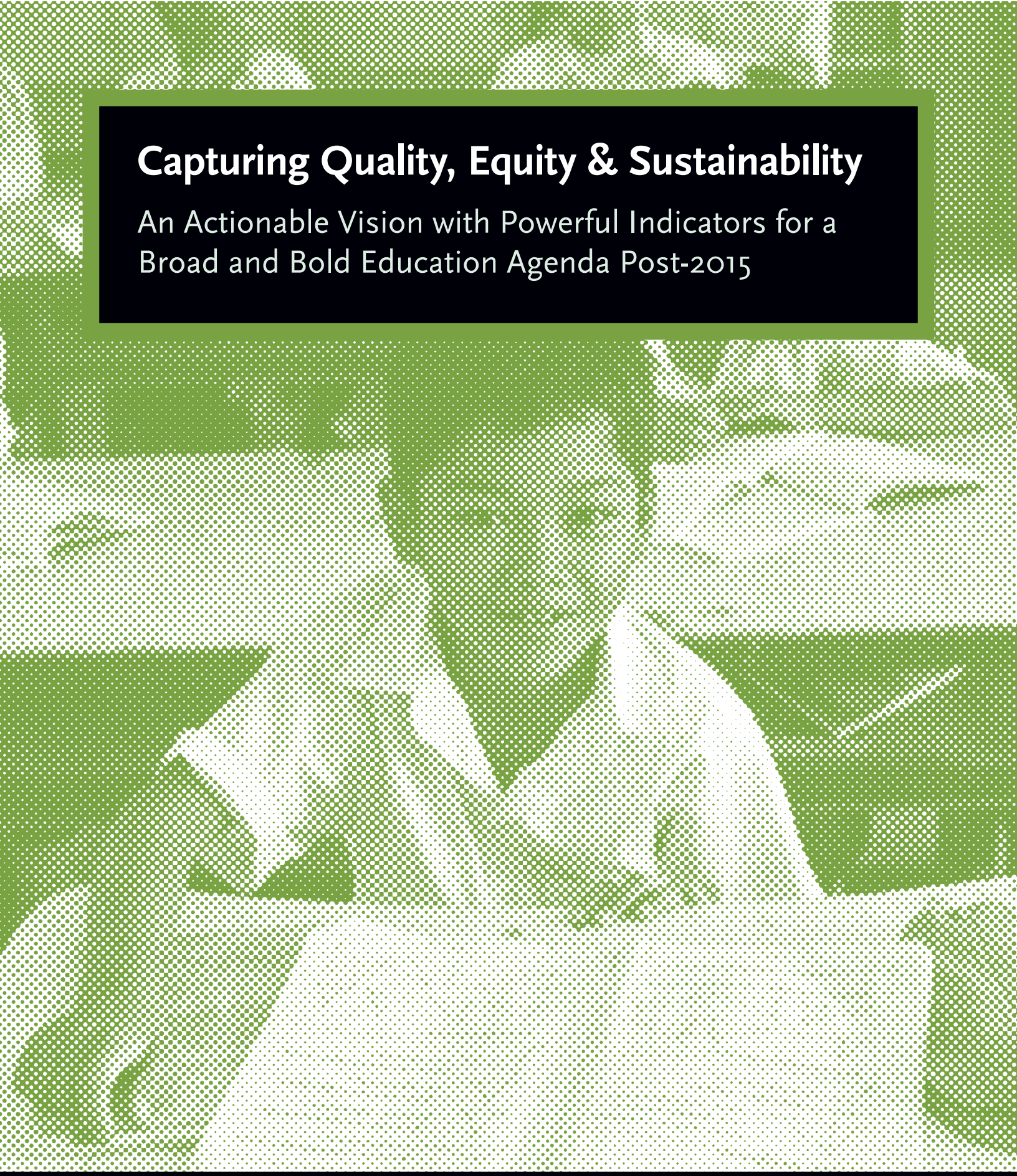
Capturing Quality, Equity & Sustainability

An Actionable Vision with Powerful Indicators for a Broad and Bold Education Agenda Post-2015



OPEN SOCIETY FOUNDATIONS

APRIL 2015

Capturing Quality, Equity & Sustainability:

An Actionable Vision with Powerful Indicators for a Broad and Bold Education Agenda Post-2015

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Executive Summary

NEW CHALLENGES, NEW OPPORTUNITIES, NEW AGENDA

The World Conference on Education for All in Jomtien in 1990 marked the first concerted effort to prioritize educational development around the world, and subsequent meetings continue to advance the global agenda for what education—and the world—could become. In 2000, the EFA and Millennium Development Goals laid out the first set of concrete and actionable goals to increase development and improve access to education for all children. Our education goals were instrumental to our development goals. In 2015, development goals have shifted to Sustainable Development Goals, and the education we promote must follow suit. The main aim of the post-2015 goals is to cultivate life-long learners and develop Global Citizens who are committed to eradicating poverty and ensuring dignity, human rights, and social justice in their homes, communities, and countries.

A decade and a half into the 21st century, our world population faces a wholly different set of social, economic, and environmental challenges and opportunities than those of the past. Our interconnectedness and interdependence have never been more apparent—through the fluidity of our labor markets, the sources and flows of our goods and services, and real-time exchange of ideas and communication through social media channels. Education for the 21st century has to equip all people everywhere with the capacities to initiate and negotiate new relationships between and among people and between governments, to cultivate inventive and adaptive mindsets, and to reconcile human interdependence with natural systems. Today, both the opportunities and challenges are global and learning outcomes are life outcomes. Our systems-level problems require systems-level solutions, which means that individuals and institutions from across the globe will have to work together to figure out what those solutions are and set them in motion.

To that end, there is no single learning outcome more relevant in 2015 than Global Citizenship. The decisions, dispositions, and behaviors of Global Citizens encompass all others. Without functional literacy, numeracy, and individual life-skills, we cannot be Global Citizens. At the same time, the attitudes and values of a Global Citizen preclude social injustice, extreme economic inequality, and unsustainable development. Global Citizenship is an outcome and it is also a competency that has to be cultivated. As with any competency, it is comprised of a unique combination of knowledge, skills, values, and attitudes that inform all our decisions and guide each of our actions every day. This competency is at the base of our global transformation and mastering this competency is as important for learners in basic education as it is for every state and non-state actor in all facets of the public sphere and private enterprise.

Global Citizenship is an outcome that is categorically distinct from any of the EFA and MDG targets to which we have committed to date. Yet, through the process of defining educational goals, old tensions resurface and new ones emerge. Setting any global agenda highlights the

politics and unequal power dynamics of choice architecture by a few on behalf of most. Naming the goals—sustainable development and global citizenship—at the outset is productive for planning and also braves new terrain for educational practitioners and policy-makers. Nowhere are the tensions more apparent than in the endeavor to identify at the global level the core attributes and indicators of education systems that produce global citizens with the intention of applying it at the national level. To attain different outcomes, we must use different processes. Therefore, if the aim is to develop Global Citizenship competencies, by definition, these competencies know no borders. This new and necessary focus renders irrelevant a country's status as "developing" or "industrialized." No country is exempt: all nations must commit to measuring our own progress toward the global indicators.

Though the momentum of the global conversation has narrowed over time toward the practical, we must keep in mind the more enduring and intangible requirements for living well on the planet together. This report is an examination of what would need to change systemically, in spirit, thought, and action, to make good on the UN High Level Panel of Eminent Persons' challenge for "A New Global Partnership." This report translates the commitments held out by the Education for All Steering Committee (EFA-SC) and Sustainable Development Open Working Group (OWG) into a framework for action to fundamentally shift priorities, resources, dynamics, and outcomes to achieve peaceful, sustainable, diverse communities and countries.

The OWG goals and EFA-SC targets orient us toward solutions that are as broad and bold as they are equitable and sustainable. The indicators we set forth to monitor progress toward these goals offer an unparalleled opportunity to advance the processes and systems that enable children everywhere to enjoy the benefits of learning as well as enable societies to accrue social, political, and economic benefits of a more educated citizenry.

ASPIRATIONAL INDICATORS, INNOVATIVE PROCESS

As we formulate indicators to monitor all nations' progress toward the EFA and OWG goals, we bear the responsibility to signal incentives that allow for the flexibility of different contexts, cultures, and conditions. The complexity of nested systems and agendas can encourage us to measure variables that are easiest to capture from place to place rather than variables that indicate real depth of learning or changes in behavior that will correspond to equitable and sustainable outcomes. In fact, as the complexity in systems increases, it becomes that much more crucial to "pay attention to what is important, not just what is quantifiable."[1] We approach the development of these indicators as an opportunity to address that challenge in a comprehensive and systematic way.

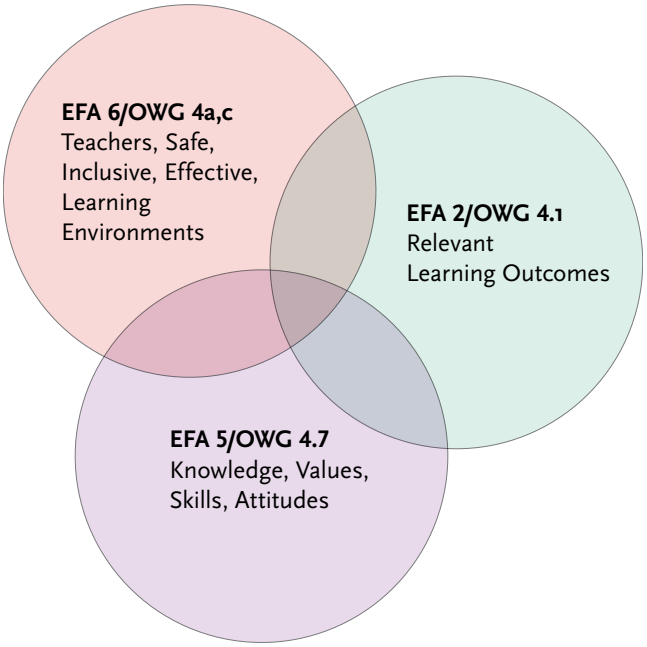
There may be an impulse to adopt only indicators that are easily quantifiable, strictly comparative, and least contentious as the bar for acceptability. This "least common denominator" approach might increase the confidence of analysts and decrease disagreement, but will not yield the essential information for changing behavior and improving lives. At the same time, we have to discipline ourselves to focus on the most important outcomes, processes, and levers for success. It is equally irresponsible to put forward an extensive,

unorganized, and impractical wish list that makes us feel good but does not provide guidance for prioritization or practicality.

To expand the frontier of this work, our team employed a deliberative process. The composition and technical approach of our team was intentionally provocative in order to reflect the larger global conversations to which this report contributes. The international education experts on our team brought to this work different organizational missions, networks, and partnerships, as well as a variety of scholarly foci and applied research and practice in the field. Our process was designed to leverage the diversity of our experiences and insights from work in both developed and developing countries to create the most flexible, holistic, and rigorous set of indicators possible. Our recommendations attempt to strike a balance between the possible and the practical, to push the limits of conventional wisdom but in such a way that stakeholders can appreciate the value of the overall venture.

Consistent with our vision and collaborative process, our indicator framework is designed around the following principles, which demonstrate, in form and function, the interconnectedness and momentum of the transformative economic and educational agendas:

1. **Systemic Alignment.** Desired outcomes require certain inputs, and changes in one place have implications for changes in others. A systems approach takes an aerial view in order to promote integrated, functional frameworks across successive levels and ensure high quality and equitable learning for all children.
2. **Emphasis on Process.** Changing the process goes a long way to changing the outcome. Processes have unique potential to produce "significant, enduring improvements"[2] relative to other options available since they focus on interactions among variables. Bringing new people to the table or changing the tenor of interactions can shift dynamics.
3. **Outcomes-based.** By focusing on Global Citizenship, the post-2015 global education agenda makes an explicit statement about "education for what?" That goal becomes the organizing pole for all investments and arrangements of resources.
4. **Commitment to Equity.** Development is not sustainable if advancements in quality of life for some come at the expense of those of others. Progress toward the EFA-SC and OWG goals must be pegged proportionately to every country's population, attending to the needs of the most marginalized.
5. **Context Flexibility.** The focus on process allows for flexibility across countries, preserving the highest degree of autonomy and self-determination possible within a framework of shared goals.
6. **Purposeful Assessment.** High quality and equitable learning drives the post-2015 global agenda. Assessment serves an important but supporting role in achieving that outcome. Assessment should not divert attention, energy, or resources away from their most productive use in creating the conditions for all learners to attain the desired Global Citizenship competency.



COMPLEMENTARY TARGETS AND INTEGRATED INDICATOR FRAMEWORK

To accommodate these design principles, we conceive and present our indicator framework within an "input-process-outcome-impact" model. This model balances "the possible with the practical" at once reflecting the interdependent nature of whole systems change while facilitating the development of concrete, coherent, and practicable indicators for each of the three EFA-SC and OWG learning target themes.

Relevant Learning Outcomes (EFA 2/OWG 4.1)

- EFA Target 2: By 2030, all girls and boys complete free and compulsory quality basic education of at least 9 years and *achieve relevant learning outcomes*, with particular attention to gender equality and the most marginalized.
- OWG Target 4.1: By 2030, ensure all girls and boys complete free, equitable and quality primary and secondary education leading to *relevant and effective learning outcomes*.

Knowledge, Values, Skills, and Attitudes (EFA 5/OWG 4.7)

- EFA Target 5: By 2030, all *learners acquire knowledge, skills, values and attitudes* to establish *sustainable and peaceful societies,* including through *global citizenship education and education for sustainable development.*
- OWG Target 4.7: By 2030, ensure all learners acquire *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.*

Teachers and Safe, Inclusive, and Effective Learning Environments (EFA 6/OWG 4.a, c)

- EFA Target 6: By 2030, all governments ensure that all learners are taught by qualified, professionally trained, motivated and well-supported teachers.

- OWG Target 4.a: Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all.
- OWG Target 4.c: By 2030, increase by x% the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially LDCs and SIDS.

The complementary nature and content of the three targets is reflected in the relative weight of each of the four indicator categories within a given target and also shows how momentum builds across all of the categories from one target to the next. That is, achieving any relevant learning outcome is dependent on the availability and adequacy of the necessary inputs. However, inputs alone do not guarantee positive learning environments for all children. Even with input thresholds met, whether and how well a student may learn depends on the content with which s/he engages and the ways in which s/he interact with it. Learning depends a lot on teachers' intentional efforts to cultivate a rich learning environment and the resources they have to do that.

More broadly, the proposed indicators emerge from our ideological understanding of the purpose and ethics of education and of development broadly. Our indicators are theoretically rooted; they are not merely based on the existing data or measurement tools. Not all of the proposed indicators can be measured with existing data precisely because of the dramatic departure of the post-2015 global agenda from its predecessors. Therefore, our proposed indicator framework operationalizes the global agenda by showing that we need to focus on substantially different issues to capture quality, equity, and sustainability in the pursuit of genuine Global Citizenship. (The Integrated Indicator Framework is included in Annex 1.)

FUTURE RESEARCH

The process of formulating global indicators enables us to take stock of where we have been, where we are now, and where we want to go. To fully support the achievement of the post-2015 agenda, it would be beneficial to support more research that:

1. Explores the culturally grounded nature of motivation and human behavior, particularly in school settings so that we better understand what combination of variables motivates people to act on what they have learned.
2. Explores the foundations of global trends in indicator development and instrument design. Humility, empathy, and trust underlay both social justice and sustainability, yet these core concepts are under-examined in the monitoring scheme. Tools that can measure these competencies can inform the design of learning experiences that cultivate these dispositions.
3. Examines successful multicultural pedagogies by exploring how students across different contexts are marginalized and how their teachers can be adequately prepared to adapt

their own practice and pedagogy so that all students can learn well.

4. Uses inquiry-based collaboration between researchers and practitioners from marginalized and dominant groups to integrate alternative ways of knowing and understanding the world into curricula and pedagogies to enhance inclusiveness and model aspects of the Global Citizenship competency.
5. Focuses on teacher preparation and the ways in which teachers are positioned and valued across societies, how they are trained and by whom. Despite their immense significance in the education system, teacher educators are frequently overlooked in debates about educational development.
6. Develops and describes qualitative approaches to monitoring and evaluation of complex indicators of multifaceted and dynamic pedagogical processes that capture the myriad ways teachers inspire and empower students to learn.
7. Examines the relationship between the education for Global Citizenship and the spillover effects on the communities those schools serve. For those organizations and countries interested in pursuing holistic progress toward sustainable development and global citizenship, it would be extremely beneficial to establish measurement systems to track the comprehensive set of indicators proposed here to contribute to the evidence base.

1. An Actionable Vision for a Broad and Bold Agenda

1.1 Global education Agenda – education for what?

Education can be a powerful way for societies to promote broader social and economic goals among their citizens. This is the fundamental premise behind the Education for All agenda and the subsequent Millennium Development Goals. If the instrumental role of education is not in question, its specific goals are. Indeed, what we learn, how we learn it, for what purpose—and how we answer those questions—makes all the difference in the world.

A decade and a half into the 21st century, our interconnected world population faces a wholly different set of challenges and opportunities than those of the past. "The skills, aptitudes, and attitudes necessary to industrialize the earth are not necessarily the same as those that will be needed to heal the earth or to build durable economies and good communities."[3] Education

for the 21st century has to prepare people not just with key knowledge and transferable skills, but also with the abilities to initiate and negotiate new forms of social and political relationships (from interpersonal to intergovernmental), to cultivate inventive and adaptive mindsets, and to reconcile human interdependence with natural systems. In this context, learning outcomes are not—and cannot be—separate from life outcomes. Moreover, systems-level problems require systems-level solutions, which means that individuals and institutions from across the globe will have to work together to figure out what those solutions are and set them in motion.[4]

The task of formulating practicable indicators to achieve a post-2015 education agenda that is broad and bold, equitable and sustainable, offers an unparalleled opportunity to advance the processes and systems that enable children everywhere to enjoy the benefits of learning as well as enable societies to accrue social, political, and economic benefits of a more educated citizenry. Holistic, well-conceived indicators signal to governments and non-government organizations which actions will make the most difference to children's educational and life opportunities. Indicators can also provide governments with incentives and support to move in a positive direction for their populations. The indicators we have articulated provide a band within which governments may operate, creating a minimal level of shared global expectations for the near-term and also long-term aspirational targets, preserving governmental autonomy to make decisions that are consistent with national needs and interests and move toward responsible global citizenship at the same time.

COMMON GOALS, SHARED RESPONSIBILITIES

While it is likely that the role of education in reaching overarching social and economic goals is universally understood,[5] countries' goals vary, as do the pathways to achieving them. In fact, there is little that all human cultures express in just the same way. How humans—we—define beauty and create art, how we make meaning of the universe, what we place value on, how we relate to one another and organize ourselves, and how we interact with and manipulate our natural surroundings are infinitely different.

Anthropologists have shown that the very understanding of what it means to be human varies across time and space, and critical scholarship in development studies similarly demonstrates that "development" is a term laden with assumptions about what it means to be "modern" and to live a good life. Thus, it is important to recognize that universal claims, even when they are claims in the name of justice, tend to reflect the perspectives and priorities of a select stratum of society—the authors of this paper and our audience included—not "the world's people" as an entity with identical values and interests.

What, then, is common to us all and on what basis can we construct a global agenda for education and sustainable development? Humans are bound fundamentally by just two things: our shared genetics and our dependence on a single ecosystem. One rationale for a global agenda is thus similar to the justification for human rights declarations, namely, the formation of a "common standard of achievement for all peoples and all nations," as the Universal Declaration of Human Rights boldly asserts. Such a standard can be strategically employed to

hold state and non-state actors accountable for their actions, especially in cases where there is nearly universal agreement that certain actions are always and forever unacceptable (e.g., genocide). For this reason, global agendas serve a useful purpose in that they can serve as benchmarks against which to measure action and non-action by signatories to reach these widely—though not necessarily globally—agreed-upon goals.

One such widely agreed-upon goal, sustainability, "calls for a decent standard of living for everyone today without compromising the needs of future generations" and sustainable development is "inextricably linked to basic questions of equity—that is, fairness, social justice and greater access to a better quality of life."[6] As processes of globalization intensify—and the attendant opportunities, pressures, and impacts on people and the planet become more visible and are felt more immediately—so, too, does the need to link learning outcomes to common understanding about the various and complex ways all of us are interrelated and interdependent and our responsibilities to local and global society.

BROAD AND BOLD INDICATORS AS DISRUPTIVE INNOVATION

At present, due to the sources and flows of power in the current global economic system, the decisions and actions of a relatively small part of the world's population have disproportionate impact on most others' quality of life, and in many cases come at an extreme cost to social justice and human dignity. The industrial growth model of development has neglected the needs-based and consumption principles of sustainability.[7] For example, in 2015, there are an estimated 1,826 billionaires in the world, up from 1,645 the year before.[8] Current projections suggest that by 2016 the wealthiest one percent of the world's population will have a greater share of global wealth than the remaining 99 percent.[9] The Millennium Development Goals, although ostensibly aimed at poverty eradication, "did not focus enough on reaching the very poorest and most excluded people [and] were silent on the devastating effects of conflict and violence on development."[10] So extreme are current inequities that a UN High Level Panel of Eminent Persons concluded that what the world needs now is nothing short of "A New Global Partnership" based on five "transformative shifts" to the status quo. The post-2015 global agenda must: 1) leave no one behind; 2) put sustainable development at the core; 3) transform economies for jobs and inclusive growth; 4) build peace and effective, open and accountable institutions for all; and 5) forge a new global partnership.[11] Education can contribute to bringing about the new ways of thinking and acting required for each of these interrelated and mutually reinforcing shifts. This will not happen through education alone because some of these shifts will reside outside educational institutions. Nevertheless, none of these shifts will happen without high-quality equitable education.

SHARE OF TOTAL ECOLOGICAL FOOTPRINT AMONG THE TOP 5 COUNTRIES WITH THE HIGHEST DEMAND AND THE REST OF THE WORLD

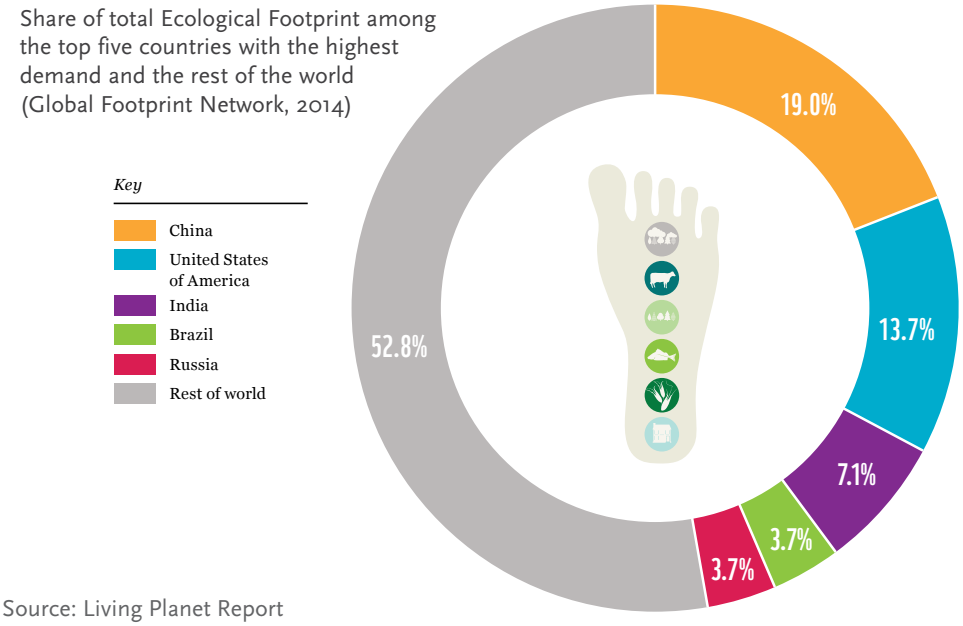


Figure 1 Source: Living Planet Report

AVERAGE ECOLOGICAL FOOTPRINT PER CAPITAL AND IN POPULATION FOR EACH GEOGRAPHIC REGION IN 2010

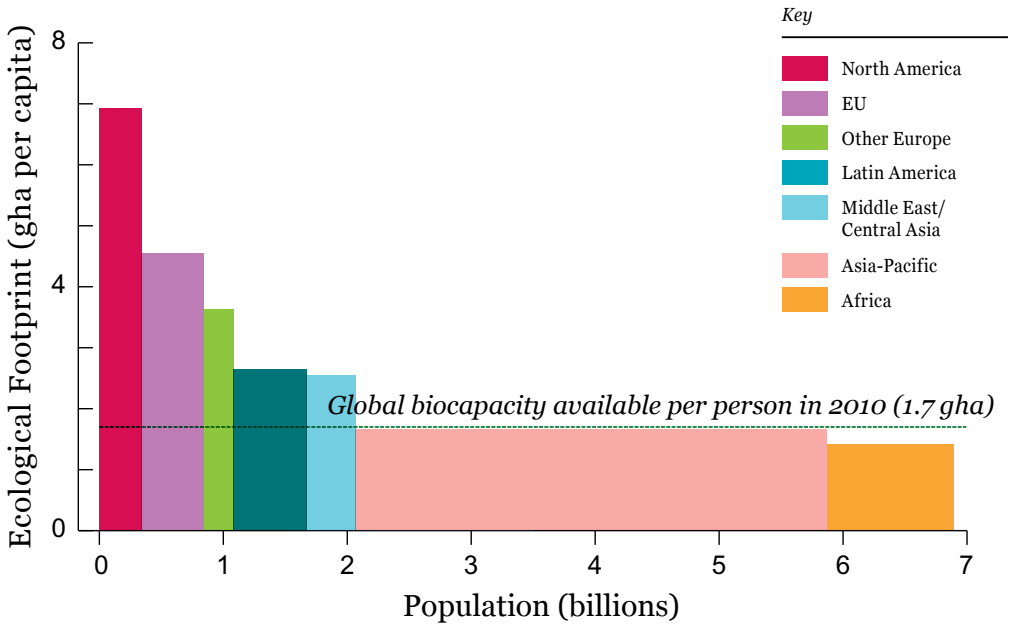


Figure 2 Source: Living Planet Report

Figures 1 and 2 illustrate the radical incompatibility between an industrial growth model of development and sustainability and equity. Figure 1 shows the disproportionately intense natural resource demand generated by the United States and the rising BRIC countries. Figure 2 shows the per person rate of consumption across geographic regions; lifestyles in the advanced market economies of North America and Europe are significantly less sustainable than lifestyles in other regions with much higher populations. None of this data is new or surprising. The environmental and human effects of industrial growth were first highlighted popularly in Rachel Carson's *Silent Spring* in 1962 and have been tracked in agencies throughout the UN system and in the scientific community for the half-century since. The correlation between resource intensive growth and the adoption of higher consumption patterns among richer countries is part of a feedback loop that can only decelerate with deliberate, concerted, and continual effort to change.

To that end, as the UN Secretary General's Global Education First Initiative asserts, "Education must fully assume its central role in helping people to forge more just, peaceful, tolerant and inclusive societies. It must give people the understanding, skills and values they need to cooperate in resolving the interconnected challenges of the 21st century."[12] If we are to achieve equity through education, we must simultaneously improve equity *in* education.

Quality education guided by equity and sustainable development is a game-changer. Quality education, in turn, depends heavily on high-quality teaching.[13] Indeed, in the 21st century, "the relationship between learner, teacher, and materials is the heart of education quality, and teacher training to meet learners' needs is essential."[14] In contrast to input-oriented indicators, we must develop not only outcome-based indicators but also guidance regarding processes that contribute to achieving them. The emphasis of the indicators for the post-2015 education agenda must signal the primacy of the teacher-student relationship by identifying opportunities throughout the system to enable supportive and responsive teaching and learning processes. With well-formulated indicators that are supported at successive levels by thoughtful policy, planning, and implementation as well as clear plans and systems for scaling effective educational practices, the post-2015 EFA framework can translate the vision of a new global partnership into action and serve as a disruptive innovation[15] to the larger inequitable and unsustainable global economic system.

1.2 THEORY OF CHANGE

SYSTEMIC ALIGNMENT FOR GLOBAL CITIZENSHIP

"[B]eing a girl with a disability in a low caste in rural India is almost certainly the passport to a life of exclusion and discrimination."[16] Every country has its own version of marginalization. That should not be and does not have to be. It happens because part of our interconnected system works to affirm and protect human equality while another part undermines the conditions for that equality. Daily stock market wins or losses of the richest billionaires measure in the hundreds of millions[17] and the aggregate wealth of a couple thousand people is now

greater than the GDP of any single country in the world except China and the United States.[18] Likewise, everyday consumer decisions and behavior undermine development and humanitarian investments: over-consumption of mineral-intense technology in developed countries fuels conflict and destabilizes resource-rich developing countries, like the Democratic Republic of the Congo, where boys are often recruited as child-soldiers and leave school.[19] Similarly, exponential growth in the demand for açai-infused products in United States markets affects incidence of child labor and dropout rates among primary-aged girls and boys in the Amazon in Brazil.[20]

We must address these distortions in the system not just because laws of physics dictate that the system will break if we do not. We must address them because they are unjust and, as global citizens, we all have a social contract to honor. Dignity, inclusion, and transparency gird the systemic shifts called for by the High Level Panel. Among them, "the most important [move]... is towards a new spirit of solidarity, cooperation, and mutual accountability."[21] To do this, we have to acknowledge unequal power dynamics and develop cross-cultural competence in order to build cultures of trust. Systems alignment produces internal integrity and genuine efficiency, and helps identify sources of action throughout the system to move toward a common goal.

In a system, especially one oriented toward global citizenship, all actors are responsible for acting to the maximum extent possible, within their sphere of influence and according to the relative resources at their disposal, to work toward positive social ends. For our immediate purposes, this means that all actors at the international, national, and sub-national levels, in all positions throughout the education sector and relevant positions within other related social and financial sectors, must use the resources at our disposal to create conditions for all children and adolescents to learn. This will mean different things for education policy-makers and for parents, for privileged and marginalized populations in rich and poor countries, and for people in conflict-affected settings. In places where there is not a functional state, in the spirit of new global partnership, the international community should assume responsibility for extending a global humanitarian social contract.

Achievement of the three EFA and OWG targets interact with progress on the other four. Achievement of all the education targets contribute to and rely on positive action toward the other 17 draft Sustainable Development Goals. At the national and sub-national levels, communities' abilities to make progress toward these indicators relies on having policies, expertise, and budgets in place at successively higher levels of government within countries. A nation's ability to make progress will require action and resources from the international community. Who is at the table influencing national education policies?

As we formulate indicators to monitor nations' progress toward the EFA and OWG goals, we bear the responsibility to signal incentives that allow for the flexibility of different contexts, cultures, and conditions. The complexity of nested systems and agendas can encourage us to measure variables that are easiest to capture from place to place rather than variables that indicate real depth of learning or changes in behavior that will correspond to equitable

and sustainable outcomes. In fact, as the complexity in systems increases, it becomes that much more crucial to "pay attention to what is important, not just what is quantifiable."[22] We approach the development of these indicators as an opportunity to address that challenge in a comprehensive and systematic way.

INVESTING IN TEACHERS IS THE LEVERAGE POINT

Though the organization, priorities, timing, materials, methods, and content of education systems may be expressed in particular ways across the world, to a large extent the features and stakeholders across those systems are constant. All of the systems have teachers, learners, parents, community members, policy-makers, school and district administrators, and teacher educators, each of whom are working from their own place in the system to contribute their part to systemic goals. Changes will be required in all parts of the system to achieve the global educational goals, and investments in some parts of the system have greater leverage than others in producing systems change.

"The quality of an education system cannot exceed the quality of its teachers."[23] Even as educational systems begin to integrate new technologies for learning, there is still no investment more transformative than investing in teachers. We believe this will continue to be the case at least over the next 15 years, the period of the proposed Sustainable Development Goals. Given that the potential for learning resides first and foremost in the relationships between teachers and students, ensuring the holistic wellbeing of teachers is paramount.

This requires a host of policy interventions designed to interact in a way that creates the most enabling environment for teachers to be effective in their specific teaching context. As with students, attending to the whole-teacher is important. Teacher evaluation and performance policies should not exist in isolation but need to be designed in concert with policies ensuring decent teacher pay, adequate teacher preparation and ongoing support in their practice, and attention to psycho-social support in contexts of conflict or emergency.

1.3 METHODOLOGY

PEOPLE AND PROCESS

The perspective of this team derives from the complementary combination of members' organizational missions, networks and partnerships, and variety of scholarly foci and applied research and practice in the field. The members of this team have extensive expertise in the areas of gender equity, teacher education, learning outcomes, evaluation frameworks, education for sustainable development, and mediating the intersection of policy and practice. The technical approach of our nine-person team was designed to leverage the diversity of our experiences and insights from work in both developed and developing countries to create the most flexible, holistic, and rigorous set of indicators possible.

Members of the team worked simultaneously in whole group activities as well as in three or

four person clusters per EFA/OWG target—alternately exchanging outputs within those clusters and coming together at key moments to discuss and make decisions—which first elicited the broadest range of thinking and then synthesized input for the final product.

Each team member prepared and disseminated a position paper to establish his/her intellectual and philosophical orientation to the global agenda-forming process and corresponding learning outcomes. In these papers, team members included eight to ten key references relevant to the substance of each of the three targets to foster shared understanding and deepen our analysis. Additionally, we aggregated sets of indicators from other fields that would have interesting application in this work and serve as springboards for our own target recommendations.

In order to mitigate what Alexander called the problem of "evidential selectivity in the corridors of power"[24] each person also provided local level innovations s/he knew about or has been involved with that have either promising results or interesting ways of addressing and/or measuring our targets.

Using the same strategic diversity and synthesis, team members also individually prepared a set of draft indicators to share within target-specific clusters. Members communicated through email and conference calls to discuss and distill contributions into a single set of target recommendations with a rationale for their choices, as well as potential trade-offs associated with each. Not every person on the team agrees with all parts of the resulting set of indicators. This dissonance was an intentional and valuable part of the process as it reflected deeply-held positions within the broader global conversations about the post-2015 education agenda that are not easily resolved while moving the ideas forward.

Collectively, these activities were designed to expose assumptions and invite disagreement so the team could arrive at thoroughly conceived, though still contested, indicators. The organization of the report is designed to capture insights from all members' position papers and draft indicators to the greatest extent possible.[25] The indices and references are included in the bibliography of this report.

POSITIONS AND TERMINOLOGY

The rhetorical shift in the post-2015 education agenda toward student learning and away from content delivery appropriately places learners at the center of our shared efforts. The authors share that orientation. As such, human rights, equity, pedagogy, and sustainability are central concepts to achieving the broad and bold post-2015 global education agenda for children. The authors of this paper organized our approach around them, interpreting other essential concepts in the global conversation in "supporting" positions, each understood in relation to the role it plays in fostering systemic conditions to meet the EFA and OWG learning targets.

> **Accountability** – "Accountability in development may refer to the obligations of partners to act according to clearly defined responsibilities, roles and performance expectations, often with respect to the prudent use of resources."[26] Within a learner-centered, human rights approach to education, a range of individuals and institutions bear the

responsibility to create conditions for children to be in school, to learn and thrive there, and to be prepared to pursue a decent life afterward. The associated frameworks monitor system performance, with the ultimate objective being student performance. Individuals and categories of individuals (e.g., teachers) must be held accountable and assessed for their duties and roles within their sphere of influence, within the context of the overall environment in which they perform their duties.

Competency refers to a person's ability to effectively utilize internal resources (e.g., knowledge, skills, values, attitudes, and dispositions) as well as external resources such as databases, colleagues, peers, libraries, and instruments toward addressing specific challenges and tasks in real life situations. **Competency-based learning**, then, refers to an educational system that aligns all elements of instruction, assessment, and reporting so that students may demonstrate they are developing the stated competencies as they progress through their education.[27] The post-2015 EFA agenda is a competency-based agenda, aimed at enabling all students everywhere to gain a Global Citizenship Competency. Though students are the focus here, other stakeholders throughout the system (e.g., teachers, head teachers, inspectors, pedagogical advisors, and district/provincial/national education officials) must also have competencies that are monitored for system improvement.

Efficiency – In contrast to a classical economic definition, we employ a holistic meaning derived from a "full cost accounting" method, which "recognizes the direct and indirect economic, environmental, health and social costs of a project or action."[28] This is often referred to as the "triple bottom line" approach, where the outcome has to be neutral or positive for people, planet, and profits in order for it to meet this threshold of efficiency. That is, if a course of action appears fiscally sound, but has disparate implications and impact for different categories of students, then that action is not efficient. The same logic applies to our definition of effectiveness.

Equity refers to the fair availability and accessibility of resources and opportunities for everyone, so that each person may develop the capacities that enable humans to flourish and achieve positive and successful life outcomes regardless of any categories of difference. Categories of difference encompass internationally comparable constructs such as sex, race, ethnicity, citizenship status, location, disability, socioeconomic status, religion, and gender identity as well as any locally relevant categories (e.g., tribe, caste) on which basis resources or opportunities may be extended or withheld. In the context of the post-2015 conversation, perhaps the most critical investment a country can make in the pursuit of equity is in its national education management information systems. Collecting and disaggregating data across demographics is a prerequisite for ensuring fair access to educational resources and opportunities so that all learners may develop key capacities and competencies. At the back end, this data disaggregated across these variables can provide evidence that the desired educational outcomes are proportionately distributed throughout the population of that country.

Human rights are the protections and living conditions believed to be foundational and universal for all humans, regardless of their personal characteristics or affiliations with

nation-states, religions, or other social organizations.

Inclusive education — According to The Salamanca Statement, inclusive education "recognizes and responds to the diverse needs of…students, accommodating both different styles and rates of learning and ensuring quality education to all through appropriate curricula, organizational arrangements, teaching strategies, resources and partnerships with…communities."[29] In the United States, inclusive education is defined as the "[l]east restrictive environment to the maximum extent appropriate."[30] This definition is closely associated with differences in ability but is a useful way to capture the essence of inclusion for all children.

Indicators can be qualitative or quantitative but must help to deepen "understanding about an object, a situation, a phenomenon, a happening, a motion, a development process, etc. An indicator [can be] a simple number, a percentage, a ratio or rate, a 'yes' or 'no' answer, a piece of data, or a score."[31] For our purposes, indicators are useful in helping to assess progress toward established goals or targets.

Relevant learning outcomes comprise two key concepts. *Relevance* "typically refers to learning experiences that are either directly applicable to the personal aspirations, interests, or cultural experiences of students (personal relevance) or that are connected in some w*ay to* real-world issues, problems, and contexts (life relevance).[32] *Learning outcomes* are typically understood as the combination of knowledge, skills, values, attitudes, and dispositions that an individual is expected to master upon successful completion of an educational program. In practice, the two concepts are frequently linked to demonstrate that learning outcomes—what a learner can do with what they learn—have less meaning if not contextualized to the learners' needs.

Pedagogy is the method and practice of teaching, as well as the philosophies of learning that undergird them. Pedagogy encompasses a broad spectrum of instructional approaches and teaching styles, including some that are more didactic in nature and others that are more dialogic. For example, the "lecture method," though relatively unpopular in the global educational discourse because it focuses on transmission of facts, is still a widely used and valued pedagogical approach. When used as one method among many, lecture or direct instruction can serve a constructive purpose. Learner-centered pedagogy, on the other end of the spectrum, positions the learner as central to the process and assumes that students learn best by "actively constructing and assimilating knowledge rather than through the passive addition of discrete facts to an existing store of knowledge."[33]

2. Powerful Indicators for a Broad and Bold Education Agenda

2.1 Acting on the vision —How do we get there?

What we know and understand about ourselves, the people around us, and the world we live in has a direct relationship to our quality of life and the impact each of us will have on the world as we walk through it. Education for this century has to help all of us use what we learn to transform our lives and communities. If the post-2015 agenda is about thinking and acting differently for global citizenship and sustainable development, how can we maximize the potential for the indicators to ensure conditions are in place throughout the system that support learners in developing those competencies?

While learning is the ultimate goal of every educational endeavor, the process of defining worldwide goals for learning is extremely complex. It strikes at the heart of values, ownership, and expectations. It forces us to consider what is important, who decides, and how we get there. It is about equity, choice, and accountability for ensuring that every child is set up for success in life, but also what this means in a diverse world.

We can approach the new Sustainable Development Goals with more humility, knowledge, and reflection compared to 15 years ago. For example, we now have much more experience collecting relevant, cross-nationally comparative data to monitor progress and improve policies and practices. We have more experience not only with quantitative data and metrics but also with equally important qualitative measures. We therefore have the opportunity to go much further to identify essential educational outcomes that can be measured and tracked using diverse strategies, to document relevant educational processes, and to establish effective tools to communicate educational progress and hold national governments and ourselves accountable for expected results.

We should not feel constrained to adopt only indicators that are easily quantifiable and strictly comparative as the bar for acceptability. This “least common denominator” approach might increase the confidence of analysts but will not yield the essential information for changing behavior and improving lives. At the same time, we have to discipline ourselves to focus on the most important outcomes, processes, and levers for success. It is equally irresponsible to put forward an extensive, unorganized, and impractical wish list that makes us feel good but does not provide guidance for prioritization or practicality. Our recommendations attempt to strike a balance between the possible and the practical, to push the limits of conventional wisdom but in such a way that stakeholders can appreciate the value of the overall venture.

2.2 OUR DESIGN PRINCIPLES

Consistent with the vision set out in Section 1, several principles guided our design, each of which is conceptualized below. Our final indicator framework is organized around these tenets and reflects our attempt to integrate the most diverse and best thinking from the entire team rather than consensus on any particular indicator or indicator set.

Systemic alignment lies at the core of sustainable development. In order to best align educational systems, all key stakeholders must be involved in clear communication networks and have the power to share insights when gaps occur. Good policy, planning, and preparation are critical for high-quality classroom practice. A systems approach to achieving the goals requires that countries sign on to create integrated, functional frameworks including but not limited to the following: 1) national laws; 2) education policies; 3) budgets; 4) infrastructure; 5) curricula; 6) teacher education; 7) teaching, learning, and classroom assessment processes, 8) teacher evaluations; and 9) personnel. Systemic alignment facilitates and capitalizes on the emergent property that arises from the combination of efforts at all levels. In practical terms, this means that decisions at one level must be tracked across all other levels to ensure that polices are translated into action in the classroom. To create change at the school level, education laws and policies have to be adequately funded. For teachers to use a wider variety of instructional methods to produce relevant learning outcomes, they must participate in professional development modeling those methods at various stages of their training (pre-service, induction, and in-service).

Emphasis on process. With certain conditions in place, implementing inclusive, transparent processes can improve the odds of achieving the desired outcomes while optimizing resource efficiency. Changing the aims of education without changing the processes by which we seek to attain them, however, cannot. In sum, an input/output "black box" model that ignores process will never be helpful in setting a bold new agenda. Certain indicators are particularly well positioned to produce "significant, enduring improvements"[34] relative to other options available. Categorically, *process* indicators hold unique potential for impact and leverage because they focus on the interaction or *relationship* between two or more inputs.

Outcomes-based. The draft post-2015 EFA and SDG goals promote a decidedly different paradigm about development and what it means to be a global citizen, one that considers economic growth in conjunction with—not at the expense of—social justice and environmental sustainability. Producing these end results will require a qualitative shift in the content and processes of education. This shift will have implications for all elements throughout education systems, especially at the levels of school environment, curricula, and classroom practices, and measurement must be appropriately aligned with the more robust set of outcomes toward which we are pointing.

Equity is embedded in all aspects of this indicator framework. The framework relies on the existence of high quality, disaggregated education and demographic data consistent with the categories of difference defined in Section 1 in order to identify and attend to the most marginalized groups. This orientation is captured in the identification of both near-term

and long-term indicators as well as in using the disaggregated data to measure progress in ways that are representative of and proportionate to a country's general population and the sub-groups subsumed within.

Flexibility. Indicator frameworks, presented in two-dimensional tables, cannot capture how complex and dynamic systems are or show how they respond to changing circumstances, needs, and desires. In an attempt to recognize national and sub-national differences in context, culture, and conditions, for each category of indicators we propose both near-term and longer-term aspirational options, creating a wide band within which countries may operate. Moreover, there is flexibility within many of the indicators themselves, allowing localized contexts to influence how indicators are pursued and eventually achieved.

Purposeful Assessment. Learners are at the center of the post-2015 Education for All agenda. Consequently, learners need to be at the center of the monitoring and evaluation framework as well. Any assessments students must do, whether classroom-based performance tasks, international standardized tests, or anything in between, should produce *learning.* Learning should feed directly back into the processes of teaching and learning, while also providing information about how well the education system is working to produce the intended outcomes and competencies. Compliance with the framework should not divert valuable resources away from the actual work of teaching/learning by imposing burdensome monitoring and accountability measures.

2.3 COMPLEMENTARY TARGETS AND INTERDEPENDENT INDICATORS

The sets of EFA-SC and OWG targets are the result of many rounds of negotiations and attempt to satisfy criteria from a range of stakeholders. The proposed targets from both processes diverge from the 2000-2015 EFA and MDG goals and, as a result, venture into uncharted territory technically as well as ideologically. The significance of this departure, and its implications, are hard to overstate. Signing on to this education agenda has numerous, enormous implications that are multifaceted (cultural, ethical, methodological, technical, financial, structural, substantive, etc.). This is not to argue against committing to these targets. Given our dependence on finite natural resources and the degree of social, economic, and political inequity in the world, in many real ways we have no choice but to adopt these goals now. With that in mind, we approach the task of proposing indicators by examining honestly the stakes and consequences of the targets so we might design viable pathways to achieving them.

Quality education is always a delicate interplay of what gets taught and how, and is heavily mediated by the conditions within which learning is expected to take place. But, education for global citizenship is more than just high-quality education. If high quality education were enough to produce the transformative shifts in behavior toward global citizenship and sustainability, we would already be seeing those outcomes in several countries. We would expect the countries with the best education systems to have sustainable ecological footprints and full social equality. This is not the case, however.[35] Therefore, something in the content and

method of education itself has to change. To produce different results, we need different inputs and processes. If we commit to the proposed EFA and OWG goals in earnest, there must be something qualitatively different about the curricula, pedagogy, and learning spaces in order for the next generation of learners to think and act, individually and collectively, as global citizens. The five transformative shifts proposed by the High Level Panel are more than aspirational; they are non-negotiable if we want to survive as a species. In the post-2015 era, education must be transformative and all elements throughout our education systems must align with the outcomes set forth in a holistic way.

OVERLAPPING TARGETS

In this report we focus on three of the seven EFA and OWG targets:

Relevant Learning Outcomes (EFA 2/OWG 4.1)

- EFA Target 2: By 2030, all girls and boys complete free and compulsory quality basic education of at least 9 years and *achieve relevant learning outcomes,* with particular attention to gender equality and the most marginalized.
- OWG Target 4.1.: By 2030, ensure all girls and boys complete free, equitable and quality primary and secondary education leading to *relevant and effective learning outcomes.*

Knowledge, Values, Skills, and Attitudes (EFA 5/OWG 4.7)

- EFA Target 5: By 2030, all *learners acquire knowledge, skills, values and attitudes* to establish *sustainable and peaceful societies*, including through *global citizenship education and education for sustainable development.*
- OWG Target 4.7: By 2030, ensure all learners acquire 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.*

Teachers and Safe, Inclusive, and Effective Learning Environments (EFA 6/OWG 4.a, c)

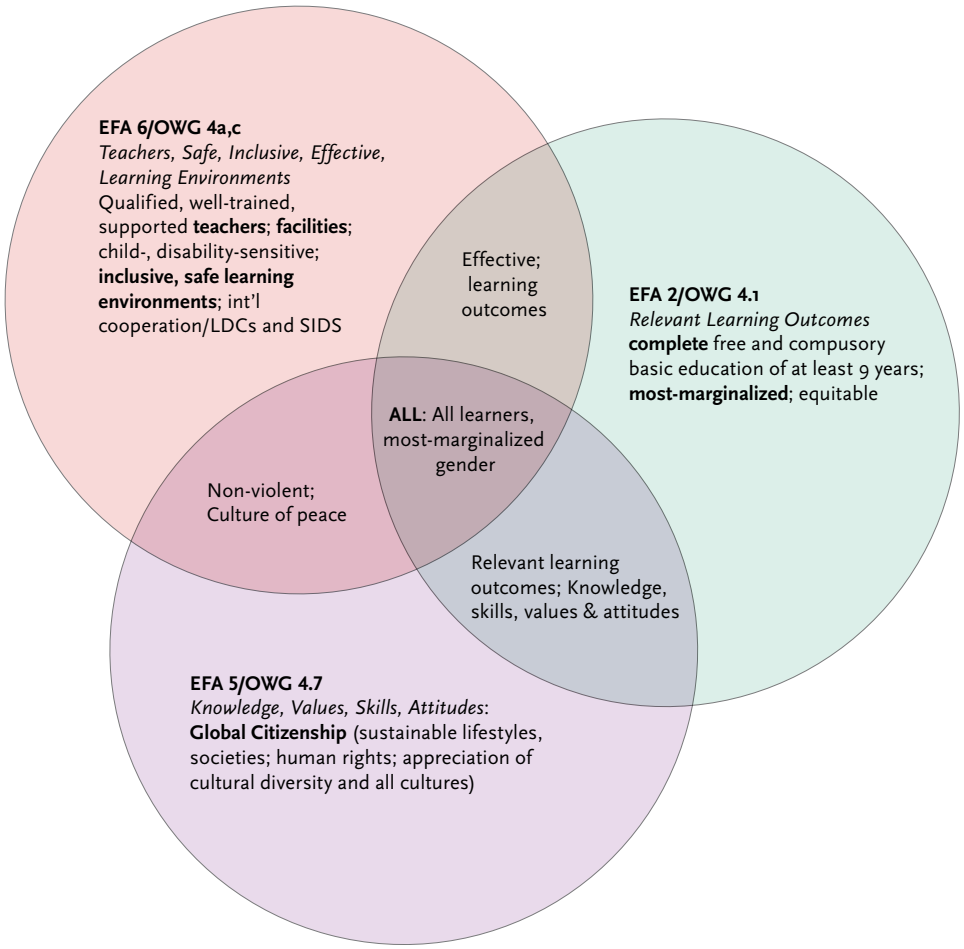
- EFA Target 6: By 2030, all governments ensure that all learners are taught by *qualified, professionally trained, motivated and well-supported teachers.*
- OWG Target 4.a: Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all.
- OWG Target 4.c: By 2030, increase by x% the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially LDCs and SIDS.

The EFA and OWG targets are, in and of themselves, an opportunity to reinforce this holistic

perspective. The language of the targets will guide us for the next 15 years and has more than symbolic significance. As written, the targets treat learning outcomes, educational content, and learning environments discretely. By treating, and measuring, the three targets in a more integrated fashion, we can highlight the interconnected reality of educational systems and their processes.

In reality, the three are indivisible elements of dynamic educational processes. The learning environment and teacher capacity bear heavily on students' achievement. As Figure 3 demonstrates, the substance of the targets overlaps significantly. Enough, in fact, that the three targets could easily be reorganized into two without losing essential components of any of them. Keeping in mind our design principle of purposeful assessment, identifying opportunities to measure two things at the same time or having fewer targets to measure altogether lightens countries' monitoring and reporting obligations. Minimizing those demands enables stakeholders to spend more of their time in generative activities that directly or indirectly support learners' abilities to develop literacy, numeracy, and life-skills, (e.g., in the context of the post-2015 education and development agenda Global Citizenship Competency).

FIGURE 3: OVERLAPPING TARGETS



For example, Target 2: *Relevant Learning Outcomes* and Target 5: *Knowledge, Skills, Values, and Attitudes* overlap considerably when relevant learning outcomes are understood (described in Section One of this report) to be comprised of knowledge, skills, values, and attitudes. Whereas specific learning outcomes are not specified in Target 2, Target 5 identifies global citizenship as the explicit and measurable relevant learning outcome, or competency. At the same time, Target 2 also focuses on gender equity and completion of secondary school, both of which are arguably covered in Target 6: *Safe, Inclusive, and Effective Learning Environments*.

This orientation toward integration is more than conceptual. Extensive educational research and our team's practical experience with how learning happens well across a variety of contexts support a holistic approach to crafting indicators. It was also reinforced by the presence of conceptually similar draft indicators advanced by different target-specific teams. For example, indicators for Target 2 and Target 6 were heavily weighted with input indicators, many of which were almost identical since both seek to *create conditions* that enable all students to complete their basic education. The overlap makes sense since many of the same conditions that make learning environments child-, disability-, and gender-sensitive also make them more safe, inclusive, and effective. Indicators that measure for more specific conditions attend to school-specific barriers that inhibit students' completion and encourage school-leaving before the full nine years, especially among the most marginalized populations where opportunity costs are higher. As a result, where it is possible to measure for two targets with a single indicator, we do so.

CONCEPTUAL CONVERGENCE AND DIVERGENCE

The issues we debated during our collaborative process mirror discussions that are taking place around the world. Divergent views on key issues reaffirmed the complexity of the endeavor but also led to productive tensions that demanded concerted decisions about what mattered most. Although many of these discussions may never be resolved to everyone's satisfaction, and the resulting indicators will always be unavoidably imperfect in that sense, it is incumbent on all of us to push agreement as far as possible so our collective contributions can be included in the larger policy discourse and practical decisions for action. The indicators we advance represent the furthest edge of that collective thinking.

Recurring debates across the three targets hinged on the degree to which we balanced opposing demands. The most critical and cross-cutting included:

- What level of measurement should accompany new indicators? While some hold the view that it will be essential to develop new measures and systems for tracking educational progress based on authentic instruction and learning outcomes, others are concerned by the proliferation of an audit culture that may grow a commercial business sector at the expense of actual teaching and learning.
- What level of prescription within the indicators would trump national prioritizing and decision-making? Prescription was viewed both as a violation of autonomy and also impractical given the actual diversity of contexts
- How to approach educational sequencing and the degree to which learner-centered

approaches and critical thinking skills should be built in parallel or serially into a child's educational course. This also connected to issues of culturally-relevant pedagogy and the extent to which learner-centered pedagogy is appropriate, possible, and desirable for all contexts.

Our recommendations for learning indicators are an attempt to acknowledge these tensions while simultaneously using our professional experiences and sensitivities to advocate strongly for a clear set of learning-related metrics. This is rooted in our shared belief that education is a fundamental human right and that all children deserve to have access to the best educational opportunities possible to achieve their life dreams.

The following three sections lay out the thinking behind the development of the indicators, target by target, and shows where team members converged and diverged in their technical and philosophical positions relative to the task of developing indicators.

RELEVANT LEARNING OUTCOMES

The current EFA and MDG goals focus on literacy, numeracy, and life-skills. Foundational communication skills such as reading, writing, listening, and speaking, as well as basic math computations, are essential for children to master early in their schooling and facilitate other learning outcomes. These expected outcomes are essential and universal but are not the exclusive goals of education, particularly in higher grades after foundational literacy and numeracy skills are mastered. Life-skills have received less emphasis than literacy and numeracy, but are equally essential. Life-skills are about a person's individual skills to navigate their daily experiences to be healthy, happy, and safe, and lead productive, functional lives. Attempts to focus solely on literacy, numeracy, and life-skills metrics for the next 15 years would be an injustice and disservice to the larger educational enterprise as well as to any expectations for sustainable development, poverty reduction, equal opportunities, and global citizenship.

Our recommended indicators for this target are based on the following principles:

- Ensuring that the systems and processes for achieving expected learning outcomes are clear, well-articulated, internally coherent, and based on the best empirical knowledge and scientific research related to children's educational success;
- Recognizing that teachers are key to children's educational success and therefore ensuring that teachers have the resources, recognition, and skills to support children's achievement;
- Ensuring that teachers and learners have the financial resources, physical infrastructure, and professional support to be successful in the teaching and learning process;
- Promoting teaching and learning competencies (i.e., measurable knowledge, skills, and ability to execute) rather than seat time, professional qualifications, or years of experience as the basis for defining success; and
- Appreciating that learning outcomes are progressive, developmental, and multi-dimensional over the course of one's educational career.

KNOWLEDGE, VALUES, SKILLS, AND ATTITUDES FOR GLOBAL CITIZENSHIP

There is no single learning outcome more relevant in 2015 than Global Citizenship. The decisions, dispositions, and behaviors of Global Citizens encompass all others. Without functional literacy, numeracy, and individual life-skills, we cannot be Global Citizens. At the same time, the attitudes and values of a Global Citizen preclude social injustice, extreme economic inequality, and unsustainable development. Global Citizenship is an outcome and it is also a competency that has to be cultivated. As with any competency, it is comprised of a unique combination of knowledge, skills, values, and attitudes that enable us to navigate our decisions and guide our actions every day. This competency is at the base of our global transformation. Though these indicators focus on basic education, the Global Citizenship competency is one that all stakeholders—all state and non-state actors at all levels—have to master.

Though various international standardized assessments already influence the content in classrooms around the world to some degree, the incursion of the international education community into the domain of knowledge, values, skills, and attitudes—into the heart of national curriculum content—is unprecedented and exposes chronic tensions about who is at the table, who decides, whose interests are served, and who benefits from this agenda. Therein lies a paradox: If we don't learn to do things differently, can those realities ever change? Building Global Citizenship Competency, and the tectonic shifts it implies for relationships between and among people and within schools, families, and communities everywhere, has the potential to alter those dynamics on a larger scale as well and could benefit everyone. To activate those shifts, the 21st century model of education and life is one based on trust, transparency, accountability, and collaboration, each of us making a unique contribution to the health of the social, economic, and natural systems to which we belong, and upon which we depend. Therefore, some amount of content is "mandatory" for all learners.

Still, single countries have difficulty agreeing on common educational curricula. Many argue with good reason that national curricula may be too generic to be meaningful locally; that learning outcomes assigned at that level cannot be relevant to all students' lives. At the international level, one size does not fit all either. The task of identifying a minimum set of knowledge, skills, values, and attitudes that constitute Global Citizenship Competency is a challenge unto itself. That challenge is compounded when thinking about implementing the corresponding curricula at national and sub-national levels and assessing for this competency across contexts. Different countries or regions need to emphasize the development of different aspects of the competency. For the majority of the global population, "the problem is not unsustainable choices, but a lack of choices in the first place. Real choice is only possible once human rights, basic needs, human security and human resilience are assured."[36] To emphasize natural resource conservation in places where people do not have a choice about burning wood for cooking or heating does not make sense. Conversely, many communities whose livelihoods and sustenance are rooted in close, reciprocal relationship to plant and animal resources already maintain a dynamic balance in order to survive and do not need to learn conservation practices either. For a smaller number of countries, where people's lifestyles are not tied directly to meeting immediate needs only and where consumers are farther removed from the

production process, building awareness of how natural systems work over time and their own interdependence with all others on the planet is pivotal.

Over the last thirty years, as our understanding of the ideals that lie at the core of global citizenship have deepened—appreciation for sustainability, human rights, peacefulness, and cultural diversity—the understanding of education's role in fostering those outcomes has also become more refined. The amount of evidence, information, tools, curricula, and instructional methods available to educators to facilitate those outcomes is abundant. The conception of the Global Citizenship Competency has consolidated over time. There is no representative body that has the authority to designate a complete and precise definition of the cognitive, affective, and psychomotor attributes that constitute global citizenship. Therefore, the description we provide below has been distilled from a wide variety of literature and applied experience. This description is the definition we employ as the basis of our indicators. Our definition is not exhaustive. To the contrary, the guiding logic for this definition is to include the fewest number of concepts that still facilitate the different ways of thinking needed for students to become Global Citizens at the end of their basic education.

As with the EFA/OWG targets themselves, knowledge, values, skills, and attitudes are not learned in isolation from one another. There is no single sequence that is correct for presentation and no clear-cut proportionate emphasis on one piece over another. In the end, to gain mastery and develop genuine competencies we need all of these to work simultaneously. The distinction is useful, however, as it provides different entry points for curricular change at the national and sub-national levels. Likewise, as we show below, there is symmetry between these four categories at the classroom level and the four types of indicators (inputs, processes, outcomes, and impact) in our framework that measure the system level. Following on that, it helps us in our task to assess strengths and weaknesses, in the system, in the schools, in our instruction, and in learners themselves. The text box below encapsulates our definition of Global Citizenship Competency. When we refer to "Global Citizenship skills"[37] in an indicator, it is shorthand for the detailed content in this box. This box is designed to be a companion to the indicator framework.

CONTENT COMPRISING EFA 5/OWG 4.7 GLOBAL CITIZENSHIP COMPETENCY

KNOWLEDGE: While knowledge could appear to be the most prescriptive component of this competency, it is actually highly customized. Considering the four categories of knowledge in Bloom's Taxonomy—factual, procedural, conceptual, and meta-cognitive—only a fraction of the knowledge needed to develop the basis of this competency is factual. Of the four types, factual knowledge, by itself, is the least contextualized. However, the factual knowledge embedded in global citizenship is largely place-specific and straddles the realms of governance, sciences, and systems. Key knowledge for Global Citizenship includes knowledge of: 1) one's human rights, laws, and government procedures; 2) laws of physical sciences and natural resources, especially as connected to one's particular physical surroundings; and 3) understanding the basic elements of systems and how systems operate. The three other types of knowledge are more sophisticated ways of interacting with these discrete facts and are often expressed through application, demonstration, or doing. Knowledge can be understood as *inputs* to build skills, values, attitudes, and behaviors.

SKILLS: Like knowledge, skills have varying levels of complexity. Some skills have clear criteria for success and are easily observable and measurable. The skills here are in addition to the foundational skills of literacy, numeracy, and bridge an individual's life-skills to her/his responsibility to the species and to future generations. Some of the skills embedded in this competence fall into this category, though many are more subjective both in their interpretation and in their particular cultural context; designing and validating tools sensitive enough to measure these skills will be critical. Systems thinking, which is critical for this competency, allows people to see or imagine across space and time, and to understand relationships and the impact of our choices and actions on each other and on the planet. Global Citizenship Competency requires skills in non-violent conflict transformation, natural resource conservation, leadership and governance, youth participatory action research, and informed decision-making, as well as imagination, empathy, agency, and meta-cognition (or reflection). Empathy and agency, while difficult to measure, are vital to shifting relationship dynamics interpersonally and, writ large, internationally.

VALUES and ATTITUDES: In relevant, competency-based learning systems the relationship between skills and values and attitudes is strong. This is important in the post-2015 context because the values basic to Global Citizenship do not reflect the mainstream in many places and run counter to the culture in many schools, which has numerous implications for the leadership team in those schools. In instances where the benefit of adopting a given value or attitude is less obvious to the learner, the value is not reflected in the surrounding environment, or costs are high for doing or not doing something based on that value or attitude, cultivating shifts toward new values and attitudes can be especially difficult. Values and attitudes guide our decisions. Global Citizens hold the values of peace, reciprocity, collaboration, creativity, inclusion, interdependence, inquiry, learning, trust, and trustworthiness. Related attitudes include hopefulness, leadership, resilience, and non-violence. Skills, values, and attitudes guide our decisions; these factors often show up in our indicator framework as *processes.*

BEHAVIORS: Behaviors are the full expression of the knowledge we have, the skills we develop, and our underlying values and attitudes, whether those are conscious or unconscious. Behaviors are the *outcomes* of those constituent pieces. Global Citizens might be expected to behave/act in ways that transform producer and consumer actions and modes of ownership (e.g., cooperatives versus sole owners) and engage in civic and social justice initiatives.

Much of the material available about the key knowledge, skills, values, and attitudes that contribute to building a Global Citizen competency derives from published materials in English, from the Global North. There is less access to resources that reflect different ways of knowing and constructing knowledge (e.g., traditional ecological knowledge). Further development of this competency will benefit from such contributions.

As the content for this target becomes more refined, we highlight two fundamental elements for building Global Citizenship Competency, and three important challenges for consideration:

- Enabling learners to build psycho-social skills, examine values, and adopt attitudes within the learning environment is fundamental. Socially-constructed categories of difference can often work to separate people. The distance between groups, both real and symbolic, isolates people and precludes opportunities for seeing things from perspectives other than our own. By creating opportunities to learn in diverse groups and focusing on the affective domains of learning, we help learners build empathy as well as agency.
- Providing learners with genuine opportunities to apply the skills associated with citizenship and sustainability in authentic ways is essential. Knowing how to vote and how to engage school, local, and national leaders to advocate on relevant issues is important. In order to understand their own efficacy, though, learners must engage the political systems directly with the real potential to effect change in authentic situations on topics about which they care deeply.
- Coming to consensus on common bodies of knowledge, while still hard, is considerably easier than agreeing on values that are held to be universal. Basic human rights stand as a foundation, but "values" and "attitudes" are certainly more grounded in cultural beliefs and practices.
- The premise that any combination of knowledge, skills, values, and attitudes *automatically* translates to behavior change is flawed. The relationship among learning, thinking, and doing is illustrated in Delors'[38] four-pillar model, "to know, to do, to live together and to be."[39] "Knowing" suggests an emphasis on content mastery, and "doing" on skills. However, understanding and skills do not automatically translate into action or new patterns of behavior, as evidenced by the global lag-time in responding to widely known and unrefuted injustices, extreme wealth inequality, and climate change, for example. The post-2015 global learning and sustainable development outcomes bring more emphasis to two previously ignored aspects of Delors' model: "living together" and "being." There is more to changing behavior and creating whole new patterns of behavior than just learning about and how-to. We still need to know more about how people make decisions that are good for themselves and for others, now and into the future—and the role that education can play in that. We need to know more about the precise conditions that help people create new habits that "stick" and continue to build those into our pedagogy.
- Being a Global Citizen is not a mechanical procedure, and the associated competencies are complex. Measuring these competencies will be technically sophisticated and resource intensive. Competencies have to be assessed *in situ* in classrooms (as

simulations or classroom procedures), within schools (in interactions among students, teachers, and administrative and support staff), and in communities (where we expect the real-life impact of the behaviors must materialize). More important still, similar to the international assessments in place to measure literacy and numeracy across countries, the addition of a new Global Citizenship Competency implies the construction and implementation of a parallel instrument on the same scale.

TEACHERS AND SAFE, INCLUSIVE, AND EFFECTIVE LEARNING ENVIRONMENTS

Cultivating a safe, inclusive, and effective learning environment is of paramount importance to the advancement of education and sustainable development in the coming decades. Students across all levels (i.e., pre-primary, primary, and secondary) need to feel secure, valued, and motivated in the classroom and broader schooling environment. Yet, abundant research demonstrates the absence of these characteristics across both highly-developed and under-developed contexts: in some communities in Zambia, female students have "sugar daddies" who pay their school fees in exchange for illicit actions; in some urban schools in the United States, students skip school because it is unsafe to walk to the campus; and in many emergency contexts, students are taught by untrained teachers who have little grounding in child development or educational practice.

Ameliorating these conditions and advancing the global agenda requires a multifaceted approach to ensuring students receive the best educational experience possible. Infrastructure has long been a key emphasis for international targets and national funding priorities, and it remains important today. However, improved infrastructure *alone* will never yield sufficient improvements, nor will national and school-level policies, or even individual instructional practices in the classroom. In sum, an ill-conceived and imbalanced approach will never create a positive learning experience for all students.

Among the varied and diverse influences that comprise a safe, inclusive, and effective learning environment for all students, four are critically influential:

Infrastructure – availability of clean, functioning toilets (especially for girls), use of local materials for the construction of school facilities, appropriate distances to school, accessibility for students with disabilities.

School Systems – mechanisms in place to track and address violence of all varieties, mechanisms for enabling clear communication about students' overall wellbeing, a variety of indicators related to school effectiveness (i.e., retention and repetition rates).

Classroom Practices – teachers implement inclusive and gender-sensitive pedagogy in the classroom, teachers demonstrate instructional competencies that reflect the content they are teaching (i.e., pedagogical content knowledge), teachers (and students) are in attendance and prepared.

Teachers – teachers are paid fairly and on time, receive adequate professional development to facilitate their growth as educators, have input into decision-making.

In turn, components related to teachers and the quality of teaching and learning processes are impinged as much by contextual factors (such as the percentage of students who are absent because they are involved in taking care of a family member who is sick or has a disability) as by competencies (not necessarily the qualifications) possessed by teachers.

Teacher preparation is clearly a crucial component of all educational systems. Given the historic and overarching emphasis on primary education without simultaneous attention to teachers and the processes in place to prepare them, it seems self-evident that teacher preparation and ongoing professional development must be a key component of the global agenda in the coming decades. At what phase and in which modalities teacher training happens in each country and how it is incorporated into the post-2015 education and development agendas requires specific attention.

PRESENTATION OF INDICATORS

For the purposes of this report, we drew inspiration from a conceptual framework that uses four categories of interrelated indicators, each of which is defined below.[40] We utilized this model because it accommodates the interdependent nature of whole systems change while facilitating the development of concrete, coherent, and practicable indicators.

> **Input Indicators** focus on the human, financial, and material resources channeled into educational activities throughout the education sector.
>
> **Process Indicators** show how resource inputs are used throughout the sector to deliver educational outcomes.
>
> **Outcome Indicators** evaluate the end results of all the educational inputs and processes and measure actual progress against the goals and targets set in education plans (the likely or achieved short-term and medium-term effects of an intervention's outputs).
>
> **Impact Indicators** measure the resultant effects of increased knowledge, skills, and emotional development, including the impact of changes in students' values, attitudes, and behaviors on their families, communities, societies, and nation-states.

By their nature, the content of each target influences the relative weight of the four categories and momentum builds across all of them. For example, achieving any relevant learning outcome is heavily contingent on whether the necessary inputs are available in sufficient quantity and quality. At the same time, sufficient inputs alone do not create positive learning environments for all children. Even with input thresholds met, whether learners feel safe and included and can learn well in their learning space is largely the result of teachers' intentional efforts to cultivate that environment through appropriate teaching and learning processes.

The interplay of the inputs and processes, as well as the overlap in the substance of the targets themselves, speaks to the momentum across the four categories. High quality education outcomes are the result of thorough "backwards planning"[41] where all stakeholders share a common goal, consistently making decisions and taking actions that contribute to attaining

the desired goal or impact. In the case of the post-2015 agenda, the goal of building Global Citizenship Competency among all students drives decisions about the inputs and processes best suited to delivering the outcomes we desire for sustainable, peaceful, and socially just societies. Our indicator framework is predicated on this interconnectedness and momentum.

If all of us dedicate ourselves to these education goals to the maximum extent, according to the relative resources at our disposal, by 2030 the impact will be evident and transformative; there will be more economic and social equality, more peace, and better care for the natural environment. Indices already exist to track this progress.

REFERENCES WE DREW ON TO FORMULATE THE INDICATORS

- Bajaj's Schooling for Social Change
- Bloom and Krathwohl's Taxonomy - Revised
- Berkman Center for Internet and Society
- Casel Framework for Social Emotional Learning
- Cloud Institute's Education for Sustainability Standards and Indicators
- Costa and Callick's Habits of Mind
- Danielson's Framework for Teaching
- Dweck's Fixed and Growth Mindsets
- Gardner's theories of multiple intelligence
- INEE Minimum Standards
- Learner Centered Initiatives' Assessment Methods
- MILE Partnership for the 21st Century
- Sen and Nussbaum's Capabilities Approach
- Senge et al's Schools That Learn
- Sobel's, Place-Based Education
- UNICEF's CCADRR
- US Partnership for Education's Sustainable Development Standards
- WHO Life-Skills Framework
- Waters Foundation, Habits of a System Thinker
- Wiggins and McTighe's Understanding by Design
- Vavrus' Contingent Pedagogies
- Zaalouk and Heyman's Gender Equality Toolkit

OPERATING INSTRUCTIONS FOR OUR INTEGRATED INDICATOR FRAMEWORK

The process of creating indicators always encompasses a particular understanding of the phenomenon to be measured. Indicators stem from the ideological or theoretical framework that undergirds the exercise. This section contains a series of indicators based on the design principles mentioned earlier and is presented within the input-process-outcome-impact format, integrating the targets across the four categories.

That is, the present proposal of indicators emerges from our ideological understanding of the purpose and ethics of education and of development broadly. Our indicators are theoretically rooted; they are not merely based on the existing data or measurement tools. The viability of measuring many of the proposed indicators with existing data is thus limited, but our proposed indicator framework constitutes a big step toward operationalizing the global agenda by showing that we need to focus on substantially different issues to capture quality, equity, and sustainability.

It is necessary to point out some additional explanations/assumptions as a companion to our Integrated Indicator Framework (Annex 1):

1. We propose that country level baseline data be collected for all the indicators to enable the setting of both the near-term and long-term indicators.
2. The proposed indicators refer to both primary and secondary levels of education unless the indicator is only developmentally appropriate for one level—in which case the relevant grade levels are specified in the text of the indicator—and are applicable across contexts including formal/alternative. These indicators can also be useful for contexts of conflict/emergencies and can complement INEE standards.
3. To better monitor equity, all indicators should report disaggregated data based on the following transversal variables: sex, race, ethnicity, citizenship status, location, disability, socioeconomic status, religion, and gender identity. For example, indicators referencing countries should be monitored for each country-income quintile. Similarly, due to the potential intersectionality of various identities, indicators referencing students require the collection of data disaggregated by sex and gender identities, but also by socioeconomic status, ethnicity, disability status, and location. Operationally, when we present percentages or ratios within a given indicator, we suggest that the indicator is only met when the schools or classrooms demonstrating compliance are representative of the general population according to the disaggregated data. If 75 percent of schools in a country meet the criteria, but all of those schools serve urban children only, the indicator has not been reached. The percentage must be distributed proportionately to population/wealth quintile. That is, if 75 percent of the population is in the second quintile, 75 percent of the schools showing improvement must also be in that quintile.
4. Consistent with our design principle of systemic alignment, the proposed indicators speak to different levels of the "system." Some indicators related to countries will provide internationally comparable data while other indicators related to schools will help countries monitor the translation of national-level policies to school-related changes. Still

other indicators are measured at the student level, particularly the outcome indicators as educational outcomes and impact are ultimately important at the student level.

5. To ensure data quality and correctly assess achievement of goals, most indicators are direct rather than proxy measures and will thus yield the most necessary and important data to guide the achievement of the proposed outcomes and impacts.
6. When we refer to curriculum, we mean educational content that incorporates the precise combination of knowledge, values, skills, and attitudes understood to produce Global Citizenship Competency, which is defined in detail in the section dedicated to Target 5.
7. Finally, as mentioned earlier, the indicators cannot be isolated from the ideological/theoretical underpinnings described in the text of our proposal. The guidelines to assess the Global Citizenship Competency are outlined in detail in the previous section related to Knowledge, Skills, Values, and Attitudes.

3. Further Research Needed

The process of collectively creating global indicators yielded rich discussions about where we have been, where we are now, and where we want to go. Based on what we already know (the "K" of our KWL chart) about global education as well the processes used to create and measure the MDGs, this final section focuses attention on what we want to know, or the "W" of our KWL chart.

KWL Chart Template

K What I Know	W What I Want to Know	L What I Learned

These avenues for future research represent the gaps in the international and natural programming and academic literature as identified by our team. As a collective of practitioners, consultants, and academics, we are professionally intrigued and personally invested in learning more about these areas because of their potential to influence the current and future status of education around the world.

First, we suggest it would be beneficial to have more work similar to that of Frisk and Larson, which connects behavioral science and education so that we better understand what combination of variables motivates people to act on what they have learned. Perhaps more importantly, it would be valuable to explore the culturally grounded nature of motivation and human behavior, particularly in school settings. Recent research on neuroscience is valuable and even more so in tandem with deeper understandings of the complex interactions between language, culture, and thought processes.

Second, we contend additional research is needed that explores the foundations of global trends in indicator development. Humility, empathy, and trust underlay both social justice and sustainability, yet these core concepts are often overlooked or assumed to have consistent interpretations. In reality, educational theorists, policymakers, and implementers (e.g., NGO workers, teachers) may have drastically different and even contrasting notions of the very foundations for their work. Moreover, developing tools that can measure these competencies, especially in cross-cultural situations, is important and will help sharpen the learning experiences that cultivate these dispositions in people.

Third, more research into multicultural pedagogies is needed in general, given that learning environments are mediated by, and favor, certain socially-constructed structures such as gender, race, class, and hetero-normativity. These vary across contexts, but the importance of cultivating and maintaining safe and inclusive learning environments cannot be overstated. It is therefore vital to continue exploring how students across different contexts are marginalized and, more importantly, how teachers can be adequately prepared to reflect on their own practice and pedagogy so that all students are included and successful in the learning process.

Fourth, and relatedly, we hope for more inquiry-based collaboration and research between indigenous and non-indigenous populations to integrate alternative ways of knowing and understanding the world. Because educational systems and international ways of knowing are grounded in certain ideological norms and assumptions, it is crucial to better understand which values are silently or discursively deemed to be "correct" across contexts. In particular, the role of religious communities in educational systems around the developing world will likely emerge as an issue with paramount importance in the next 15 years. More specifically, mixed method research that examines teaching and learning processes among educators who belong to non-dominant groups and the tensions they experience as members of the educational community would be very helpful.

Fifth, additional rigorous empirical research focused on teacher preparation and the ways in which teachers are trained and positioned in society is paramount to educational development around the world. Students have remained the primary unit of analysis through much of the global target-setting in recent years; yet, the teachers themselves and, indirectly, the conditions in which they teach, are immensely important to the process. In addition, more attention must be paid to teacher educators, including who they are, how they are trained, what competencies they value and teach in their courses, etc. Despite their immense significance in the education

system, teacher educators are frequently overlooked in debates about educational development.

Sixth, from a methodological perspective, more research is needed that clearly describes qualitative approaches to monitoring and evaluation of complex indicators. Because pedagogical processes are multifaceted and dynamic, simplistic input/output measures may be insufficient to capture the myriad ways teachers inspire and empower students to learn. This report highlights some of these tensions and aims to envision a new *modus operandi* of setting indicators toward charting a bold and broad vision for the post-2015 agenda. Because in many ways this is uncharted territory, more research exploring methodological approaches for "measuring" or documenting broader and bolder indicators is necessary. Given the recent technological innovations, there seems to be immense potential to conceptualize what and how data is collected and analyzed. For example, the role of video analysis or photo voice could be pursued; though this approach may seem too advanced at this point in time, the internet was new only 20 years ago.

Seventh and finally, we need more research on ecological sustainability and the concomitant linkages to educational advancement. Though no country has achieved a sustainable ecological footprint or social equality from which to draw a model, sub-national communities have done so or are close. These examples are promising and warrant further study into the behaviors and lifestyles that are sustainable and what, if any, relationship exists between formal and informal education systems and community impact. Conversely, for those organizations and countries interested in pursuing holistic progress toward sustainable development and global citizenship, it would be extremely beneficial to establish measurement systems to track the comprehensive set of indicators proposed here to contribute to the evidence base.

As a collective body of educationalists involved in the process of contributing to a new global agenda, we discussed these seven avenues for future research. This list is certainly not exhaustive, but we contend these areas would enable us to make more informed decisions about how to proceed. Indeed, the findings of these research strands in tandem with the results from the proposed indicators will tell us what we have learned ("L").

4. Conclusion

In complex systems, "[p]urposes are deduced from behavior, not from rhetoric or stated goals."[42] We cannot change the ways we have been doing things by degrees or piecemeal and expect significantly different results. If we want transformative change, we have to capitalize on the potential of these indicators to be a disruptive innovation to a global system that is unjust, inequitable, and unsustainable for everyone. The purpose of these global education goals will be deduced from our behavior, not from what we say we are going to do.

The first demonstration of global citizenship would be a unilateral commitment to and measurement of the global indicators. Unlike previous sets of development indicators, these are aligned to sustainability and global citizenship. Since no country has attained either, if any countries are expected to commit to the targets, all of us should. There is no suitable justification for opting out. In addition, there has to be an epistemological shift away from "big data" as the singular driver of our educational decisions over the next 15 years. The new paradigm will have to incorporate alternative ways of knowing and different definitions of what constitutes appropriate evidence.

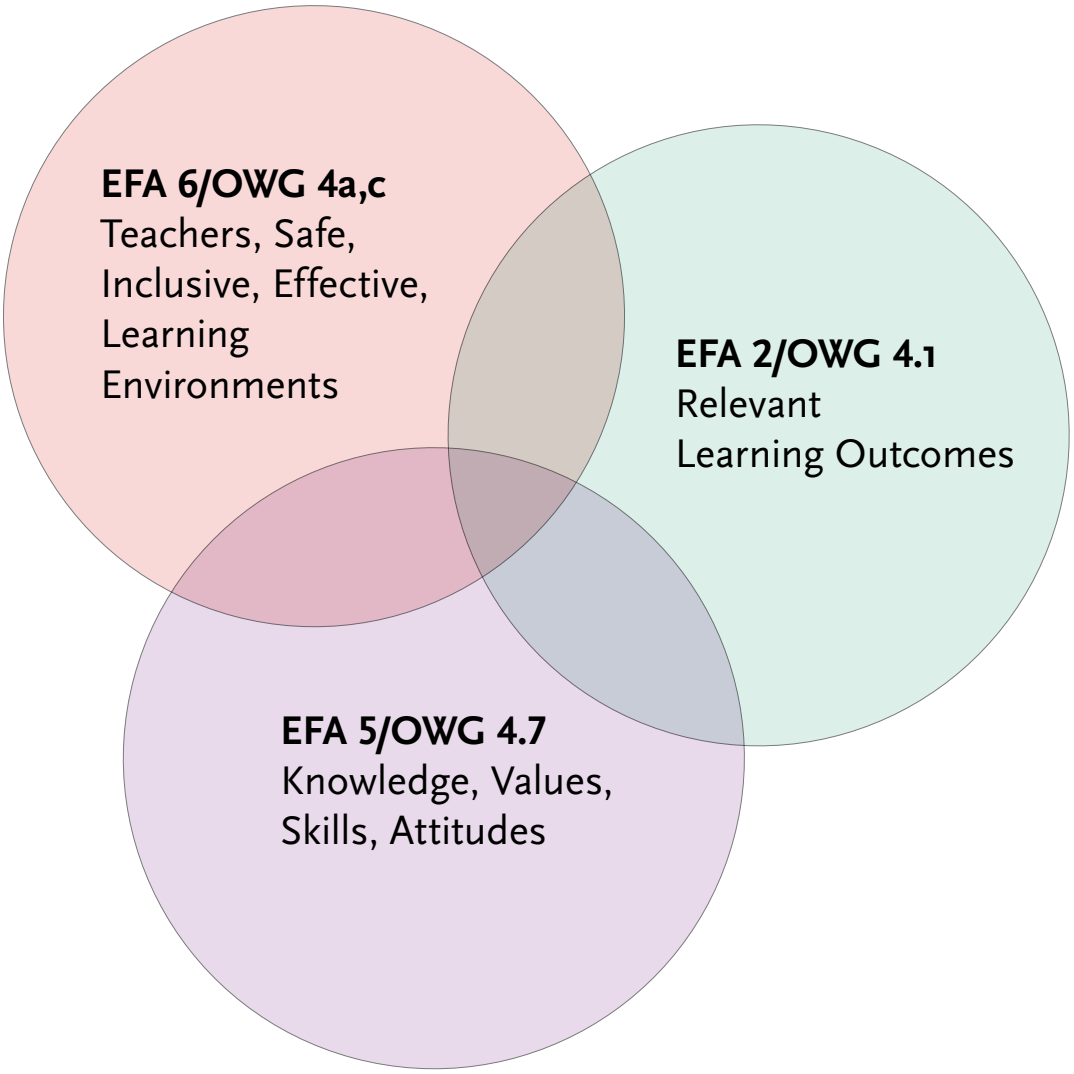
We may also need to take big steps into the unknown. On a national level, no education system has yet produced a population that embodies the dispositions and behaviors of global citizenship. There is no scalable roadmap yet for other countries to follow or foundations upon which to build new visions. But the governments themselves are not the only stakeholders in the process. The systems approach we employ here within the education system will have to be expanded to adjacent government sectors at all levels, from national to community, and throughout the private sector. Many of the educational outcomes proposed in the EFA and OWG targets are contingent upon interventions in other sectors. For example, it is necessary to have concerted efforts by multiple sectors to reduce the opportunity costs of children attending school as well as to enact or enforce laws that prohibit child labor, among other interventions.

In sum, this report aims to chart a new course. Though the process of moving forward with the new education agenda will be complicated and challenging, we remain committed to thinking outside the box and catalyzing a vision for the future that is better than the status quo. We know where we've been and we know where we are; we must now decide where to go. To quote one of the most prolific authors/scholars of all time:

> "You have brains in your head. You have feet in your shoes. You can steer yourself any direction you choose. You're on your own. And you know what you know. And YOU are the one who'll decide where to go..."- *Dr. Seuss*

5. Annexes

ANNEX 1: INTEGRATED INDICATOR FRAMEWORK



Relevant Learning Outcomes (EFA 2/OWG 4.1)

- EFA Target 2: By 2030, all girls and boys complete free and compulsory quality basic education of at least 9 years and *achieve relevant learning outcomes*, with particular attention to gender equality and the most marginalized.
- OWG Target 4.1: By 2030, ensure all girls and boys complete free, equitable and quality primary and secondary education leading to *relevant and effective learning outcomes*.

Knowledge, Values, Skills, and Attitudes (EFA 5/OWG 4.7)

- EFA Target 5: By 2030, all *learners acquire knowledge, skills, values and attitudes* to establish *sustainable and peaceful societies,* including through *global citizenship education and education for sustainable development.*
- OWG Target 4.7: By 2030, ensure all learners acquire *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.*

Teachers and Safe, Inclusive, and Effective Learning Environments (EFA 6/OWG 4.a, c)

- EFA Target 6: By 2030, all governments ensure that all learners are taught by qualified, professionally trained, motivated and well-supported teachers.
- OWG Target 4.a: Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all.
- OWG Target 4.c: By 2030, increase by x% the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially LDCs and SIDS.

Operating Instructions. These explanations/assumptions serve as a companion to our Integrated Indicator Framework. Use them in tandem with the indicators as you plan for, and monitor progress toward, the targets.

1. We propose that country level baseline data be collected for all the indicators to enable the setting of both the near-term and long-term indicators.
2. The proposed indicators refer to both primary and secondary levels of education unless the indicator is only developmentally appropriate for one level—in which case the relevant grade levels are specified in the text of the indicator—and are applicable across contexts including formal/alternative. These indicators can also be useful for contexts of conflict/emergencies and can complement INEE standards.
3. To better monitor equity, all indicators should report disaggregated data based on the following transversal variables:

• sex	• race	• ethnicity
• citizenship status	• location	• disability
• socioeconomic status	• religion	•gender identity

   For example, indicators referencing countries should be monitored for each country-income quintile. Similarly, due to the potential intersectionality of various identities, indicators referencing students require the collection of data disaggregated by sex and gender identities, but also by socioeconomic status, ethnicity, disability status, and

location. Operationally, when we present percentages or ratios within a given indicator, we suggest that the indicator is only met when the schools or classrooms demonstrating compliance are representative of the general population according to the disaggregated data. If 75 percent of schools in a country meet the criteria, but all of those schools serve urban children only, the indicator has not been reached. The percentage must be distributed proportionately to population/wealth quintile. That is, if 75 percent of the population is in the second quintile, 75 percent of the schools showing improvement must also be in that quintile.

4. Consistent with our design principle of systemic alignment, the proposed indicators speak to different levels of the "system." Some indicators related to countries will provide internationally comparable data while other indicators related to schools will help countries monitor the translation of national-level policies to school-related changes. Still other indicators are measured at the student level, particularly the outcome indicators as educational outcomes and impact are ultimately important at the student level.
5. To ensure data quality and correctly assess achievement of goals, most indicators are direct rather than proxy measures and will thus yield the most necessary and important data to guide the achievement of the proposed outcomes and impacts.
6. When we refer to curriculum, we mean educational content that incorporates the precise combination of knowledge, values, skills, and attitudes understood to produce Global Citizenship Competency, which is defined in detail in the section dedicated to Target 5.
7. Finally, as mentioned earlier, the indicators cannot be isolated from the ideological/theoretical underpinnings described in the text of our proposal. The guidelines to assess the Global Citizenship Competency are outlined in detail in the section related to Knowledge, Skills, Values, and Attitudes.

CONTENT COMPRISING EFA 5/OWG 4.7 GLOBAL CITIZENSHIP COMPETENCY

KNOWLEDGE: While knowledge could appear to be the most prescriptive component of this competency, it is actually highly customized. Considering the four categories of knowledge in Bloom's Taxonomy—factual, procedural, conceptual, and meta-cognitive—only a fraction of the knowledge needed to develop the basis of this competency is factual. Of the four types, factual knowledge, by itself, is the least contextualized. However, the factual knowledge embedded in global citizenship is largely place-specific and straddles the realms of governance, sciences, and systems. Key knowledge for Global Citizenship includes knowledge of: 1) one's human rights, laws, and government procedures; 2) laws of physical sciences and natural resources, especially as connected to one's particular physical surroundings; and 3) understanding the basic elements of systems and how systems operate. The three other types of knowledge are more sophisticated ways of interacting with these discrete facts and are often expressed through application, demonstration, or doing. Knowledge can be understood as *inputs* to build skills, values, attitudes, and behaviors.

SKILLS: Like knowledge, skills have varying levels of complexity. Some skills have clear criteria for success and are easily observable and measurable. The skills here are in addition to the foundational skills of literacy, numeracy, and bridge an individual's life-skills to her/his responsibility to the species and to future generations. Some of the skills embedded in this competence fall into this category, though many are more subjective both in their interpretation and in their particular cultural context; designing and validating tools sensitive enough to measure these skills will be critical. Systems thinking, which is critical for this competency, allows people to see or imagine across space and time, and to understand relationships and the impact of our choices and actions on each other and on the planet. Global Citizenship Competency requires skills in non-violent conflict transformation, natural resource conservation, leadership and governance, youth participatory action research, and informed decision-making, as well as imagination, empathy, agency, and meta-cognition (or reflection). Empathy and agency, while difficult to measure, are vital to shifting relationship dynamics interpersonally and, writ large, internationally.

VALUES and ATTITUDES: In relevant, competency-based learning systems the relationship between skills and values and attitudes is strong. This is important in the post-2015 context because the values basic to Global Citizenship do not reflect the mainstream in many places and run counter to the culture in many schools, which has numerous implications for the leadership team in those schools. In instances where the benefit of adopting a given value or attitude is less obvious to the learner, the value is not reflected in the surrounding environment, or costs are high for doing or not doing something based on that value or attitude, cultivating shifts toward new values and attitudes can be especially difficult. Values and attitudes guide our decisions. Global Citizens hold the values of peace, reciprocity, collaboration, creativity, inclusion, interdependence, inquiry, learning, trust, and trustworthiness. Related attitudes include hopefulness, leadership, resilience, and non-violence. Skills, values, and attitudes guide our decisions; these factors often show up in our indicator framework as *processes.*

BEHAVIORS: Behaviors are the full expression of the knowledge we have, the skills we develop, and our underlying values and attitudes, whether those are conscious or unconscious. Behaviors are the *outcomes* of those constituent pieces. Global Citizens might be expected to behave/act in ways that transform producer and consumer actions and modes of ownership (e.g., cooperatives versus sole owners) and engage in civic and social justice initiatives.

Input Indicators *[People, Money, Equipment, Policies]*

Targets Measured	Near-term Indicators (to be achieved ≤ 5 years)	Long-term Indicators (to be achieved ≤ 15 years)	Tracking these indicators (across transversal variables) has what utility in decision-making?	Ways to Measure/ Monitor
EFA 2/OWG 4.1 EFA 6/OWG 4.a, 4.c	75% of provinces have national or sub-national legislation on education as an equal right.	Country has national or sub-national legislation on education as an equal right.	Demonstrates regional and national commitment; constitutional guarantee of Education for All.	National educational policies; sub-national educational policies
EFA 2/OWG 4.1 EFA 6/OWG 4.a, 4.c	75% of provinces have national/ sub-national Fair pay/Teacher Compensation policies or legislation.	Country has national or sub-national legislation on Fair pay/Teacher Compensation policies or legislation.	Demonstrates national or sub-national commitment to quality of teaching personnel in education.	National or sub-national educational policies; employer-based and employee-based survey of earnings
EFA 2/OWG 4.1 EFA 6/OWG 4.a, 4.c	75% of provinces have annual recurring budget available for development of: 1. national/local curricula for formal learning settings 2. national/local curricula for alternative learning settings 3. teacher-training curricula for formal learning settings 4. teacher-training curricula for alternative settings 5. construction and maintenance of schools	Country has annual recurring budget available for development of: 1. national/local curricula for formal learning settings 2. national/local curricula for alternative learning settings 3. teacher-training curricula for formal learning settings 4. teacher-training curricula for alternative settings 5. construction and maintenance of schools	Demonstrates fiscal commitment to education through adequate resources.	National policies; budgets (national and local); teacher/ head teacher/ principal interviews
EFA 2/OWG 4.1 EFA 6/OWG 4.a, 4.c	75% of schools have school-based management teams.	All schools have school-based management teams.	Monitors inclusive education.	Regional school records
EFA 2/OWG 4.1 EFA 6/OWG 4.a, 4.c	75% of schools have school-based personnel to meet 1. psycho-social 2. cognitive 3. disability needs of learners	All schools have school-based personnel to meet 1. psycho-social 2. cognitive 3. disability needs of learners	Monitors inclusive education.	National policies on teacher allocation; school surveys; Qualifications and experience of personnel

Process Indicators *[How? Training, Management, Logistics]*

Targets Measured	Near-term Indicators (to be achieved ≤ 5 years)	Long-term Indicators (to be achieved ≤ 15 years)	Tracking these indicators (across transversal variables) has what utility in decision-making?	Ways to Measure/ Monitor
EFA 2/OWG 4.1 EFA 6/OWG 4.a, 4.c	75% of the schools report teacher compensation scale is aligned to mean salaries in the formal economy.	All schools report teacher compensation scale is aligned to mean salaries in the formal economy.	Monitors quality of teaching personnel.	Regional policies; teacher surveys; administrator surveys
EFA 2/OWG 4.1 EFA 5/OWG 4.7	75% of provinces develop national/ local curricula aligned to Global Citizenship Competency.	Country develops national/local curricula aligned to Global Citizenship Competency.	Demonstrates national commitment.	National policies
EFA 2/OWG 4.1 EFA 5/OWG 4.7 EFA 6/OWG 4.a., 4.c.	75% of teachers trained on national/ local curricula.	All teachers trained on national/local curricula.	Helps ensure that teachers are trained to promote student outcomes.	Province level training records
EFA 2/OWG 4.1 EFA 5/OWG 4.7	75% of provinces undertake activities consistent with the purpose and direction of their national curricula: 1. alignment of curriculum with national priorities 2. alignment of curricular content aligned with instruction 3. alignment instruction with classroom assessment	All provinces undertake activities consistent with the purpose and direction of their national curricula: 1. alignment of curriculum with national priorities 2. alignment of curricular content aligned with instruction 3. alignment instruction with assessment	Assesses internal consistency of national curricula.	Plans, policies that support individual country's priorities
EFA 2/OWG 4.1 EFA 5/OWG 4.7 EFA 6/OWG 4.a., 4.c.	75% of the school-based management teams are active and involved in decision-making.	All the school-based management teams are active and involved in decision-making.	Assesses the process of Global Citizenship within the system.	Regional records; meeting records
EFA 5/OWG 4.7	75% of schools adhere to national/ local curricula based on Global Citizenship Competency.	All schools adhere to national/local curricula based on Global Citizenship Competency.	Demonstrates national commitment to Global Citizenship education.	Teacher observations/teacher surveys

EFA 5/OWG 4.7	75% of schools' head teacher or administrator models global citizenship competencies in their: 1. formal interactions with All learners and other stakeholders. 2. informal interactions with all learners and other stakeholders	All schools' head teacher or administrator models global citizenship competencies in their: 1. formal interactions with all learners and other stakeholders. 2. informal interactions with all learners and other stakeholders	Assesses the embedded-ness of Global Citizenship Competency in the school culture.	Teacher observations/teacher surveys
EFA 5/OWG 4.7	75% of schools' head teacher or administrator models global citizenship competencies in their: 1. formal interactions with All learners and other stakeholders. 2. informal interactions with all learners and other stakeholders	All schools' head teacher or administrator models global citizenship competencies in their: 1. formal interactions with all learners and other stakeholders. 2. informal interactions with all learners and other stakeholders	Assesses the embedded-ness of Global Citizenship Competency in school culture and classroom practices.	Teacher observations/teacher surveys
EFA 5/OWG 4.7 EFA 6/OWG 4.a, 4.c	75% of schools support 1. individual learning 2. collaborative learning 3. positive social interaction	All schools support 1. individual learning 2. collaborative learning 3. positive social interaction	Assesses inclusiveness and effectiveness of school structures.	Assessing/testing a sub-sample of children in each country
EFA 5/OWG 4.7	75% of teachers report using/observed to align instructional methods with instructional content.	All teachers report/ align instructional methods with instructional content.	Monitors inclusive and effective teaching and learning practices.	Teacher surveys/observation checklists
EFA 5/OWG 4.7	75% of teachers report using/observed to align assessment methods with instructional content.	All teachers report/align assessment methods with instructional content.	Monitors inclusive and effective teaching and learning practices.	Teacher surveys/observation checklists
EFA 2/OWG 4.1 EFA 5/OWG 4.7 EFA 6/OWG 4.a., 4.c.	75% of schools report parental and student participation in leadership and decision-making bodies (e.g., school-based management teams).	All schools report parental and student participation in leadership and decision-making bodies (e.g., school-based management teams).	Monitors relevant learning outcomes, Demonstrates school's commitment to Global Citizenship Competency, Monitors inclusive and effective education.	Disaggregated parental and student membership in school-based management teams
EFA 6/OWG 4.a, 4.c.	75% of schools report teacher composition to be similar to school demographics.	All schools report teacher composition to be similar to school demographics.	Monitors inclusive education.	Regional documents; school surveys

EFA 6/OWG 4.a, 4.c.	75% of schools report less than 10% student absenteeism on average during school year.	All schools report less than 10% student absenteeism on average during school year.	Provides information on inclusive and effective learning environments.	Student attendance records
EFA 6/OWG 4.a, 4.c.	75% of schools report teachers present at least 90 percent of school days.	All schools report teachers present at least 90 percent of school days.	Provides information on inclusive and effective learning environments.	Student surveys/teacher attendance records

Outcome Indicators *[Behavior, Practices, Attitudes]*

Targets Measured	Near-term Indicators (to be achieved ≤ 5 years)	Long-term Indicators (to be achieved ≤ 15 years)	Tracking these indicators (across transversal variables) has what utility in decision-making?	Ways to Measure/ Monitor
EFA 2/OWG 4.1	75% of learners read fluently in their first language by end of grade 3.	All learners read fluently in their first language by end of grade 3.	Monitors relevant learning outcomes and Global Citizenship Competency.	Assessing/testing a sub-sample of children across the country.
EFA 2/OWG 4.1	75% of learners read for comprehension, interpreting, and engaging with diverse written texts by the end of secondary school.	All learners read for comprehension, interpreting, and engaging with diverse written texts by the end of secondary school.	Monitors relevant learning outcomes and Global Citizenship Competency.	Assessing/testing a sub-sample of children across the country.
EFA 2/OWG 4.1	75% of learners proficient in math procedural knowledge and math reasoning to solve common household problems by the end of grade 3.	All learners proficient in math procedural knowledge and math reasoning to solve common household problems by the end of grade 3.	Monitors relevant learning outcomes and Global Citizenship Competency.	Assessing/testing a sub-sample of children across the country.
EFA 2/OWG 4.1	75% of learners demonstrate functional literacy and numeracy skills by the end of secondary school.	All learners demonstrate functional literacy and numeracy skills by the end of secondary school.	Monitors relevant learning outcomes and Global Citizenship Competency.	Assessing/testing a sub-sample of children across the country.
EFA 2/OWG 4.1	75% of learners demonstrate use of technology.	All learners demonstrate use of technology.	Monitors relevant learning outcomes and Global Citizenship Competency.	Assessments/tests on Global Citizenship Competency among representative sub-sample of children across country.
EFA 2/OWG 4.1 EFA 5/OWG 4.7	75% of learners understand Global Citizenship knowledge.	All learners understand Global Citizenship knowledge.	Measure components of Global Citizenship Competency.	International/national/sub-national assessments/tests on Global Citizenship knowledge among representative sub-sample of children across country.
EFA 2/OWG 4.1 EFA 5/OWG 4.7	75% of learners demonstrate Global Citizenship skills.	All learners demonstrate Global Citizenship skills.	Measure components of Global Citizenship Competency.	International/national/sub-national assessments/tests on Global Citizenship skills among representative sub-sample of children across country. Observation checklist; simulation

EFA 2/OWG 4.1 EFA 5/OWG 4.7	75% of learners report/demonstrate Global Citizenship values and attitudes.	All learners report/demonstrate Global Citizenship values and attitudes.	Measure components of Global Citizenship Covmpetency.	International/national/sub-national assessments/tests on Global Citizenship skills among representative sub-sample of children across country. Student survey; teacher survey; administrator survey; observation checklist; simulation
EFA 2/OWG 4.1 EFA 5/OWG 4.7	75% of learners report/demonstrate Global Citizenship behaviors in their interactions with school stakeholders.	All learners report/demonstrate Global Citizenship behaviors in their interactions with school stakeholders.	Measure components of Global Citizenship Competency.	International/national/sub-national assessments/tests on Global Citizenship skills among representative sub-sample of children across country. Student survey; teacher survey; administrator survey; observation checklist; simulation
EFA 2/OWG 4.1 EFA 5/OWG 4.7	75% of schools report secondary student-community collaborations on community improvement ventures.	All schools report secondary student-community collaborations on community improvement ventures.	Measure components of Global Citizenship Competency.	Student, teacher, administrator, parent surveys/questionnaires
EFA 6/OWG 4.a, 4.c	75% of learners perceive that they are/are physically safe in their: 1. on their way to school 2. on the school grounds 3. in classrooms	All learners perceive that they are/are physically safe in their: 1. on their way to school 2. on the school grounds 3. in classrooms	Assesses the safety of school and surroundings.	Student surveys/questionnaires; observation checklists
EFA 6/OWG 4.a, 4.c	75% of learners perceive that they are/are included: 1. in formal classroom activities 2. in informal interactions at school	All learners perceive that they are/are included: 1. in formal classroom activities 2. in informal interactions at school	Assesses the inclusiveness of school and surroundings.	Student surveys/questionnaires; teacher, administrator, parent surveys; observation checklists
EFA 2/OWG 4.1 EFA 6/OWG 4.a, 4.c	60% of learners complete secondary schooling.	All learners complete secondary schooling.	Assesses the relevance, inclusiveness, and effectiveness of school and surroundings.	National level secondary school examination data

Impact Indicators

Targets Measured	Near-term Indicators (to be achieved ≤ 5 years)	Long-term Indicators (to be achieved ≤ 15 years)	Tracking these indicators (across transversal variables) has what utility in decision-making?	Ways to Measure/ Monitor
EFA 2/OWG 4.1 EFA 5/OWG 4.7 EFA 6/OWG 4.a, 4.c	Country's National Progress Out of Poverty Index score reduced by at least 10 percent.	National Progress Out of Poverty Index reduced by at least 15 percent.	Demonstrates national and sub-national commitment to eradicating poverty.	National Progress Out of Poverty Index
EFA 2/OWG 4.1 EFA 5/OWG 4.7 EFA 6/OWG 4.a, 4.c	Country's Gender Inequality Index score reduced by at least 10 percent.	Country's Gender Inequality Index score reduced by at least 15 percent.	Demonstrates national and sub-national commitment to achieving gender equality.	Gender Inequality Index
EFA 2/OWG 4.1 EFA 5/OWG 4.7 EFA 6/OWG 4.a, 4.c	Country rises one category on the Global Peace Index.	Country ranks high or very high on the Global Peace Index.	Demonstrates national and sub-national commitment to building peaceful society.	Global Peace Index
EFA 2/OWG 4.1 EFA 5/OWG 4.7 EFA 6/OWG 4.a, 4.c	Country increases their Environmental Performance Index score by more than 10 percent.	Country increases their Environmental Performance Index score by more than 15 percent.	Demonstrates national and sub-national commitment to sustainable development.	Environmental Performance Index

ANNEX 2: LOCAL LEVEL INNOVATIONS

These examples highlight ongoing education research by members of our team or close colleagues relevant to the three target areas, addressing the policy and practice nexus as well as quality and equity through inclusive processes. Examples span several OSF program regions.

Middle East – Effective Learning Environments

In 2010, Oman topped UNDP's Human Development Index of countries most improved over the four decades of the Index's existence, moving from .36 to .79 in human development indicators. The country accomplished this by maintaining a singular focus on teacher quality. From the beginning, the Sultanate invested in and imported talented teachers, from India predominantly. Using that long-game strategy, the school system expanded with quality and students progressed through primary grades and graduated secondary school. Until the school of education was established at Sultan Qaboos University in 1986, secondary school graduates pursued higher education and teacher training in other Gulf States, Europe, or the United States. Over time, building on a foundation of quality teaching and learning, the country has successfully increased the capacity of Omani nationals to teach Omani students.

Southern Africa – Connecting Policy and Practice

One example of a systems approach to policy and practice alignment can be found in the Zambian context, where a revised curriculum with a new language policy was ushered in during the 2014 academic year. Though the primary education curriculum was reformed to ensure that pupils were learning in one of the seven local languages from Grades 1-4, minimal attention was paid to the pre-service teacher-training curriculum. In essence, faculty and administrators from teacher training institutions were not included in conversations about curricular reform. However, the USAID-sponsored Strengthening Educational Performance Up (STEP-UP) program used a notably bottom-up approach to promote policy-relevant educational research by colleges and universities. The program brought faculty and student teachers from several colleges and universities together with district and provincial educational leaders to decide on the issues that they jointly agreed needed policy reform, including systemic alignment of the pre-service training curriculum. The team then worked collaboratively to develop research instruments and analyze the data with support from STEP-UP. At that point national leaders from the Ministry of Education were brought in (in one case they were present from the outset but did not dominate the discussion) to collaboratively generate policy briefs based on this research and initiate some local and national-level reforms. This model of privileging local priorities and engaging in collaborative design, analysis, and writing builds the capacity of local researchers and educators as well as provides a platform for more sustainable development moving forward.

East Africa – Safe, Effective, and Inclusive Learning Environments

The *Teaching in Action* program in Tanzania is classroom-level reform that is making a big impact. A teacher training college initiated a professional development program for in-service secondary school teachers that aimed to improve teachers' competencies in gender-sensitive, inclusive, learner-centered, and active teaching methodologies within constrained material contexts with minimal resources (i.e., textbooks, teacher guides, access to libraries or the internet). Through the workshops, teachers working in remote areas (who are often the only biology teacher at their school) were able to connect with other teachers working in the same content areas as well as engage in experiential learning through professional development facilitation that included applied examples of strategies teachers could use to alter their pedagogical approaches in accordance with national-level policies concerned learner-centered pedagogy. The workshops were facilitated by Tanzanian teacher educators with support from U.S. faculty members but are now entirely operated by local Tanzanian faculty. Most recently the Ministry of Education and Vocational Training in Tanzania desires to align the national teacher education (INSET) program with the *Teaching in Action* approach because they see value in the applied emphasis on learning through doing as a method of conducting professional development activities. This example demonstrates that local initiatives working in concert with local and international experts can foster sustainable initiatives with the potential to reform pedagogical approaches and ultimately provide a safer, more inclusive, and more effective learning environment.

Latin America – Relevant Learning Outcomes

Including students in the design process makes learning outcomes more relevant for re/patriating youth in Mexico. The number of families with children and youth who are returning to Mexico or being brought to the country for the first time as United States-born bi-nationals is rising. These students are in schools across Mexico, yet there is little to no education about their experiences or know-how to support them educationally. Regardless of their place of birth, many identify as American or Mexican-American and have had their previous educational experiences in English, with Spanish only spoken at home. These students struggle with psycho-social issues related to being in a new or nearly foreign country with very different cultural practices. Though they often physically blend in with the school population, they are sometimes ridiculed by peers with terms such a *pocho* or *gringo*. They also struggle with completing academic work in Spanish across the content areas and run the risk of losing their English, with few classes at the middle and high school levels that challenge them to keep growing linguistically. Ongoing applied research in Oaxaca is making teachers more aware of the distinct needs of this population. *A Guide for Mexican Educators by Returned Students* emerged from a collaboration between university faculty and re/patriating youth—who call themselves "The New Dreamers"—to create a teachers' guide that includes students' stories to show migration as a human issue, rather than a label or a statistic. The Guide talks about the kind of psycho-social supports these students need through the often traumatic transition process in addition to ways that teachers can support students' language development in Spanish and growth in English.

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