Scope of Work
Psychometrician Consultant
Period of Performance: March-May 2022

1. Context

About Teach For All
Teach For All is a global network of 59 independent, locally led and governed partner organizations and a global organization that works to accelerate the progress of the network. Each network partner recruits and develops promising future leaders to teach in their nations’ under-resourced schools and communities and, with this foundation, to work with others, inside and outside of education, to ensure all children are able to fulfill their potential. Teach For All’s global organization works to increase the network’s impact by capturing and spreading learning, facilitating connections among partners, accessing global resources, and fostering the leadership development of partner staff, teachers, and alumni.

About the Program
The USAID Regional Leadership For Change in Education Program (hereafter referred to as the “Program”) is being implemented by Teach For All with partner organizations Enseña por Paraguay, Enseña por Colombia, and Enseña Ecuador with the aim to expand to other countries in the region. The purpose of the Program is to improve the quality of education of marginalized and vulnerable children and youth in Latin American and the Caribbean (LAC), focusing on cultivating and developing leadership across different levels of the education systems.

The Program includes four main objectives:

1. **Recruit and select growing Fellow cohorts in expanded target areas.** Partner organizations expand the recruitment and selection of these cohorts of talented leaders from diverse backgrounds, academic disciplines and career interests to serve as Fellows to influence holistic outcomes of students in marginalized communities.
2. **Train and support Fellows to be effective teachers.** Partner organizations focus on the delivery of a comprehensive and holistic pre-service training and ongoing intensive coaching for Fellows.
3. **Implement alumni leadership strategies and community engagement activities.** The Program engages Fellows and alumni to work with students, teachers, and community members to contribute capacity to their systems at all levels.
4. **Strengthen the capacity of partner organizations while fostering regional learning.** The global organization enables partner organizations to strengthen their capacity to achieve results by fostering regional networks to share evidence of the implementation and convening spaces for dialogue and exchange.

By the end of the Program, each partner organization will have catalyzed their strengths while measuring impact on teacher effectiveness and collective leadership that will influence students’ outcomes at the classroom level. Specifically, main results will be around the effectiveness of the Fellows in the classroom, Fellow cohort growth, and the expansion of partner organizations’ reach within geographic clusters, marginalized youth engagement, and Alumni engagement in their communities and local education systems, measured by the data system in each country.

About the Student Learning Assessment Item Bank Activity
The Program is developing a Spanish-language Student Learning Assessment Item Bank for grades 4, 5, and 6 in Paraguay and Colombia and grades 5, 6, and 7 in Ecuador for reading, mathematics, and social and emotional learning (SEL) skills, that will better enable partner organizations to develop their own validated assessments for different grade levels and subject areas. This Item Bank can be

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1 Grades 4, 5, and 6 in Paraguay and Colombia are equivalent to grades 5, 6, and 7 in Ecuador.
shared with other Teach For All partners across the LAC region. The Item Bank approach is a flexible and effective approach for constructing longitudinal measures compared to stand-alone assessments because it allows for pre-test and subsequent post-test to have different sets of items while still providing a uniform metric. This approach will ultimately provide cost savings as compared to developing separate assessments twice a year.

In 2021, Teach For All, Enseña Ecuador, Enseña por Colombia, and Enseña por Paraguay developed items for the three domains (340 items for math, 340 for reading, and 180 for SEL) and began to pilot them. The items were developed by first comparing and analyzing curricular frameworks for reading, mathematics, and soft skills in all three countries and identifying common content and skills across curriculums in each country. The Program then compared these curricular elements to the benchmarks for grades 4, 5, and 6 in the UNESCO Global Proficiency Framework\(^2\) for reading and mathematics, ensuring that the final items developed align with curricula across both countries and the Global Proficiency Framework. The specific constructs under the category of social emotional skills were identified based on expert review of multiple well-established frameworks (e.g., CASEL, OECD), as well as alignment with those constructs prioritized by Teach For All and partners.

The purpose of the item bank pilot is to ensure a rigorous quality control process for the items and to establish item-level psychometric properties that will inform the selection of the final set for the item bank. As such, the pilot is administered to a sample size following technical standards for assessment best practices. For assessment security purposes, the pilot must be conducted in person, so school closures due to COVID-19 have pushed back the timing of the pilot. To date, data collection for the pilot has been completed in Colombia and Ecuador and will be completed in Paraguay in March and April of 2022.

The output from this process will be a finalized item bank from which partners will be able to construct baseline and endline assessments aligned with their student vision for Year 3 of the Leadership for Change Program, thus enabling Enseña Ecuador, Enseña por Colombia, and Enseña por Paraguay to effectively and uniformly report on student learning and soft skills outcomes.

2. Purpose

Teach For All seeks a psychometrician consultant to develop and conduct psychometric analysis of the item bank pilot data for all reading, math, and SEL items from all three partners, and determine which items to include in the final item bank. The psychometrician is expected to produce a technical report on the process and detailed psychometric properties of the items.

3. Activities and Deliverables

The consultant will work in close collaboration with the Teach For All team, including staff from the Global Organization and partner organizations Enseña por Paraguay, Enseña por Colombia, and Enseña Ecuador, on the following activities and deliverables. It is important to note that all items are in Spanish, so data analysis and deliverables can be developed in Spanish or English (but a strong understanding of Spanish is required); working meetings will be conducted in English and Spanish:

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<th>Activity</th>
<th>Associated Deliverable</th>
<th>Estimated level of effort</th>
<th>Estimated due date</th>
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| **Activity 1: Planning and design**  
- Conduct background reading of the three assessment frameworks for math, reading, and SEL for the item bank and other relevant material to inform the data analysis plan.  
- Participate in introductory and onboarding sessions with Teach For All and partners.  
- Consult with technical team to design the psychometric analysis approach for the pilot phase for each of the three domains, including but not limited to the following:  
  - Classical analysis for descriptive statistics and exploratory analyses of the pilot data  
  - Item response models used for the item-level analysis  
  - Software to be used  
  - Gantt chart timeline for completing the analysis | **Deliverable 1: Data Analysis Plan**  
- The plan should describe the data analysis strategy and methodology for each of the item bank domains (math, reading, SEL), including all of the elements described in Activity 1.  
- The plan should propose a structure of the final report (Deliverable 3).  
- Include annexes as relevant. | 5 days | April 15, 2022 |
| **Activity 2: Conduct data analysis**  
- Conduct psychometric analysis of pilot data of all assessment domains and items (340 math items, 340 reading items, and 180 SEL items) from all three partner countries, following the methodology and approach established in the analysis plan.  
- Consult with the respective curriculum experts for each domain in finalizing the set of items to be dropped and the set to be included in the dataset.  
- Participate in regular calls with Teach For All and/or partner specialists to share progress and collaborate on the data analysis. | **Deliverable 2: Finalized set of items for each domain**  
This is a set of tables that compile the results of the analysis and will be used to discuss with curriculum experts and to determine final items for the item bank. Include the following:  
- The difficulty level of each item, as well as overall proficiency levels for each of the three domains.  
- Recommendations on which items to retain for the main implementation of the item bank and which items to drop, based on scale and item-level psychometric properties. | 15 days | May 13, 2022 |
on a rolling basis.

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<td>• Document the process and report on the final set of items selected for the main implementation, based on the final report outline proposed in Deliverable 1 and results of Activity 2 and Deliverable 2.</td>
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<td>• Present draft report of analysis for Teach for All and partner review. Incorporate comments and feedback to generate final report.</td>
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<td>Final report on the structure and components of each item bank (math, reading, SEL) based on which items were selected. This report should include:</td>
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<td>• Details of the entire psychometric analysis that was undertaken, including summary of and methodology and approach used.</td>
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<td>• Scale-level and item-level analysis of the pilot data of each domain (math, reading, SEL).</td>
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<td>• Include raw data sets, graphs, and any other relevant calculations or inputs as appendices.</td>
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| 5 days | May 31, 2022 |

4. Preferred experience, education, and skills:
- Master’s degree in statistics, evaluation, or related field required. Doctorate degree preferred.
- 3-10 years of experience in evaluation and psychometrics.
- Demonstrated experience in psychometric testing.
- Demonstrated experience working with large scale assessment preferred.
- Strong proficiency in statistical analysis using Item Response Theory (IRT) approaches.
- Demonstrated experience working with statistical software, both general (e.g., Stata, SAS, but R preferred) and IRT specific (e.g., WINSTEPS, ConQuest, BILOG/MULTILOG, R packages such as mirt and TAM).
- Experience working with education systems in Latin America is preferred.
- Fluency in Spanish required; conversational English required; proficiency in English preferred
- Strong interpersonal skills and communication; strong independent work skills and ability to manage time and comply with established deadlines required.

5. Application and selection process
1. Interested candidates should submit the following documents to consultants@teachforall.org (in Spanish or English). Applications received by March 14, 2022 will be prioritized.
   a. CV, including professional references
b. Letter of interest, describing interest in position
   c. Biodata form (indicating preferred daily rate)

2. Teach For All will select candidates for an interview and data analysis exercise with Teach For All and partner staff.

3. Based on the results of the candidate experience, qualifications, and interview, Teach For All will hire one of the candidates. If no candidates meet the criteria, Teach For All will continue searching until qualified candidates are found.

6. Technical Monitor: The consultant(s) will report to the Deputy Director of the Leadership for Change Program. Deliverables and payments will be managed by the Leadership for Change Program under the coordination of the Deputy Director. The Deputy Director will coordinate with Teach For All experts and the partner organization staff in each country.