

# EQUITY CONSIDERATIONS WHEN SCALING FOR IMPACT ROSIE THEMATIC REFLECTION BRIEF

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### What is **ROSIE**?

To support and better understand how to scale effectively, in 2020, the Millions Learning project at the Center for Universal Education (CUE) at Brookings joined the Global Partnership for Education's (GPE) Knowledge and Innovation Exchange (KIX), a joint partnership between GPE and the International Development Research Centre (IDRC), to facilitate a cross-national, multiteam, design-based research and professional support initiative called Research on Scaling the Impact of Innovations in Education (ROSIE). Since 2020, ROSIE has brought together 15 teams of researchers and practitioners working in 30 lowand middle-income countries to study the process of scaling education initiatives for impact.

#### A NOTE ABOUT THE RESEARCH FOR THESE BRIEFS

Since 2020, ROSIE has been conducting collaborative action research as well as more focused qualitative research on the scaling experiences of the 15 KIX-ROSIE teams. We have been systematic, rigorous, and reflexive about this empirical work, but there are limitations to our research. This brief is designed as an empirical essay rather than a research report. This means that we drew on our empirical work for the contents of this briefand include examples from the research to illustrate and ground these briefs-but we also relied on our broader knowledge of scaling, research we conducted on other scaling projects, and our professional reflection. They therefore should be used as guides filled with examples and reflections rather than strict recommendations.

"The term 'equity' refers to fairness and justice and is distinguished from equality: Whereas 'equality' means providing the same to all, 'equity' means recognizing that we do not all start from the same place and must acknowledge and make adjustments to imbalances. The process is ongoing, requiring us to identify and overcome intentional and unintentional barriers arising from bias or systemic structures."

Previous research from the ROSIE project suggests that teams genuinely desired to center equity in their work. At the same time, they received external pressure from funding partners to focus on gender, equity, and social inclusion (GESI). This is a set of priorities held by the larger KIX initiative and regularly foregrounded in KIX messaging, evaluation rubrics, and scaling support work. ROSIE scaling teams were therefore actively looking for ways to leverage their scaling and accompanying research to foreground equity. But it is also clear that equity-based scaling both requires additional time, sensitivity, and resources and is not necessarily incentivized by wider forces. How teams pursued equity and navigated these two challenges is the focus of this research brief.

### What is meant by "equity" when talking about scaling in education?

The term "equity" has become prevalent in the global education space. However, any exact meaning is elusive and will vary across fields and contexts, and there is often value in differentiating between "equity" as a process and "equality" as an outcome. To promote shared understanding, we utilize the National Association of Colleges and Employers' definition:<sup>1</sup>

### Interrogating equity as transformation

It is worth noting that debates about equity in the fields of both education and international development exist and cover a spectrum of views.<sup>2</sup> One dominant viewpoint is that practicing equity is about finding solutions, adjustments, or innovations to redress unequal outcomes and opportunities for certain marginalized groups.<sup>3</sup> Another view, perhaps laying on the opposing end of the spectrum, is that engaging in equity work means dismantling the economic, cultural, and societal structures that contribute to inequity.<sup>4</sup> In a way, this frames the spectrum as a question of either merely adjusting the underlying structures or overhauling them entirely. But the spectrum is also about what role dominant populations and actors play in equity as transformation. Debates such as this one are not just about defining what activities constitute equity work and how to pursue them; they are also about power dynamics inherent in the work of advancing equity.<sup>5</sup> Should the primary focus be working on behalf of those who have been marginalized, or should it be more about learning from, and ceding power and privilege to, those who have been marginalized?6

This brief does not engage these broader debates, instead focusing primarily on illuminating the grounded experiences of the ROSIE teams incorporating equity into their scaling. However, there are parallels between their experiences and these conceptual debates, which is why we introduce these broader questions. Notions of equity are, themselves, contested and continuously evolving. We wish to highlight that the "how" and "who" of equity work is as important as "what" is actually done.<sup>7</sup> We hope to dedicate future efforts to exploration of this topic and see this brief as just one moment in an ongoing learning process about ultimate purposes and practices of equity in scaling.

#### EMBEDDED ASSUMPTIONS, STRUCTURES, AND PRACTICES INFLUENCE EQUITY CONSIDERATIONS

Our research finds that both *individual assumptions* and *system-wide structures* influence understandings and practices around equity and scaling. Assumptions and structures can limit innovative ways of considering equity or they can promote innovative approaches.

Whether or not people are aware of it, takenfor-granted assumptions around concepts like "schooling," "learning ability," "marginalization," and "equity" shape scaling efforts and policy making in education. This is because they orient individuals to the work in ways that influence their evaluations, decisions, and everyday practices around education scaling. We might call these assumptions (or mindsets) 'soft system' parts—and they are not always acknowledged.<sup>8</sup> When soft systems are not identified, critically interrogated, and adjusted, they will continue to function as hidden biases influencing the work. But when scaling teams, decisionmakers, and others collaboratively consider, evaluate, and re-frame their views of the terms, equity can be more strategically pursued.

Similarly, the structural ecosystem of incentives (such as funding practices, electoral politics, education policies and assessment programs, institutional features, and global bureaucracies) tacitly shapes how scaling impact is implemented, supported, and measured. These **'hard systems,"** too, will benefit from collective excavation, interrogation, and updating. (See our question prompts later in this document.)

A note on incentives: Incentives matter because, in scaling, people will focus on the work in the ways that are emphasized by project leadership, funders, evaluation rubrics, and other broad forces. It would be irrational for scaling teams to emphasize things that are not incentivized. So, if the field wishes to adjust scaling directions towards equity, it will need to adjust the incentive systems.

ROSIE teams reported the value of having conversations about personal assumptions and incentive systems at the beginning of their scaling journeys. Additionally, explicit discussions of concepts like gender, equity, social inclusion, and systems change that, at first might seem a step removed from scaling, turned out to be essential for teams in order to surface both existing beliefs and historical legacies and to reflect on how those beliefs manifest in identifiable ways to either advance or hinder equity and scaling in the teams' work.

### How ROSIE scaling teams foreground equity

When it came to their scaling journeys, we found ROSIE teams engaged with equity in four ways: directly through the design of the innovation; through equity adaptions made to the innovation; through the scaling process; and through research and data collection around the innovation and scaling. Some teams engaged through one of these; others engaged with multiple or all of them.

#### THROUGH THE DESIGN OF THE INNOVATION

Most of the innovations being scaled by ROSIE teams were designed to address lack of equitable access to quality learning. This was a primary

feature of the KIX call for proposals. Several offered programs that support learning recovery for early literacy and numeracy skills, another provided community-based early childhood programs. Three different innovations focused on teacher training and support, including hybrid approaches to expand access to quality teacher training for in-service educators, some in remote areas. Some teams specifically centralized equity in terms of who they targeted to participate in their innovation, working to ensure that the innovation successfully served specific groups of historically marginalized or excluded students, teachers, or communities. For example, a few innovations focused on accelerated education programs for out-of-school children and adolescents; another project's scaling goal was to bring promising innovations to hard-to-reach rural communities by way of participatory engagement through locally accessible technology like radio and TV. A third project provided life skills to secondary students in rural areas by engaging young women from the area as role models and mentors.

Other projects strove to understand how data can inform more equitable education policies and practices in local and regional school systems. For



example, two innovations intended to improve how school-level frameworks and data systems collect and analyze available information on gender, inclusion, and equity alongside traditional measures on teacher and student performance and enrollment in order to highlight existing sitespecific gaps, strengths, and needs around equity. All of these innovations illustrate scaling efforts where equity was intended as an inherent goal of the actual innovation.

#### THROUGH EQUITY ADAPTATIONS TO THE INNOVATION

Additionally, as innovations were piloted in and adapted for new locations, many teams found that either the design of the innovation or its implementation needed adjustment to address specific equity concerns that were arising in the next context. We might term this 'equitybased contextualization.' This includes surface adaptations (such as language, policy alignment, curricula, and other technical aspects) and deeper adaptations (like cultural norms, teacher capacity, and learning needs in the location). Equitybased contextualization is focused on piloting, implementing, and studying adaptations with a primary focus on equity.

> **TERMINOLOGY:** Equity-based contextualization is the process of making local, equity-focused adaptations to an existing innovation being implemented in a new location. Contextualizing an innovation includes surface adaptations (such as language, policy alignment, curricula, and other technical aspects) and deeper adaptations (like cultural norms, teacher capacity, and learning needs in the location). Equity-based contextualization is focused on piloting, implementing, and studying adaptations with a primary focus on equity.

For example, some teams decided to adapt their innovation's curriculum to address learners with special learning needs. Other teams adapted their innovation's content or instruction to ensure it was culturally relevant to the new context. A few teams added explicit content on gender and inclusion to their program materials. One team focused on ensuring that its digitally mediated teacher development program moved past just access to teachers from marginalized groups to actively equip, support, and accommodate teachers with low digital skills or working in remote communities instead.

Teams also worked to adapt implementation of their innovation and/or wider programs in response to external factors that arose during scaling that appeared to influence the potential impact on all users-not just the easiest to reach. Attending to this challenge included finding ways to connect families of children with disabilities to specific learning supports, creating publicprivate partnerships to provide internet and digital communication to educators for whom internet was prohibitively expensive, leveraging community resources and infrastructure in areas where such resources were scarce, and working with local authorities and organizations to recognize the unpaid work of community volunteers and educators who participate in project activities. These are important equity dimensions because, too often, scaling approaches will serve the majority but neglect the outliers. Reaching that 'last mile' in scaling, as it is sometimes called, is about the need for quality education to include everyone, not just those already inside the system or easy to serve.

#### THROUGH THE SCALING PROCESS

Some teams also considered equity as a formal part of the scaling process, too. This occurred, for example, when teams adopted a multi-stakeholder approach to scaling, which ensures that scaling decisions are not just made by the project team but rather by a wider group of stakeholders, including head teachers and participants from outside the country capital. One team reported making the difficult choice to wait until all 11 research teams



had completed their data collection so every research partner could contribute their perspective on the next phase of work before moving on. They reported that this slowed them down and caused logistical difficulties but was an equity commitment that mattered to them.

A multi-stakeholder approach valuably assembles diverse actors on a regular basis to make scaling and research decisions in participatory ways and advocate for equitable funding, access, and assessment for historically marginalized or excluded groups.

However, our ROSIE research did find a tendency for *equity considerations* to be managed as a tradeoff in relation to *quality* when scaling rather than as a core component that enhances quality, sustainability, and impact.<sup>9</sup> Framing things as a choice between quality or equity is a false dichotomy. Instead, treating equity as a necessary ingredient of quality encourages people to understand that quality education, by definition, must include authentic access for all. If

an education system leaves some people out, it is not, by definition, a quality system. Including diverse stakeholders in the work of scaling is a way of operationalizing this approach in practice. Several ROSIE teams brought policymakers, funders, implementers, educators, and even students into the same room for conversations that emphasized ways that quality means equity, too. Teams shared examples of when they intentionally advocated for different stakeholders to be present in meetings to ensure diverse perspectives were included in scaling decisions. One team explicitly requested female officials be invited to decisionmaking meetings to ensure their perspectives were included. Another team regularly brought community members and young people participating in the innovation to speak at government meetings.

While multi-stakeholder approaches can be timeconsuming, require relational care, and do not always display immediate results, they pay off. Not only does their heterogenous nature support equity in the scaling process, but they can also make visible how different stakeholders carry different views and priorities that influence education decisionmaking as a collaborative effort—a kind of teaching moment for decisionmakers. They also often encourage participants to use accessible language and arguments that are clear to all—not just technocratic or bureaucratic language that might obfuscate meaning for outsiders.

### THROUGH RESEARCH AND DATA COLLECTION

Research about scaling matters for equity in at least two significant ways. One is that—compared to subjective opinion and personal experience—data can be a more objective way of determining who is benefiting and who is not and learning from and improving the scaling process. If equity is a scaling goal, collecting and reflecting on data along the way allows a clearer picture of where the work is succeeding and where it is falling short. This is especially important given a scaling truism: the effects of the innovation—in this case, its equity dimensions—often change as the innovation scales.

The second way is that prioritizing equity in scaling research elevates the visibility of equity (or the importance of the particular subpopulation) as a topic with merit. Increased attention to equity can follow, which in turn can pressure incentive systems to strengthen their funding and support of education work that centers equity.

ROSIE teams incorporated equity into their scaling research in different ways that highlight new or different aspects of scaling. For example, some teams include specific GESI indicators in their research tools to be sure to gather data related to those dimensions. In other words, they both collected focused equity data and disaggregated other data by particular sub-groups. Learning whether and how particular sub-groups are affected by the innovation—as single groups by themselves or in intersectional ways with other groups—as the innovation scales is a key dimension of scaling impact. However, several teams noted that the absence of public, nationallevel data in their countries about children with disabilities, displaced populations, out-of-school children, and teacher demographics limits their ability to pursue this work and explore intersections of inequities. Other teams noted that the kind of data collection required to gather detailed information about specific sub-groups was often not covered by project budgets, which made it exceedingly hard to carry out.

One team noted that incorporating these GESI indicators into data collection instruments is important, but training on-the-ground data collection teams and enumerators "to unpack GESI related implications in responses" is equally important. In other words, local researchers hired must be able to collect the nuanced kinds of responses the indicators seek. Some teams also note ways in which power dynamics, language limitations, professional relationships, and the cultural complexities of gender at times complicate data collection. Across the board, teams struggled to balance their need to collect data quickly with their desire to recruit careful researchers, teach them about scaling and the innovation, and train them to include GESI considerations during data collection.

Many teams were intentional about participant sampling to ensure that the data they collected represented a diverse range of ethnic, linguistic, and socio-economic cross-sections within the focal context. However, teams also noted that identities are complex, which at times made it difficult to accurately sample the correct subpopulations. One team worked with rural teachers but realized over time that some of the teachers actually lived in urban areas and commuted to work. Another team purposefully sampled teachers in a hard-to-reach province, in the urban capital, and in a mediumpopulated region in order to study a diverse crosssection of teachers. TABLE 1

### Aspects of equity scaling teams are considering

The following table presents some dimensions of equity that the ROSIE scaling teams are incorporating into their research.

Focus area for equity outcomes	Examples of actual equity groups, characteristics, and/or topics ROSIE teams referenced
Learners	<ul> <li>Children with disabilities or special learning needs</li> <li>Ethnic minorities, including indigenous groups, nomadic communities, and internally displaced or refugee populations</li> <li>Out-of-school children and youth (OOSCY) and students at risk of dropping out</li> <li>LGBTQIA+ youth</li> <li>Children and families with socioeconomic difficulties that affect school attendance and performance</li> </ul>
Educators	<ul> <li>Several teams collected data on how different aspects of educators' backgrounds and working conditions affected their teaching or use of the innovation. These included the following: <ul> <li>Teacher age or career phase</li> <li>Teaching experience</li> <li>Educational background</li> <li>Gender</li> <li>Socioeconomic level</li> <li>Skills and confidence with digital technologies</li> <li>Workload</li> <li>Location (urban vs. rural)</li> <li>Access to learning materials and infrastructure required to use new pedagogical approaches</li> </ul> </li> </ul>
Pedagogy and classroom environmen	<ul> <li>Availability of anti-racist learning materials</li> <li>Extent to which content is contextualized to local culture</li> <li>Use of indigenous education practices</li> </ul>



### Reflections and challenges about equity and scaling

For most, if not all, of the 15 ROSIE teams, equity considerations influenced many aspects of the scaling process. This ranged from thinking about equity in the purpose and design of the innovation, to contextualizing implementation of the innovation in a location, to how scaling is carried out and tracked, to the research undertaken in service of scaling. The experiences of the ROSIE scaling teams highlight many ways that scaling implementers and researchers consider inequity and create opportunities for increased equity in the contexts in which they operate. The teams' experiences, however, also highlight that meaningful attention to equity concerns requires continual consideration, dedicated resources, thoughtful working relationships, and prioritization

of these issues not just for the innovation's own success and impact but also for genuine transformation of the surrounding education system to work better for marginalized learners.

#### HEAVY EMPHASIS ON GENDER

Gender-based disparities in accessing quality education was the most represented equity dimension of focus across ROSIE teams. This aligns with the field of education research at large.<sup>10</sup> Other dimensions of equity received substantially less attention-including (in descending order) rural education, attending to out-of-school children and youth, teachers' access to technology and ability to use it productively, local language needs, students with learning disabilities, and the value of teachers whose cultural backgrounds or lived experiences match those of the learners. The emphasis on gender may have been a function of the KIX call for proposals, may represent the global push for gender equity around the world, or may come from something else. Our hunch is that it is the

dimension of education equity currently receiving the most focus because gender equity and empowerment have globally become a ubiquitous rallying cry. Without lessening the need to attend to gender equity, we look forward to similarly strong attention to urban-rural disparities, student learning differences, ethnic minorities, teacher demographics, and other aspects of equity—as well as intersectional analysis among them all becoming popular in the global discourse soon.

#### CONSTRAINTS OF CULTURAL, HISTORICAL, AND POLITICAL NORMS

There are opportunities to push equity even further and deeper in the process of scaling. These include (a) increasing ways for families and communities around the innovation to be included as genuine scaling partners; (b) taking an explicit, determined stance of pushing against inequitable cultural practices and oppressive systems; (c) incorporating a vocabulary of equity throughout scaling work; and (d) pursuing costing exercises that capture and measure long-term social gains of investing in equity-based scaling.

There is little attention to some of the equity dimensions that are more difficult to discuss or address because of cultural, historical, and political complexities. These include tribal conflict, LGBTQIA+ concerns, and religious minorities. We understand that contemporary global education development efforts are often framed as "demanddriven" or "need-based" and so it is unsurprising that attention to these sensitive equity topics lag behind. Given the complex entanglements of colonialism, modernization, and rights-based approaches, it is difficult territory for external organizations to impose some equity concerns at particular times in history. We are sensitive to that. We also know, however, that progress is sometimes uncomfortable at first. On this topic, we look to the Office of the High Commissioner for Human Rights for guidance.



### **Concluding observations**

Conducting research on equity (and doing it equitably) is a valuable system-lever for at least two primary reasons.

One is that it allows a scaling project to learn about and strengthen the innovation's effects on targeted sub-populations as the scaling proceeds. Without access to these data, it is hard to know if and how the scaling is having positive impact on vulnerable learners.

The second is that only by increasing attention to equity in education can the field learn about and garner the motivation to prioritize it. However, this research is also difficult for four reasons.

- First: disaggregated and other equityuseful data do not currently exist in many countrie
- **Second:** it is expensive and time-consuming for teams to collect targeted equity data, and funds and time are typically in short supply;
- Third: conducting careful equity-focused research, by definition, challenges the status quo and so often requires pushing against embedded cultural histories, traditional practices, social assumptions, and incentive structures; and
- Fourth: how equity outcomes are defined may produce as many limitations as opportunities for advancing equity. If equity outcomes are framed in terms of access to school (and not the quality learning once there) or located only inside educational institutions (that may prioritize certain practices, human relationships, and life goals incommensurate with collective and individual thriving for marginalized youth), then we have imposed constraints on equity.

Conducting and using this equity-minded research is not only about highlighting and understanding the importance of equity in education. It is also about educating people along the way researchers, funders, study participants, and highlevel decisionmakers—to think and act in new ways in order for equity-focused work to also transform what is happening in and through schooling, resulting in more equitable life outcomes for all.

### Guiding questions for centering equity in scaling and research for and about scaling

These conversation prompts and questions are meant to support open, substantive, collective discussion (though they can also be reflected on individually). In groups, the goal may or may not be about building actual consensus (it depends on the group) but should always focus on increasing clarity about what people mean, making the unspoken assumptions and dominant incentive systems more visible, and identifying where agreements and differences exist. Everyone might not agree, but surfacing the locations of consensus and divergence is helpful. Conceptual clarity is necessary, but heterodoxy is not.

#### How are you defining 'equity'?

(1)

- Gender equity: Is it about education access, quality or both? Is it limited to girls (and women)? Does it include boys and men? Are non-binary conceptions of gender included? Why or why not? What is gender, exactly?
- Geographical equity: Does equity in your work include rural and other hard-to-access geographical locations? Is this interest primarily about bringing quality education to remote locations? How are you conceiving of the differences between rural and urban locations for scaling? Are there other dimensions of geography (other than rural/urban) that are pertinent to the scaling work? What are they?
- C LGBTQIA+ equity: Do your equity considerations include adults who are lesbian, gay, bisexual, transgender, queer or questioning, intersex, asexual, and more? What does that mean in your location

and given accompanying cultural histories? Might there be interest in increasing the priority of this commitment in practice? If so, how might you go about that?

- d Social inclusion: Does your focus on equity include ethnic minorities, historically marginalized groups, different levels of poverty, and/or displaced populations? Why or why not?
- Community dynamics: How does your project view and treat community and cultural dynamics around scaling participation, research, and decisionmaking? Is the 'community' treated as one group or do you disaggregate between factions, competing interests, and various sub-groups in the local context? Are you able to conduct some community research in which local residents are authentic partners in the research and its benefits?
- F Pedagogical equity: How does your innovation acknowledge multiple ways and styles of learning? Who

are the educators your innovation works with and what support, materials, conditions, and training do they really need to succeed in your scaling process? What teacher or student accountability practices might impact how they engage with your innovation? What kind of equity mindsets do they bring to the work and should these be addressed, harnessed, or otherwise taken on?

g If you are not including or addressing some of these aspects of equity in your scaling work, why not?

How does the local/regional education system address equity concerns?

(2)

a What is education for, in your location? Is it primarily about preparation for employment or social mobility opportunities for youth? Learning how to live a successful life? Social responsibility? Is it about inculcating the next generation with the culture, values, and national identity of your country? Is it about preserving traditional cultures and values? Is it about improving the community or region as a whole? Is it about something else altogether?

- b What kind of students does your education system serve best? Whom does it leave out?
- C What would an outsider objectively studying your education system say about its equity dimensions (as defined in this brief)?
- d What is currently being done to advance the equity goals you and your organization have? Who is working on these issues? What individuals, organizations, incentives, or systems oppose these goals? Why? Who can you join or what allies can you identify to increase productive attention to your equity goals?

### References

- NACE. "Equity Definition." Equity, 2023. https:// www.naceweb.org/about-us/equity-definition/.
- 2 Levinson, Meira, Tatiana Geron, and Harry Brighouse. "Conceptions of Educational Equity." *AERA Open* 8 (2022): 233285842211213. https://doi.org/10.1177/23328584221121344.
- **3** OECD. Equity and Quality in Education: Supporting Disadvantaged Students and Schools. OECD, 2012. https://doi. org/10.1787/9789264130852-en.
- Reyes, Duncan-Andrade Jeffrey Michael. Equality or equity: Toward a model of community-responsive education. Cambridge, MA: Harvard Education Press, 2022.
- Piper, Benjamin. "International Education Is a Broken Field: Can Ubuntu Education Bring Solutions?" International Review of Education 62, no. 1 (2016): 101–11. https://doi.org/10.1007/ s11159-016-9544-y.
- 6 Rincón-Gallardo, Santiago. Liberating learning: Educational change as Social Movement. New York, NY: Routledge, 2019.; Rincón-Gallardo, Santiago, "Equity as Solidarity." Principal Connections, 27 no. 2. (2023): 22-23
- Sutoris, Peter. "Ethically Scaling up Interventions in Educational Development: A Case for Collaborative Multi-Sited Ethnographic Research." *Comparative Education* 54, no. 3 (2018): 390–410. https://doi.org/10.1080/03050 068.2018.1481622.
- 8 Rosenberg, Niklas. "Hard Systems, Soft Systems, and Information Systems." Niklas Rosenberg, 6 Apr. 2021, niklasrosenberg.com/ blog/2021/4/6/hard-soft-and-informationsystems. Accessed 06 Nov. 2023.
- Olsen, Brad, Monica Rodriguez, and Maya Elliott. Rep. Deepening Education Impact: Emerging Lessons from 14 Teams Scaling Innovations in Low- and Middle-Income Countries. Washington, D.C.: Brookings Institution, 2022.
- **10** Jurado de los Santos, Pedro, Antonio-José Moreno-Guerrero, José-Antonio Marín-Marín, and Rebeca Soler Costa. "The Term Equity in

Education: A Literature Review with Scientific Mapping in Web of Science." *International Journal of Environmental Research and Public Health* 17, no. 10 (2020): 3526. https://doi. org/10.3390/ijerph17103526.

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