Primary Schooling for Children with Disabilities:
A Review of African Scholarship
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Executive Summary

The African Education Research Database (AERD) was searched for articles published in peer-reviewed journals between 2010 and 2018 to explore how the education of children with disabilities is understood and investigated within African education research. The systematic review of research from 14 Sub-Saharan African countries examined the patterns (if any) in publications on disability and education by researchers based in Sub-Saharan Africa (geographical and thematic focus), the salient findings emerging from this body of research, and the implications of the study for current policy, practice, future research, and investment on disability and education in Sub-Saharan Africa.

Analysis of the publications highlighted the emphasis on primary education in disability research within the Sub-Saharan Africa region. Almost half of the disability studies in AERD focus on primary education (39 studies), with less emphasis given to secondary (23 studies), higher (19 studies), and early childhood education (7 studies). This report focuses on the 39 studies undertaken at the level of primary education. Although the AERD includes research from 48 countries in Sub-Saharan Africa, the geographical coverage of the 39 studies included in this review is limited to only 14 Sub-Saharan African countries.

The review indicated that within Sub-Saharan Africa, research in disability and education focuses on just a few countries, with most studies taking place in Kenya. A majority of the research papers are from Kenya (9 studies), followed by Botswana (6), Uganda (5), Tanzania (4), Nigeria (3), Ghana (3), and Lesotho (2). Out of the 39 studies, 14 were written by authors based in Sub-Saharan Africa. In comparison, the remaining 25 studies were authored through collaborations with non-academic organizations or with researchers based outside of the region. In half of the countries, no research was carried out by Sub-Saharan-Africa-based academics. A total of 64 percent of the research studies were conducted via research affiliations with United Kingdom (43 percent), Australia, the United States, and Canada.

The 39 studies reviewed were grouped under three main themes:

1. **Testing efficacy of specific interventions (6 studies)**—Studies in this theme focused on interventions to support the learning of children with disabilities in primary mainstream and special schools. Four out of six studies were conducted in special schools, five focused mostly on hearing impairment, and five were concerned with measuring reading, language, and literacy using quantitative methods. The review highlights the complicating effects of bilingual literacy in Sub-Saharan Africa, which need to be addressed to support a richer experience of inclusion for children with disabilities. The absence of student voices and perspectives in these interventions was notable.

2. **Implementation of inclusive education (28 studies)**—This theme had the largest number of studies and focused on understanding how inclusive education can become a reality in Sub-Saharan Africa contexts. Most studies (15) focused on teacher training for implementing inclusive education, followed by understanding the attitudes, beliefs, and experiences of different stakeholders (12 studies) such as parents, family/community, teachers, and children with disabilities. Only one study examined the learning outcomes of children with disabilities as compared to their nondisabled peers.

   Analysis of the studies highlight the clear need for contextualizing inclusive education in local, national, and regional realities. Many of the studies noted that cultural context, local belief systems, and historical developments have informed attitudes and beliefs about disability and/or inclusive education among stakeholders. Some studies underscore the role of colonialism in shaping educational practices and policies and explicitly promote a decolonizing and post-colonial approach to inclusive education,

highlighting the importance of engaging within the African context—local belief systems, cultural concepts, and national education systems.

Eight studies in this category employed quantitative methods. Three studies mostly performed a secondary analysis on existing large-scale datasets. The remainder of the studies (including one mixed-methods study) focused on measuring attitudes (parents' and teachers'), knowledge, practices, and the training of teachers in inclusion concepts. The research concluded that increased knowledge and formal training about disability and/or inclusive education improved parents' or teachers' knowledge, skills, and willingness to include children with disabilities.

Nineteen studies used qualitative methods, focusing on attitudes and interactions between multiple participants (children, parents, teachers, and communities) in implementing inclusive education. The review noted the disproportionate skew toward teachers as primary participants in these studies.

3. **Policy Reviews—**The four studies under this theme traced the development of international thinking on inclusive education and regional and in-country developments. These reviews showed that inclusive education is far from a reality because enrollment and progression for children with disabilities continue to be low despite the government's adoption of inclusive education policies.

Studies reviewed under this theme noted that practical, contextualized knowledge and the local context should inform inclusive education policies for schools, teachers, and decision-makers. Economic and social policies should respond to the realities in which inclusive education policies are implemented, thereby adopting a "holistic approach" to inclusive education. Research shows the need for greater regional knowledge sharing of national inclusive education policies and approaches, an increased exchange of

knowledge from communities and research evidence to policymakers, and improved monitoring and evaluation of policies to keep implementation on track.

Recommendations:

1. **Develop a contextualized understanding of inclusive education**. A recurrent issue in these research studies is the confusion and lack of clarity around inclusive education, which is further complicated by disconnected policy ambitions and the practical realities of implementation. Research studies highlight the rejection of medical and social models of disability, noting the challenges of applying the terminology and concepts of disability developed in Northern contexts to Sub-Saharan African circumstances. African scholars acknowledge that efforts toward inclusive education are complex and are best developed while considering local socio-cultural and practical realities.

2. **Adopt systems-level change.** The review notes that barriers to inclusive education are a product of the incoherence of systems that have introduced education policies without adequate resources for implementing action plans. Shifting this would need careful consideration at all levels, extending from acknowledging the uniqueness of cultures that influence the local education systems to the realities of classroom provision. Changes at all levels must be part of an overall program and policy framework, supported by ongoing dialogue between policymakers, government, local practitioners, parents, and persons with disabilities.

3. **Include the voices of children with disabilities.** Voices of teachers and parents dominate most research studies included in this systematic review, discounting the voices of children with disabilities.

Of the five studies that included the voices of learners with disabilities, students identified a range of positive experiences and friendships at school. Although learners with disabilities were very much aware of the stigma, discrimination, lack of resources, accommodations, and bullying at school, this did not alter their desire to attend school. Furthermore, the studies identified children with disabilities as strong self-advocates with the ability to voice their needs and concerns. This is starkly different from the barriers and enablers identified by teachers, parents, and other stakeholders to promote inclusive education at school and within communities.

4. **Identify and adopt local strategies**. The review identifies the possibility of developing and implementing local strategies for promoting inclusive education, including forming school inclusion communities, pooling community resources when government funds are limited, leveraging social capital, and fundraising, where possible. Various researchers argue for designing holistic, inclusive education projects that go beyond enrollment and sensitization activities. There is a need to carefully rethink models of teacher training so that they exceed the one-off workshop approach. Training on inclusive education should draw on local and contextual realities and be an intrinsic part of ongoing professional development.

This report is not without its limitations and findings are presented as a snapshot of scholarship on disability and primary education in Sub-Saharan African contexts that continue to make progress in understanding and addressing the complexities and constraints on inclusive education. Notably, the AERD excludes South Africa, which has been central in knowledge production in this region. Nonetheless, this review highlights important areas of consensus, what needs to be valued, and the existing gaps in knowledge, which need to be addressed going forward.

Overview

This report explores how education of children with disabilities is understood and investigated within African education research. For this purpose, the authors draw on publications in the African Education Research Database (AERD) that are cataloged with the keyword "disability". The AERD is a catalog of social science research that brings together articles published in internationally recognized journals[1] and written by at least one researcher based in the region[2]. The catalog is not limited to education-focused journals and includes education-related studies from other fields, such as health, development, and do on. Publications from 48 countries in the region are included in AERD, except for South Africa[3], which is not included in the analysis for this paper. At the time of analysis (January 2020) the AERD included 1,650 English-language[4] articles published in peer-reviewed journals between 2010 and 2018 with an impact factor of 0.2 and above, 87 (5.3 percent) of which were cataloged with the keyword "disability."

This report is written for researchers, funding bodies, and national and international nongovernmental organizations and policymakers who are interested in disability and primary education in Sub-Saharan Africa. The following questions are addressed:

- What patterns exist in publications on disability and education by researchers based in Sub-Saharan Africa, in terms of geographical and thematic foci?

[1] As defined as ≥0.2 based on SCImago data.
[2] The AERD literature search protocol is published elsewhere (Mitchell and Rose 2018).
[3] The decision to exclude South African publications from the AERD reflected the practical resource limitations of the project. Preliminary analysis revealed South Africa to have ~360% more education research outputs than the second-most prolific country in the region, Nigeria (ibid). In light of the markedly different research landscape, and since AERD relies on manual data entry, the decision was taken to prioritise the remaining 48 countries in the region.
[4] The AERD includes publications in French, Portuguese and some other languages, but this review has focused only on studies published in English reflecting the capacities within our own team.

- What are the salient findings emerging from this body of research?

- What are the implications of the present study for i) current policy and practice and ii) future research and investment on disability and education in Sub-Saharan Africa?

Bibliometric Analysis of African Education Research on Disability

The authors begin with an analysis of publications to identify patterns in research from the region in terms of phase of education and country contexts.

Phase of education

As Table 1 indicates, almost half of disability studies in AERD focus on primary education, with less emphasis given to secondary, higher, and early childhood education. This diverges from the wider pattern of research in the region, which directs greatest attention toward higher education (31.2 percent), followed by secondary (28.6 percent), and primary (28.5 percent) (Mitchell et al. 2020). However, the emphasis given to primary education in disability research makes sense in the light of inequitable access and progression through the education system for children with disabilities across many countries in the Global South (WHO 2011; Singal et al. 2019). This report focuses on the **39 studies** undertaken at the level of primary education.

Table 1. Phases of Education Covered in African Research on Disability

	# of studies	% of total
Early childhood education	7	8.0
Primary education	39	44.8
Secondary education	23	26.4
Higher education	19	21.8

Note: The total number of studies exceeds 87 as some cover multiple phases of education.

Country context

Although the AERD includes research from 48 countries in Sub-Saharan Africa, the geographical coverage of the 39 studies included in this review is limited to only 14 Sub-Saharan African countries (see Fig. 1).

Figure 1: Distribution of Studies by Country
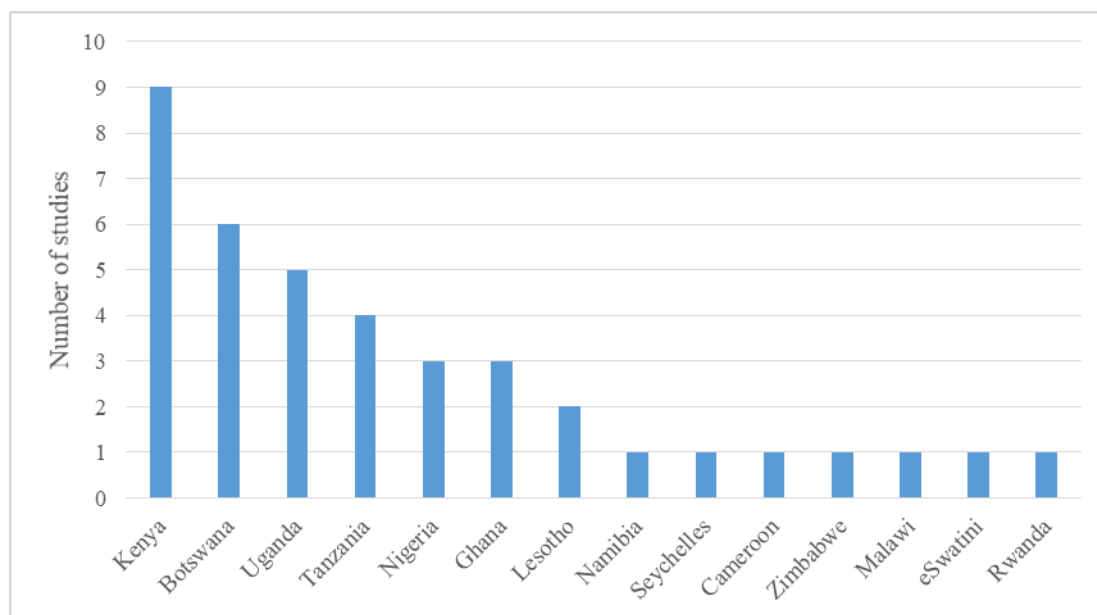
Note: Because of multi-country studies, the total in this chart exceeds the total number of studies

Nearly a quarter (23 percent) of the studies took place in Kenya, 15 percent in Botswana, and 13 percent in Uganda (including one multi-country study in Kenya and Uganda). Research conducted in these three countries accounted for half (51 percent or 20 papers) of all studies within the region. Four studies (10 percent) were conducted in Tanzania, three (8 percent) in Nigeria and Ghana, respectively, and two in Lesotho. This distribution differs from the larger AERD database, in which Nigeria was the most prolific country. Only one study took place in each of the remaining seven countries. Thus, Sub-Saharan Africa research on primary education and disabilities is focused on fewer nations, suggesting there are significant gaps to be addressed.

Authorship

Of the 39 publications in the primary phase of education, 14 (36 percent) are written solely by Sub-Saharan Africa-based authors, of which nine are single-authored and five result from collaborations within the region. All of these authors had academic affiliations within Sub-Saharan Africa. The remaining 25 studies (64 percent) are authored through collaborations involving researchers outside the Sub-Saharan African . Among the 25 studies resulting from external collaboration, four papers were co-authored by Sub-Saharan Africa-based researchers affiliated with non-academic institutions (for example, Kenya office of Sightsavers, Lynch et al. 2012).

Figure 2: Distribution of Studies by Author(s) Country Affiliation as Noted on the Paper
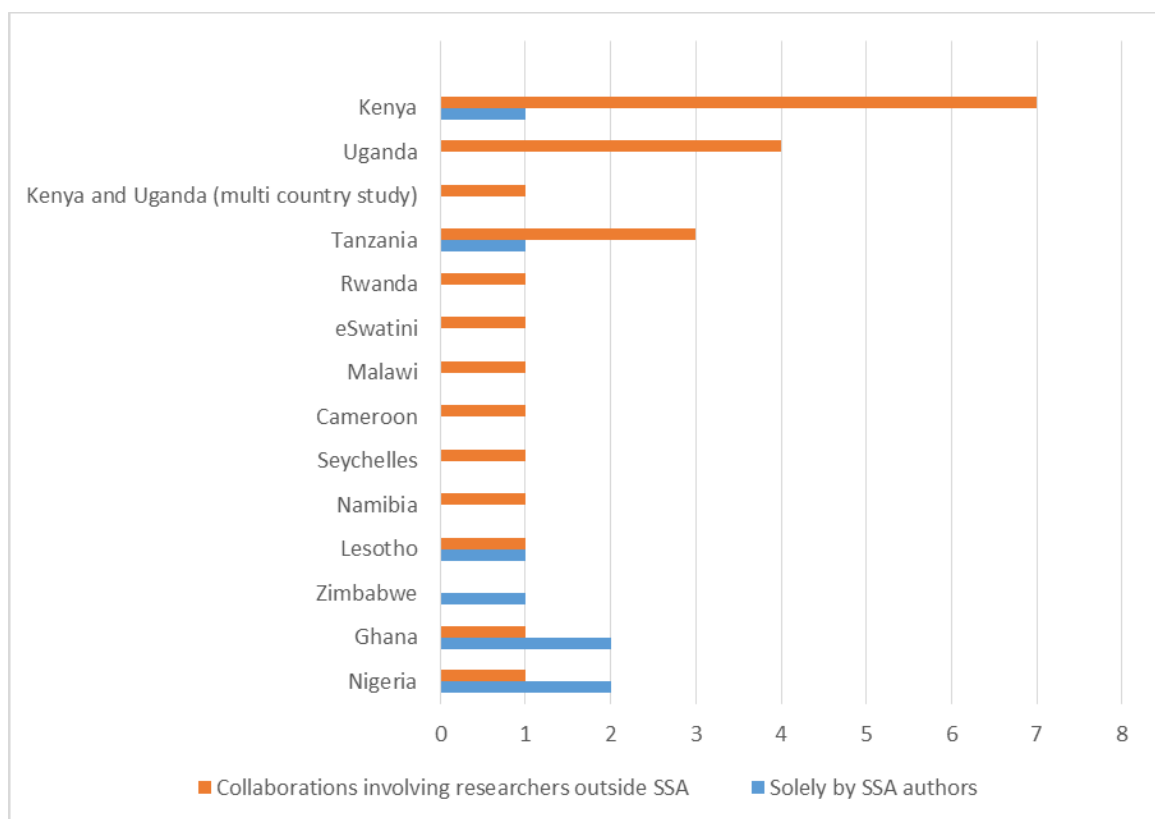

Figure 2 shows there were only four countries (Botswana, Ghana, Nigeria, Zimbabwe) in which the majority of the research was solely by Sub-Saharan Africa-based researchers. Elsewhere, studies largely result from collaborations with researchers based outside of the

region. Zimbabwe was the only country with a single research report (Sithole 2018) conducted solely by a Sub-Saharan Africa- based author. Elsewhere, countries with a single study were undertaken through collaboration with researchers outside the region. The geographical coverage and authorship of these publications reveals that research solely by Sub-Saharan Africa-based authors halves geographical coverage to only seven nations: Botswana, Ghana, Kenya, Lesotho, Nigeria, Tanzania and Zimbabwe. Of the 48 countries in the AERD, only seven in our sample included independently authored studies by Sub-Saharan Africa-based researchers. Only one study was a collaboration between authors based in two affiliated institutions (Kenya and Uganda).

When examining more carefully studies conducted in collaboration with partners outside the region (as noted in Figure 2), further patterns emerge between the national context of research and the location of Northern-based partners. Publications resulting from external collaborations included 42 authors affiliated with nine countries outside of the region. The 32 Sub-Saharan Africa-based authors were affiliated with 14 countries in the region. Authors affiliated with UK institutions accounted for 43 percent of the total in these international research partnerships. More than three-quarters (81 percent) of these external collaborators were affiliated with institutions in four countries: Australia, Canada, United Kingdom, and United States.

Figure 3: Country Affiliation of Authors Outside of the Sub-Saharan Africa Region by Country of Study.
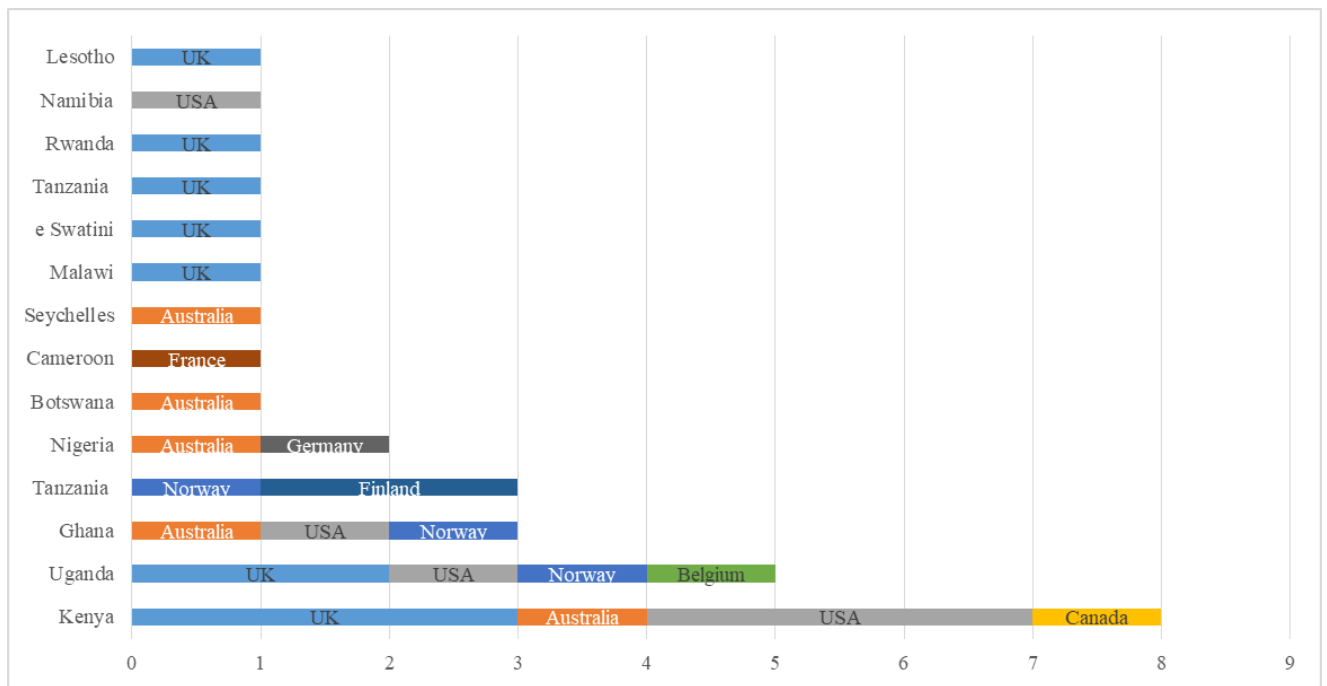
Note: Figures adjusted to remove double-counting from authors who collaborated on multiple papers and/or who had multiple country affiliations

Figure 3 shows the concentration of international collaborations in specific countries. For example, only scholars affiliated with Scandinavian institutions (Finland and Norway) collaborated in Tanzania, while the only study in Cameroon was undertaken by scholars based in French institutions, and the only study undertaken by German-based scholars took place in Nigeria. There is a pattern where Northern scholars focus on countries in the region with which they have an established connection. For example, the only study in the Seychelles was undertaken by scholars affiliated with Australian institutions that engage in teacher education in that context (Main, Chambers, and Sarah 2016).

In summary, publications focusing on disability at the primary level are concentrated in Botswana, Kenya, and Uganda (23 percent of studies). Most studies (64 percent) are authored through collaborations involving researchers outside Sub-Saharan Africa, of which

author affiliations are mainly in the UK[5] (43 percent of Northern authors). A further 14 (36 percent) studies are written solely by Sub-Saharan Africa-based authors. In terms of the geographical location, 14 countries in the region provided the location for these studies, while this coverage is further reduced to only seven nations, if studies undertaken solely by Sub-Saharan Africa-based authors are focused on.

A Typology of African Research on Disability and Education

The studies identified as focused on disability and primary education can be clustered around three broad categories:

(1) Testing the efficacy of specific interventions

(2) Implementation of inclusive education

(3) Policy reviews

Each of them is associated with different aims, research approaches, and participants. Key features and characteristics are shown in Table 2.

Table 2: Features of the Studies under the Three Categories

Study category	Number of studies	Methodologies	Participants	Presentation of voices of children with disabilities
Efficacy of specific interventions	6	Quantitative testing of intervention efficacy	Children and/or parent and/or teachers	No
Policy review	4	Qualitative review (desk-based)	None	N/A
IE implementation	28	Quantitative (for example, analysis of survey responses) Qualitative (for example, semi-structured interviews)	Children and/or parent and/or teachers and/ or community leaders or members	10 studies include children with disabilities (solely or with others) Of these, 5 present the voices of children with disabilities

In nearly three-quarters of these studies (64 percent or 25 papers) the research looked at inclusive education without focusing on a specific type of impairment or disability (Table 3). A quarter of the studies (10) looked at either hearing impairments or visual impairments. In other words, three-quarters of the studies looked at either inclusive education for students with disabilities in general, or at hearing or visual impairments. This leaves large gaps in research into the experiences and inclusion of primary school children with different types of disabilities in Sub-Saharan African contexts.

Table 3: Coverage of Different Types of Disability or Impairment by Category of Study
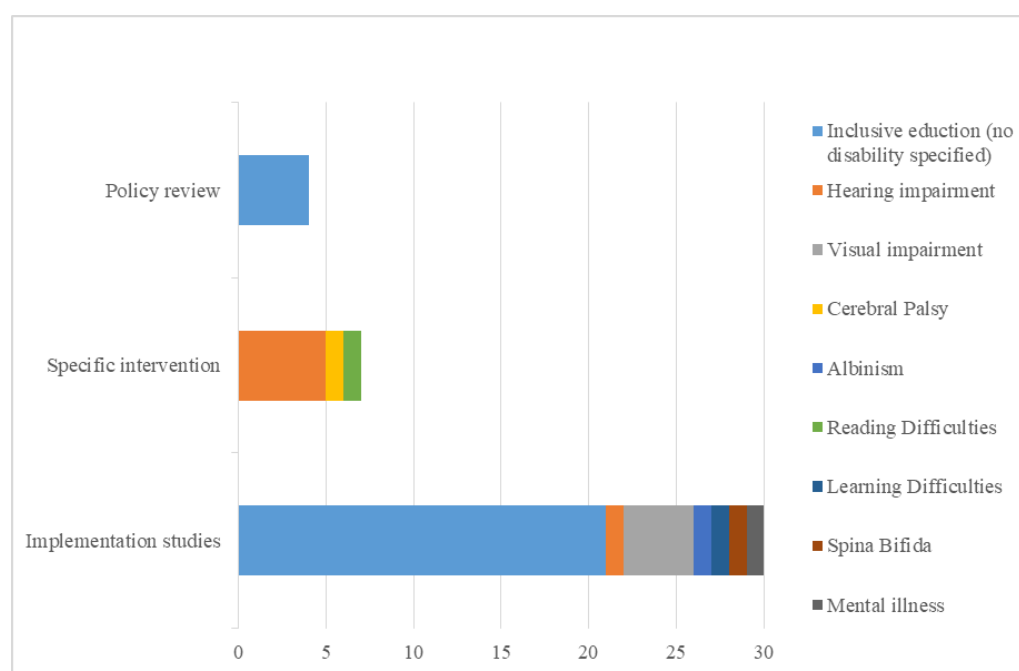
For each category of studies, we consider the research methods employed and participant groups in more detail.

Testing the efficacy of specific interventions

The six papers in this category focused on the efficacy of teaching and/or interventions for primary school children. Four were conducted in a special education setting (see Table 4).

There is marked consistency in the impairments and learning objectives addressed in these studies. Five studies focus on hearing impairments, including one that also focuses on cerebral palsy (Bunning et al. 2013), and one on reading difficulties (Sithole 2018 [Zimbabwe]). In terms of learning outcomes, five studies are concerned with reading, language, and literacy, and only one with numeracy (Kiboss 2012 [Kenya]).

Table 4: Summary of Studies Focused on Testing Interventions

Study	Type of Impairment	Learning objective	Location	Sample size	Age of children
Nigeria					
Osisanya and Adewunmi, 2018	Hearing impairment	Reading, language and literacy	Mainstream school	80 child participants	7 – 11 years old
Ugwuanyi and Adaka, 2015	Hearing impairment	Reading, language and literacy	Special school	33 child participants	Primary class 5
Kenya					
Aura, Venville and Marais, 2016	Hearing impairment	Reading, language and literacy	Special school	60 child participants	Grades 6 – 8 (Upper Primary)
Bunning, Gona, Buell, Newton and Hartley, 2013	Cerebral palsy or hearing impairment	Reading, language and literacy	Special school, Hospital occupational therapy dept.	6 child participants (out of 13 total participants incl teachers)	1 – 11 years old
Kiboss, 2012	Hearing impairment	Maths	Special school	66 child participants	Primary grade 3 (9 – 14 years old)*
Zimbabwe					
Sithole, 2018	Reading difficulties	Reading, language and literacy	Mainstream school	100 child participants	Grades 2 – 3

*Note: In several studies, primary school children with disabilities are in a different grade than might be expected for their age

Across studies on hearing impairment and/or literacy, issues that emerge include the complexity of bilingual literacy in Sub-Saharan Africa classrooms—where teaching is often carried out in English even though it is not the children's first language—and teaching practices for children with disabilities.

The reality of bilingual literacy is important and needs to be acknowledged. The two Nigerian studies (Osisanya and Adewunmi 2018; Ugwuanyi and Adaka 2015) relied heavily on Northern-based research literature without critical reflection on how these interventions and approaches may translate into the local context of bilingual literacy. Both studies tested the efficacy of auditory training techniques on children's comprehension of English-language sounds, words, and stories. However, as Sithole (2018) points out in her Zimbabwe study, reading difficulties can arise from the bilingual system itself, particularly as English is not a phonetic language (p. 177). Similarly, Aura et al. (2016) contextualize their study in research that shows that proficiency in a first language supports literacy acquisition in other languages, such as English (p. 176). However, they argue for acquiring Kenyan Sign Language and guard against a transference of research from Northern contexts that often assumes hearing loss is detected within a day of birth (Aura et al. 2016, p.169) which can enable early interventions in language development (including sign language), whereas early assessment and intervention cannot be taken for granted. Drawing on and applying Northern approaches without discussing how teaching and learning differs between country contexts ignores the complicating effects of bilingual literacy in Sub-Saharan African classrooms and, particularly, the challenges faced by children with hearing impairments.

All six studies make recommendations for classroom teaching practices, teacher training, and/or use of specific interventions. Most of these studies introduced new techniques or inventions, but the most detailed study of *existing* practices and interventions with children with cerebral palsy or hearing impairment (Bunning et al. 2013 [Kenya]) also noted the lack of skills and training for both teachers and occupational therapists. This study notes that for interventions to support the communication skills of children with hearing impairment or cerebral palsy, "staff practiced what they had been trained for and not for the additional responsibilities assumed" (ibid, p. 700). As such, interventions aimed to "tackle surface-level

processes affecting speech production" (ibid, p. 700), rather than the more desired goal of "language acquisition and the development of concepts" (ibid, 700). While professional training was suggested, the authors also recommended developing a range of means of communication, drawing on experiences within families with children having complex communication needs. In this way, both Bunning et al. (2013) and Aura et al. (2016) pay attention to how communication strategies beyond hearing and speech can support a richer experience of inclusion for children with disabilities.

Kiboss (2012 [Kenya]) was the only study to focus on numeracy skills and, uniquely, the author designed a new intervention to support the learning of deaf children: an e-learning program for geometry. This study is strongly positioned in the context of children with disabilities and poor performance on math exams and aims to test the efficacy of an e-learning program that presents information in both text and animated sign language "designed to make maximum use of the hearing-impaired learner's visual perception" (ibid, 45). Potential barriers to uptake in the region include the cost of the high-processing speed equipment needed and the supply of electricity (ibid, 49). Nonetheless, this research showed that the e-program learners' geometry skills did improve significantly more than in the control group (ibid, 57), making an innovative contribution to the literature on using technology to support diverse learners.

In summary, studies in this category focused on interventions to support the learning of children with disabilities in primary mainstream and special schools. Common enabling factors included changes to classroom practices, improving skills of teachers and practitioners working with children with impairments, and improved specialist materials. Barriers included a lack of early assessment, and specialist skills and resources designed to support primary age children. Studies tended to use quantitative methods and focused on a narrow range of disabilities— mostly hearing impairments—with one study each also considering cerebral palsy or reading

difficulties. A common thread across these studies was a lack of attention to students' perspectives, with the voices of the child participants entirely absent.

Implementation of inclusive education

This category, which is the largest, includes studies aimed at understanding how inclusive education can become a reality in Sub-Saharan Africa contexts. Figure 4 summarizes these 28 studies by their main research focus and shows an emphasis on stakeholders' attitudes, beliefs, knowledge, and practice (79 percent or 22 papers). Figure 4 highlights a disproportionate amount of focus on parents, teachers, and community members, while only two studies considered the attitudes and experiences of children (Ndetei et al. 2016 [Kenya] and Devries et al. 2014 [Uganda]).

The largest group of studies (11 papers, or 39 percent) focused on teachers and training for implementing inclusive education. The five studies that examined interactions between different stakeholder groups variously involved teachers, parents, children, the wider community, and others in practices to implement or support inclusive education. Only one study (Simo et al. 2018 [Cameroon]) looked at the outcomes, comparing students with disabilities to those without disabilities in terms of whether children attended school, had ever attended school, and attainment (progress at school).

Figure 4: Summary of Research Papers on Inclusive Education Implementation by Research Focus

Attitudes, beliefs and experiences (12)	Parents (2)
	Family/community (3)
	Teachers (5)
	Children (2)
Teachers and teaching (15)	
	Teacher knowledge (3)
	Teaching practice (10)
	Teacher training (2)
Interactions between different stakeholder groups (5)	Outcomes for CwD (1)
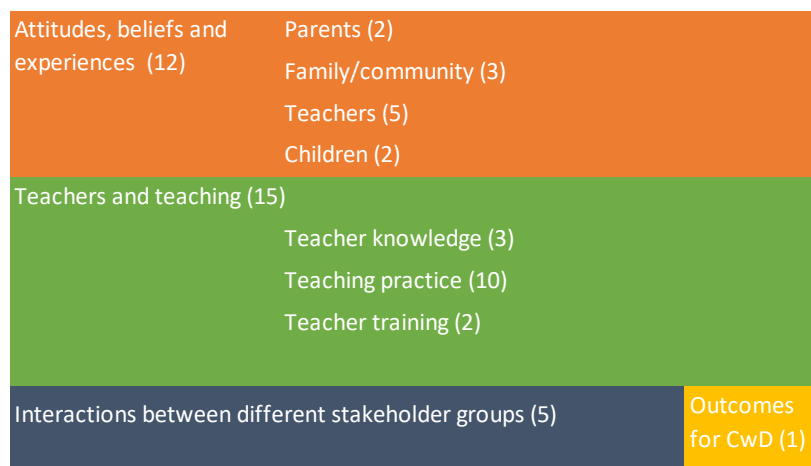
Note: The size of each box reflects the number of papers. The total sums to more than 28, since some papers had a dual focus—for example, on teacher attitudes and classroom practices.

Almost all 28 studies in the implementation category contextualized their research in the international and/or national policy landscape, frequently referring to UN Conventions on the Rights of the Child and the Rights of Persons with Disabilities (UN 2006 and 2016) and the Salamanca Statement (UNESCO 1994). Less frequent mention was made of the Millennium Development Goals or the Sustainable Development Goals. Commonly mentioned domestic policies included universal free primary education for all and/or policies for the inclusion of learners with special educational needs. The studies of attitudes and beliefs about disability were less likely to reference specific international and national policies relating to disability, education, and/or inclusion (for example, Haihambo and Lightfoot 2010 [Namibia]).

These studies were significantly contextualized in local, national, and regional realities. For some studies, the cultural context informed their focus on attitudes and beliefs about disability and/or inclusive education (for example, Tungazara 2012 [Tanzania]). Several studies provide historical contexts for education practices and policies shaped by colonialism in which special schools that focused on one type of impairment (for example, schools for deaf children) were first developed by missionaries (for example Torgbenu et al. 2018 [Nigeria] and

Mukhopadyay 2015 [Botswana]). Consequently, few studies explicitly adopted a decolonizing or post-colonial approach (including Elder and Odoyo 2018 [Kenya] and Mukhopadyay 2015 [Botswana]). Despite whether studies adopted an explicit post-colonial stance, all emphasized the importance of the African context, including the need for engaging with cultural concepts, local belief systems, and historical developments in the national education system.

As scholars more widely in the field have argued, such work is significant for developing insights and recommendations that respond to sociocultural and material realities in the region (Nsamenang and Tchombe 2011) and more so in relation to inclusive education (Singal and Muthukrishna 2014; Walton 2018).

The following sections discuss the studies identified under the theme 'implementation of studies'.

Research methods employed

Studies in this category used quantitative methods (large-scale n=3, and small-scale n=5) or qualitative methods (19 studies), with one study adopting a mixed methods approach.

Large-scale quantitative studies

The three studies in this category had between 3,000 and 11,000 survey respondents and took place in Cameroon (Simo et al. 2018), Kenya (Ndetei et al. 2016), and Uganda (Devries et al. 2014). All performed secondary analysis on existing large datasets (See Table 5). From these datasets, studies generate macro-level perspectives and can draw statistically robust conclusions about the differences in experiences and outcomes for children with disabilities compared to their non-disabled peers, controlling for a variety of socioeconomic factors, including poverty. These perspectives enrich understandings of complex contexts beyond very specific or local situations, while explaining differences between groups (for example, experiences of children with disabilities can be distinguished by gender and/or severity of disability), thus avoiding homogenizing assumptions about "disability." These are

the only studies (out of the 39 papers) to engage with outcomes, mental illness, and violence, suggesting research is extending into these important areas. Finally, although Ndetei et al. (2016) and Devries et al. (2014) were the only two studies (of the 39 papers) with children as the sole research participants, neither study offers samples of the voices of children from the data.

Table 5: Summary of Large-Scale Quantitative Studies

Study	Country	Aim	Survey used	Sample size and participants	Age of child participants
Simo, Solaz, Diene and Tsafack (2018)	Cameroon	Educational outcomes for children with disabilities	Demographic Health and Multiple Indicators Cluster Survey (DHS-MICS)	11,000 Households	N/A
Ndetei, Mutiso, Maraj, Anderson, Musyimi, and McKenzie (2016)	Kenya	Stigmatizing beliefs and attitudes of children towards mental illness	Kenyan Integrated Intervention Model for Dialogue and Screening to Promote Children's Mental Well-being (KIDS)	4,565 Children	5 to 21 years (99 percent under 16)
Devries, Kyegombe, Zuurmond, Parkes, Child, Walakira and Naker (2014)	Uganda	Children's experiences of violence	The Good Schools Study	3,706 Children	11 to 14 years old

Small-scale quantitative and mixed methods studies

In this group of six studies (Table 6), four focused on measuring parent or teacher attitudes, beliefs, and/or concerns, while the remaining two conducted surveys on teachers regarding their knowledge, practices, and training for inclusive primary classrooms. The methods used are remarkably homogenous, relying on a Likert-scale survey. Four of the five studies were explicitly grounded in Icek Ajzen's (1985) theory of planned behavior. Only one study (Chhabra et al. 2010 [Botswana]) did not mention this theoretical framework but used

the same data collection and analysis methods as the other studies. Kuyini et al. (2016 [Ghana]) designed their own questionnaire to research teacher's perceptions of the relative importance of various classroom practices to support inclusion. None of the studies had child participants.

Table 6: Summary Characteristics of Small-Scale Quantitative Papers and the Only Mixed Method Study

Study	Country	Study theme	Participant group	Sample size
Small-scale quantitative studies				
Torgbenu et al. (2018)	Nigeria	Attitudes, beliefs and experiences	Parents	644
Ojok and Wormnæs (2013)	Uganda	Attitudes, beliefs and experiences	Teachers	125
Chhabra et al. (2010)	Botswana	Attitudes, beliefs and experiences	Teachers	103
Kuyini et al. (2016)	Ghana	Teachers and teaching (knowledge and practice)	Teachers	163*
Main et al. (2016)	Seychelles	Teachers and teaching (teacher training)	Teachers	32
Mixed methods				
Mukhopadhyay (2014)	Botswana	Attitudes, beliefs and experiences	Teachers	273

of which 114 primary school teachers

Five of the studies found that increased knowledge and formal training about disability and/or inclusive education improved parents or teachers' knowledge, skills, and willingness to include children with disabilities (the exception is Chhabra et al. 2010, which found no relationship). All studies recommended teacher training in inclusive education strategies and/or sensitization of parents and the community. The small-scale nature and sole reliance on statistical analysis means that these studies produce limited insights into various barriers and strategies to support inclusive education. However, the inclusion of quotes from teachers and analysis of interview responses in the Mukhopadhyay (2014 [Botswana]) study added some richer information on how teachers responded to pupils with disabilities, rather than simply recording their attitudes via the Likert scale. For example, this study recorded teachers'

concerns that they did not know how to include pupils or support their learning (Mukhopadhyay 2014, p. 35).

Qualitative studies

The remaining 19 studies are qualitative with many focusing on attitudes of and interactions between multiple participants (children, parents, teachers, community) in implementing inclusive education (figure 5). Yet there remains a disproportionate focus on teachers and teaching, since more than half of the qualitative studies (53 percent or 10 papers) focused on teachers as the participants, examining teachers' attitudes in combination with teaching practices (2 papers or 10 percent), or focused on teachers and teaching (8 papers or 42 percent). None of the qualitative studies had children as their sole research participants.

Despite the greater diversity in participant groups in the qualitative studies, the use of data collection instruments and analytical techniques is remarkably homogenous. Reliance on semi-structured interviews and/or focus group discussions for data collection with thematic analysis of interviews as the primary or only data analysis method was noted in 84 percent of the qualitative studies (16 out of 19 papers). Six of these studies made use of semi-structured interviews as their only data collection instrument; the rest made use of semi-structured interviews and/or focus group discussions, in combination with other instruments. Three studies added questionnaires to the semi-structured interviews (for example to collect sociodemographic information on the participants). One study (Bannink et al. 2016 [Uganda]) also used a quantitative functioning scale to provide a check on observations and narratives about the participation and communication of children with spina bifida.

Figure 5: Implementation Studies by Research Method and Participant Group
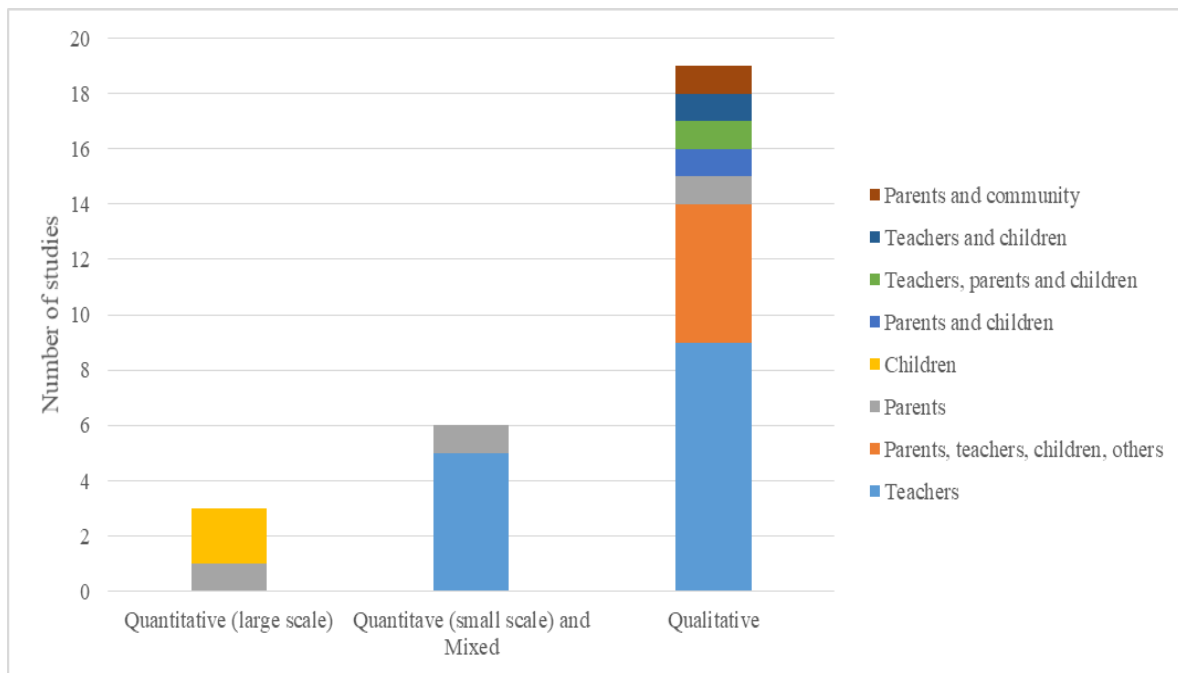
Interestingly, even though some studies used data collection instruments in addition to the semi-structured interviews, little or no reported use was made of these data in the analysis or findings. Most commonly (7 studies), observational data was collection (for example, in schools, clinics, or homes), although typically little mention is made of observations in the analysis or findings in most of these studies. A further five of the 19 qualitative studies mentioned document analysis as a mode of data collection. However, in most cases, the studies do not refer to these documents or their contents in the analysis. The only significant exception to this are two studies published from the same multi-country research project conducted in Uganda (Lynch et al. 2011) and Kenya (Lynch et al. 2011) which used descriptive statistics to analyze journals kept by itinerant teachers.

Finally, it is worth noting the qualitative methods in the three papers that could be characterized as reviews or evaluation studies. The first two of these (Lynch et al. 2012 [Kenya and Uganda]; and Elder and Odoyo 2018 [Kenya]) provided a reflection on the use of participatory research methods in international collaborative research projects. Neither paper deploys an evaluation or review methodology, relying instead on the authors' reflections on

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project processes and outcomes. The third review paper provided an evaluation of a two-year inclusive education program in Tanzania (McConkey and Mariga 2011). This evaluation study collected data from participants in the program using semi-structured interviews and undertook thematic analysis.

In summary, across a seemingly diverse range of goals, participants, and themes of the 19 qualitative research studies, they can be characterized as strikingly homogenous in their use of semi-structured interviews and thematic coding for data analysis, often making little use of the data collected from observations, questionnaires, and/or documents.

Policy reviews

This section considers the four studies that reviewed inclusive education principles, policies, and progress within a specific country. Although conducted with differing methodologies, these studies all trace the development of international thinking on inclusive education, as well as regional and in-country developments (see Table 7 for an overview of these studies). The two studies conducted in Tanzania (Juma and Lehtomäki 2016; and Lehtomäki, Tuomi, and Matonya 2014) undertook documentary analysis on the development and implementation of an inclusive education policy. The other two studies (Pather and Nxumalo 2013 [eSwatini]; and Urwick and Elliott 2010 [Lesotho]) take a broader view, interrogating inclusive education principles and policies and how these have been applied in Sub-Saharan African contexts.

These reviews show that, despite adopting inclusive education principles and policies, it is far from a reality, because enrollment and progression for children with disabilities continues to be low. For example, in Tanzania, only "280 primary schools with inclusive practices" (Lehtomäki, Tuomi, and Matonya 2014 p. 33) and "about 140 primary schools" (Pather and Nxumalo 2013 p. 426) in eSwatini were noted. In examining the historical, social, cultural, and economic contexts for inclusive education policy in these countries, these review

studies focus on the role of policy, rather than attitudes or teaching strategies, and reach a common conclusion that there cannot be a straightforward transference of Northern concepts and policies of inclusive education to African contexts.

Table 7: Characteristics of Policy Review Studies

Study	Country	Aim of study	Methodology	Time frame
Juma and Lehtomäki, 2016	Tanzania	Review the steps taken by the Zanzibar government (as semi-autonomous region) in developing IE policies and their implementation.	Document analysis. Thematic analysis of <90 [exact number not given] government policy documents and academic literature.	1964-2014
Lehtomäki, Tuomi, and Matonya, 2014	Tanzania	Review of government policy, implementation and the role of research into inclusive education in Tanzania between two policy changes (1998 – 2008).	Document analysis. Thematic analysis of 42 documents, including doctoral dissertations, masters' theses and published reports and journal articles in Tanzania in t10-year period.	1998-2008
Pather and Nxumalo, 2013	eSwatini	Review inclusive education policy implementation in the African context, with particular attention to international (EU funded) teacher training.	Post-colonial critique. Critique of development initiatives and education programs and their effectiveness in the African context (specifically eSwatini)	1967 – 2010
Urwick and Elliott, 2010	Lesotho	Interrogate the transference of education principles and policies developed in higher-income countries to low-income country contexts, particularly the realities of barriers to inclusion within mainstream schools	Comparative education approach. Economic, social and educational realities for inclusive education, including impact of HIV/AIDS pandemic on children.	1989-2009

In their critiques of Eurocentric concepts and policy frameworks, these studies surface the tacit assumptions that underpin such concepts and approaches. A common point is the vast economic disparity between Northern contexts where seemingly global inclusive education policies have been largely framed. These studies conclude that "local context should inform local inclusive education practice otherwise imported ideas or models will not work" (Pather and Nxumalo 2013 p. 430 [eSwatini]).

All these studies note perceived differences in contextual realities between the North and the South, such as large class sizes, inadequate physical infrastructure (including lack of classrooms or electricity), and insufficient numbers of textbooks for all learners. Lehtomäki et al. 2014 p. 35 (Tanzania) note "the poor quality of the educational system" that presents challenges for the attainment and progression of all learners. Thus, these researchers, like others, note that since children with disabilities will be joining these classrooms, understanding the context is important and that "any attempt to reform pedagogy for their benefit faces an uphill struggle" (Urwick and Elliott, 2010 p. 144 [Lesotho]). Importantly, these studies take the position that it is imperative to "do something given the present challenges" (Pather and Nxumalo, 2013 p. 430 [eSwatini]) and that small initiatives, developed within contextual realities can "demonstrate what is possible, given resources, expertise, and commitment" (Urwick and Elliott 2010 p. 146 [Lesotho]).

Another important issue highlighted in these studies is the need for greater regional knowledge-sharing in the development of national approaches that could be strengthened further. For example, Juma and Lehtomäki (2016) note that the early adoption of inclusive education in Lesotho was a key influence on government policy in Tanzania in the early 2000s (ibid p. 674) and that, since 2014, regional resource and teacher centers have been modelled on a similar structure in Uganda (ibid p. 681). Similarly, Pather and Nxumalo (2013) note that international teacher training programs could usefully allow more time for participants from African nations to discuss how to apply the inclusive education strategies they have learned about in Northern contexts to the realities of their own countries (p. 427). Sharing perspectives on policy development and implementation between African nations was seen as a positive step to tackling common barriers alongside the need to consider more local contexts and physical realities (such as roads or weather) that vary by area and region.

All four studies noted that "pragmatic and contextualized knowledge is necessary for schools, teachers, and decision-makers" (Lehtomäki et al. 2014 p. 38 [Tanzania]). A "holistic approach" (Juma and Lehtomaki 2016 p. 682) to inclusive education alongside economic, social, environmental, and youth policies was needed to tackle the complexities and realities faced by Sub-Saharan African countries. For example, in Lesotho, the education system needs to respond to the impact of the HIV/AIDS pandemic, which has further strained government and education resources. "Orphans and other bereaved children have become the largest category of students likely to have special needs" (Urwick and Elliott 2010 p. 144 [Lesotho]). These researchers note that poverty (and the HIV/AIDS epidemic in Lesotho, where their review was based) is not a backdrop to inclusive education policy implementation but something which shapes children's lives, creating a complex environment that demands a pragmatic approach to education policy aspirations that respond to its unique context and resource-constrained system. They propose a detailed "multi-track … long-term" (ibid p. 146) strategy for inclusive education in Lesotho that takes account of these realities for all learners in both special and mainstream schools. Economic and social policy should therefore also respond to the realities in which inclusive education policies are implemented.

The idea of a holistic approach to inclusive education extends to the involvement of a broad range stakeholders, including parents, teachers, educational officers, teacher training organizations, communities, and so on. The involvement of such a wide group of stakeholders emphasized the need for improvements in communicating "policy objectives and strategies to all stakeholders" (Juma and Lehtomaki 2016 p. 682 [Tanzania]). It was not only teachers whose awareness of policy and inclusive strategies could be strengthened, but the wider community. Thus, policies should investigate local, situated complex interactions between poverty, disability, and education (for example, Lehtomäki et al. 2014 p. 38 [Tanzania]) and solutions need to respond with situated and pragmatic solutions drawing on knowledge that is locally

produced. There is also an acknowledgement that exchange of knowledge should not only flow from central policymakers to practitioners and parents (to raise awareness of policies of inclusive education) but should also flow from communities and research evidence to policymakers. In strengthening this knowledge exchange, children (and adults) with disabilities are the "missing stakeholders ... [who] need a voice to show how they best gain access to education, participate, and learn" (Lehtomäki et al. 2014 p. 38 [Tanzania]). The policy reviews were also consistent in calls for improved monitoring and evaluation of policies to keep implementation on track and to ensure progress toward inclusion for all learners.

In summary, these studies demonstrate increasing awareness, debate, critique, and challenges to the ongoing process of colonization via ideas, concepts, and policy expectations, increasing calls for the development of Sub-Saharan Africa-specific policies and programs of implementation. They unequivocally argue for the need to engage directly with the practical realities of context, improved communication, and information sharing between government, policymakers, education practitioners, teachers, parents, communities, and children with disabilities.

Moving Forward

Developing deeply contextualized understandings

A recurrent issue in these studies is that of definition. Less than half the qualitative studies (8 studies or 47 percent) provide a definition of disability or refer to a specific model of disability. Several researchers (for example, Bannink, Idro, and van Hove 2016 p. 128 [Uganda]) note the difficulties in translating the English term "disability" into local languages in which there may be no single-word equivalent that groups diverse states of human physical and mental embodiment. Rather, a range of different terms for disabilities are used, most often in relation to the physical appearance or level of functioning of the child. For example, "in

Uganda, concepts describing children with spina bifida vary by region. Descriptions often refer to the physical appearance of the child" (ibid, p. 128). The studies also mention that local terms are often derogatory and objectifying for the children with disabilities, reflecting their lower status such that the "level of functioning designates his or her place within the family and the general community" (Karangwa et al. 2010 p. 272 [Rwanda]). Local terms that "symbolize uselessness and/or inhumanity" (Haihambo and Lightfoot, 2010 p. 8 [Namibia]) are likely to reproduce stigmatizing attitudes and abuses of children with disabilities.

It is also noteworthy that positive and inclusive attitudes toward disability were found within the same cultural and/or belief systems that could frame negative and stigmatizing attitudes. For example, when interviewed about their beliefs regarding albinism, different parents in the same study interpreted the condition as either a curse or a gift from god (Lynch, Lund, and Massah 2014 p. 230 [Malawi]). "Understanding disability in a cultural context is critically important" (Mantey 2017 p. 24 [Ghana]) and as such, these studies suggest drawing on cultural concepts, such as '"ubuntu" ("I am because we are")' (Bannink, Idro, and van Hove 2016 p. 127 [Uganda]); or '"botho" (common humanity) (Mukhopadhyay et al. 2014 p. 33 [Botswana]) to provide a culturally relevant system to support the inclusion of people with disabilities in Sub-Saharan Africa. These concepts were seen as particularly important as they were not based on Northern ideologies of individualism and rights-based approaches as "inclusion does not and cannot exist in a dysfunctional system of services based on right-based policies which are not implemented" (Bannink et al., 2016 p. 138 [Uganda]). Researchers therefore note that changing negative and stigmatizing attitudes requires careful consideration of cultural contexts, because the imposition of Northern and/or medical definitions of disability is undesirable.

In light of the complexities of defining "disability" across different languages and cultures, few studies made use of models of disability in their research. Discussion of models

was frequently limited to a rejection of the medical model, but without putting forward alternatives (for example, Mosia 2014 [Lesotho]; Mpuang, Mukhopadhyay, and Malatsi 2015 [Botswana]; Lynch, Lund, and Massah 2014 [Malawi]). Three qualitative studies are explicitly grounded in a social model of disability (for example, Mantey, 2017 [Ghana]). Others are implicitly so, highlighting the disabling conditions created at school and in the wider community (for example, Lynch et al. 2013 [Malawi]). For example, reference to school infrastructure that lacks "accessible toilets, libraries, and playgrounds" (Mukhopadhyay, 2014 p. 30 [Botswana]) is identified as a barrier to inclusive education, alongside negative social attitudes. The social model of disability constructed by barriers in society was noted as particularly complicated in the Sub-Saharan Africa context where, for example, access to schools for children with mobility challenges is not necessarily improved through assistive devices such as wheelchairs, which may be of limited use in a "rural hilly area without roads" (Bannink et al. 2016 p. 137 [Uganda]). As such, this study draws attention to the wider context of an area where the population "lives in poverty, with limited access to health care, education, and has no running water" (ibid, 137) to propose that rights-based approaches and arguments alone may not always be sufficient in these contexts, for example when arguing for the right to assistive devices was incommensurate with the practical realities that prevented their use.

Finally, it is worth noting that none of the 39 studies explicitly mention the biopsychosocial model of disability that provides the basis for the World Health Organization's (WHO) International Classification of Functioning, Disability, and Health (WHO, 2002). The biopsychosocial model is WHO's effort at integrating the medical and social models by incorporating health conditions, contextual and environmental factors, and personal characteristics as interacting factors that influence impairment and disabling experiences of the individual (WHO p. 10). Several studies look at inclusion within contexts of lower enrollment, participation, and achievement of children with disabilities in the primary school phase, paying

attention to teacher, child, parent, and community attitudes, physical infrastructure barriers, and lack of adjustment in teaching strategies and resources (for example, McConkey and Mariga 2011 [Tz]). Studies taking these more comprehensive approaches might seem amenable to conceptual discussions of disability through the biopsychosocial model, encompassing a broad range of physical, social, environmental, and other barriers. It has not been possible to reach a conclusion about why the biopsychosocial model has not been used as a framework (or even mentioned as a point of discussion) in these studies.

In parallel, considerable confusion surrounds "inclusive education." However, in addition to the challenges of translating concepts developed in Northern contexts to Sub-Saharan African languages and contexts (for example, Karangwa, Miles and Lewis 2010, p. 275 [Rwanda]; and Mukhopadhyay 2015 p. 28 [Botswana]), the lack of clarity is further complicated by an apparent disconnect between stated policy ambitions and the practical realities faced by schools charged with making inclusion a reality.

Lack of interrogation about how education policies developed at the urging of international organizations are to be implemented in practice "raises critical questions about the ways in which inclusive education is conceptualized and contextualized and invites debate about the complexity of the inclusion of learners with SENs (special educational needs)" (Mukhopadhyay, et al. 2012 p. 24 [Botswana]). The development of education policy in response to international frameworks without further development of the ways in which concepts could be made meaningful, implemented, or resourced in country-specific contexts has added pressure on unprepared education systems, leaving schools "straining" (Lynch et al. 2011a. 486 [Kenya]) and adopting measures such as "the increased use of unqualified teachers, large classes, and inadequate physical facilities and supervisory support" (Urwick and Elliott, 2010 p. 144 [Lesotho]). The confusion created for practitioners by shifting policy terminology (for example, from integrated to inclusive education) is compounded by the lack of a

commensurate shift in resourcing, training, and clarity on policy implementation, suggesting "a rift between the practitioners and policymakers" (Mukhopadhyay, 2014 p. 33 [Botswana]) that is inhibiting progress toward making inclusive education a reality.

Several studies revealed confusion and complexity in teachers' understanding of inclusive education as a concept and a policy framework. For example, two studies based in Ghana found that "teachers had no knowledge of the disability law" (Mantey 2017 p. 22), while a similar study of head teachers found that "most basic schoolteachers are unaware of the policy of inclusive education in Ghana" (Subbey 2020 p. 2 [Ghana]). Despite national policies for inclusive education and the placement of (some) children with disabilities in mainstream classrooms, head teachers "could not spell out any policy framework that guides the education of such children in their schools" (ibid, p. 8). Similarly, in a study in Lesotho "teachers understood inclusive education theoretically but …they could not explain their practice within any policy framework" (Mosia 2014 p. 303). Several studies (for example, Urwick and Elliott 2010 [Lesotho]) draw attention to the differences between inclusive education policy goals and the reality where students with disabilities are simply placed in mainstream schools with little adjustment to teaching practices, learning materials and resources, or physical infrastructure such that "educational policies that have been in existence have not been able to address the needs of children with disabilities in mainstream schools" (Mantey 2017 p. 23 [Ghana]). Furthermore, policy coherence is needed across education policies that charge schools with implementing inclusive education simultaneously with demands to achieve a further range of potentially conflicting objectives. For example, Juma and Lehtomäki (2016) note that other education policies in Tanzania, such as English as the official Language of Instruction (p. 679) and an emphasis on testing and school rankings (p. 681) may work against stated policy goals of inclusive education. As such, even when teachers understood the concept and supported inclusion in their schools and classrooms, the lack of a clear policy framework and adequate

resources and teaching training to implement any education policy, served as a further barrier to inclusion.

In summary, there is no single national or "African concept" or term for "disability" although African notions of *ubuntu* and *botho* may provide a broader framework for conceptualizing these terms (Takyi-Amoako and Assie-Lumumba 2018). The studies reject medical model definitions and approaches to disability, as well as local language terms that stigmatize people with impairments or disabilities. The significant challenges of applying the terminology and concepts of disability developed in Northern contexts to Sub-Saharan African contexts suggests that by not adhering to the medical and social (or biopsychosocial) models, these studies perform decolonizing work. Additionally, in doing so, it enables researchers to focus on the context of inclusive education policy development and implementation, rather than attempting to compare, adjust, and qualify Northern concepts for Sub-Saharan African realities. Definitions of disability remain imperfect globally and responses that support inclusive education are complex but best developed in response to local sociocultural and practical realities.

Systems level change

The barriers to inclusive education found in many of the studies, including a lack of teacher skills and strategies for inclusive classrooms in combination with a lack of appropriate or adequate materials, are products of the incoherence of systems that have introduced education policies without adequate resources or implementation plans developed in response to local contexts. All of the review studies and several implementation studies mention the introduction of national free education for all and free primary education policies "without investigating whether or not they would be achievable" (Mukhopadhyay 2015 p. 24 [Botswana]). These policies resulted in a rapid increase in enrollments into unprepared education systems, leaving schools "straining" (Lynch et al. 2011a p. 486 [Kenya]) and

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adopting measures such as "the increased use of unqualified teachers, large classes, and inadequate physical facilities and supervisory support" (Urwick and Elliott 2010 p. 144 [Lesotho]). Planning and preparation for the future in the school system also needs to respond to the increasing numbers of children progressing from primary school that "will increase the demand for a system of support in local secondary schools" (Lynch et al. 2011a p. 485 [Kenya]). This call to look ahead to the future provision and resilience of the school system—at national, regional/local, and school levels—is essential to sustain successful inclusive practices and experiences throughout children's schooling.

It is not only lack of planning and resources and/or incoherent systems that have generated many barriers to inclusive education but also the prevalence of international systems that are seen to urge Sub-Saharan African nations to adopt international goals, concepts, and policies that have been developed in Northern contexts. Developing contextualized policies, implementation plans, guidance, and monitoring and evaluation programs, all take time, particularly while many aspects of inclusive education implementation and experiences of children with disabilities are significantly under-researched. At all levels, consideration must be given to "the uniqueness of the cultures that influence the local education system" (Pather and Nxumalo 2013 p. 432 [eSwatini]), rather than emerging ideas developed in Northern contexts. To reconcile fragmented and incoherent systems, changes at all levels must be part of an overall program and policy framework, supported by exchanges of knowledge between government, policymakers, and local practitioners, parents, and adults and children with disabilities.

Voices of children with disabilities

This section considers the absence of the voices of children with disabilities in the studies on disability and education located in the AERD. Figure 6 demonstrates the dominance of teachers as participants and the relative paucity of studies focused on inclusive education

implementation that involved children. This, perhaps, suggests that parents, teachers, and community members are responsible for changing attitudes and adopting inclusive practices and strategies that will impact on the lived experiences of children with disabilities, without considering those children's perceptions and experiences. Figure 7 also shows that studies solely by Sub-Saharan Africa-based authors were more likely to use participants from one stakeholder group, most often teachers. No studies solely by Sub-Saharan Africa-based researchers had children as the only research participants.

Figure 7: Implementation Studies by Authorship and Research Participant Group.
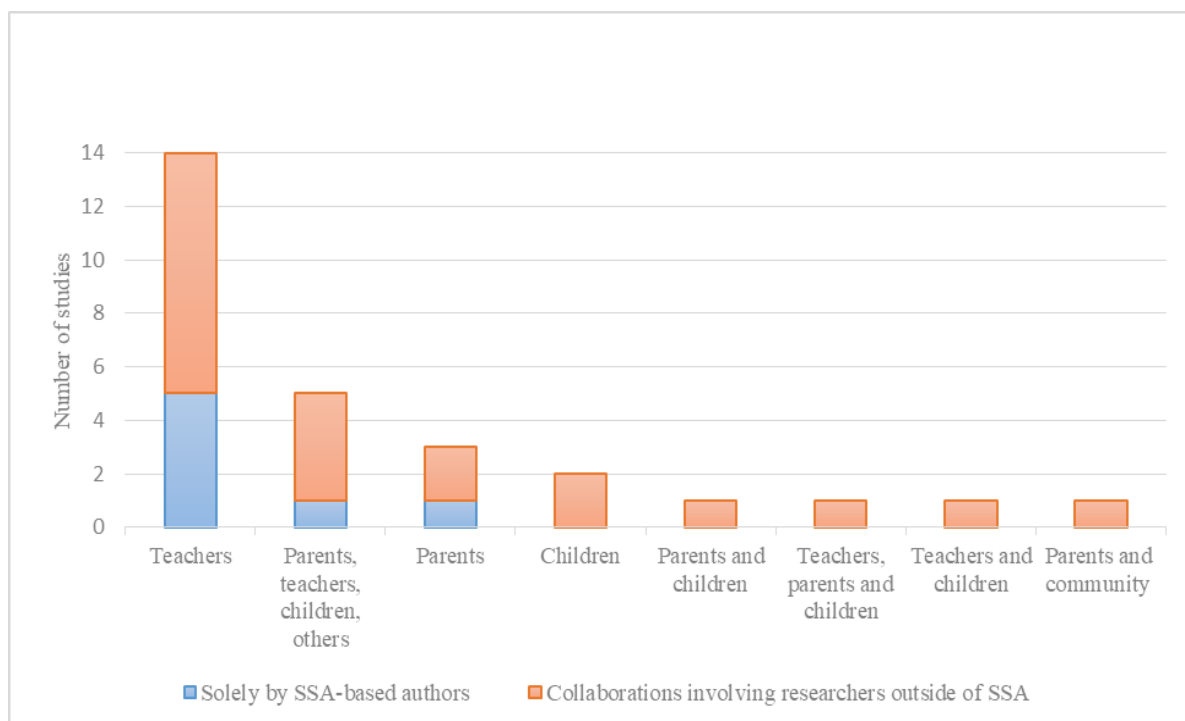
Across the full sample of 39 studies, less than half (41 percent or 16 papers) included children as participants. This total of 16 papers includes the six studies that tested the efficacy of interventions, none of which presented the voices of the children with disabilities that were used as the participants. In the remaining 10 studies (34 percent) that included children as participants, two were the large-scale quantitative surveys that did not present children's voices. The remaining eight studies that had children as participants were qualitative studies. However, not all of these reported the voices of the children.

Three qualitative studies interviewed children with disabilities yet did not include their voices in the research paper (Table 8). Karangwa, Miles, and Lewis (2010 [Rwanda]) note the use of "in-depth interviews" (p. 271) with children, but do not present any data from these participants. The other qualitative studies that included children with disabilities but did not present their voices are two papers published on the same research project conducted in Kenya: Elder and Odoyo (2018) and Elder and Kuja (2019).

These papers show (in the same table copied in both research articles) that eight students with disabilities participated in the school inclusion committees established by the researchers (Elder and Odoyo 2018 p. 301; Elder and Kuja 2018 p. 266). Yet, despite listing the "written/dictated participant feedback" (Elder and Odoyo 2018 p. 302) collected from these committee meetings, in addition to "small group interviews for students at the end of each cycle", there is no reporting of the voices of students with disabilities in either paper. As such, Elder and Odoyo's (2018 [Kenya]) review of the participatory research approach (as outlined above) did not include comments from any children (with or without disabilities) about their role, experiences, or views of the inclusion committees. Elder and Kuja (2019) present the voice of a student without disabilities who was tasked with sensitizing other children at the school to inclusive education but silences the children with disabilities who participated in the research, despite having a key aim of the research to increase enrollment of children with disabilities. The silencing of children's voices about their experiences of disability and inclusive education—even when children with disabilities are interviewed about these topics as part of the research—is a striking feature of these papers.

Table 8: Qualitative Implementation Studies With Children as Participants

Study	Country	Aim	Sample size	Age of children	Children's voices
Elder and Odoyo 2018	Kenya	Strategies and practices of inclusive education	51 (total participants) 8 (children with disabilities)	10–13 years old	No
Elder and Kuja 2018	Kenya	Strategies and practices of inclusive education	51 (total participants) 8 (children with disabilities)	10–13 years old	No
Karangwa, Miles and Lewis 2010	Rwanda	Social inclusion – perceptions of disability and community	325 (total participants) 97 (children with disabilities)	Not given	No
Mantey 2017	Ghana	Perceptions of inclusive education and social inclusion	19 (total participants) 4 (children with disabilities)	Class 3 to 6	Yes
Lynch, Lund and Massah 2014	Malawi	Strategies and practices of inclusive education and social inclusion	106 (total participants) 60 (children with disabilities)	Not given	Yes
Mukhopadhyay, Nenty and Abosi 2012	Botswana	Strategies and practices of inclusive education	96 (total participants) 60 (children with or without disabilities)	Not given	Yes
McConkey and Mariga 2011	Tanzania	Strategies and practices of inclusive education	31 (total participants) 3 (children; disability not stated)	Not given	Yes
Bannink, Idro and van, Hove 2016	Uganda	Social inclusion – experiences of belonging	271 (total participants) 97 (children with disabilities)	4 to 14 years old	Yes

In contrast, five studies (13 percent) did include the voices of children with disabilities.

Two of the studies focused on children with specific impairments: Lynch et al. (2014 [Malawi])

investigated experiences of children with albinism and associated low vision; and Bannink et

al. (2016 [Uganda]) investigated experiences of belonging for families and children with spina

bifida. The studies took place in five countries: Botswana Ghana, Malawi, Tanzania and Uganda (Table 8). The full sample of 39 studies covered 14 Sub-Saharan African countries, meaning that in nine of the countries (or 64 percent) in the full sample, no research into disability and the primary phase of education took place that presented the voices of children with disabilities.

These five studies identified several barriers faced by children with disabilities: lack of general classroom resources (for example, not enough textbooks for each child, Lynch et al. [Malawi] p. 230); lack of specialist resources and assistive devices; lack of teacher knowledge and access to special educators; and lack of adjustments to school infrastructure and practices to accommodate children with disabilities. Children, parents, teachers, and community leaders often presented a consistent view of these barriers across the studies. One point of difference can be noted in McConkey and Mariga's (2011 [Tanzania]) study that evaluated a two-year long program to implement inclusive education, including the steps that had been taken and their efficacy in addressing these barriers.

Interestingly, the children's voices and experiences differ markedly, both from the perceptions of adult participants and between studies in different countries. In three of the studies, both adult and child participants stated being aware of discriminatory and stigmatizing attitudes toward disability. The child participants report experiences of discrimination and bullying, including at school (Bannink et al. 2016, p. 133 and p. 136; Lynch et al. 2014, p. 229; and Mantey 2017, p. 23). However, experiences of bullying or discrimination from other children in school were not universal. Bannink et al. (2016 [Uganda]) find that, although children with disabilities had experienced discrimination and were aware of negative attitudes, they usually had friends in the community and/or at school (p. 133 and 135). Furthermore, the voices of children with disabilities in two studies (Mukhopadhyay et al. (2012), p. 6

[Botswana]; and McConkey and Mariga (2011) p. 17 [Tanzania]) reported positive experiences of peer acceptance and friendships in school.

Importantly, in terms of considering the continued presence and progression of children with disabilities, children's reported experiences of discrimination and/or lack of adjustments in school did not seem to affect their desire to attend school (Mantey 2017 [Ghana] and Bannink et al. 2016 [Uganda]). Furthermore, some children with disabilities were "strong self-advocates and were able to voice their needs and concerns" (Lynch et al. 2014 224). Despite negative attitudes toward their impairment or disability and the challenges they faced in school, "children themselves had dreams about what they would to be [sic] in future" (Bannink et al. 2016 p.135 [Uganda]), such as lawyers, doctors, or teachers who could be positive agents of change for children like themselves.

As such, even though the list of barriers to inclusive education is notably uniform across schools, geographical regions, and countries, the experiences of the children with disabilities attending primary school are far from homogeneous. This demonstrates the importance of children with disabilities as participants in research, and the value of including their voices to inform the development of strategies and practices in schools, as well as future policy directions that will directly affect their experiences of education and the potential to fulfil their ambitions.

Identify and adopt local strategies

While all 39 studies emphasize the differences from Northern contexts and barriers to inclusive education, they also highlight the possibilities of developing and implementing local (and national) strategies. Here the authors identify examples that are discussed in some studies, while being mindful that these cannot be generalized across African contexts.

In several studies, the potentially positive role of parents and the community in making inclusive education a reality is mentioned. For example, Elder and Kuja (2019 [Kenya])

propose the formation of school inclusion committees as a low-resource and contextually sensitive method for increasing access and enrollment, by sensitizing local parents and the community to the benefits of inclusive education for children with disabilities. Similarly, in their review of an inclusive education program in Tanzania, McConkey and Mariga (2011) found that "volunteers were sought to build or refurbish classrooms … or to make the school grounds and toilets more accessible for wheelchair users" (p. 15). As such, these studies note that in Sub-Saharan African countries in which government resources to support inclusion in schools are limited, community resources may be drawn on instead. However, Urwick and Elliott (2010) urge caution in assuming that this strategy will work across the entire region. They note that, "in Lesotho, the necessary social capital and fund-raising capacity may not exist at the local level" (ibid, p. 141), mainly because of the devastating impact of the HIV/AIDS epidemic and the prevalence of child-headed households.

Other studies note that there is "…a pressing need to go beyond enrollment and sensitization now" (Juma and Lehtomäki 2016 p. 679 [Tanzania]). As such, several studies focus on teacher knowledge, practice, and training in inclusive education strategies. For example, Elder, Damiani, and Oswago (2016) present positive results from their small-scale study in that the teachers "had highly positive reflections on the effectiveness of the training and the use of inclusive instructional strategies" (427). Similarly, Main, Chambers, and Sarah (2016) provide in-service training to teachers in the Seychelles and find that the training "was successful in developing more positive attitudes among the teachers toward including children with disabilities in their classroom" (p. 1280). Not surprisingly, both studies note issues around changing teacher practices not only immediately following the training but over a sustained period. However, an over emphasis on teacher training can obscure "the difficulties that even the most skilled teacher would encounter in the poorer parts of Africa" (Urwick and Elliott 2010 p. 141 [Lesotho]), such as large class sizes and a lack of teaching materials. In other

words, although teacher training may improve an individual teacher's confidence in using inclusive strategies in the classroom, this can only be one measure among the many needed to tackle the multiple barriers to inclusive education.

Similarly, several other studies are critical of the commonly adopted one-off workshop approach to professional development (in many cases these are mentioned as being primarily delivered by Northern consultants). Here issues of infeasibility, wastefulness, and over optimism in the hope that knowledge of inclusive classroom strategies can be cascaded through the school (for example Mosia 2014 p. 300 [Lesotho]) are highlighted. These studies suggest that a model of ongoing teacher training that addresses inclusive skills and strategies within the local context, taking place with teachers within their own school settings and as part of a wider program of continuous professional development (for example Kuyini et al. 2016 p. 1020 [Ghana]) would have a greater impact on the use of inclusive teaching strategies and support the achievement of all students.

Concluding remarks

This report is not without its limitations and findings are presented as a snapshot of scholarship on disability and primary education in Sub-Saharan African contexts that continues to make progress in understanding and addressing the complexities and constraints on inclusive education [that is, we acknowledge that more recent work has been published that is not included here, and that the AERD has limited coverage of publications in languages other than English]. Very notably the AERD excludes South Africa, which has been central in knowledge production in this region.

The report has identified some areas of broad consensus, for example, the need to consider context and practical realities in both policy development and implementation, as well as some sites of innovation (for example, the development of sign-language-based computer programs,

Kiboss 2012). But more importantly, a closer examination of the articles has provided insights into how knowledge and evidence in the field of disability and primary education is being produced, questions such as:

- Whose voice counts—both in relation to the focus of the research and within the research process itself?
- Where and how do partnerships manifest?
- What are the theoretical and ethical underpinnings of current scholarship?

All these are important questions that need to be engaged in with humility and honesty as the discussion moves forward.

A notable limitation of this review is that it has been undertaken by three individuals based in Northern settings and, as such, this work remains incomplete without the engagement of Sub-Saharan African scholars. The authors deeply value and invite reflections from scholars who are undertaking this important work in Sub-Saharan Africa, since they at the forefront of knowledge generation in this field in their region.

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