Integrating Whole Child Development (WCD) Measurement into Education Systems

👤 **Paul Schöpfer**, Junior Researcher, Utrecht University, the Netherlands
✉ p.schopfer@uu.nl

👤 **Maria van der Harst**, Researcher, Utrecht University, the Netherlands
✉ a.m.r.vanderharst1@uu.nl

👤 **Bjorn Wansink**, Associate Professor, Utrecht University, the Netherlands
✉ b.g.j.wansink@uu.nl

👤 **Rita Heller Crespo**, Intern, Utrecht University, the Netherlands
✉ r.i.hellercrespo@students.uu.nl

👤 **Diederik van Iwaarden**, International Partnership Advisor, Utrecht University, the Netherlands
✉ d.c.f.vaniwaarden@uu.nl

👤 **Arjun Bahadur**, Lead - Life Skills Collaborative, Sattva Consulting, India
✉ arjun.bahadur@sattva.co.in

👤 **Eveline Correa**, Regional Coordinator, Instituto Aliança, Brazil
✉ eveline@institutoalianca.org.br

👤 **Nancy Keji**, Senior Learning and Experiment Officer, Educate!, Uganda
✉ nancy.keji@experieneeducate.org

👤 **John Mugo**, Executive Director, Zizi Afrique Foundation, Kenya
✉ jmugo@ziziafrique.org

👤 **Supraja Narayanaswamy**, Director, Data and Research, Center for Whole-Child Education at Arizona State University Mary Lou Fulton Teachers College, US
✉ supraja.narayanaswamy@asu.edu

👤 **Anne W. Njine**, Head Education Specialist, Opportunity International, Kenya
✉ ANjine@opportunity.org

👤 **Prateesh Prasad**, Delivery Lead – Project Sampoorna, Sattva Consulting, India
✉ prateesh.prasad@sattva.co.in

👤 **Alex Ríos**, Specialist, UNESCO, Peru
✉ a.rios@unesco.org

👤 **Nacho Sequeira**, CEO, Fundación Exit, Spain
✉ nachosequeira@fundacionexit.org

👤 **Mary E. Walsh**, Research Professor and Executive Director, Walsh Center for Thriving Children, Boston College, US
✉ walshhur@bc.edu

👤 **Joost de Laat**, Professor of Economics, Utrecht University, the Netherlands (Corresponding author)
✉ j.j.delaat@uu.nl

Summary

Based on discussions with 10 education organizations working with a variety of whole child development (WCD) approaches across the globe, this article explores what such holistic approaches to building foundational skills mean for measuring student outcomes, including at young ages, and what other indicators are necessary to support education systems that foster the thriving of children with different needs across different contexts.

Keywords

Assessments
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The articles in this volume speak to the ongoing debates about what foundational learning comprises. As highlighted in one of the contributions (Heller Crespo et al., 2023), there is an emerging momentum for holistic approaches to education, emphasizing that foundational learning involves building a range of skills and competencies in addition to numeracy and literacy (related) skills. Such more holistic approaches are in part motivated by scientific research emphasizing the interconnectedness between cognition, metacognition, and social-emotional learning (e.g., see Duraiappah et al., 2021, for a comprehensive overview) but also by a recognition that children's development is inherently multi-dimensional as well as child- and context-specific.

Recognizing that children's development is inherently multi-dimensional, an increasing number of countries are taking a more holistic approach to their education policies and curricula (Cantor et al., 2021; Porticus & ACER et al., 2020; Slade & Griffith, 2013). For example, countries such as

Brazil, India, Kenya, Uganda, Tanzania, and Peru have been developing competency-based curricula. These curricula often aim to incorporate socio-emotional and life skills, such as career readiness, citizenship, and character education. Although the specific definitions and methods used to implement these skills vary across ages and geographies, their approaches share the overall aim of building education systems that focus on a broad set of skills and competencies, including, but not limited to, academic learning (Porticus, The Jacobs Foundation & The Lego Foundation, 2023). In the process of doing so, these education systems are also reconsidering their systems of measurement.

What does a holistic approach to building foundational skills mean for measuring student outcomes, including at young ages? What other indicators must be captured, and for what purposes can this information be used? This article reflects on these questions by taking a case-based approach following the experiences of 10 organizations working in Brazil, India, Kenya, Peru, Spain, Uganda, and the United States. These organizations are City Connects, Educate!, Fundación Exit, Instituto Aliança, Life Skills Collaborative, Opportunity International, Sattva Consulting, Turnaround for Children, UNESCO Peru, and Zizi Afrique.

Each of these organizations is part of the Global Learning Community (GLC)[1] for whole child development (WCD), which brings together 80 education organizations from across the world that are working on a variety of holistic approaches. A WCD approach to foundational learning focuses attention on the social, emotional, physical, mental, and cognitive development of students (Slade & Griffith, 2013). WCD values and promotes all dimensions of human development from early childhood to young adulthood, including the interconnectedness of physical, social, emotional, cognitive, spiritual, and values-based learning. WCD highlights the importance of relationships and contextual support and is based on the premise that every child has different needs.

The experiences of the 10 organizations highlight that measurement systems in support of WCD foundational learning not only require timely information on a broad set of child-level human development dimensions but, importantly, also require a continuous assessment of the context, such as specific dimensions of the societal and community context, as well as the child's home environment, in order to better understand the child's needs and to provide valuable feedback for teachers, students, schools, and parents. This requires flexibility in the design of the instrument, choice of indicators, and greater integration of measurement tools into the day-to-day operations of school systems.

WCD Measurement in Practice

WCD Assessments of Child Development Are Multi-Dimensional and Context-Specific

WCD approaches emphasize that foundational learning involves more than just numeracy and literacy and embraces a broader set of skills and competencies, in addition to specifically focused academic targets. Most of the programs being supported by the 10 organizations, as well as other organizations in the GLC, incorporate social and emotional skills, particularly those programs that emphasize domains such as identity, social relationships, and future readiness. The importance of context in WCD approaches also means that there is no universal consensus on a list of essential skills and competencies, resulting in all WCD approaches emphasizing various domains of child development. WCD approaches seek to pay particular attention to context-specific factors and align programs with students' unique needs and developmental stages within geographical, cultural, and socio-economic contexts.

As a result, organizations supporting education systems taking a WCD approach develop assessment tools for child development that are multi-dimensional and context-specific. For example, building on CASEL and other measurement frameworks, the UNESCO Horizontes education program has developed a new survey tool that includes an assessment of children's social awareness, teamwork, and assertiveness for its program in rural Peru. Zizi Afrique has developed the ALiVE Tool, which assesses three competencies (problem-solving, collaboration, self-awareness) and one value (respect) that were identified through an extensive process of consultations with parents, the local communities, and other stakeholders across Kenya, Tanzania, and Uganda.

Furthermore, age is also critical to consider when selecting and assessing skills and competencies. As individuals progress through different life stages, their needs, experiences, and abilities evolve, so do the exact skills and competencies that are required for success. A prevailing understanding is that skills such as self-regulation of emotions, self-awareness, and resilience are essential prerequisites for effective learning. Once these foundational skills are in place, additional "higher-order" skills can be developed that align with the program's objectives. Instituto Aliança's InteliGENTES program in Brazil, for example, focuses initially on self-knowledge skills, and the second and subsequent years of the program focus on social and perspective-taking skills appropriate to age.

WCD Assessments Are Frequently Formative in Nature

Several organizations have emphasized the importance of reflection by children themselves and by teachers and other education stakeholders alike as an integral part of fostering socio-emotional competencies and of formative assessment systems that support reflection.

For example, the school-based program implemented by [Educate!](#) in Uganda provides students with an assessment booklet that includes various tasks and activities specifically designed to address the issue of youth unemployment. Students are, among other things, expected to exercise leadership by engaging the public to advocate for a specific cause, after which they document their experiences and develop a statement detailing their campaign efforts. These experiences are then evaluated using a formative approach. However, using formative assessments as tools for self-reflection presents an integrative challenge for education systems that rely heavily on summative evaluations. [Turnaround for Children](#), working in the United States, tackles this challenge by extending "ownership" of their measurement tools and related data to schools, supporting schools in reflecting on student progress and avoiding competitiveness between individuals and other schools. To maintain a clear focus on enhancing academic outcomes and promoting well-being at the individual level, schools are encouraged to evaluate students' progress over time rather than making comparisons between students.

WCD Assessments Frequently Capture Multiple Dimensions of the Child's Context

WCD approaches to foundational learning emphasize a child-centered approach that pays particular attention to the child's context, especially the school, community, and home situation of the child. To support this, organizations taking a WCD approach frequently develop instruments designed to measure and assess this context. For example, certain assessments are designed to promote supportive school environments by targeting teachers and headteachers and by focusing on assessing aspects such as school culture, management, teaching, and learning practices. Such assessments include Opportunity International's Eduquality Program Guide: [Pathways to Excellence](#), which is used, among others, in Kenya and Uganda; the guide is geared toward improving 18 domains of school quality to create enabling environments for learning. These encompass school culture, school management, and pedagogy, with accompanying assessment tools.

Assessments are frequently also intended to support schools in examining and addressing child-specific "external drivers" of children's well-being and behavior, including undesirable behaviors such as low attendance and high dropout rates. For example, a child-centered approach to recognizing children's needs can be found in the [City Connects program](#) in the United States, which highlights the significance of providing community-based services. Through a comprehensive assessment including academic, socio-emotional, behavioral/health, and family domains, the program identifies and addresses the unique circumstances and needs of each child

and allows for the provision of tailored services that directly support the child's well-being and educational development. For instance, it includes after-school programs that provide meals for children whose parents work late hours and arrange doctor's appointments to address specific needs, such as obtaining reading glasses. By adopting this personalized approach and recognizing the importance of these services, the City Connects program seeks to establish a strong foundation for academic achievement and child well-being.

WCD Assessment Methodologies and Choice of Indicators Vary by Context and Purpose

The organizations either utilize pre-existing measurement tools drawn from global frameworks, such as the [Big-5 model](#) or [CASEL framework](#), that they adapt to their contexts or they develop novel instruments tailored to their program. Some use scenario- and performance-based assessments; these may demand time and require trained evaluators, but they offer opportunities for observing skills and competencies in context. Assessments that employ Likert scales are among the most common tools for measuring student-level outcomes. These are both time-efficient and familiar, as they are regularly used in tests and exams. A downside of this method is that it depends on reading fluency, which skews the assessment, particularly of younger students (Murano et al., 2021).

Geographical and cultural differences also affect how skills and competencies are defined and measured. As the [Life Skills Collaborative](#) in India explains, walking for more than two hours a day to and from school may be considered an impressive display of "grit" in the Global North, but it is commonplace in many parts of the Global South. Consequently, relying on standardized definitions and assessment tools that are not sensitive to geographical differences may result in misinterpretation and ineffective application. Furthermore, because most of the available assessment resources are developed in the Global North, several organizations have highlighted how this limits their relevance and applicability in the Global South. Therefore, it is crucial to adapt pre-existing definitions and assessment tools for specific contextual settings or to develop new instruments that are fit for purpose.

Conclusion

Many countries around the world, including Brazil, India, Kenya, Peru, Tanzania, and Uganda, are adopting more holistic WCD approaches in their curricula. The discussions with 10 education organizations from 7 countries, each taking a WCD approach, reveal how they develop complementary assessment systems designed to capture the multiple dimensions of child development and to understand the child's varied and context-specific needs and resources.

Four main observations emerged from these discussions: (1) WCD assessments of child development are multi-dimensional and context-specific; (2) WCD assessments are frequently formative in nature; (3) WCD assessments frequently capture multiple dimensions of the child's context; and (4) WCD assessment methodologies and choice of indicators vary by context and purpose. Furthermore, to truly support children to thrive, the discussions highlighted that such holistic assessments should not only be sufficiently grounded in local contexts but also become embedded into the education system rather than being an add-on component to any prevailing approach. The discussions also revealed that contextual adaptations inevitably lead to considerable heterogeneity in what skills and what school, community, and home dimensions are measured, how, and for what purposes.

Although such heterogeneity may complicate scale-up and make carry-over to new contexts and countries more challenging, the Life Skill Collaborative's experience working across several WCD organizations in India highlights how different definitions, measurement approaches, and skill identification for WCD can be aligned. This experience has provoked the interest and attention of key stakeholders in a number of state education systems in India and supported the incorporation of holistic components into India's National Education Policy (NEP-2020). How this carries through into classrooms in so many varying contexts is touched on elsewhere in this special issue.[2]

More generally, while assessment of progress toward academic skills such as literacy and numeracy remains a key focus in most countries, the WCD measurement and assessment practices documented in this paper illustrate the growing momentum around developing a robust set of WCD metrics. Such progress is important to inform the holistic approaches to education policy and planning being taken by many countries and will deepen our understanding of the interrelatedness of foundational skills, both academic and non-academic.

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Endnotes

1. The GLC is supported by Porticus, a philanthropy, and facilitated and convened by Utrecht University. The findings in this article are based on discussions by the authors, each of whom represents one of the organizations, facilitated by the Utrecht University team.
2. See specifically the articles by Dekla & Shukla, and Pattanayak & Sarma in this collection.