

ANNEX 2. TERMS OF REFERENCE FOR INSTITUTIONAL CONTRACT

Reference:	LRPS-2024- 9189597
Title:	Evaluation of AI-based 21st Century Core Competency Skills Measurement Tool
Location:	South Africa
Duration:	5 Months

Background and Justification

Since democratization, South Africa has made significant progress in enhancing access to education and improving its quality. This progress has been facilitated by the adoption and stabilization of the curriculum, as well as efforts to strengthen key components of the education system. However, studies indicate that learners in South Africa face challenges with foundational skills, particularly when it comes to tasks requiring higher-order cognitive abilities, critical thinking, and deep conceptual understandingⁱ. There is a prevalent belief among teachers that education in South Africa is overly focused on assessment and content, leaving them feeling ill-prepared to implement the curriculum as intendedⁱⁱ.

In response to the challenges, at the 2022 national Basic Education Lekgotla, the Department of Basic Education (DBE) recognized the necessity to strengthen teaching, learning, and assessment through the **Curriculum Recovery Framework 2021-2024**. This initiative is a direct response to the global impact of the COVID-19 pandemic on schooling and aims to identify. Additionally, the DBE committed to the **curriculum strengthening plan (2025 onward)**, aimed at addressing the issue of curriculum relevance and preparing learners for the fast-changing world. Moreover, it seeks to improve alignment across the education sector regarding teaching practices, assessment methods, Learning and Teaching Support Material (LTSM), teacher development, and learning environments conducive to fostering the desired knowledge, skills, attitudes, and values among South African learners.

To support these endeavors, UNICEF South Africa supported the Department of Education (DBE) in 2023 to develop the South African National 21st Century Core Competency Skills Framework, referred to as the South Africa Skills and Competencies for a changing world. This is part of the ongoing effort aims to strengthen the existing National Curriculum and Assessment Policy Statement (CAPS) as well as national assessment policies and practices. Notably, this development aligns with UNICEF's Life Skills and Citizenship Education (LSCE) Framework, which emphasizes holistic development and equipping learners with essential life skills. As a result, the LSCE Framework served as a valuable reference in the formulation of the national framework.

ⁱ Reddy, V., Winnaar, L., Juan, A., Arends, F., Harvey, J., Hannan, S., Namome, C., Sekhejane, P., & Zulu, N. (2020). TIMSS 2019: Highlights of South African Grade 5 results in mathematics and science. HSRC. Pretoria.

ⁱⁱ Care E., Kim H., Anderson K., & Gustafsson-Wright E. (2017). Skills for a Changing World: National Perspectives and the Global Movement. Brookings Institution Reports.

The South Africa Skills and Competencies for a changing world framework has been developed to

encompass knowledge, skilled character, and attitudes that the department aims to instill in young South Africans through their twelve years of schooling. UNICEF remains committed to supporting the DBE during the implementation phase of this framework. Additionally, UNICEF has pledged its support to explore the best possible mechanisms to measure these core skills and competency, leveraging technological advancements, by piloting and generating evidence about the adoption of AI-based 21st Century Core Competency Measurement Tool.

Scope of Work

UNICEF is piloting the 21st Century Core Competency Skills Artificial Intelligence (AI)-based Measurement Tool, also in reference to the UNICEF LSCE Measurement Tool. Whilst developed to support the current DBE curriculum reform process, it is envisioned that the tool will be used by any formal, informal, and non-formal skills development interventions, in both the public and private sectors. UNICEF is therefore seeking an institution or organisation to assess the pilot of its 21st Century Core Competency Skills AI based Measurement Tool.

It is envisioned that the assessment will provide insights on:

1. The tool's accuracy and alignment with the South Africa Skills and Competencies for a changing world framework.
2. The tool's usability, functionality, and effectiveness in assessing 21st-century core competency skills.
3. Possible implication on teaching and learning and assessment practices, curriculum design, and educational and training assessment policies.

Expected Deliverables and Reporting Requirements

The organisation or institution will be tasked with the following activities:

Phase 1: Inception Phase

1. Undertake a Desk Review of relevant documents.
2. Prepare the assessment plan.
 - Develop a robust assessment methodology that is best suited to review and assess the tool's usability, functionality, and effectiveness in assessing 21st-century core competency skills.
 - The plan should include the following:
 - Outline the objectives, scope, methodology, timeline, and resources required for the assessment.
 - A clear description of the assessment criteria, indicators, and data collection methods to be used.

3. Phase II: Data Collection and Analysis:

- Collect data on the tool's usability, functionality, and effectiveness in assessing 21st-century core competency skills.
- Gather data on various aspects of the pilot, including user feedback, system performance metrics, and the tool's ability to measure learners' skills, knowledge and attitudes.
- Analyze the collected data to assess the reliability, validity, and fairness of the AI-based measurement tool.
- Solicit feedback from stakeholders on their experiences with the AI-based measurement tool, including its utility, relevance, and potential areas for improvement.

- Gather insights and perspectives on the tool's impact on teaching and learning practices, and possible impact on assessment policies and practices from a wide range of stakeholders including teachers/ administrators, learners, government officials and relevant experts.

4. Phase III: Benchmarking:

- Validate the measurement tool against established benchmarks and criteria for assessing 21st-century skills.
- Compare the results of the AI-based assessments with other established measures of 21st-century skills to evaluate the tool's accuracy and alignment with existing frameworks.
- Assess the contribution of the measurement tool to learning outcomes, skill development, and decision-making processes.

5. Phase IV: Validation and Knowledge Product Development and Dissemination:

- Seek input and validation from stakeholders on the proposed next steps and strategies for scaling up or refining the AI-based measurement tool based on the assessment results.
- Prepare comprehensive reports summarizing the findings of the pilot assessment, including key insights, lessons learned, and recommendations for future implementation and
- Recommendations on implications for assessment policies and practices.
- Prepare knowledge products to support the dissemination of the assessment's key insights, lessons and recommendations to a broader audience. Presentation slides, infographics, fact sheets, draft blog article for UNICEF website and social media collateral.
- Summaries or excerpts suitable for publication in newsletters, reports, websites, or other communication channels.

Deliverables	Duration (Estimated # of days)	Timeline
Phase I: Approved inception report (including assessment plan)	5 days	week 1
Phase II: First draft research report (including data analysis and findings report and Stakeholder Perception Report	25 days	week 2 – week 6
Phase III: Benchmarking report	10 days	week 7 - week 8
Phase IV: Research validation workshop with stakeholders	5 days	week 9
Phase IV: Final draft Report	15 days	week 10 – week 12
Phase IV: Knowledge Management and communications Products	5 days	week 13

Desired competencies, technical background and experience

The selected institution or organisation should have a validated track record of at least 3 years of relevant experience on similar projects for local and international agencies, corporates and/or government department/s. Additionally, the institution or organisation must:

1. Have a good understanding of the South African Basic Education landscape.
2. At least 5 years, conducting large scale evaluations in the education sector and a reputable track record.
3. Have access to a network of stakeholders in the South African Education sector.
4. A solid understanding of, and experience working with the UNICEF LSCE Measurement Tool.
5. Understanding of 21st-century core competency skills measurement tools.

Administrative issues

- The contract will be managed by UNICEF.
- The institutional contractor shall have regular consultations with the UNICEF as needed, either in person or telephonically. These consultations may bring about slight deviations in agreements and the work assignment. This includes an inception discussion to ensure that aspects of the work assignment are understood clearly.
- The face-to-face meetings will be at times as agreed to discuss and agree upon matters pertinent to the implementation of this assignment.
- Location and schedule for progress meetings throughout the contract duration (if required) will be agreed to by the institution/organisation and UNICEF.
- UNICEF is responsible for the monitoring of the implementation of this assignment and shall execute this in a professional and consultative manner throughout the term of the contract.
- Resources will solely be the responsibility of the institution or organisation.
- The institution or organisation to submit a focal points/contact who will be accessible on request to UNICEF.

Conditions

As per UNICEF DFAM policy, payment is made against approved deliverables. No advance payment is allowed unless in exceptional circumstances against bank guarantee, subject to a maximum of 30 percent of the total contract value in cases where advance purchases, for example for supplies or travel, may be necessary”.

- The “the team/firm selected will be governed by and subject to UNICEF’s General Terms and Conditions for institutional contracts.”
- The service provider is not allowed to use the materials gathered for this assignment in any other work assignment without the explicit written permission of UNICEF.

- The service provider will work on her/his own equipment and use her/his own office resources and materials in the execution of this assignment. The service provider's fee shall be inclusive of all office administrative and travel costs.

Technical Evaluation Criteria and Relative Points

Technical Criteria	Description of Technical Sub-criteria	Maximum Points %
Overall Response	Completeness of response	5
	Overall concord between RFP requirements and proposal	5
Maximum Points		10
Institution & Key Personnel	Range and depth of experience with evaluating projects in the education sector and in particular assessments	20
	Number of partners, size of projects, number of qualified staff per project	10
	Existing and ongoing projects related to curriculum strengthening, assessment and/or 21 st Century Core Competencies	20
	Client references	10
	Key personnel to be assigned: relevant qualifications & experience	10
Maximum Points		70
Proposed Methodology and Approach	Proposed Methodology for this project	10
	Proposed Work Plan to accomplish the Project	10
Maximum Points		20
Total Score for Technical Proposal		100
Minimum Acceptable Score for Technical Proposal		70

Weights: 70 % Technical vs. 30 % Financial Offer

Sourcing

- Qualified institutional or organisational contractors are invited to submit a detailed proposal based on the criteria outlined below, reflecting an understanding of the assignment and capacity to execute the assignment within the required timelines. This needs to be submitted in two separate parts, i.e., technical proposal (cover letter) and financial proposal (fee structure). These should be submitted as two separate documents.

- The Cover Letter, which contain the following required technical areas related to assignment (Non-inclusion of any of the below components will lead to disqualification).
 - Executive summary (100 words maximum)
 - The institutional contractor's understanding of the assignment, (what the institutional contractor thinks the assignment entails) (50 words maximum).
 - The proposed approach/methodology that the institutional contractor will follow in executing the assignment, with specific reference to each of the components (400 words maximum).
 - An indication of the intended timelines envisaged to complete this assignment (within the timeframe provided in terms of this terms of reference) and an undertaking that the institutional contractor will be able to complete the assignment within the timeframes required.
 - References that can be contacted (at least two work related references). Indicate the name of the person, telephone number, email address and short indication of the work that institutional contractor has done. (Two sentences maximum per reference)
 - An indication of possible risk factors associated with this assignment, based on the perception and experience of the institutional contractor (80 words maximum)
 - Reference to similar work (at least two). Preferably final products that are available and accessible either through email or on website. In case of confidential work, indicate as such.
 - Attach the following:
 - (a) The full Curriculum Vitae indicating all qualifications and experience related to the assignment of all team members.
 - The Financial Proposal needs to be submitted as a separate document and must include:
 - Proposed pricing in accordance with the TOR and in South African Rand.
 - Other costs related to the execution of the assignment.
- Please note:
- Prices offered shall be all inclusive and shall remain fixed for the duration of the contract.
 - VAT needs to be indicated separately (i.e., fees/budget needs to exclude VAT).
 - Applications submitted without a fee/ rate/budget will not be considered.

Risks

Risks	Mitigation
Access to stakeholders across the education and training eco-system.	UNICEF looks to select a service provider that is well networked and respected in the education sector. It will also use the DBE's interest in this project to mobilise stakeholders.
Evaluation report meets the standards of the DBE and can be used as key evidence to inform policy and practice.	UNICEF to select a service provider with experience conducting evaluations for the education sector and encourage consultation with key stakeholder and key points of the evaluation.