nepal whereas a smaller number of teachers with hearing impairments were employed in special schools for deaf students (Lamichhane, 2012). It is unusual for such a large number of teachers with disabilities to be employed in any country, and it is significant that it was a national disabled people's organisation that spearheaded this initiative.

Conclusion

The economic and social costs of exclusion are high. Many low and middle income economies suffer greater losses from maintaining large out-of-school populations than they would from increasing public spending to achieve universal primary enrolment. It is clear that enrolling all children in basic education is a productive investment and it is a smart investment. The economic benefits of education are well established and the inclusive growth to which it can contribute is by definition grounded in societies which are open, equitable, tolerant and just.

This section provided some examples of inclusive approaches to education that have contributed to inclusive societies and inclusive growth, providing social and employment opportunities for children and adults with disabilities. While there are significant attitudinal and environmental barriers to be overcome in accessing education and employment, enrolling children with disabilities in school has the potential to lift individuals and their families out of poverty.

Section 4: Toolkits relevant to inclusive learning

This section summarises a selection of available toolkits on inclusive education with a particular focus on guides to classroom practice. These toolkits have been identified through the online disability and inclusion resource centres – Enabling Education Network (EENET) and Source (Handicap International) [as well as recommendations from professionals].

Ainscow, M. (2004). *Special Needs in the Classroom: a Teacher Education Guide.* **Paris: UNESCO Publishing. http://unesdoc.unesco.org/images/0013/001351/135116e.pdf**

This is an updated version of UNESCO's training pack developed for teachers' learning about inclusivity in the early 1990s. The guide has been used in over 50 countries and adapted to different country contexts. It provides ideas for educators to improve teachers' skills in dealing with pupil diversity in mainstream schools. It offers advice on teacher education methods, including accounts of initiatives already undertaken around the world. The book emphasises the importance of teacher development, both pre-service and in-service, and demonstrates how pupil diversity in mainstream schools can be a positive influence on the life of the school.

Booth, T. and Ainscow, M. (2011). *Index for Inclusion: Developing Learning and Participation in Schools.* **Third Edition, Bristol: CSIE. http://www.csie.org.uk/resources/inclusion-index-explained.shtml**

This resource is designed to support inclusive school development, offering schools a process of self-review and development that brings in all education stakeholders and examines how barriers to learning and participation can be reduced. Although ostensibly designed for high/middle income settings, this third edition of the index has been translated and used in 39 countries and substantially revised with developing countries in mind. The index is written in an accessible style and encourages schools to ask questions of inclusion that are valuable and relevant to any context.

Handicap International (2014, forthcoming). *Inclusive Teacher Training Toolbox.* **Lyon: Handicap International.**

Developed in response to many requests for clearer guidelines within Handicap International inclusive education projects across 16 countries, this toolkit is based on an analysis of existing teacher training to improve access to quality education for children with disabilities in mainstream learning environments. The document takes the reader through the different stages necessary before, during and after training to achieve sustainable teacher training outcomes. The resource offers guidelines on how to develop teacher training programmes and manuals and provides both a coherent representation of inclusive education and advice on practical implementation.

INEE (2009). *Education in Emergencies: Including Everyone. INEE Pocket Guide to Inclusive Education.* **Geneva: Inter-agency Network on Education in Emergencies (INEE). http://www.eenet.org.uk/resources/docs/IE_in_Emergencies_INEE.pdf**

This short accessible guide outlines useful principles for an inclusive education approach in emergencies and provides advice for planning, implementing, and monitoring. The guide also looks

at the issue of resistance to inclusion, and highlights ways in which organisations can support their emergency staff to develop more inclusive education responses. It is available in Arabic, Bahasa Indonesia, English, French and Spanish.

INEE (2010). *INEE Pocket Guide to Supporting Learners with Disabilities*. **Geneva: The Inter-agency Network on Education in Emergencies (INEE).**
http://www.eenet.org.uk/resources/docs/INEE_Supporting_Learners_with_Disabilities.pdf

This short, accessible guide offers practical ideas and suggestions for including children and young people with disabilities in education before, during or after crises. The activities are designed to strengthen teacher practice in both government and non-government contexts and are adaptable for education managers and teacher trainers to incorporate into teacher development schemes and resources. The guide outlines inclusive principles, school accessibility, recognising support needs, timetabling and classroom management, planning and assessment.

INEE (2011). *Teachers Can Help Everyone Learn.* **New York: The Inter-agency Network on Education in Emergencies (INEE).**
http://www.eenet.org.uk/resources/docs/Teachers_can_help_everyone_learn_poster.pdf

This poster provides simple messages designed to empower teachers to make their schools and classrooms more inclusive.

Le Fanu, G. (2000). *Inclusive Education for Children with Visual Impairments: A Guide for Non-Formal Schools.* **Bangladesh: Helen Keller International.**
http://www.hki.org/research/Inclusive%20education%20for%20CVI.pdf

Developed in Bangladesh, this guide considers how children with little or no vision can be included in mainstream, non-formal classrooms. Written in an accessible style, this resource covers the causes of visual impairment, reading and writing in print and Braille, teaching mathematics, orientation and mobility, daily living skills, sports and games.

Mendis, P. (2006). *Children who have Disability in Early Childhood Care and Development Centres: A Resource Book for Teachers.* **Sri Lanka: Save the Children.**
http://www.eenet.org.uk/resources/docs/ECCD_Disability_Manual.pdf

Developed in Sri Lanka by the Ministry of Child Development and Women Empowerment, the Open University, the National Institute for Education, local NGOs and Save the Children, this handbook is designed to build teacher capacity to support boys and girls with disabilities in pre-school, or early childhood, settings. The resource discusses supporting children with specific impairments, working with parents, communities and referral systems.

McConkey, R. (2001). *Understanding and Responding to Children's Needs in Inclusive Classrooms: A Guide for Teachers.* **Paris: UNESCO.**
http://unesdoc.unesco.org/images/0012/001243/124394e.pdf

Designed for teachers with and without experience of inclusion, this practical guide is to support children who have particular difficulties in learning. The guide provides key facts about various impairments and how to overcome common learning difficulties that come with them, suggests

classroom adaptations, describes teaching strategies to respond to diversity, including curriculum modifications, and encourages teachers to work with families, community members, health and social care professionals and others.

Perner, D. (2004). *Changing Teaching Practices: Using Curriculum Differentiation to Respond to Students' Diversity.* **Paris: UNESCO.** **http://unesdoc.unesco.org/images/0013/001365/136583e.pdf**

This manual aims to expand and improve teacher capacities to adapt, modify and differentiate their teaching in contexts of large class sizes and poor resources. Suggestions, strategies and activities to improve inclusion through differentiation are contained in five units: curriculum differentiation and our students; environmental strategies; instructional learning strategies; assessment strategies; and putting it all together. Case studies are used to illuminate approaches and sample lesson plans are provided.

Stubbs, S. (2008). *Inclusive Education: Where there are Few Resources.* **Oslo: Atlas Alliance.** **http://www.eenet.org.uk/resources/docs/IE%20few%20resources%202008.pdf**

This resource booklet takes a wide ranging approach to inclusion but has a practical section on putting inclusive education into practice. It provides step-by-step advice and guidance on planning and implementation tools to overcome resource barriers.

Thomas, P. and Vichetra, K. (2003). *Inclusive Education Training in Cambodia: In-Service Teacher Training on Disabilities and Special Needs.* **Manchester: EENET.** **http://www.eenet.org.uk/resources/docs/cambodia.php**

Written by the Disability Action Council and the Cambodia Ministry of Youth, Education and Sport, this popular training guide comprises six modules for primary school teachers designed to be delivered separately or intensively over five days. The training develops teacher capacity to recognise special needs and understand disabilities; raises awareness of international and national policy context and barriers to education for children with disabilities; introduces 'eight golden rules for good teaching'; describes practical teaching techniques to aid children's verbal and written communication, reading and mathematics; and takes a case study approach to offering advice on teaching children with specific impairments.

UNESCO Bangkok (2004-13). *Embracing Diversity: Toolkit for Creating Inclusive Learning-Friendly Environments.* **Bangkok: UNESCO.** **http://www.unescobkk.org/education/inclusive-education/resources/ilfe-toolkit/**

Compiled of a series of booklets, this toolkit provides practical guidance on creating inclusive, child-friendly learning environments. Designed for teachers working from pre-primary through to higher education, including those who are involved in reform processes to enhance inclusion, the guidance offers tools and activities for self-study. Booklets 3, 4 and 5 focus particularly on inclusive classrooms, classroom management, differentiation, resources and assessment.

WHO (2010). *Education Component. Community-Based Rehabilitation*. CBR Guidelines. Geneva: WHO. http://whqlibdoc.who.int/publications/2010/9789241548052_education_eng.pdf?ua=1

This is one section of a comprehensive set of guidelines for CBR practitioners on the different stages in education from early childhood provision, through to primary, secondary and tertiary education, and finally lifelong learning. The guidelines draw readers' attention to the low literacy rates among adults with disabilities, cited as being as low as 3% for males and 15% for females, and therefore the importance of engaging CBR workers in the task of education at community level.

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