



# Request for Proposal (RFP):

## Development of Educational App for Sindh Early Learning Enhancement through Classroom Transformation (SELECT) Project

### 1. Introduction:

Idara-e-Taleem-o-Aagahi (ITA) invites proposals from qualified software houses/vendors to design, develop, and deploy a comprehensive educational app for the Sindh Early Learning Enhancement through Classroom Transformation (SELECT) project. The app aims to provide digital access to supplementary reading materials, continuous professional development (CPD) resources, and teacher training materials for grades 3-5 in Sindhi and Urdu languages.

**Title of work:** SELECT APP 2024

**Location:** Across Pakistan (12 districts with online & offline support)

**Duration:** 3 months (September –November 2024)

### 2. BACKGROUND:

To support the Sindh Early Learning Enhancement through Classroom Transformation (SELECT) Project, Idara-e-Taleem-o-Aagahi (ITA) is rendering Technical Assistance (TA) to the Program Monitoring and Implementation Unit (PMIU) of the School Education and Literacy Department (SELD), Government of Sindh for the development of educational content. The PMIU is housed at the Reform Support Unit (RSU) of SELD. The SELECT project funded by the World Bank/IDA loan (\$100 million) has five core components shared in Table 1 below.

The project has adopted a comprehensive approach to enhance teaching and learning practices in primary education, specifically focusing on foundational reading for grades 1 to 5 in Sindhi and Urdu languages. The project aims to accelerate the transition of children from primary to elementary education and decrease dropout rates through targeted student attendance and redress challenges to improve student attendance and enrollment. The ultimate goals of the project are to reduce learning poverty and the number of out-of-school children. This technical assistance to the PMIU will be focused on Components 1 and 3 for material development to achieve the overall objectives of the SELECT Project.

*Table 1: Components of the SELECT Project*

<b>Project Objectives</b>	The Project Development Objective (PDO) is to improve the reading skills of
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	Early-grade primary students and increase student retention in primary schools in selected districts.
<b>Component 1</b>	<b>Transforming teaching practices in the early grades:</b> <ul style="list-style-type: none"> <li>● Subcomponent 1.1: Implementation of continuous professional development (CPD) model for improved literacy skills in the early grades</li> <li>● Subcomponent 1.2: Carrying out behavioural nudges for improved Learning.</li> <li>● Subcomponent 1.3: Provision of technical assistance for institutional capacity development and support</li> </ul>
<b>Component 2</b>	Developing an effective and safe learning environment– by school upgradation to elementary level and school rehabilitation through refurbishing of existing classrooms and adding new classrooms to existing schools, provision of furniture, and adequate WASH facilities by actively pursuing eco-friendly materials and designs
<b>Component 3</b>	Improving system capacity for better school leadership and management support <ul style="list-style-type: none"> <li>● Subcomponent 3.1: Establishment of a technology-based student attendance monitoring system</li> <li>● Subcomponent 3.2: Technical assistance and capacity building for school leadership and local education office management to mitigate student dropout</li> </ul>
<b>Component 4</b>	Monitoring and evaluation and project management

### 3. OBJECTIVE:

The objective of developing the SELECT educational app is to create a comprehensive digital platform that provides accessible, engaging, and high-quality educational resources for teachers and students in Sindh, Pakistan. The app aims to:

1. Provide Early Grade Reading Material (grades 3-5) in Sindhi and Urdu languages on App through interactive content.
2. Provide teachers' professional development digitalized training materials, resources, and continuous professional development (CPD) modules on App
3. Provide engagement and learning material available on app for teachers and students use through digital experience
4. Increase accessibility and equity by providing offline and online access to quality educational content.

### 4. Scope of Work:

- Work with ITA's IT department to build an application that can be used under the project
- The primary objective of the assignment is to design and develop the Android, iOS applications for phones and tablets for internal and external/public use. The designed app should work online and offline either, so if the internet is not available the stored data on App can be synched on online server.
- Develop a Business Intelligence dashboard to monitor and track the activities of individuals, apply data validation checks, Assessments and generate reports.
- Develop the LMS Tool for the availability of district wise and school wise data.
- Pre-testing of the application developed and removing the problems later identified to ensure compliance.



- Release/Launch the app on cross-platform including web, iOS and Android (3).
- The application will be open source while protected through adopting best practices such as environment variables, secure configuration management, and restricted access controls, we can safeguard critical information. Additionally, complication techniques need to be implemented to further protect sensitive URLs
- Post release monitor application performance, assist in analysis, gather feedback, of design, release and manage the life cycle of the mobile applications.
- Frequent Knowledge sharing with the team members and colleagues on the development.
- Produce monthly reports for mobile application performance and recommendations for improvements and updates
- Maintain records of all the logins that have been registered and keep track of content used or viewed by each user

### APPLICATION FUNCTIONALITY

The mobile application will contain data provide by the technical firm. To ensure the app will collect feedback from user's i.e teachers for improvement. The data flow for the proposed app is briefly explained as follows:

*i. User Registration/Authentication:*

The app allows two types of users i.e., teachers and field staff, via the 'teacher panel' and the 'official panel'. New users are required to fill out a brief form in order to register. Registered users log into the app using their credentials. The app verified the user's information against the database.

*ii. Home Screen:*

Upon successful login, the user is directed to the app's home screen, where they can access various features of the app. *Settings and Preferences:*

Users can customize app settings and preferences, such as the language (Urdu, Sindhi), notification preferences, and profile details. These settings are stored in a database.

*iii. Teacher/School profile:*

Teachers on login need to create individual profiles along with the data of the school. School teachers select their school from the list of schools and then create grade-wise students' enrollment. The app assigns an auto-generated unique-ID to each teacher and school against which the data is entered and stored in the database.

*iv. Language and Grade Selection:*

The user selects one of two language for the available options to access data and further give option to select Grade 3, 4 or 5.

*v. Continuous Professional Development (CPD) Content for teachers :*

The user (teacher) will go through the grade level content which will be monitored through LMS on the data they have accessed or used.

*vi. User Data Profile:*

The teacher's profile, including the completion of CPD content and access to grade level material is displayed or linked with user profile. The progress are stored in the database, allowing teachers to track



their usage over time. The app may have insights into progress of teachers.

a teacher dashboard that provides real-time

*vii. Notification and Reminders*

The app may send notifications or reminders to users for updates or personalized follow-up recommendations.

*viii. Feedback and Support:*

Users may provide feedback or seek support through the app. This feedback can be stored in the database for future reference.

**ADDITIONAL FEATURES TO INCLUDE:**

- ***Data Privacy and Security Protocols:***  
Adhere to strict data privacy and security protocols, including anonymization of user data, secure data storage practices, and regular security audits.
- ***Multi-language Support:***  
Enable multi-language support within the app to cater to diverse language preferences and enhance user accessibility. The languages
  - Urdu
  - Sindhi
  - English
- ***Scalable Infrastructure Capabilities:***  
Design the backend infrastructure with scalability in mind to accommodate a growing user base and increased data processing demands without compromising performance.

## 5. APPROACH

The approached need to be well defined in terms of the following:

- **Development Methodology:** Vendor should give clear view about their chosen approach (Agile, Scrum, and Waterfall) and its suitability for the project's needs.
- **Requirements Gathering and Analysis:** Need to know the process for gathering, analyzing, and translating requirements into features to ensure alignment with project objectives.
- **Addressing Risks and Assumptions:** Need to discuss any identified risks or assumptions related to the approach, and collaborate on strategies to mitigate them effectively.

### **Technical Requirements and Performance Expectations:**

- Utilize the framework for cross-platform development to ensure consistency and performance across Android and iOS devices.
- Ensure app responsiveness, fast loading times, and minimal data consumption for optimal user experience, especially in low-bandwidth areas.
- Implement secure authentication mechanisms and data encryption standards to protect user data and comply with privacy regulations.

### **Backend Requirements:**



- Develop a scalable and secure backend infrastructure using technologies such as Node.js or Django, integrated with databases like MySQL or MongoDB.
- Enable seamless synchronization between the mobile application and backend servers for real-time data updates and reporting.

## 6. MILESTONES & PROJECT TIMELINE

Milestones	Description	Time Required
<b>M1</b>	<b>Planning and Analysis</b>	.5 Month
	<i>Research and Idea Validation:</i> An inception report for a mobile application and its workflows is a comprehensive document that outlines the initial phase of the development process. It should delineate a detailed overview of the proposed mobile application, including its objectives, scope, key features, user requirements, design documentation, technical design/specifications, user manual/guides, admin documentation, test plans, bug reports, performance test results, deployment and maintenance guides, legal and licensing documentation etc.	
	<i>Planning and Strategy:</i> The report also describes the various workflows involved in the application, highlighting the sequence of activities and interactions between different components or users	
	<i>Design and Wire framing:</i> the inception report may include a project timeline, resource allocation plan, and an assessment of potential risks and challenges. It will serve as a foundation for the project, providing stakeholders with a clear understanding of the mobile application's concept, functionalities, and implementation strategy	
<b>M2</b>	<b>Design or UI/UX – An Intuitive and consistent design across platforms</b>	1 Month (M1 and M2 will be parallel)
	<i>Development Approach Selection:</i> Flutter or React Native, planning about developing mobile applications based on the vendor's experience.  Web Development: web-based approach, plan based on the proficiency in web development technologies such as HTML, CSS, JavaScript, and relevant frameworks like React.js, Angular, or Vue.js.	
	<i>App Designing and Prototyping:</i> It focuses on designing the layout, visual elements, and interactions within the application to ensure ease of use and engagement for the target audience. The Design document should include User Research, Information Architecture, Wireframing and Prototyping, Visual Design, Responsiveness, Interaction, Design, Usability Testing, Accessibility and other factors.	



	<p><i>Project Management:</i></p> <ul style="list-style-type: none"> <li>• Version Control: decide on version control system (e.g., Git, Bitbucket) for code management.</li> <li>• Project Tools: Decide on task tracking and collaboration tools (e.g., Jira, Slack).</li> <li>• Tasks &amp; Responsibilities: Clarify team roles, task prioritization, and requirements handling.</li> <li>• Agile Methods: Discuss decision on Agile methodologies and iterative development.</li> <li>• Documentation: Discuss about their documentation practices for code, APIs, and reporting.</li> </ul>	
<b>M3</b>	<b>App development (actual)/ Implementations</b>	1-Months (M1 and M2 will be parallel)
	The Developer should give a walkthrough of end-to-end workflows, front-end and back-end components of the developed application, webpage, business intelligence reports	
<b>M4</b>	<b>Pre-pilot test of the application or Testing and Integration</b>	1.5-Month
	<i>Quality Assurance:</i> In this process, we will be verifying and validating whether an application is bug-free meets the technical requirements as guided by its design and development, and meets the ITA requirements effectively and efficiently by handling all the exceptional and boundary cases.	
	<i>User Testing and Feedback:</i> The application is will be tested on 20 children in each province including AJK & Gilgit Baltistan	
	<p>Security Checks and Compliance:</p> <ul style="list-style-type: none"> <li>• Data Security Measures: Discuss about the vendor's data encryption standards for sensitive information (such as user credentials, payment details, and personal data).</li> <li>• Compliance Requirements: Identify specific regulatory requirements or industry standards relevant to your project (e.g., GDPR, HIPAA, PCI-DSS) and ask how the vendor ensures compliance.</li> <li>• Code Security and Vulnerability Management: Discuss secure coding practices followed by their development team (avoiding common vulnerabilities such as SQL injection, XSS attacks, insecure deserialization).</li> </ul>	
<b>M5</b>	<b>Final launch &amp; Maintenance</b>	2-Month



	<i>Deployment and Launch:</i> Will have 6 provincial launches & will partner with 12 partner organizations for the deployment	
	<i>Post-Launch Activities:</i> Will have a bi-monthly meeting to make sure the project is on track	

## 7. BUDGET

The budget for the project development cost, licensing fees, storage fees and any other expense need to be stated in detail.

## 8. OTHER NOTES

### a) Changes in App

**Minor Changes:** The Development Company will be flexible to do minor changes which might ITA team will think of them in future, All kinds of bugs and errors will be fixed, DML Operations (Addition, Updation, Deletion, Data Reflection), incorrect text on button, Wrong colors, adding/editing specific fields, GUI inconsistencies. ( A minor change is usually one that does not require a significant amount of preparation and planning, they are usually low-risk and won't have a large impact on how the business operates)

**Major Changes:** All major changes post-delivery will be done but with economical cost. (The major changes involve a significant amount of preparation and work with complex situations or major expenses. They include a significant alteration of APPs's infrastructure that will require a period of enough time, or migrating from a legacy application to a newer one. These will be complex, many-stepped processes and therefore must undergo detailed preparation work before the implementation phase.)

The development company shall remain flexible to any change(s) - major or minor- suggested by the client side.

On completion of Application the development team will provide source code of the application.

### b) Delivery

The Software Applications shall function in accordance with the Specifications on or before the Delivery Date.

- If the Software as delivered does not conform with the Specifications, the Client shall within 30 working days of the Delivery Date notify the Development Company in writing of the ways on which it does not conform with the Specifications. The Development Company agrees that upon receiving such notice, it shall make reasonable efforts to correct any non-conformity.
- The Client shall provide to the Development Company written notice of its finding that the Software conforms to the Specifications within 30 working days of the Delivery unless it finds that the Software does not conform to the Specifications as described in Section 3 herein.



**c) Legal considerations, data**

**privacy requirements:**

The Development Company shall not (i) disclose to any third party the business of the Client, details regarding the Software/ Apps, including any information regarding the Software's code, the Specifications, or the Client's business (the "Confidential Information"), (ii) make copies of any Confidential Information or any content based on the concepts contained within the Confidential Information for personal use or for distribution unless requested to do so by the Client, or (iii) use Confidential Information other than solely for the benefit of the Client.

**d) Intellectual property**

The Parties acknowledge and agree that the Client will hold all intellectual property rights to the Software including, but not limited to, copyright and trademark rights. The Development Company agrees not to claim any such ownership in the Software's intellectual property at any time prior to or after the completion and delivery of the Software to the Client.

**a) The Development Company will provide the script (Code) of All Apps.**

Third party services or materials will bear the cost of all given services and materials

- a. Website domain and hosting for deployment
- b. Payment Method/ Gateway
- c. SMS services
- d. Google Play Store Account
- e. Google APIs where and when the applications are needed
- f. Or any paid services which necessary to complete project scope

**b) Dispute resolution**

All disputes should be sorted by both companies internally first but if deadlock arises any legal procedure should be notified first in written form.

**Proposal Submission:**

Interested vendors should submit their proposals, including company profiles, technical proposals, and financial bids, to ITA at [qamarabbas@itacec.org](mailto:qamarabbas@itacec.org) and [mariam.shah@itacec.or](mailto:mariam.shah@itacec.or) by 22<sup>nd</sup> August 2024.

Note: This RFP is based on the provided information and may require modifications to ensure clarity and competence.



