







# Measuring Holistic Student Outcomes: Insights From a Global Inquiry


**Global Institute**
**for Shaping a Better Future**
An initiative of
Teach For All

# Measuring Holistic Student Outcomes: Insights From a Global Inquiry

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Executive Summary

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# Preface

This white paper presents insights and case studies surfaced from the Holistic Student Outcomes Measurement Working Group led by the Global Institute for Shaping a Better Future, an initiative of Teach For All. It is the culmination of a collective effort involving more than a dozen professionals, researchers, practitioners, education leaders, and advocates, all united by a single focus: how to effectively develop and support students holistically. Our work is rooted in the fundamental principle that what we measure reflects what we value most for our children's future.

The paper offers a conceptual framework for how to measure holistic outcomes based on practical experience. Instead of prescribing tools, we recommend harnessing existing measurement tools and resources to more effectively support teachers to develop students holistically.

Holistic student outcomes measurement is a nascent field in educational science, cross-cutting disciplines from child psychology and psychometrics to teacher professional development. We are deeply grateful to the researchers and practitioners in the working group for sharing their experiences, evidence, and collective leadership to advance the field.

We want to specially recognize the leaders and researchers of the five featured case studies whose innovative practices and insights form the heart of this paper: Janine Weber-el Meouchy, Mohammad Al Saeed, Shawki Al Fakih from Teach For Lebanon, for their adaptive measurement in crisis-affected systems; Alexis Ramos from Teach For Poland and Sara Twardowska, who serves as a teacher at the time of writing this paper; Teach For Zimbabwe, Teach For Kenya, and Herbert Kalyesubula from Teach For Uganda, for representing the Collaboration for Measurement of Social and Emotional Learning in Africa (COMSELA); Edwin Cuellar at Enseña por Colombia, and researchers from Universidad de los Andes, for their longitudinal impact evaluation on teacher mindsets and student holistic outcomes; and the ALiVE and RELI initiatives, authored by Akongo Rose Stella and supported by colleagues John Mugo and Joyce Kinyanjui, for their pioneering work in regional life skills assessment in East Africa. Their dedication to making holistic outcomes measurement visible and actionable have greatly contributed to the insights of this paper and provide an inspiration for educators globally.

We would like to extend our sincere gratitude to the members of the Holistic Student Outcomes Measurement Working Group for their invaluable contributions, expertise, and dedication.

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# Introduction

This working paper is the culmination of a year-long collaborative inquiry facilitated by the Global Institute for Shaping a Better Future, an initiative of Teach For All. The purpose of the Global Institute is to foster global learning among people across and beyond the Teach For All network who are committed to reshaping education so that all children have the education, support, and opportunity to shape a better future. Central to this learning agenda are two questions:

- How will we know whether students are growing holistically so that they can shape a better future?
- How can we better support teachers to use measures of holistic student development?

*Teach For All is a network of independent organizations in 63 countries and a global organization learning and working together to develop collective leadership to ensure all children fulfill their potential.*

*An initiative of Teach For All, the Global Institute for Shaping a Better Future contributes to the learning and leadership development of people committed to reshaping education, and in the process generates new insights, evidence, tools, and resources to accelerate progress.*

Across education systems globally, there is growing recognition that academic mastery alone is insufficient to prepare young people for an increasingly complex, rapidly changing, and interconnected world. Research shows that cognitive and social-emotional skills are inextricably linked; competencies such as curiosity, persistence, and self-regulation are not merely complementary, but foundational to deep academic learning (Cipriano et al., 2023; Heckman & Kautz, 2013). As labor markets shift toward collaborative problem-solving and adaptability, these broader capabilities have become central to long-term success and human flourishing (OECD, 2023).

In response, education systems worldwide are increasingly prioritizing holistic student development and expanding the use of frameworks and tools to measure these outcomes. However, a critical implementation gap has emerged. The speed of large-scale policy adoption is currently outpacing the systemic capacity to support it. Specifically, there is a profound shortage of robust teacher professional development around holistic outcomes. Data from the OECD Teaching and Learning International Survey (TALIS) show that a majority of new teachers feel

underprepared to support students' holistic development (OECD, 2023). Despite a proliferation of available measurement tools, there is limited guidance on how to use these tools in consistent ways to inform teaching and learning. While academic domains benefit from well-established models for formative assessment, non-academic outcomes remain under-resourced, with limited guidance on how to integrate data into instructional decision-making (RAND, 2019). Without clear models, tools, and structures to translate measurement into action, educators are often left to rely on informal or inconsistent approaches, limiting their ability to intentionally support students' holistic growth.

Over the course of 2025, the Holistic Student Outcomes Measurement Working Group convened over 20 researchers and practitioners from more than 10 countries to address these challenges and help bridge the evidence-to-practice divide. Reflecting on what's working across diverse educational systems and lived experiences across the Global North and Global South, the group engaged in collaborative inquiry to examine how measurement can more effectively support teacher development and classroom practice. This work reflects a core belief of the Global Institute: that lasting, systemic change requires cross-border collaboration and collective leadership among educators and researchers.

Drawing on insights from the working group, case studies, and emerging research, this paper explores how holistic student outcomes measurement can become a formative tool that strengthens the connection between teacher development, instructional strategies, and student growth, positioning measurement as a catalyst for both teacher and student learning. The paper is organized according to six major insights surfaced from our inquiry, and five in-depth case studies of measurement approaches.

## **Insight 1:** Holistic outcomes are locally rooted and globally informed

Measurement requires clear and consistent definitions of holistic student outcomes. Holistic student outcomes can be grounded in a shared and well-established set of domains that consistently emerge across research, frameworks, and classroom practice. Over the past decade, Teach For All's network has observed that transformational classrooms across more than 60 countries are consistently oriented toward developing five core domains: mastery, awareness, connectedness, agency, and well-being. These shared outcomes form the basis of the Teaching As Collective Leadership framework. Similar global efforts to analyze shared definitions of holistic outcomes, such as the Harvard EASEL Lab's Explore SEL and the Inter-agency Network for Education in Emergencies Measurement Library, reinforce that while terminology may vary, the underlying

structure of holistic development is more aligned than distinct, providing a foundation for coherence, comparability, and collective learning across contexts (Jones et al., 2021).

We define holistic student outcomes as the integrated set of academic, social, emotional, and developmental capacities that enable students to thrive both in school and in life. In this paper, these domains are conceptualized as follows:

- Mastery, the academic knowledge and foundational skills necessary to navigate the world;
- Connectedness, the quality of relationships students have with themselves, peers, educators, and their communities;
- Awareness, the ability to understand oneself, others, and the broader systems shaping society;
- Agency, the belief and capacity to take action to shape one's own life and contribute to the world; and
- Well-being, a state of holistic physical and mental health that allows students to flourish.

These domains integrate social and emotional learning competencies—such as emotional regulation, interpersonal skills, self-efficacy, and responsible decision-making—with academic learning.


**Figure 1.** *The Teaching As Collective Leadership Framework*

Contextual relevance is essential in holistic student outcomes measurement. The challenge is not to choose between universality and contextual relevance, but to identify shared foundations that enable alignment while allowing for locally grounded expression. Applying one-size-fits-all definitions risks mischaracterizing culturally rooted behaviors, particularly given the historical bias of many dominant frameworks toward Western contexts (Norman et al., 2023). While these domains can be shared globally, their meaning, prioritization, and expression are shaped by local context. This requires moving beyond defining outcomes for students to defining outcomes with students. Emerging practice shows that involving

students and communities in identifying and contextualizing competencies strengthens both cultural relevance and measurement validity, as seen in Enseña por Colombia, where engaging students and educators in interpreting holistic outcomes ensures that constructs such as agency, belonging, and social responsibility reflect lived realities rather than externally imposed definitions.

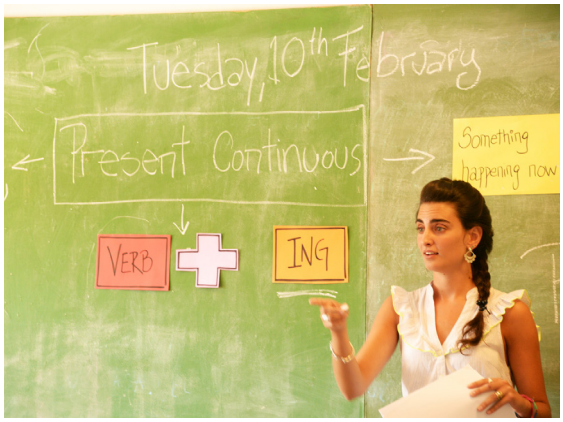
At the same time, framing holistic outcomes as entirely context-dependent risks undermining the shared human experiences that make comparison and collective learning possible. Education systems, communities, and schools interpret and operationalize these domains in ways that reflect their unique cultural, social, and developmental realities, while this shared architecture creates opportunities to learn across contexts, align measurement approaches, and build a more coherent global evidence base. This balance—locally rooted and globally informed—forms the foundation for more effective and transferable approaches to holistic outcomes measurement. It is reflected in practice. For example, the ALiVE initiative in East Africa defines competencies such as collaboration, respect, and social responsibility in ways that reflect regional cultural values and communal norms, while still aligning with broader constructs of agency and connectedness.

*A note on measuring academic outcomes alongside other holistic outcomes:* Holistic student outcomes integrate both academic mastery and broader dimensions of development. Any measurement system that seeks to reflect the whole child must therefore integrate mastery and/or foundational literacy and numeracy skills alongside competencies such as awareness, connectedness, agency, and well-being.

The scope of this paper focuses more specifically on strengthening how competencies such as awareness, connectedness, agency, and well-being are measured and used at both the teacher and student levels. Academic outcome measurement is comparatively well-established, supported by extensive research, infrastructure, and instructional routines. By contrast, guidance on measuring and using non-academic dimensions in formative, practice-embedded ways remains less developed. The recommendations that follow are intended to complement existing academic measurement systems by offering clearer guidance on how to integrate broader developmental data into coherent, actionable frameworks for teacher and student growth..

## **Insight 2:** Measurement can support teacher development

When educators reflect on their own mindsets, classroom culture, and student data, they can more effectively support holistic student growth. Holistic outcome measures can provide actionable feedback that enables teachers, students, and program designers to reflect, adapt, and grow. Yet, in most systems, measurement remains oriented toward evaluation, compliance, and accountability. Data often flows upward to inform funders or policymakers, but seldom returns to the classroom in time to shape daily instruction (RAND, 2019; 2024). This disconnect undermines the promise of student-centered learning: we cannot expect educators to nurture what they cannot see, nor can we expect them to improve student agency, awareness, or well-being without the feedback loops to guide and refine their work (OECD, 2023; Aghazadeh, 2019).




Despite growing recognition of the importance of holistic student outcomes, a significant gap persists in how to nurture them in school and instructional settings. Teachers frequently report feeling ill-equipped to foster and assess these competencies, often relying on informal or ad hoc approaches. Data from the OECD Teaching and Learning International Survey (TALIS) and the Survey on Social and Emotional Skills (sses) show that tasks related to social and emotional teaching are among those teachers feel least prepared to support in their classrooms. Adults who lack holistic skills such as self-regulation, empathy, or agency themselves encounter more difficulty in modeling these competencies for their students, particularly in high-stress environments (Jones et al., 2021). Yet, teacher preparation and professional development rarely prioritize building this capacity, leaving educators without the tools or structures needed to intentionally cultivate holistic student growth.

When embedded within cycles of reflection, dialogue, and instructional adaptation, measurement becomes a mechanism for teacher learning and student agency. In some research, this concept is referred to as assessment *for* learning, in contrast to assessment *of* learning. Effective assessment for learning systems enable educators to reflect on their own mindsets, examine the classroom conditions they are creating, and interpret student data in ways that inform practice. Tools such as student perception surveys and classroom observation frameworks like the World

Bank's *Teach* tool help make visible the often-invisible conditions of learning—such as belonging, agency, and emotional safety—and translate them into observable, improvable practices. In Teach For Poland, for example, data from student voice, teacher perceptions, and lesson observations revealed gaps between teacher intention and student experience. Rather than treating these findings as evaluative, teachers and students engaged in structured dialogue to interpret the data together, using it to inform shifts in classroom culture and instruction. In doing so, students moved from being subjects of measurement to active participants in meaning-making. When students engage in interpreting their own holistic outcome data, the assessment process itself becomes a metacognitive intervention, strengthening self-awareness and reinforcing agency as both an outcome and a driver of learning.

To fully realize this potential, holistic student outcome measurement must be supported by enabling system conditions (Cantor et al., 2019; Cantor et al., 2020). Teachers need time, collaborative structures such as peer learning communities, and accessible data systems to engage meaningfully with holistic data. Interdisciplinary team meetings, protected time for reflection, and integrated dashboards that connect academic and non-academic indicators strengthen the feedback loops between measurement, reflection, and action. Without these conditions, even the most rigorous measurement systems risk becoming burdensome or unused. With them, measurement has the potential to elevate teaching itself, equipping educators to diagnose development, adapt instruction, and cultivate the holistic growth of every student.

## **Insight 3:** Holistic outcomes develop non-linearly

Research shows that student holistic growth is experience-dependent, shaped by the interaction between cognitive, social, and emotional processes (Cantor et al., 2019; Darling-Hammond et al., 2020). Students' development is continuously influenced by the relationships, environments, and experiences they encounter over time. As a result, holistic outcomes such as agency, awareness, connectedness, and well-being often evolve over longer time horizons and with significant variation across individuals. Some outcomes are highly responsive to specific instructional strategies, while others are more deeply shaped by factors beyond the classroom,

including family, community, and broader social conditions (Osher et al., 2018; Cantor et al., 2019). This variability makes it difficult to interpret change over time using linear or uniform measurement approaches.

Holistic outcomes differ from academic skills in both how they develop and how they should be measured. Academic skills tend to follow more structured pathways and can often be assessed at specific points in time using standardized measures. In contrast, holistic outcomes are dynamic and develop along non-linear, context-sensitive pathways.

This variability is visible in practice. In Teach For Lebanon, for example, improvements in relationship skills were more pronounced among secondary students during periods of disruption, highlighting how competencies such as connectedness and well-being develop unevenly depending on both context and students' developmental stage. Research and practice underscore that context is not peripheral to development—they go hand-in-hand. Supportive, identity-safe, and relational environments are foundational to student growth, influencing both academic and non-academic outcomes (Berg et al., 2017; Darling-Hammond et al., 2020; Schweig et al., 2019; Turnaround for Children, 2016). Well-being, in particular, operates both as an outcome and as a condition for learning: students' sense of safety, belonging, and emotional security directly shapes their ability to engage, persist, and learn.

These insights have direct implications for how holistic outcomes are measured and used. Data is only actionable when it is developmentally appropriate and aligned to how outcomes actually evolve over time. Frameworks such as the Harvard EASEL Lab's Taxonomy of Social and Emotional Competencies and Turnaround for Children's Building Blocks for Learning illustrate how outcomes develop progressively, with certain foundational outcomes (e.g., self-regulation, attachment) enabling more complex outcomes (e.g., resilience, agency, and purpose). Aligning measurement to these developmental trajectories helps educators distinguish between what is emerging, developing, or not yet observable, and respond accordingly.

This evidence calls for a shift in how we conceptualize and measure student growth. Holistic outcomes cannot be treated as static, linear, or isolated indicators. They require measurement approaches that account for developmental variability and the central role of context and well-being in shaping learning. Without this, systems risk misinterpreting growth, overlooking critical conditions for learning and development, and limiting their ability to support students in building the full range of competencies needed to thrive.

## **Insight 4:** Teachers and education programs can prioritize malleable and transferable outcomes

Holistic outcomes vary in their "malleability" or how they can respond to influences and interventions within and outside the classroom. Outcomes such as agency and self-efficacy (Bandura, 1997) and growth mindset (Dweck, 2012) can be significantly moved by specific classroom practices. In contrast, more "fixed" outcomes – such as physical health markers, as well as biological and neurological development – that are often constrained or anchored by macro-environmental factors (poverty, family stress) can be buffered but not entirely erased by schools and teaching practices (Blum, 2022; Gutman & Schoon, 2013). Malleability directly impacts "teachability" although it is impacted by other factors in the classroom beyond teacher instruction. From a measurement perspective, malleable outcomes can be associated more directly with both teacher inputs and classroom factors. As such, we recommend measuring outcomes that are highly malleable since these could reasonably be expected to show changes during the span of a school year. The most malleable outcomes can be attributed to teacher development and learning environment interventions.

In addition, certain holistic outcomes such as critical thinking, complex problem-solving, and creativity (or fluency of ideas) are more "transferable" than other non-academic outcomes. Transferable outcomes are cognitive, interpersonal, or behavioral abilities learned and applied in one context that can be applied to new and different situations (UNICEF, 2019). The properties of malleability and transferability help inform which outcomes to prioritize in measurement and help narrow down from the multitude of outcomes that can overwhelm teachers. Research shows that transferable outcomes are more likely to remain useful even in the increasing uncertainty due to systemic shifts in the workforce and global geopolitical and economic disruptions (Autor et al., 2003; Vista, 2020). The five outcomes in the TACL framework—mastery, awareness, agency, connectedness, and well-being—cover all these highly malleable and transferable outcomes.

Table 1. Overview of Malleable and Transferable Holistic Outcomes

| Outcomes [01] | Malleability | Transferability | Research evidence |
|---|---|---|---|
| Growth mindset | ✔ | ✔ | Cantor et al., 2019 |
| Creativity | ✔ | ✔ | UNICEF, 2019; Vista, 2020 |

[01] This list of outcomes is not exhaustive and only shows a sampling of a larger set of outcomes covered under the Teaching as Collective Leadership framework and other global frameworks.

| Outcomes [01] | Malleability | Transferability | Research evidence |
|---|---|---|---|
| Complex problem-solving | ✔ | ✔ | UNICEF, 2019; Vista, 2020 |
| Agency | ✔ | ✔ | Cantor et al., 2019 |
| Metacognition | ✔ | ✔ | Cantor et al., 2019; Vista, 2020 |
| Negotiation | ✔ | ✔ | UNICEF, 2019; Vista, 2020 |
| Self-management | ✔ | ✔ | Cantor et al., 2019; UNICEF, 2019 |
| Decision-making | ✔ | ✔ | UNICEF, 2019; Vista, 2020 |
| Domain-specific knowledge | ✔ | ✘ | Neisser et al., 1996; Sala & Gobet, 2017a/b |
| Emotional stability; Personality-related traits | ✘ | ✔ | Cobb-Clark & Schurer, 2012 |

## **Insight 5:** Measurement must move beyond an overreliance on surveys

Although numerous assessments exist to measure holistic student outcomes, a large proportion of the field still depends on student self-report surveys, where students rate their own holistic outcomes, beliefs, or experiences (Jones et al., 2021; Cipriano et al., 2020; OECD, 2024). These approaches are appealing due to their ease of administration, scalability, and adaptability across contexts. Widely used self-report instruments, such as student perception surveys, serve as proxies for student experience such as engagement and well-being (OECD, 2024).

However, an overreliance on self-reported data presents significant limitations for holistic outcomes that develop non-linearly. Traditional before-and-after measures using similar metrics often do not correspond to a student's development cycle. Furthermore, research consistently demonstrates that such measures are vulnerable to social desirability bias, where students respond in ways they believe are expected (Punjabi et al., 2021; Van de Mortel, 2008), as well as reference bias, where students evaluate themselves relative to their immediate environment rather than a broader standard (Heckman & Kautz, 2013; OECD, 2023). These biases can mask students' true developmental progress, making it difficult to

accurately interpret how they grow over time (Heckman & Kautz, 2013). Moreover, self-reports often lack the behavioral specificity needed to inform instructional shifts, limiting their usefulness for teachers seeking to translate data into practice. As a result, data may be collected but not meaningfully used.

To address these limitations, the field must expand beyond perception-based measures toward more rigorous, behaviorally grounded approaches that capture how students demonstrate competencies in context (Vista et al., 2018). Performance-based assessments, for example, provide opportunities to observe student collaboration, persistence, and problem-solving in real or simulated scenarios. The COMSELA initiative, implemented across Teach For Uganda, Teach For Kenya, and Teach For Zimbabwe, illustrates this shift: students engage in structured group tasks while teachers use calibrated rubrics to assess leadership, teamwork, and decision-making in action. These approaches have demonstrated strong psychometric properties while remaining grounded in authentic classroom dynamics.

Similarly, scenario-based assessments and situational judgment tasks offer students opportunities to respond to realistic challenges, revealing how they interpret and navigate complex social situations. Initiatives such as Schools2030 and Oxford MeasurED's Item Bank and Education Cannot Wait's Holistic Learning Outcomes Measurement have demonstrated the reliability and contextual validity of these approaches across diverse settings. Observation-based tools and teacher assessments further enrich this picture by capturing student behavior over time within the learning environment. Emerging approaches, including technology-enabled and AI-supported systems, extend these possibilities by embedding assessment directly into learning experiences, generating continuous, formative insight into how students think, collaborate, and solve problems (Reimers et al., 2026). Taken together, these approaches point toward a broader shift: from measuring what students say about their holistic development to understanding what they do with those skills in practice. Finally, as we move to more rigorous and sophisticated measurement approaches, we also need to align how we process the data from these measures to ensure that our data-use principles and approaches are equally rigorous and sophisticated (Vista et al., 2018). This shift is essential for making holistic outcomes visible, measurable, and actionable.

Expanding beyond surveys also requires rethinking who participates in the design of measurement itself. When students are treated solely as respondents, measurement risks capturing externally defined constructs that may not fully reflect their lived experiences. In contrast, participatory approaches, where students and communities contribute to defining competencies, shaping instruments, and refining language, can strengthen both validity and relevance.

## **Insight 6:** Triangulated measurement enables actionable insights for teachers

Data triangulation offers a valid and actionable approach to understanding how to foster the conditions that enable students to grow holistically. In research and measurement, triangulation involves combining different types of data to build a more comprehensive and reliable understanding of complex phenomena. In education, this means moving beyond any single data source—such as student self-report or test scores—by bringing together complementary perspectives on what students experience, demonstrate, and achieve (OECD, 2023). This often includes bringing together student voice, classroom observations, and direct assessments to ensure that what students say, do, and experience are understood together.

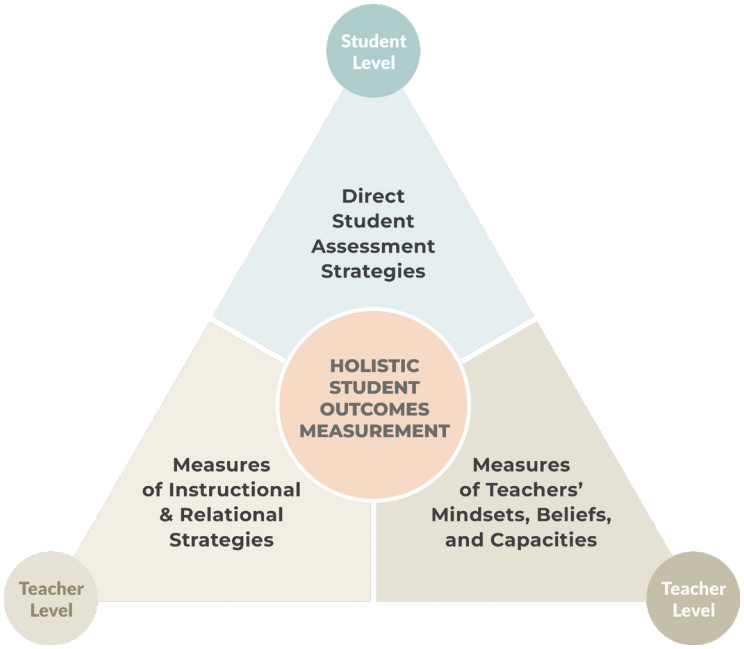



**Figure 2.** ***Triangulation of teacher and student outcomes data.*** *Triangulated measurement enables holistic and actionable insights for teachers.*

Building on this premise, we argue that effective measurement systems require a triangulated approach that integrates multiple sources of data on three critical, interrelated dimensions: direct measures of student holistic outcomes; teachers' instructional and relational practices; and teachers' beliefs, mindsets, capacities. Together, these dimensions address the limitations of relying on single data sources by cross-referencing perspectives to generate more actionable feedback for teachers to foster the conditions for holistic development in their classrooms. Without this triangulation, data remains abstract and unactionable, failing to provide the specific feedback teachers need to shift their practice (Teach For All, 2022).

- Dimension A: Direct Student Assessment Strategies
- Dimension B: Measures of Instructional and Relational Strategies of Teachers
- Dimension C: Measures of Teachers' Mindsets, Beliefs, and Capacities

This approach shifts measurement from a static, time-bound scorecard to a diagnostic resource that teachers can actively use. Teacher mindsets shape how educators interpret their role and their students' potential; instructional and relational practices determine the conditions for learning; and student-level data reflects how these dynamics translate into outcomes such as agency, awareness, connectedness, well-being, and mastery. When examined together, these dimensions enable educators to move beyond surface-level interpretation and instead interrogate the underlying conditions shaping student growth. For example, when data indicates lower levels of student agency, triangulated evidence enables educators to examine whether this reflects students' holistic development, the opportunities provided through instructional practice, or underlying beliefs about students' roles in the classroom.

By explicitly measuring educator mindsets and instructional practices alongside student outcomes, triangulation reinforces that educators are owners of their practice, with both the agency and the responsibility to cultivate holistic learning environments. At the classroom level, in Enseña por Colombia, teachers used triangulated measures of holistic outcomes to examine how teacher mindsets and social-emotional learning (SEL) practices drive student growth. This work found that when teachers regularly reflect on triangulated data, they become more intentional in their planning and adopt more student-centered instructional strategies (Universidad de los Andes, 2025).

For this to translate into practice, triangulation must extend beyond measurement design to how data is used within systems and structures. Teachers need time, space, and structures to interpret and act on holistic data—through collaborative learning models, protected time for reflection, and integrated data systems that connect academic outcomes with conditions that shape them.

However, large class sizes, limited time, and lack of access to technology remain persistent barriers to using data triangulation. When the administrative burden of data collection outweighs teachers' ability to use the data for feedback, even well-designed systems risk becoming a source of "data fatigue." Addressing this requires rethinking not only what we measure but also how measurement is operationalized, reducing the burden of data collection while increasing educators' access to timely, interpretable, and actionable insights. At the system level, initiatives such as the ALiVE program in East Africa demonstrate how this shift can be realized: by combining scenario-based tasks, performance-based assessments, and educator

interpretation within professional learning communities, measurement becomes a resource for collective reflection and instructional improvement.

## Innovations in Measurement

Holistic outcomes cannot be measured through one data source alone. We must expand our toolkit to capture how the different streams interact with each other. To build a fuller picture, data systems must integrate what students say, do, and experience, with teachers actively shaping how the data is gathered and interpreted. The field must actively promote the use of alternative, more valid instruments such as performance tasks and situational judgment tasks. Below are some of the most innovative types of measurement we've explored in the working group, followed by links to various applications that emerged from our Working Group. The Holistic Student Outcomes Measurement Toolkit and Library provides a curated set of measurement tools aligned to student outcomes of mastery, awareness, agency, connectedness, and well-being. Finally, we describe cases of measurement from five diverse country contexts that are using many of these approaches to advance holistic outcomes and to better support their teachers.

Table 2: Innovative Approaches to Holistic Outcomes Measurement

| Approach | Measurable Holistic Outcomes Dimensions | Description | Illustrative Examples |
|---|---|---|---|
| **Dimension A: Direct Student Assessment of Holistic Outcomes** | | | |
| **Performance Tasks** | Agency, Collaboration, Mastery | Measures demonstrated behavior and applied skills, increasing methodological rigor and reducing self-report bias. | Teach For Uganda, Teach For Kenya, and Teach For Zimbabwe's Collaboration for Measurement of Social and Emotional Learning in Africa<br>RELI ALiVE<br>Schools2030<br>Education Cannot Wait (ECW) Holistic Learning Outcome Measurement (HLOM)<br>SERAIS (scenario based assessments) |

| Approach | Measurable Holistic Outcomes Dimensions | Description | Illustrative Examples |
|---|---|---|---|
| **Cognitive Assessments** | Mastery, Critical thinking, Creativity | Objective and easy to score, providing quick, reliable, and standardized results. | Creativity Assessment Platform (CAP) |
| **Vignettes and Situational Judgment Tests** | Awareness, Agency, Purpose, Collaboration | Reduces social desirability bias as individuals may answer more honestly about a hypothetical character's actions than about their own. | Schools 2030 and Oxford MeasurED Item Bank<br>Boston College Living a Life of Meaning and Purpose (BC-LAMP) portfolio |
| **Academic Standardized Assessments** | Mastery | Objectively measures learning on academic domains. Captures both content knowledge and skills. | Standardized tests on curricular subject areas (e.g., math, science, language, etc.) |
| **Foundational Literacy and Numeracy Assessments** | Mastery | A type of academic assessment that is focused on foundational skills and commonly targeted for monitoring early childhood development (ECD). | Early Grade Math Assessments (EGMA)<br>Early Grade Reading Assessments (EGRA)<br>International Common Assessment of Numeracy (ICAN) |
| **Dimension B: Measures of Instructional and Relational Strategies of Teachers** | | | |
| **Teacher-Assessed Non-Academic Outcomes** | Practices (Strategies), Awareness | Provides highly contextualized, observation-based data linked directly to the teacher's instructional environment. | BERS (Behavioral and Emotional Rating Scale)<br>Child Trends Teacher Survey<br>Brief Early Childhood Quality Inventory (BEQI) |

| Approach | Measurable Holistic Outcomes Dimensions | Description | Illustrative Examples |
|---|---|---|---|
| **Teacher-Assessed Non-Academic Outcomes** | Practices (Strategies), Awareness | Provides highly contextualized, observation-based data linked directly to the teacher's instructional environment. | Valuing Inclusive Teaching and Learning (VITAL)<br>Classroom Assessment Scoring System (CLASS) |
| **Student Perception/ Feedback Surveys (Environment)** | Well-being, Connectedness, Lenses | Offers immediate, aggregated feedback on the success of the enabling environment created by teacher relational practices and classroom climate. | Gallup Student Poll<br>RAND School and Classroom Climate Measures<br>Teach For All Student Perception Survey |
| **Classroom Observations** | Teacher effectiveness, Classroom practices, Pedagogy | Captures rich and nuanced real-time classroom indicators of effective teaching and practices. | World Bank *Teach* (primary and secondary)<br>Lego Engage toolkit |
| **Dimension C: Measures of Teachers' Mindsets, Beliefs, and Capacities** | | | |
| **Teacher Self-Reflection Tools** | Teacher capacities and mindsets | Offer teachers a guided reflection of their recent classroom interactions to engage in introspection about the capacities (including foundational teaching skills), mindsets, beliefs, and values they bring to their work. This is often used in collaboration with a teacher coach or in the context of a lesson observation. | TACL Teacher Self-Reflection Tool<br>World Bank Coach Tool |

| Approach | Measurable Holistic Outcomes Dimensions | Description | Illustrative Examples |
|---|---|---|---|
| Teacher Mindset Surveys | Teacher mindsets | Includes self-reported measure of mindsets related to Teaching As Collective Leadership (TACL) as well as more sophisticated approaches that minimize response biases, such as forced-choice type instruments. | Teach For All Teacher Mindset Survey |

## Reflections From Teacher Development Organizations: Case Snapshots

Through the working group convenings, members shared how they are designing, adapting, and testing holistic student outcome measures in response to real instructional needs and contextual constraints. These selected cases reflect moments of innovation where measurement is being used to learn, adjust, and support practice in classrooms, schools, and systems. The case studies draw from diverse education contexts and illustrate how holistic student measurement is being implemented in ways that elevate student voice, respond to local realities, and generate insight that educators can act on. We also see how measurement can illuminate the relationships between instructional practices, teachers' beliefs and mindsets, and the development of holistic student outcomes.

### A) Measuring Holistic Student Outcomes in Crisis-Affected Systems: Teach For Lebanon

Lebanon's education system has faced overlapping crises over the past several years, including economic collapse, prolonged school closures, and armed conflict. Between 2019 and 2023, students experienced fewer than half the instructional days typical under normal conditions. By late 2024, large-scale displacement and school closures further disrupted learning continuity, while reports of student anxiety, stress, and disengagement increased sharply. In this context, Teach For Lebanon (TFL) confronted a pressing challenge: how to measure holistic student outcomes in ways that remain meaningful when schooling itself is unstable.

## Context and Purpose

Teach For Lebanon's mission centers on expanding access to quality education while developing young leaders who contribute to long-term systemic change. During recent academic cycles (2024–25 onward), the purpose of student measurement shifted. Rather than focusing primarily on end-of-year academic gains, TFL reframed holistic outcomes measurement as a tool for sustaining learning continuity, monitoring student well-being, and informing teacher practice under crisis conditions. Measurement needed to support three interconnected aims: identifying learning gaps, understanding students' social-emotional experiences, and equipping educators with actionable insight to adapt instruction in volatile environments.

## Designing a Contextualized Measurement Approach

Teach For Lebanon adopted a mixed-methods measurement strategy that integrates academic and non-academic outcomes while remaining sensitive to inequities across regions, school types, and student backgrounds. On the academic side, TFL moved away from reliance on fellow-reported grades and began developing a standardized diagnostic assessment in literacy, numeracy, and mathematics for students in Grades 2–9. The diagnostic design allows educators to distinguish between interrupted learning, retained knowledge, and new growth.

For non-academic outcomes, TFL invested in the co-creation of a contextualized social and emotional learning (SEL) survey tool, developed collaboratively with fellows, education team leads, and SEL specialists. Earlier holistic tools had limited usefulness due to weak contextual alignment and inconsistent interpretation. The new tool focuses on self-awareness, self-management, and relationship skills, with age-appropriate language across three education cycles and a simplified response scale to reduce cognitive load in disrupted classrooms.

## Student Voice and Triangulation

The SEL survey is complemented by a Student Perception Survey, administered twice yearly, capturing students' experiences of classroom climate, relationships, and instructional practices. Qualitative methods, including focus groups, classroom

observations, and student testimonials, are used to triangulate findings and contextualize quantitative results.

Despite ongoing disruption, participation remained strong during the 2024–25 cycle, with more than 1,600 students completing SEL and perception surveys across 94 fellows' classrooms. Academic indicators remained relatively stable, suggesting that instructional continuity and relational trust were sustained even under extreme conditions. Notably, improvements in relationship skills were most pronounced among older students, underscoring the role of targeted social-emotional support during periods of instability.

## Integration Into Teacher Development

Holistic outcome data feeds directly into fellow coaching, reflection, and program design. TFL positions teachers as central enablers of student well-being, emphasizing that educator mindsets, relational practices, and sense of agency shape classroom environments as much as curricular content.

At the same time, the organization has identified capacity-building as a key constraint. Educators vary widely in their familiarity with SEL concepts and in the value they place on non-academic outcomes. Measurement has therefore become both a diagnostic and a developmental tool, surfacing where additional training, shared language, and mindset alignment are needed.

## Implications for Measurement and Research

Teach For Lebanon's experience demonstrates that holistic student outcomes measurement can remain meaningful in crisis-affected systems when it is purpose-driven, contextualized, and integrated into teacher support structures. By combining standardized academic diagnostics with locally co-created SEL tools, TFL has developed a more complete understanding of student development under conditions of extreme uncertainty.

This case reinforces the paper's broader argument that understanding the relationship between teacher development, classroom environments, and student outcomes requires measurement systems that are adaptable to context while still supporting learning over time. It highlights the need for further research on how holistic data is interpreted and acted upon by educators in fragile systems, and how measurement can support both instructional resilience and long-term system rebuilding.

## B) Making Social-Emotional Learning Observable in Early Primary Classrooms: Teach For Uganda

In many low-resource education systems, the measurement of holistic outcomes relies on student self-report tools that assume literacy, abstract reasoning, and linguistic fluency. In early primary classrooms in Uganda, these assumptions often do not hold. Large class sizes, multilingual learning environments, and limited early literacy mean that conventional survey-based approaches struggle to capture how children actually collaborate, communicate, and lead.

In recent academic cycles (2023–24 onward), Teach For Uganda has addressed this challenge by reorienting its approach to measurement around a central premise: if social and emotional skills are expressed through interaction and behavior, they must be measured where they occur, within authentic classroom activity.

### Context and Purpose

Teach For Uganda's program focuses on strengthening foundational literacy and numeracy while supporting students' development of key social and emotional competencies. The organization identified collaboration, communication, leadership, and critical thinking as priority outcomes that were both culturally relevant and instructionally actionable in early primary classrooms.

The purpose of measurement was formative rather than evaluative. Teach For Uganda sought to equip fellows and coaches with insight into how students were developing these competencies and how instructional practices shaped classroom interaction. Measurement was intended to support teaching and learning, not to rank students or schools.

### Measurement Design and Methodology

To serve this purpose, Teach For Uganda adopted group-based performance tasks as the core of its holistic measurement approach. Students work in small groups of 8–10 learners on structured, age-appropriate activities, such as collaborative construction or problem-solving tasks, that mirror everyday classroom dynamics. After providing clear instructions, assessors observe from a distance using

structured rubrics to document behaviors related to turn-taking, peer support, communication, leadership emergence, and problem-solving strategies.

This approach allows educators to capture SEL competencies as they are enacted, rather than inferred from students' self-perceptions or language proficiency. It has proven particularly effective for younger learners, who may struggle to articulate internal states but readily demonstrate social and relational skills through action.

Teach For Uganda explored multiple assessment modalities, including one-on-one interviews and hybrid self-report approaches for older students. However, observation-based performance tasks were prioritized for early primary contexts due to their feasibility, validity, and alignment with classroom realities.

## Integration Into Teacher Development

Measurement was intentionally embedded into existing training and coaching structures. Fellows and coaches frequently conducted co-observations, completing the same rubrics independently and then engaging in structured reflection together. These conversations focused not only on student behavior, but on how instructional choices and classroom norms enabled, or constrained, student interaction.

Through this process, holistic measurement became a shared professional learning tool. Teachers developed more precise language for noticing student behaviors, and coaches grounded feedback in observable evidence rather than general impressions. Measurement supported alignment between instructional intent and student experience.

Teach For Uganda intentionally integrates foundational literacy and numeracy assessment data with holistic student outcomes measures. During coaching sessions, fellows review both sets of data side by side, identifying how social-emotional competencies such as collaboration and communication influence learning progress. For instance, students who demonstrate strong peer-support behaviors often show faster improvement in reading fluency. This dual approach enables teachers to design instructional strategies that reinforce both academic and socio-emotional growth, ensuring that classroom practices respond to the whole child.

## Implementation Considerations

Teach For Uganda's experience also highlights important constraints. Observation-based approaches require sustained investment in training to support consistent interpretation and inter-rater reliability. Adapting tasks to be inclusive of

learners with disabilities remains an ongoing area of development. Scalability presents additional challenges in resource-constrained systems. In response, the organization narrowed the number of competencies measured, emphasized continuous capacity-building for fellows and coaches, and prioritized local-language facilitation to support authentic participation.

### Implications for Measurement and Research

This case demonstrates that formative, context-responsive SEL measurement can support both student development and teacher practice when it is closely aligned with classroom realities. By making early expressions of collaboration, communication, and leadership visible, Teach For Uganda's approach enables instructional responses that would not be possible through survey-based tools alone.

At the same time, the case clarifies the conditions under which such measurement can function as a developmental resource, including sustained training, shared interpretation among educators, and careful attention to reliability and inclusion. These insights reinforce the need for further research on how observation-based measures interact with teacher mindsets and instructional strategies, and how such approaches can be adapted and sustained at scale within constrained systems.

## C) Using Holistic Outcome Data to Strengthen Coaching and Practice: Teach For Poland

Poland's education system is often cited as a global success story in academic performance, with students consistently scoring above OECD averages on international assessments such as PISA. Yet this success coexists with growing concerns about adolescent well-being, stress, and disengagement, particularly in highly pressured secondary school environments. Teach For Poland entered this context with a conviction that academic achievement alone is insufficient preparation for leadership and long-term flourishing. In response, the organization articulated a theory of student leadership centered on a construct it calls "Sense of Possibility."

### Context and Purpose

"Sense of Possibility" reflects students' belief in their own potential and their capacity to shape their futures and contribute meaningfully to their communities.

The construct includes competencies such as agency, persistence, responsibility, self-belief, flexibility, and problem-solving, skills Teach For Poland identified as essential in a system characterized by high academic expectations and limited student voice. Measurement was designed to be formative. The organization aimed to support fellows, tutors, and school partners in understanding how students experience learning environments and how teaching practices influence students' beliefs, behaviors, and engagement.

## Measurement Framework and Tools

Beginning in the 2023–24 academic year, Teach For Poland developed and piloted a triangulated measurement system that integrates multiple perspectives on student development:

- student self-perception surveys administered twice annually,
- teacher surveys capturing educators' observations of student SEL development, and
- lesson observations conducted by tutors to assess classroom culture and SEL-supportive practices.

The student survey demonstrated strong internal consistency during piloting, providing confidence in its reliability. By the 2024–25 academic year, the system had scaled substantially, with several thousand student surveys collected across multiple partner schools, alongside teacher surveys and classroom observations.

## Using Data for Reflection and Coaching

One of the most significant insights from early implementation was the consistent divergence between student self-perceptions and teacher assessments of SEL competencies. Rather than treating these discrepancies as measurement error, Teach For Poland used them as entry points for reflection and professional dialogue. Tutors incorporated SEL data into coaching conversations, helping fellows examine how instructional practices and classroom norms were being experienced by students. Observation data added depth, grounding these conversations in specific behaviors and enabling more targeted instructional feedback.

Teach For Poland has also begun piloting participatory approaches to data interpretation, convening students, educators, and families to reflect collectively on findings. These processes position students as contributors to meaning-making and reinforce agency as both a measured outcome and a lived experience.

### Learning and Ongoing Refinement

System-level analysis revealed modest aggregate shifts across indicators, while school-level analysis surfaced more substantial changes in particular contexts, including shifts in students' beliefs about intelligence and mistakes. These patterns underscored the importance of disaggregated analysis and cautious interpretation of average effects in complex, multi-teacher environments. The organization continues to refine its tools and processes, including transitioning from binary to Likert-scale survey responses, strengthening alignment between observation rubrics and core competencies, and extending measurement into earlier grade levels.

### Implications for Measurement and Research

Teach For Poland's experience illustrates how purpose-aligned, holistic measurement can serve as infrastructure for professional learning. By grounding measurement in a locally meaningful construct and integrating data use into coaching and reflection cycles, the organization has created feedback loops that support both teacher development and student leadership.

This case strengthens the paper's argument that understanding the relationship between teacher mindsets, instructional practices, and student outcomes requires measurement systems that surface multiple perspectives and support interpretation, not just aggregation. It highlights the need for further research on how educators engage with holistic data in complex systems, and how formative data use shapes instructional practice and student development over time.

## D) Measuring Holistic Student Outcomes to Advance Collective Leadership: Enseña por Colombia

Colombia's decades-long armed conflict and persistent educational inequities underscore the critical role of teachers to develop students holistically. In response, Enseña por Colombia (ExC), in partnership with Teach For All and Universidad de los Andes, implemented an initiative that combined SEL-focused teacher development with a strong emphasis on measurement for learning.

The project introduced a set of measurement tools designed to capture students' academic and social and emotional skills, as well as teachers' mindsets and pedagogical practices. Coaches and teachers also used a set of tools as part of their regular practice, through classroom observations, reflection processes, and feedback conversations. Integrating these tools into a randomized impact evaluation also generated important lessons about how measurement systems can support both program learning and rigorous research, highlighting opportunities and challenges in using practitioner-oriented tools to capture complex outcomes such as SEL and teacher leadership development.

## Measurement Design and Methodology

Researchers at the Universidad de los Andes conducted an impact evaluation of ExC's impact on holistic student outcomes. They aimed to capture the results by triangulating data from students, teachers, and the perceptions of regional coaches and school leaders. To ensure the reliability of the findings, all measurement instruments underwent rigorous pilot testing to validate them prior to field implementation.

The quantitative component leveraged measurement tools from different sources:

- Students' academic tests previously designed in alignment with Colombia's nationwide *Saber 11* assessment framework and piloted within both ExC and control schools.
- Student and teacher SEL surveys integrated items from a regional item bank developed by Teach For All, Enseña por Colombia, Enseña por Paraguay, and Enseña Ecuador, alongside items from a SEL survey created by the World Bank and Fundación Luker. Both tools had been previously piloted and validated within the Colombian context.
- Student and teacher perception surveys based on the TACL framework, and a previously piloted and validated well-being survey for teachers.

The qualitative measurement tools included a classroom observation format, used to translate abstract SEL concepts (such as connectedness and collaboration) into observable classroom behaviors and to track the quality of socio-emotional interactions between students and teachers. This tool was designed and

adapted based on the World Bank's *Teach* and Stallings frameworks to capture pedagogical practices and changes in classroom dynamics. Additionally, the study conducted interviews and focal groups with key stakeholders connected to the implementation. By combining these diverse data sources, ExC ensured that their findings were grounded in both standardized rigor and the lived realities of the Colombian educational community.

The regular observation and feedback tools allowed coaches to provide real-time, evidence-based feedback to teachers, effectively shifting the professional conversation from a subjective "how the class felt" to an objective "what the data shows about student engagement and emotional safety." Through this data-driven reflection, teachers realized that to accurately integrate holistic student outcomes, they first had to practice and model those same competencies themselves. The tools helped fellows visualize how to weave SEL into academic content (e.g., using "Purposeful Collaboration" during a math group project) rather than treating it as a separate, unrelated block of time.

## Lessons for Integrating Triangulated Measurement in Teacher Development

The evaluation found that ExC teachers had positive and significant gains in primary reading and math student outcomes, however, it yielded insignificant effects on academics among secondary students. Additionally, the specific SEL module did not yet show significant effects on most social and emotional skills. The study found significant growth in self-leadership and relationship skills among lower secondary students (Grades 6–9), though these effects were not significant at other levels. Despite these quantitative variations, qualitative feedback was overwhelmingly positive; principals and coaches highlighted the fellows' commitment and the module's potential to transform school climate and pedagogical practices. Meanwhile, fellows demonstrated higher self-efficacy and reported feeling better prepared to develop students holistically.

In response to these insights, Enseña por Colombia is adjusting their approach to teacher development through a series of high-impact strategic actions:

- ExC have adjusted their training and support processes to emphasize the transversality of SEL, ensuring socio-emotional growth is directly integrated into academic instruction, and with the clear focus on developing students holistically.
- ExC updated their rubrics, observation formats, and feedback cycles to mobilize holistic development. Furthermore, ExC launched a training of trainers process to deepen the leadership dimensions and vision alignment of their regional coaches.
- For the 2026 cohort, ExC prioritized fellows of STEM areas and bilingual profiles to better meet school demand and ensure that holistic development is anchored in high-quality academic rigor in these subjects. Accordingly, ExC is fostering their training and support processes to focus on specific areas and better equip fellows to focus on students' holistic learning.
- ExC have implemented new visualization dashboards and infographics to help their regional coaches and fellows quickly transform evaluation results into immediate pedagogical adjustments.

## Implications for Measurement and Research

The experience of Enseña por Colombia highlights that measuring holistic outcomes requires a dynamic approach that integrates quantitative data with qualitative insights. This process demonstrates that equipping teachers and coaches with adaptable tools and structured observation formats empowers teachers to act as researchers and diagnosticians in their classroom.

The measurement tools served as a mirror for teachers and coaches, driving a strategic shift to integrating holistic outcomes in program design and instruction. Rather than viewing social and emotional skills development as a separate module, teachers began to embed holistic outcomes directly into core academic instruction. Furthermore, developing real-time visualization dashboards provides teachers the tools they need to embed evidence-based decision-making into daily pedagogical planning and practice.

Enseña por Colombia: Transformando el futuro

This video provides a first-hand look at how Teach For All and ExC translate their commitment to educational equity into practice, using rigorous measurement to drive collective leadership and holistic student success.

## E) Developing Contextually Grounded Measurements for Holistic Student Outcomes: The ALiVE Approach

While education systems globally are increasingly prioritizing social and emotional competencies, the measurement infrastructure needed to assess these outcomes remains underdeveloped in much of East Africa. Existing assessment approaches often focus on standardized cognitive outcomes or rely heavily on self-report tools that provide limited insight into how competencies are demonstrated in real-world situations. In addition, many available measurement frameworks were developed in high-income contexts and later adapted elsewhere without sufficient attention to cultural interpretation or contextual relevance.


The Actions for Life Skills and Values in East Africa (ALiVE) program offers a regional response to this challenge. Convened through the Regional Education Learning Initiative (RELI) Africa, ALiVE is a multi-country initiative that develops technically rigorous and contextually grounded measures of learners' life skills and values. Through regional collaboration, iterative tool development, and capacity-building, the initiative has strengthened both the evidence base and institutional infrastructure for assessing holistic student outcomes in East Africa. Importantly, ALiVE positions measurement not simply as an accountability tool, but as a resource for system learning that supports educators and policymakers in improving teaching and learning.

### Measurement Framework and Technical Design

At the core of ALiVE is a competency framework developed specifically for East African learners. Created through consultations with ministries of education, researchers, teachers, and civil society organizations, the framework identifies key competencies such as problem-solving, collaboration, self-awareness, and respect. While these align with global social and emotional learning (SEL) concepts, the framework reflects regional priorities, including community responsibility, ethical behavior, and strong social relationships.

To assess these competencies, ALiVE employs a multi-method approach that captures skills as demonstrated behaviors rather than abstract traits. Scenario-

based tasks present learners with short dilemmas drawn from everyday school or community contexts and ask them how they would respond, allowing assessors to examine situational judgment and ethical reasoning. In addition, performance-based tasks engage students in structured group activities where trained assessors observe how they collaborate, negotiate, and solve problems using standardized rubrics linked to the ALiVE framework. Together, these approaches provide a richer and more authentic picture of learners' social and emotional competencies.

## Using Measurement to Strengthen Teaching and Learning

A defining feature of the ALiVE approach is how assessment data is used. Rather than primarily serving ranking or accountability purposes, measurement is treated as a resource for professional learning and system reflection. Findings are shared with teachers, school leaders, and other stakeholders to examine patterns in student competencies and consider how classroom practices and learning environments can better support their development.

These discussions often take place within professional learning communities, coaching sessions, and leadership dialogues. By encouraging collective interpretation of evidence, ALiVE turns assessment data into a catalyst for collaborative inquiry, helping educators strengthen pedagogical practices that support holistic learning outcomes.

## Regional Collaboration and Iterative Development

ALiVE's credibility and sustainability are supported by strong regional collaboration. Through RELI Africa, the initiative brings together ministries of education, research institutions, universities, and civil society organizations across East Africa. This collaborative structure allows the program to combine psychometric expertise, practitioner insights, and policy engagement in the development and refinement of its tools, while also contributing to a shared regional knowledge base.

Recognizing the complexity of assessing social and emotional competencies, ALiVE also follows an iterative development process. Assessment tools are refined through cycles of field testing, learner interviews, psychometric analysis, and feedback from educators and policymakers across diverse contexts. This approach helps strengthen reliability and clarity while ensuring that assessment tasks remain culturally relevant and comparable across settings.

## Implications for Advancing Holistic Student Outcomes

The implementation of ALiVE offers several lessons for education systems seeking to measure holistic student outcomes.

First, contextual grounding is essential for legitimacy and validity. Contextualization studies conducted across districts in Kenya, Uganda, and Tanzania showed that competencies such as collaboration, respect, and self-awareness are understood through culturally embedded social norms and everyday interactions. Incorporating these perspectives helped ensure that assessment tasks were both meaningful and valid within local contexts.

Second, methodological pluralism strengthens measurement systems. Because social and emotional competencies cannot be captured through traditional right–wrong formats, combining scenario-based tasks, performance-based observations, and educator perspectives provides a more comprehensive understanding of learners' development.

Third, sustainable measurement systems require both technical tools and human capacity. By embedding capacity-building throughout instrument design, testing, and refinement, ALiVE has contributed to developing a regional community of practice around SEL measurement.

Fourth, incremental development enhances methodological rigor and system adoption. Recognizing the complexity of measuring social and emotional competencies, ALiVE began with a limited set of domains and expanded progressively as evidence and confidence in the measurement framework grew. This phased approach allowed the initiative to refine constructs and strengthen reliability before scaling across additional competencies, illustrating the value of sequencing measurement development rather than attempting comprehensive coverage from the outset.

Finally, regional collaboration can significantly accelerate learning and efficiency. Through RELI Africa, ALiVE brings together partners across countries such as Kenya, Tanzania, and Uganda, enabling shared expertise, joint tool development, and cross-country learning. This collaboration strengthens both the regional evidence base and the sustainability of measurement systems.

### Conclusion

The ALiVE initiative demonstrates that rigorous and contextually grounded approaches to measuring social and emotional competencies are both feasible and valuable within education systems. By combining locally developed frameworks, multi-method assessment, regional collaboration, and iterative refinement, the initiative has strengthened the measurement of holistic student outcomes in East Africa.


Equally important, ALiVE illustrates how measurement can support learning rather than simply accountability. When educators and policymakers engage with evidence on life skills and values, assessment data can inform reflection, professional practice, and continuous improvement in teaching and learning. In this way, holistic student outcomes measurement can reinforce Teaching As Collective Leadership, enabling educators to work together in shaping the broader developmental trajectories of learners.

## Discussion and Conclusion

This paper has surfaced insights and local case studies of efforts to advance measurement of holistic student outcomes to serve as a catalyst for teacher development and improve conditions for students to learn and thrive. We argue that advancing measurement requires an understanding of how holistic outcomes develop and how to foster the conditions for students to thrive in classrooms, requiring the field to move beyond self-reported surveys toward a triangulated approach—one that weaves together direct student assessment, measures of instructional practice, and measures of teachers' beliefs and mindsets. Data triangulation can transform assessment into a diagnostic tool, allowing both teachers and teacher developers/support professionals to reflect on holistic feedback and better embody the purpose of developing students for a better future.

At the same time, advancing this agenda requires continued attention to the methodological and practical trade-offs inherent in holistic outcomes measurement. Approaches such as classroom observations, performance tasks, and multi-source triangulation introduce important questions related to inter-rater reliability, construct validity, cultural validity, and scalability across diverse

education systems. While these approaches can provide richer insight than single-method systems, they also require careful design and validation, and sustained investment in educator training and data use. Addressing these challenges represents an important area for continued research and field learning. These challenges are particularly pronounced in low-resource education systems, where resource gaps can make multi-source measurement difficult to implement consistently. Understanding how triangulated approaches can be adapted to remain feasible and useful in such contexts represents an important priority for future research.

To move from theory to practice, the Holistic Student Outcomes Measurement Working Group proposes a future research agenda:

- How can we better measure teacher mindsets, beliefs, and leadership capacities? We need to move beyond simple self-reports toward more sophisticated, performance-based indicators that capture the nuance of a teacher's internal leadership growth.
- What specific kinds of teacher development programs, choices, and enabling conditions foster teachers' mindsets to shift, practices to evolve, and holistic outcomes to improve? Research must isolate the professional learning principles and design choices—such as peer coaching or ongoing teacher professional development—that advance holistic development of teachers and students alike. This measurement framework offers an approach to better assess teacher development.
- How does a triangulated approach to measurement affect teacher mindset outcomes and student outcomes? We must treat this measurement framework as an intervention in itself, evaluating whether the act of gathering and reflecting on triangulated data shifts how teachers lead and how students grow.
- How can a triangulated approach to measuring holistic outcomes be scaled? We need additional evidence of how a triangulated approach leads toward greater impact on holistic outcomes in low-resource or resource-constrained settings. We need to better understand how technology can help scale these measurement approaches in such a way that enables education systems to explore bringing them to scale.

Finally, we offer a roadmap of strategies to continue to invest in and improve the state of holistic student outcomes measurement, research, and programming:

- Identify, adapt, and implement innovative measurement tools: Continue to support organizations who work with teachers to pilot and validate existing tools, including many of those explored in the repositories and case studies

mentioned throughout the report—prioritizing non-self-report measures like performance tasks and structured observations—that are aligned to this framework and optimized for formative use. Continue to invest in new measures of teacher mindsets and leadership as a component.

- Integrate into teacher professional learning: Design interventions that embed data literacy into pedagogical practice, ensuring teachers move from passive data collection to meaningful, purpose-driven leadership development and instructional action.
- Evaluate contextualized approaches: Support rigorous impact evaluations of local teacher development approaches that adapt this framework. By testing this framework as an intervention, systems can determine how triangulated measurement affects leadership development across different cultural and geographic settings.
- Document and scale best practices: Invest in documenting case studies of programs and classrooms that successfully use holistic outcomes data. Documenting these implementation conditions will provide the field with the "how-to" of assessment-informed instruction.
- Invest in global coalitions: Forge stronger partnerships across local and global organizations to share expertise and generate robust evidence for a cohesive global agenda.

By transforming measurement into a tool for learning, we can provide the necessary infrastructure for teachers to foster the holistic development of their students, ultimately empowering a new generation to lead toward a better and more equitable future.

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