# The Many Meanings of Quality Education: Politics of Targets and Indicators in SDG4[1]

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## Abstract

The formulation of the SDG education targets was more inclusive than the processes linked with the MDGs. Key constituencies making representations through the Open Working Group and other consultative processes succeeded in formulating targets that stressed inclusion, quality and equality in all phases of education. However, the development of the global indicators for SDG4, has resulted in metrics that miss many of the values of the targets, most notably with regard to quality and free education and substantive, not simply distributive, meanings of equality. The article analyses why some of these slippages took place, and what potential there may be to mobilise for metrics that better depict the key tenets of the education goal and targets. The analysis thus considers ways forward for exploring measurement of the many meanings of quality and equalities in education, reflecting on numbers as instruments that impose power and hierarchy, and the possibility of using reflections on numbers and indicators for critical dialogue and an enhancement of participation, accountability, and work to change injustices in education.

SDG4 expresses a vision to 'Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all' (UN 2015). This represents a shift from the narrow focus on universal primary education in the MDG framework, and goes considerably beyond the Dakar Platform of Action for Education for All (EFA), which accompanied the MDGs. The targets for SDG 4 mention expanding opportunities across all phases of education – pre-primary, primary, secondary, vocational, higher and adult education. The targets broaden the scope of education as a global project to encompass outcomes in literacy, numeracy, and wider learning including global citizenship, sustainability and gender equality. Education is noted in a number of other SDG targets, including SDG3 on good health and well-being, SDG 5 on gender equality and women's empowerment, and SDG8 on decent work. While it is acknowledged that in some SDGs the education components and connections could be better articulated (Nilsson et al., 2016), the SDG framework has been read as offering something for everyone working on education (UNESCO, 2016). This paper discusses why, despite this laudably ambitious vision, there is considerable slippage in meaning between the broad values outlined in the goal statement, detailed aspiration expressed in the targets, and global indicators selected to evaluate progress. King (2017) has termed this a loss associated with translation between levels. The paper considers some of the reasons for this, based on an analysis of key documents, and published accounts of meetings where the discourses deployed illuminate some of the politics entailed. The authority promoted for numbers, associated with counting inputs or outputs, rather than indicators portraying inclusion, equity and quality opportunities is documented. This historical review is used to reflect on some of the

possibilities to develop a critically informed approach to metrics for SDG4, enhancing discussion and practice to develop indicators which more closely express the values of the goal. The possibility is considered of mobilisations for better measures. The discussion is organised in four parts. Part 1 briefly summarises SDG4 and details the targets and indicators. Part 2 outlines some of the politics entailed in the framing of SDG4 and the selection of the targets and indicators. Part 3 highlights some key omissions in the indicators which illuminate features of distortion and difficulty associated with numbers and some of the tensions that can emerge between metrics that review performance and those that may expand insight into complex concepts such as equality and quality in education. Part 4 explores some of the possibilities and limitations for mobilisations around equity and inclusion linked to SDG indicators and what potential and difficulties there may be to build critical dialogue around metrics that better depict the key tenets of the education goal and targets.

## SDG4: Goal, target and indicators

The SDG4 comprises seven targets that deal with quality and equality for different phases of education. The first 3 targets are intended to ensure all children and adults access to quality education from early years through primary and secondary school to technical and university levels. Target 4.4 aims to enhance skills for youth and adults linked to work. Target 4.5 is concerned with the distribution of educational access across a range of demographics noting needs of people with disabilities, indigenous peoples and vulnerable groups. Target 4.6 aims to ensure literacy and numeracy for all youth and substantially reduce adult illiteracy. Target

4.7 is the only target that deals with the content of education aiming to develop knowledge and skills for sustainable development, human rights, gender equality and cultures of peace and non-violence.

In addition three targets (4A, 4B, 4C) are constructed as the means of implementation of the quality and equality targets. Target 4A aims to build and upgrade education facilities that are child, disability, and gender sensitive providing safe, inclusive and effective learning environments. Target 4B singles out enhancing access to higher education and aims to expand the number of higher education scholarships available to developing states and African countries. Target 4C is concerned to increase the supply of qualified teachers.

The indicators for these targets, as discussed in section 3, have been classified as Tier 1, 2 and 3 based on 2018 IAEG discussions (UN Statistical Commission 2018)[11]. Out of 32 indicators only two are classified as tier 1 – the participation rate in organized learning 1 year before entry into primary school and the amount of official development assistance spent on higher education scholarships. While the Tier 2 indicators already have an accepted methodology, and the challenge is increasing the number of countries with data, the large proportion of Tier 3 indicators, many linked with facets of quality and equality, open a terrain for discussion of what kind of power numbers confer for whom. However, before exploring some of these issues, the next section provides a brief background history to the formulation of SDG4, its targets and indicators highlighting some of the contestations around quality and equalities.

## Developing SDG4: The politics of quality and equalities

SDG 4 emerged from the extensive consultations between 2012 and 2015 as a victory for proponents of a vision of quality education that was free, inclusive and orientated to equalities. Set against this was a more limited vision for the goal, put forward by some powerful voices, arguing for a focus on narrowly defined learning outcomes for youth. While proponents of the discourse of rights and inclusion prevailed with regard to the text of the goal and the targets, they had less access to the process of developing indicators, partly because of institutional histories associated with developing education metrics, and partly because the global Education for All (EFA) movement had mobilised to secure the text on the targets, but did not maintain this for the debate around indicators.

Unlike the very limited process associated with formulating the MDGs, extensive consultation was associated with framing SDG4 (Dodds et al., 2016; King, 2016, 2017). Some lobby groups were linked to education sectors (basic, secondary or higher education), some to groupings of governments (donors or regional formations), some to interest groups, such as disability, gender, or indigenous rights (Sayed and Ahmed, 2018). The loose EFA movement was a major player, linking together civil society organisations, trade unions, NGOs, academic networks, bilateral and multilateral organisations with UNESCO taking the lead, but UNICEF and the World Bank also key figures (Mundy, 2016; Tikly, 2017). From 2000 the private sector, notably multinational corporations in ICT, had become increasingly active and well-connected in the EFA movement, working partly through Foundations and partly as providers (Ball, 2016; Draxler, 2015; Sayed and Ahmed, 2018).

Tikly (2017), reflects on the EFA movement and the formulation of SDG4, depicting this as a form of global governance, in which a group of powerful actors engaged in a process of building and maintaining legitimacy. He shows how the formulation of principles, norms, rules and decision-making procedures around EFA had the effect of generating particular discourses which accommodated tensions and contradictions within and between economic, socio-cultural and political perspectives. I have drawn on this analysis to read the slippages evident between the vision of SDG4, the aspirations of the targets, and the circumscription of the indicators. But I conclude this slippage is only partially the outcome of consensus building and accommodation around principles and norms, as Tikly depicts. In addition an analysis needs to take into account the institutional forms associated with the collection and analysis of education metrics, and the interface of global and national processes which legitimated some institutions' data gathering and delegitimated others. Also evident are disputes regarding which principles were considered core and peripheral, whether scrutiny of processes was more or less mobilised at particular moments, and where the limits of a discourse around equity and inclusion came to be set. Thus the consensus Tikly argues for is more evident at some moments, such as agreeing targets, than at others, such as opening spaces to review indicators. Thus numbers are interpreted, positioned and selectively contested in different global and national sites for different reasons.

### Consultations on SDG 4: education for what?

The Rio +20 meeting mandated the formulation of the SDGs. Key consultations on education took place in the 3 years (2012–2015) before the goal and targets were finalised. The discussion on the indicators has continued for 3 years (2015–2018) after the UN General Assembly agreed the goal and targets. In presenting an abbreviated history of these discussions I identify eight moments when particular constituencies made significant inputs into framing SDG4. The different versions are summarized in Table 1. In early phases proponents of more limited focus for the goal and targets made headway, but later the discourses associated with quality and equality prevailed, most significantly with regard to free education and more substantive meanings of gender equality.

In 2012 a High Level Panel of Eminent Persons was appointed by the Secretary General to develop a proposal for an Agenda Post 2015. Chaired by the leaders of Indonesia, Liberia and the UK this reported in May 2013 with a proposal for a central positioning of quality education but no reference to substantive equalities (HLPEP, 2013). The report

**Table 1.** Visions of the SDG education goal (2013–2015)

| High Level Panel (May 2013) | EFA Steering Committee (April 2014) | SDSN Report (May 2014) | Muscat agreement (May 2014) | OWG Progress Report (July 2014) | UN SG Synthesis Report (Dec 2014) | Incheon Declaration (May 2015) | Education 2030 Framework for Action (Nov 2015) |
|---|---|---|---|---|---|---|---|
| Provide quality education and lifelong learning. | Ensure equitable and inclusive quality education and learning for all by 2030. | Ensure effective learning for all children and youth for life and livelihood. | Ensure equitable and inclusive quality education and lifelong learning for all by 2030. | Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. | Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. (Education links people, planet & prosperity) | Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. | Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. |

*Sources*: HLPEP, 2013; UNESCO, 2014a; SDSN, 2014; UN, 2014; UNESCO, 2014b; OWG, 2014a; World Education Forum, 2015; UNESCO, 2015

was the outcome of some regional consultations, but also reflected priorities being formulated in the UK Department for International Development (DFID).

A second moment was associated with UN member states, which, in response to what was viewed as a top down effort to formulate the SDGs, established the Open Working Group (OWG) to develop an alternative SDG vision (See introduction to this volume). OWG was a 30 member group, mandated by the Rio +20 outcome document to prepare proposals on the SDGs for consideration by the UN General Assembly. It began meeting in March 2013 with each of the 30 seats shared by three countries. Education sessions took place alongside health, employment, population and social protection in March and June 2013. At the tenth and eleventh sessions on 31 March–4 April and 5–9 May 2014, there were hearings on education from accredited groups representing workers and trade unions, women, children and youth, NGOs, and indigenous peoples. The EFA position presented to the OWG, made a case to justify the adoption of a broad and comprehensive SDG goal in education that went beyond the MDGs. Part of the education community's case was that it was willing to forgo a parallel global policy process in favour of integration with the SDG framework. (OWG, 2015). In July 2014 the OWG proposed 17 SDGs, with SDG 4 expressing a broad equalities view of quality education rather than the narrower perspective on learning outcomes (OWG, 2014a).

At a third moment in April 2014 the EFA Steering Committee, located in UNESCO, issued its draft Position Paper on Education post 2015 (UNESCO, 2014a). This was the outcome of regional consultations organised through UNESCO with representations from governments and formally accredited NGO bodies. Here the vision of inclusive and equitable education being proposed at the OWG hearings was endorsed.

But a challenge to this was presented in May 2014 by the expert led Sustainable Development Solutions Network (SDSN) which, although not an officially mandated UN body,

issued a lobbying document with a narrow version of a proposed education goal focused only on effective learning for children and youth (SDSN, 2014). This *Action Agenda* was written by the Leadership Council of SDSN, chaired by Jeffrey Sachs, comprising some senior figures in the UN system in their personal capacity, leading professors from universities across the world, high profile political figures, representatives of business, and some 'blue chip' NGOs. No significant figures from EFA were represented.

The EFA consensus building process asserted itself in mobilising against this more technocratic vision, in May 2014 a global EFA meeting was convened In Muscat, with invitations extended by the Director-General of UNESCO to Education and Finance Ministers, a large number of country delegations, officials of multilateral and bilateral organizations, senior representatives of civil society and private sector organizations. This reviewed the focus and targets for the SDGs and issued the Muscat Agreement largely in line with the UNESCO position of April (UNESCO, 2014b).

In December 2014, the UN Secretary-General published a Synthesis report which brought closure to the different directions emerging from the OWG and SDSN reports. This endorsed the more expansive version of SDG goal 4 that had been formulated in the OWG and set out a broad vision of education supporting the dignity and prosperity of people and the protection of the planet (UN, 2014).

The World Education Forum took place in Incheon, Korea, in May 2015. Here, a wide gathering of education Ministers, civil society activists and seven UN organisations[2] with an interest in education adopted the Incheon Declaration *Education 2030: Towards Inclusive and equitable quality education for lifelong learning* giving detail and depth to realising the goal (World Education Forum, 2015).

An eighth moment was the adoption of a Framework for Action for the Incheon Declaration by high level education sector representatives from 184 countries at UNESCO headquarters on 4 November 2015. The Incheon and Paris

documents align closely with SDG4 and this ensured the EFA movement was not on a separate track to the SDGs, as had happened with the MDGs. Thus consensus had been built around inclusion and equalities as key features of the goal and this was maintained with regard to the targets. But the narrower interpretation, which focused heavily on interpreting quality as learning outcomes, continued to be actively promoted (Sayed and Ahmed, 2015). This view was less evident in the formulation of the targets, but appeared clearly in discussion of the indicators, partly because of the institutional architecture of the metrics as discussed in the following sections.

## Contested meanings of quality and equalities: Formulating Targets

Goals and targets for SDG4 were agreed in 2015, but struggles over the meanings of quality and equalities continued, partly masked by a politics of consensus building. The conflict hinged on narrow versus broad conceptions of these terms and the institutional histories of different organisations and governments, which supported different interpretations. Tikly (2017) identifies areas of tension around EFA, and these are evident in many of the discussions associated with the formulation of the SDG4 targets at the eight moments outlined above. The contestation between the narrow and the broad approach to quality and equalities are evident in:

1. Debates about education sub-sectors, and whether to make the SDG targets focus on primary and secondary school, or include early years, further, higher, adult and vocational education.
2. Whether to focus on quantities of enrolment, attendance and progression or quality variously defined.
3. How to define quality education, and whether this entailed a simple focus on learning outcomes or entailed free education, inclusion and contentious areas of value, like sustainability, rights and gender equality.
4. Whether the meaning of equitable education was limited to expanding formal rights to education to excluded groups, or entailed more substantial acknowledgement of intersectional inequalities entailing redress of disadvantage and transformation of injustice within and beyond education.
5. The relative position of states and markets, and how to engage with the considerable growth of the private sector in education, a discussion which came to be expressed partly as a dispute around the nature of accountability.

These contestations pre-dated the SDG process (Mundy, Green, Lingard and Verger, 2016; McGrath and Gu, 2015), but had considerable influence on discussions of target. Table 2 contrasts positions on targets taken in the major reports 2013–2015.

A number of lines of division are apparent. For the primarily expert led consultations (High Level Panel and SDSN) the key problem tended to be identified as children out of school, not learning sufficiently within, and not learning adequately to support economic growth. Their focus regarding targets was on early years education, basic levels of schooling and youth skills. This was also to emerge as the position of the World Bank when they published their World Development Report in 2018, which identified a key problem as 'a learning crisis '(World Bank, 2018). In contrast to this, the wider consultations taking place at OWG hearings in New York, UNESCO regional consultative meetings with education Ministers, the EFA community of civil society, NGOs, and a range of bilateral and multilateral organisations surfaced demands for the provision of education at all levels. By the time of the World Education Forum in May 2015 this wider education vision had come to encompass higher education. The notion of 'aligning' the education system through all levels and working with all actors to promote learning, was the way the World Bank (2018) came to accommodate this view. But this accommodation masked some very acute differences regarding understandings of equalities and inclusion which the consensus over the targets masked (Unterhalter, 2018a).

The idea of quality had been linked with a narrow range of learning outcomes or benchmarks in the early UNESCO EFA Steering Committee and the expert led reports, however, by the later meetings (Muscat and Incheon) quality had come to be associated with equalities and values, such as sustainable development, global citizenship, skills for decent work. The Incheon Declaration included a full and substantive statement of quality reviewing the range of processes that contributed to this. (World Education Forum, 2015) and the Framework for Action on Education 2030 reviews the many sites and practices needed to ensure quality (UNESCO, 2015a).

Early reports gave little attention to contexts and forms of inequalities, and treated inclusion as something largely to be noted through measuring the presence of particular demographics (girls or low income groups). The Muscat meeting, largely as a result of the lobbying by civil society organisations organised through the Global Campaign for Education (GCE), stressed free education as an important aspect of inclusion at early years and basic levels. The Incheon Declaration had a substantive statement on addressing exclusion and working for gender equality. It spoke about the need for 'transformative public policies to respond to learners' diversity and needs, and to address the multiple forms of discrimination and of situations, including emergencies, which impede the fulfilment of the right to education' (World Education Forum, 2015, 6). The Declaration thus acknowledges aspects of structural transformation that need to take place in order to support equity. The November 2015 Framework of Action set out explicit areas of policy and practice where this was to be acted on (UNESCO, 2015a)

Private provision was not mentioned in the early iterations of the targets, but the implication of the stress on all children achieving particular learning outcomes, was that all schooling regardless of whether it was public or private was desirable if it enabled learning. In the Muscat agreement free early years and basic education were mentioned as

**Table 2.** Perspectives on SDG4 targets in reports and declaration (2013-2015)

| Target focus | High Level Panel (May 2013) | EFA Steering Committee (April 2014) | SDSN Report (May 2014) | Muscat agreement (May 2014) | OWG SDG Proposal (July 2014) | UN SG Synthesis Report (Dec 2014) | Incheon Declaration (May 2015) | Education 2030 Framework for Action (Nov 2015) |
|---|---|---|---|---|---|---|---|---|
| Levels of education | Early years, primary, lower secondary & youth skills. | All levels except higher education. | Early years, primary & secondary, youth skills adult literacy. academic environments. | All levels | All levels | All levels implied; stress on people, planet and prosperity. | All levels | All levels |
| Quantity and /or quality | Quantity & quality for primary and secondary. | Quantity and quality | Quantity and quality for early years, primary and secondary. More limited vision of quality for youth skills & higher. | Quantity and quality inked for all levels. | Quantity & quality for all levels. | Relevant knowledge, skills, quality and access linked all levels. | Quantity and quality linked all levels. | Quantity and quality linked all levels. |
| Definition quality | Meeting 'minimum standards' of reading, writing and counting at primary level; meeting measurable learning outcomes at junior secondary. | Developing capacity to learn, meeting global benchmarks of learning outcomes, fully participating in society, access decent work; express values (global citizenship & sustainable development). | Wide range learning outcomes, reduce dropout in higher education develop knowledge economies. | No definition for early years, primary and secondary. For youth and adults' increasing participation in society, enhancing peace, sustainable development and global citizenship. | No definition of quality but associated with free & equitable schooling, affordable vocational educated and relevant skills. | No definition of quality but discussion links education with dignity, sustainability, gender equality, and enhancing knowhow. | Very full definition of quality looking at practice, Includes rights and gender equality. | Links quality with the humanistic inclusive vision of SDGs and with learning processes as well as outcomes. |
| Equity | Attend to demographics of distribution. | Indicators to monitor inequalities;policies to overcome discrimination. | Focus on hard to reach populations—girls, women, disabled, nomadic, socially and economically 'disadvantaged'. | Free early years and basic education. | Gender as major distributional inequality; some mention of disability. | Address inequalities 'in all areas... no goal or target be considered met unless met for all social and economic groups'. | Addressing all forms of exclusion and marginalisation; expansive definition of gender equality. | Emphasises equity, inclusion and gender equality at all stages policy and practice. |
| Private provision | Stress on all children accessing school. | Stress on all children accessing learning. | Stress on all children meeting learning outcomes. | Stress on free early years and basic education. | Free basic education and affordable technical, vocational and tertiary education. | Stress on inclusion and wide range of financing arrangements. | Stress on free and compulsory learning and education as a public good. | Stress on 12 years free, publicly funded schooling, of which 9 compulsory. |

*Sources*: HLEP 2013; UNESCO, 2014a; SDSN, 2014; UNESCO, 2015; UNESCO, 2014b; World Education Forum, 2015; OWG, 2014a; UN, 2014

targets, while the Incheon Declaration included an expansive discussion on free and compulsory education, and the notion of public good (World Education Forum, 2015) reiterated in the Framework of Action. (UNESCO, 2015a).

The politics associated with the transition to more comprehensive and inclusive versions of the targets, was partly because of discussions in the Open Working Group and partly because of extensive lobbying by groups like the GCE, women's rights activists, trade unions organised by Education International, certain donors and individuals in multilateral organisations, most notably UNESCO[3]. Many representations to the OWG made the point that addressing quality in education was closely linked with work on supporting equalities, a point repeated often by civil society groups in GCE and in UNESCO reports (OWG, 2013; GCE, 2015; UNESCO, 2015b). For example in a presentation to OWG prepared by United Nations Statistics Division, the point was stressed that the SDGs must draw out the links between education and other areas and highlight quality and equality as well as quantity (OWG, 2014). The notion of equality going beyond simply enrolling more children in school, but entailing substantive work on public provision was repeatedly echoed in initial statements from the Technical Support team and inputs from women's groups, indigenous groups and trade unions (OWG, 2013; OWG, 2015b). These were centrepieces of GCE campaigning on the right to education (GCE, 2015). Thus the formulation of the targets represented a victory for advocates of inclusive meanings of lifelong learning, quality, equalities, free education and social transformation. But the indicator frameworks to assess these presented a number of difficulties. It was here that the discourse of inclusion and substantive equality had less resonance, partly because of the institutional architecture around metrics, and partly because of discursive differences between key groups within EFA regarding why a power of numbers was to be deployed in reviewing a global framework like the SDGs.

## Indicators

Selecting indicators for targets had been canvassed at all eight moments of discussion of SDG4. There were some marked differences, however, regarding the purpose of indicators. Measurement was sometimes seen as a means of performance review, identifying the efficiency of education systems in processing children and adults through various phases of learning. Many perverse outcomes and distortions of power had been noted associated with this process (Alexander, 2015; Meyer and Benavot, 2013), but it remained the key approach deployed by both proponents of the wide and the narrow formulations of education quality and equalities. A contrasting perspective posed questions regarding whether critical dialogues around indicators might provide platforms for participation around policy formulation and implementation, enhancing a range of forms of accountability and attention to injustice (Unterhalter, 2017). This view, often expressed by campaigners around education rights, gender equality, and disability, had more limited traction

with regard to global frameworks, but did have audiences concerned with education sector planning and NGO campaigns.

In discussions of indicators for SDG4 these two positions were sometimes conflated, partly because the institutional apparatus to support more participatory processes for indicator development was still rudimentary. Up to 2015 the main institutional apparatus for collecting education data was the administrative data collected by education departments through Education Management Information Systems ((EMIS), information about years of school completed collected through household surveys, and a range of tests of learning outcomes, collected by private Exam boards, governments and NGOs. In this discursive and institutional landscape performance review tended to be a key concern. Developing indicators for equitable inclusion through critical, participatory reflection, were positioned as peripheral, not core.

A recognition that existing global level indicators did not fully express ideas about quality and equality was widely shared among representatives of the statistical community making representations to the OWG (2014b), working within UNESCO (Antoninis et al., 2016) and among academic commentators (Unterhalter, 2018b). UNESCO (2010) had pioneered some measures of inequality in education and global civil society organisations, like the Right to Education (RTE), had been working on some alternative indicators to capture facets of the interpretation of rights (De Beco, 2009). But this was largely seen as a technical area of work amongst experts, rather than a field for more participatory dialogue.

The tensions between different visions and the techniques of monitoring were highlighted in the SDSN report to the UN Secretary General on the data revolution and monitoring the SDGs. The report outlined ten principles for global indicators (SDSN, 2015) surfacing a number of problematic issues for the inclusive, equitable vision of lifelong education. The first principle outlined in the report was that the global level indicators should comprise 'Simple, single-variable indicators, with straightforward policy implications'. Additional principles stressed the importance of indicators being 'Mainly outcome-focused' and being used as a 'proxy for broader issues or conditions'. These principles were supported by arguments regarding ease of collection and communication, the importance of measuring ends, not means, and the illumination to be offered by the proxy indicators (SDSN, 2015). The report provided no rationale as to why or through what process one proxy indicator should be chosen over another, whether measurement of outcomes at global level might obscure significant and relevant inputs and processes nationally and locally, and how single variables could be used for complex processes, such as equality or quality education. The Report acknowledged a wide range of organisations, including many associated with EFA, consulted in the process of developing the Report but added a caveat ' None of these organizations or individuals were asked to endorse the final report' (SDSN, 2015).

The education indicators to be used at the global level for SDG4 came to be selected from a field already developed in certain areas, but not others.[4] School administrative data, established in many countries over decades, provided measures of enrolment, attendance and completion. Since 2000 investment in EMIS had helped generate administrative data to underpin planning. National examination boards held data on school leaving examinations, and some education ministries had set up testing regimes to examine children's learning outcomes before they sat end of school phase public examinations. However, the focus of this data was schools, not lifelong learning. EMIS monitored numbers of learners enrolling or attending formal schools. It had not been created to document the wide range of formal and non-formal provision outlined in the SDG targets and could not collect data on early years, adult, vocational and higher education, nor processes to promote inclusion, free education and learning in global citizenship or gender equality. This explains the small number of Tier 1 indicators.

Since the 1990s, a range of initiatives to evaluate learning outcomes had been established. Some of these were administered to children at school and some through household surveys. This was an area of investment by the private sector and governments. Reflections on the results of testing had considerable traction on national and international policy and on ways of understanding equality as largely linked with documenting different demographics (Hogan et al., 2016; Meyer and Benavot, 2013; Smith, 2016).[5] From around 2010 a citizen led form of learning assessment had also emerged, sometimes associated with civil society activists holding governments to account, and sometimes with private research enterprises (Anderson and Winthrop, 2015).[6] There was considerable controversy with regard to whether these arrangements for measuring learning outcomes actually provided indicators to enhance quality in learning and teaching (Alexander, 2015). A related controversy surrounded how to measure adult literacy (Maddox and Esposito, 2011; Matasci, 2017). Despite this, adult literacy has been measured in national census data for decades.

Organisational systems for measuring certain features of education were thus well established before the SDG4 global indicators were negotiated, and this had a bearing on indicator selection. In the formal sector there were methodologies for counting numbers of teachers, pupils and schools and documenting some outputs (literacy, numeracy, attainment in public examinations). There was less experience with process indicators, the complex meaning linked with quality and equality in education, and considerations of how to document and evaluate the role of the private sector with regard to free and compulsory education.

After SDG 4 was confirmed at the General Assembly a technical committee in the IAEG with representatives of 27 national statistical offices, the World Bank, UNICEF, OECD, two civil society organisations the UNESCO division for Education 2030, and a UN chair was tasked to develop and monitor the global level indicators. The UNESCO Institute for Statistics (UIS) set up expert groups to assist, establishing the Global Alliance to Monitor Learning (GAML), the Inter-Agency Group on Education Inequality Indicators, and a group on Assessment for Learning.[7] All these bodies held consultative meetings, but these have been primarily expert led. The political mobilisations, linked with organisations like GCE, that had pushed for and secured a broad vision of the education goal and targets between 2013–2015 making use of opportunities linked to the OWG hearings and various UNESCO convened meetings, had little representation in the technical meetings on global indicators. UIS, in leading work on the education thematic indicators, has reported back to the broader EFA interest groups, but to date this has been in the form of recounting the work of committees and not through any broader engagement with concept, critiques or reflection on experience (GEM, 2018). This suggests there may be more limited critical scrutiny of the global indicators selected for SDG4 unless very clear action is taken on these issues in advance of the High Level Panel review in 2019 and the indicator review in 2020. The existing institutional architecture for collecting administrative data which focuses on the formal school system means that additional data sources or conceptualisations will have to be developed for indicators for quality, equalities and lifelong learning. Participatory processes for reviewing these needs to be established. The next section presents a number of key omissions evident in the global indicators, which, if not critically reviewed, may presage a weakening of the transformatory intention of SDG 4.

## From the targets to the global indicators: three omissions

Given the vision of inclusive, equitable education intended in the targets, the global indicators present a number of problems. King (2017) highlights how the sense of the targets become 'lost in translation' to indicators. While the slippage is germane, what is also evident is what is lost, notably the broader meanings of inclusion, quality and equalities which had been struggled over in relation to formulating the goals and agreeing targets. In Table 3 I extend King's critique of selected targets looking at each target and indicator highlighting slippage, areas of contestation, evasions of substantive meanings of equality, and emphasis on forms of performance review rather than illumination of complex concepts.[8]

Table 3 highlights a number of omissions in the process of moving from targets to global indicators. First, indicators are formulated as *either* measures of inputs or outcomes, but these are not connected and there are no indicators of processes, be these inclusions, enacting quality or equality. Second, metrics for equity are understood only as distributional. There are omissions regarding substantive understandings of intersecting inequalities, how elements of the education system reproduce inequalities and how practices for equality are experienced. Third, selected indicators are presented as proxies to highlight areas for change, but do not give an indication of the structural or human processes needed to support more equitable provision of quality education.

## The limits of input or outcome indicators

The indicators selected for each target are either input or outcome indicators, but these rarely connect. Through this omission some key meanings, central to the values of the goal and target, are lost. Thus target 4.1 stresses free and compulsory education, a value articulated by GCE and many in the EFA movement in the run up to the Incheon World Education Forum. But the indicator notes only outcomes of schooling. No measure has been identified of whether or not schooling is free, a key omission. While the thematic indicators do propose to work on this, the omission from the global indicator list is concerning. Target 4.3 talks of affordable technical, vocational and higher education, but this is not captured in the indicator.

Input indicators, which note the numbers or proportions enrolling, attending, undergoing training, the presence of particular kinds of infrastructure or policy, have been selected for five out of eleven global indicators. There is a metonymic assumption that the input or the outcome indicates the processes highlighted in the targets at work. But as many studies show, this is a shaky assumption, at best, and often wrong (Unterhalter, 2018b; Smith, 2016). Input indicators appear to have been selected by the IAEG because there are data on them, not because they are good proxies for the processes of inclusion or quality. For example, target 4A is concerned with education provision that is safe, child friendly, gender sensitive and capable of meeting the needs of children with disabilities. To track this input indicators are suggested for electricity, sanitation, buildings adapted for disabled students and access to the internet. But none of the means of implementation are reducible to these forms of physical infrastructure. There is no conceptual connection to be made between the provision of electricity, sanitation, and the internet, and safe, child friendly and gender sensitive schooling, as extensive literature on these issues highlights (e.g. Parkes, 2015; Parkes et al., 2016). Target 4.7 is concerned with ' knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity' (UN, 2015). The indicator proposes to enumerate the number of curriculum policies, which are to stand as inputs on citizenship, human rights, gender equality and sustainability. The focus of the target is on learners acquiring knowledge and skills, not governments setting down policies, The input indicators, detached from processes and outcomes, fail to fully express the sense of the targets, although a number of studies show the significance of connecting these (Harcourt, 2016; Unterhalter and North, 2017).

There are similar problems of narrowing and omission when outcome indicators are used. Target 4.4 on access to skills partly linked to decent work, is to be assessed by an indicator in one area of skill only – ICT. This is both a narrowing of the concept of skills linked with livelihoods and transitions to adulthood, much debated in the literature (King, 2017) and clearly only one facet of decent work, which is hardly universal. The learning outcomes in literacy and numeracy proposed for Target 4.1 give no sense of the rich notion of quality in the Incheon document and in the literature on this theme (Alexander, 2015; Tikly and Barrett, 2013; World Education Forum, 2015).

It can be seen that the selection of input and outcome indicators has circumscribed a vision of process, connection and developing metrics that might help depict equalities, inclusion and richer meanings of quality.

## The problem of equity indicators

The goal and the targets express a vision of equity, but the interpretation of equity in the indicator framework uses a narrow meaning of this concept focusing only on attending to distribution. Equity is portrayed as some kind of numerical relationship (parity or equivalence), but not an undoing of structural inequalities, such as those associated with charging fees for schooling or challenging racial or gender based violence. This narrow notion of inequity, which is concerned to address only the question of *how much* participation certain groups have in various stages or forms of education, cuts across SDG 4 indicators. For relevant input and outcome indicators levels of gender parity will be tracked. Target 4.5 attempts to go beyond gender parity and identify a number of other axes of disadvantage, attending to disparities in provision between rural/urban, bottom/top wealth quintile and exclusions associated with disability status, indigenous peoples and those in conflict-affected areas 'as data become available'. However, a huge literature on education and inequalities shows that attending to distributional issues for identified groups is only part of the solution to attending to the problem of discrimination and injustice (e.g. Brighouse and Swift, 2014; Cole, 2017; Carney and Schweisfurth, 2018). Inequalities in education intersect and compound each other, and equal provision may not be adequate provision (Raffo, 2013; Walker and Unterhalter, 2007). Ensuring 'equal access' is not simply a matter of enrolling 'marginalised' or underserved groups in schools or universities, which might themselves be sites of discrimination and violence (Boni et al., 2016; Parkes, 2015). Building equitable provision entails looking critically at the ways in which education might reproduce inequalities and working in multiple ways to address this at interconnected levels from the classroom up to the administration and policy formulation (Unterhalter and North, 2017).

The indicators for Target 4.5, with their stress only on distributional features of inequity, thus narrows the ambition of the social policy quite dramatically. The equity indicators proposed reflect a much more limited assessment of potential metrics than the range of debate around these issues suggests might be possible.

## Proxies and means of implementation

Three means of implementation targets are outlined with proxy indicators suggested to measure performance. But

**Table 3.** SDG 4: Targets, Indicators and contestations

| | Target | Indicator | Tier | Contested issues and aspects ignored |
|---|---|---|---|---|
| 4.1 | By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes. | Proportion of children and young people: (a) in grades 2/3; (b) at the end of primary; and (c) at the end of lower secondary achieving at least a minimum proficiency level in (i) reading and (ii) mathematics, by sex. | Tier III (a)/ Tier II (b,c) | No global indicator for free education. Relevant and effective learning outcomes comprise more than literacy & numeracy. Equitable education entails more than presence of girls and boys. No engagement with issues of conflict or refugees. |
| 4.2 | By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education. | Proportion of children under 5 years of age who are developmentally on track in health, learning and psychosocial well-being, by sex. | Tier III | Health, psychosocial & learning assessments based on household studies give no indication of whether or not these are outcomes of formal ECD. |
| | | Participation rate in organized learning (1 year before the official primary entry age), by sex. | Tier I | Indicator of participation in pre-primary grade does not measure what children learn. Testing of pre-primary children contentious. |
| 4.3 | By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university. | Participation rate of youth and adults in formal and non-formal education and training in the previous 12 months, by sex. | Tier II | No measure of affordability; no measure of quality of training or learning; no outcome measure. |
| 4.4 | By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship. | Proportion of youth and adults with information and communications technology (ICT) skills, by type of skill. | Tier II | No measure linked to wide range of life skills (health, psychosocial, citizenship) implied by 'relevant skills'. Wider range of skills relevant to decent work and entrepreneurship need measurement, not just ICT, which may not be a relevant. Skill in many economies. |
| 4.5 | By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations. | Parity indices (female/male, rural/ urban, bottom/top wealth quintile and others such as disability status, indigenous peoples and conflict-affected, as data become available) for all education indicators on this list that can be disaggregated. | Tier I depanding on indices | Parity indices or indices classifying disability or indigenous groups do not capture form of social division, discrimination and causes of vulnerability which hamper access and quality. |
| 4.6 | By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy. | Percentage of population in a given age group achieving at least a fixed level of proficiency in functional (a) literacy and (b) numeracy skills, by sex. | Tier II | Functional literacy and numeracy are narrow and meanings contested. |
| 4.7 | By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development. | Extent to which (i) global citizenship education and (ii) education for sustainable development, including gender equality and human rights, are mainstreamed at all levels in: (a) national education policies, (b) curricula, (c) teacher education and (d) student assessment. | Tier III | Mainstreaming into policy documents or student assessment does not mean policy carried out in practice or these issues taught. |
| 4 A | Build and upgrade education facilities that are child, disability | Proportion of schools with access to: (a) electricity; (b) the Internet for | Tier II | Provision of infrastructure does not address creating a gender sensitive, |

(continued)

**Table 3.** (continued)

| | Target | Indicator | Tier | Contested issues and aspects ignored |
|---|---|---|---|---|
| | and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all. | pedagogical purposes; (c) computers for pedagogical purposes; (d) adapted infrastructure and materials for students with disabilities; (e) basic drinking water; (f) single-sex basic sanitation facilities; and (g) basic handwashing facilities (as per the WASH indicator definitions). | | safe school with effective learning. Effective learning cannot be reduced to availability of internet. |
| 4B | By 2020, substantially expand globally the number of scholarships available to developing countries, in particular least developed countries, small island developing States and African countries, for enrolment in higher education, including vocational training and information and communications technology, technical, engineering and scientific programmes, in developed countries and other developing countries. | Volume of official development assistance flows for scholarships by sector and type of study. | Tier I | Volume of ODA for scholarships may not translate into higher numbers of scholarships; no equity indicators. |
| 4C | By 2030, substantially increase the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially least developed countries and small island developing States. | Proportion of teachers in: (a) pre-primary; (b) primary; (c) lower secondary; and (d) upper secondary education who have received at least the minimum organized teacher training (e.g. pedagogical training) pre-service or in-service required for teaching at the relevant level in a given country. | Tier II | Teachers completing training may not take up and remain in jobs. |

these proxies appear very arbitrary given the core idea of the goal and what is to be implemented. For example, the learning institutions target mentions developing processes of inclusion associated with gender sensitivity, safe and non-violent spaces. But the indicator refers only to buildings and infrastructure, not to the attitudes of people. The buildings cannot be a proxy for human relationships. The teachers' target focuses on qualified teachers and the notion of teacher qualification carries many resonances about professional practice and reflective engagement. But the indicator refers only to the proportion of teachers with a minimum of training, and gives no indication of the quality, focus and depth of that training. Thus these proxy indicators do not help in tracking means of implementation for processes of inclusion and equitability. They are thus highly arbitrary proxies, and do not stand in for sketching a line of travel towards the target.

## Understanding the politics of indicator selection

A key question concerns why the global indicators for SDG4 are so out of step with the targets. The politics of indicator selection turns partly on organisational resources to advocate for particular indicators and partly on the status of particular knowledge resources. The status and quality of the national administrative datasets associated with EMIS and the large investments made in measuring learning outcomes and conducting household surveys mean these can be compared cross nationally. However these have not been set up to document issues of quality or equality. There has been little investment in monitoring whether or not school education was free. Aspects of inequality had largely been tracked through census reports and economic surveys, using distributional metrics. The more complex ideas around structural inequalities, although measured in some composite indices, like the SIGI index on gender inequality, did not connect with education. Most of the discussion of gender equality or disability metrics for education were still in draft at the time of the IAEG meetings.

The indicator framework for the SDGs has a number of supporters, who see the potential for enhanced accountability and improved planning to address the learning crisis and other problems in education (Birdsall et al., 2016). However, critics draw attention to the lack of engagement with the

substantive idea of quality education and its associated equalities, which entail complex processes and consideration of contexts for curriculum reform, pedagogic engagement, reflections on multilingualism, understanding values, and the complexity of the relationship of policy and practice (Barrett and Bainton, 2016; Hult et al., 2016; Lewin, 2016; Unterhalter and North, 2017). Common across the critics is a perception that the pragmatic focus for the global and thematic indicators on what is easily and cogently measurable, and for which data are currently available, limits the engagement with what is valuable about quality, equitable and inclusive education, but not necessarily easily measurable. This raises the question regarding whether mobilisation for better metrics is possible and whether the opportunities for developing national and regional indicators will offer opportunities for participation and critical review currently not possible at the global level.

## Mobilising for better metrics?

The historical analysis in this paper illuminates how the EFA community mobilised to advocate for broader meanings of quality and equalities in the SDG targets. But the intensity of scrutiny has waned as the process of agreeing the targets has unfolded.

Education quality, equality, inclusion, gender equality may be unmeasurable with current indictors, but if metrics are useful to enhance human rights agendas and develop strategies to tackle considerable injustices, then research and critical discussion is needed concerning what indicators might help develop policy, practices and accountability to realise the vision of SDG4. A frequent riposte to the complexity of ideas of quality, equality and inclusion in education is that they are actually unmeasurable. But questions I have posed in discussing measuring the unmeasurable in education (Unterhalter, 2017) – why, what, when and where – seem pertinent.

My response to why we want to measure the SDG targets concerns enhancing and extending provision of quality, equality and inclusion in education and developing critical perspectives on these processes. Some metrics have been proposed to help track education spending, fiscal policy, and commitments to free education (Ron Balsera et al., 2018). While it is acknowledged that viewing inequalities in education primarily as distributional and demographic does not address substantive inequalities (Antoninis et al., 2016; Unterhalter, 2015a), this does not mean that developing metrics to look at these relationships are impossible. Wilson-Strydom and Okkolin (2016) point out that measuring education enablers might be more pertinent to understanding education equality than inputs and outcomes. Preliminary discussion suggest a more complex measure of gender equality in education that goes beyond gender parity may be possible cross nationally and national and local initiatives with scorecards and citizen accountability are emerging (UNESCO, 2016; Unterhalter, 2015b). Thus there is work to be done on finding metrics that depict free education, quality and equality as expressed in the goal and the target. The rationale driving this is not just a search for better numbers, but the hope that these can be used by activists nationally and internationally in holding decision-makers to account.

Considering the possibility of mobilisations for better measures raises historical questions. Sometimes measurement and the power of numbers in education has been a form of domination and imposing particular hierarchies, but sometimes it has been a means to challenge forms of exclusion, subordination and injustice (Unterhalter, 2018b). We need to ask how people who experience the injustice of education exclusion, locally, nationally and internationally, view the process of developing metrics .In what ways they can participate in reviewing metrics and indicators? If we are to engage in measuring the targets for SDG4 not in a spirit of imposing particular frameworks of evaluation, but of consulting how to establish these to express quality and equality, we need greater insight into a range of normative, epistemological, conceptual, empirical and numerical resources to undertake this; a different kind of power with numbers.

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2. *Education 2030* was authored by UNESCO, UNICEF, UNDP, UN Women, World Bank, UNHCR, and UNFPA
3. Insider accounts of these meetings have been provided through informal discussions with representatives who were present.
4. The Education 2030 Framework of Action sets out a vision for indicators to be developed at multiple levels (UNESCO, 2015). A small number were to be developed at the global level and overseen by the UN Statistical Commission. A more comprehensive list, termed thematic indicators, was to be developed by the education community and the Framework contained a preliminary list that had been compiled by a UNESCO led Technical Advisory Group (TAG). Additional indicators were to be developed to take account of regional contexts or policy priorities, and further indicators were to be developed at the national level. The discussion in this paper focuses only on the global level indicators, although, since their finalisation, the head of UIS has noted good progress on the development of thematic indicators so that work can go ahead on the development of 38 of these in 2018. (GEM, 2018).
5. The most well-known of these regimes were PISA, SACMEQ TIMSS, PIRLs and EGRA.
6. UWEZO, ACER.
7. The EFA TAG, which oversees the production of the thematic indicators has a different mandate and governance structure.

8. A number of these critiques have been raised by commentators associated with the UNESCO Global Education Monitor, formerly Global Monitoring Report, GCE, Education International, and the Gender and Development Network, A full review of the critical literature on global education policies from the perspective of inclusion, equalities and debates about quality is beyond the scope of this article, but substantive analysis is made in Mundy et al., 2016; McGrath and Gu, 2015; Unterhalter and North, 2017.

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