

Description of Services for Standardized Achievement Test SAT-V

Detailed Terms of References (ToRs)

Background:

The large scale standardized testing of individual students prior to Grades 9 and 10 is non-existent in the Sindh public education system. School tests are given to students but as these are not standardized it is difficult to identify whether the resulting scores are reliable and are valid indicators of the achievement of students. It also does not enable parents to assess the performance of their own child as compared to a national norm as there are no set standards or achievement levels/scales available in Sindh.

To rectify this, the Government of Sindh, Education & Literacy Department has introduced annual Sindh Standardized Achievement Testing.

The Sindh Standardized Achievement Test (SAT) is a nationally standardized test that report scores as percentiles, or as grade equivalents achievement scales and compares student test results to a national norm);it is an *achievement* test (one measuring subject knowledge and skills); and, includes a test on English, Mathematics and Science.

SAT is planned to be used as a tool to provide policy information on various areas of education reform. Following are the key objectives:

- a. To link our mostly input driven reform agenda to output/outcomes
- b. To use the process and results of SAT to affect attitudinal changes in teachers, for instance helping them to graduate from rote learning to active learning method that help to inculcate problem solving, critical thinking, communication inquiry, and analytical skills in pupils. The results of the tests can also be used to review the curriculum/syllabus/textbooks of schools/teacher training colleges and teacher recruitment policies of various cadres and group of services.
- c. To inform parents, education administration, civil society and government and to gradually shift to result based accountability system.
- d. To inform policy makers, development partners, planners and implementers and to gradually move to evidence based policy making, planning and implementation.
- e, The purpose of the testing is to acknowledge achievers and help and support under achievers through planned inputs.
- f. To identify good districts and practices in order to learn and multiple the good practices to other districts.

The Need for SAT

SAT tests provide information regarding individual students achievement acquired from experience and participation in learning during their school year. They provide information regarding the strengths and weaknesses of individual students on a national norm or standard and this should enable the teacher, curriculum developers, textbook writers, policy makers to develop plans and systems for improvements in the achievement of individual students.

SAT tests what students have learnt throughout the school year. The Sindh SAT will be based on the National Curriculum and the student learning outcomes identified in the National Curriculum. All Students of class V and VIII will take the entire achievement test battery of Language (School's medium of instruction), Mathematics and G. Science, which comprises of subject knowledge and skills, including 21st century and other appropriate national and global skills. .

Quality Assurance Mechanism to be adopted for SAT

SAT tests provide information regarding what individual students performance is against a national norm based on an achievement scale of 1-5 and also the students achievement acquired from what the student have learnt and understood during their school year. They provide information regarding the strengths and weaknesses of individual students and this should enable the teacher to teach and support the academic growth of individual students.

The SAT tests are based on the Student Learning Outcomes identified in the National Curriculum. The target subject for the SAT is Language, Mathematics and General Science.

Sindh Education & Literacy Department has hires the services of third party to develop and conduct test of the entire population of students in public schools of Sindh and some selected private, community based and NGO run schools at two grade levels in selected subjects.

Since this is a large scales testing with key policy, planning and reform purposes hence the third party has to set and adhere to all standardized testing standards to enhance the overall quality of examination development, administration, marking, analysis and results reporting for increased reliability, validity and fairness . Based on the detailed TORs and key outcomes provided below the third party has to develop and implement a monitoring and evaluation framework during the process and post. The third party is required to submit a 5 pager process report for each indicator and a comprehensive monitoring and evaluation report at the end.

. Deliverable:

- Process and Outcome Monitoring and Evaluation Framework.
- A 5 pager process M& E report for each TOR.
- A comprehensive M&E report for post review.

The detailed ToRs are:

1. Validated Paper Specifications

The SAT contracted third party is required to develop and validate paper specification for each year. The paper specification will be highlighting the competencies, skills and their weightage for upcoming Standardized Achievement Test. The third party is required to engage content and testing experts in the development and validation of the specification. The third party will ensure a quality paper specification which may cover the appropriate allocation to content areas, difficulty/ cognitive levels, appropriate skills. This paper specification should also be aligned with the curriculum standards. It may also match with the recommended paper specification given with the contract. The third party will share details on appropriacy and relevance of the paper specification obtained through expert validation.

Deliverables

- a) The expert validation process and the review report on expert validation and modification in the specification for target population.
- b) The list of expert validation committee and their profiles.

(Overall the paper specifications will be developed for three subjects for two grades)

2. Reviewed Test Items

The SAT contracted firm is made responsible to develop total of 1500 (or 250 items per subject) test items in all subjects in class V and VIII only. The firm has to upload the finalized version of test items on SAT website so that the online provision of quality test material may be provided to the teachers for their classroom assessments. The test items along with detailed marks schemes are required to make them more user friendly. To assure the quality of items, fit for purpose and to avoid any bias the contracted firm is required to develop the items based on standard item development processes for quality items and item free from all possible bias. The items need to be developed by professionally trained test developers and 10% of the items need to be reviewed by test experts based on the criteria for quality item, fit or purpose i.e. alignment of test item with the targeted difficulty/ cognitive level and cognitive domain. and bias, including also cultural bias, content bias, language bias, gender bias.

The contracted firm is required to share the following

- 1500 items developed and reviewed according, criteria for quality item, fit or purpose i.e. alignment of test item with the targeted difficulty/ cognitive level and cognitive domain. and bias, including also cultural bias, content bias, language bias, gender bias, along with item profiles.
- The development and review process report along with review criteria and detail profiles of item developers and reviewers.
- 10% items reviewed along with comments and changes made to the items.

- The firm will create and maintain a web portal where the test items **will** be available. Firm will upgrade it to international standards.
- Questionnaire based on socio economic indicators for parents teachers and school profile developed to establish relations will be uploaded on the website.
- These test items with all major parts (Stem, Possible Answers and Checking hints) will be placed on-line for schools to access **to** enable them to understand the nature of the SATs assessments.
- The firm is also required to pilot test a sample of items on a representative sample and share item profiles.

Pilot Testing and Creating Item Profiles and Establishing Scale Reliability

The piloting of test item is one of the strong tools to enhance the reliability of the test material. This strategy has been widely used among the developed education systems. As government of Sindh is striving to introduce the modern techniques of testing for overall quality of teaching and learning process so it is essential to apply this technique to achieve the broader objectives of this reform. Piloting and item analysis is to create item profiles is one of the most essential strategies used by the examiners to enhance the quality of test materials. There will be more than 12 tests for three subjects of two grades in each round of test. Hence, the contracted firm is required to pilot 4 times the items required to develop the paper according to the specification that is fit for purpose and void of content, cultural, language and gender bias. .

The firm is required to pilot test item and undertake item analysis to identify item quality, difficulty level as well ability of the item to discriminate between less able students on an achievement scale of 1-5. Hence, this will require piloting testing of 4 times the items required to develop the actual test The contracted firm will assure the suitability of the sample size and its representativeness for pilot testing to develop item profiles, estimate reliability, develop achievement levels and to avoid bias. The firm will also develop test administration instructions, instructions booklets and train test administrators. . The firm will do item analysis including item difficulty and discrimination, review item based on item quality criteria to ensure that the quality test material may be used in the real tests. The contracted firm will also ensure that content, construct, face and criterion validity are met in the desired test. The contracted will also establish paper reliability and firm will also review the instructions for examiners and examinees. The firm will apply measures of anchoring and other techniques to equate multiple forms.

Pilot testing will also provide information regarding:

- the length of time required for the tests to be completed:
- the possible answers for the open-ended test items;
- the criteria to be used for marking open-ended test items.
- the items that are culturally biased.
- Item profiles, difficulty and decimation index.
- The focus of the tools to be used for parents and teachers

- Appropriateness of test administration manuals
- Pilot testing of the test items and tests will need to be conducted with up to 2000 students. 1200 students of Grade 6 and 800 students of Grade 9 will appear in Pilot test. The pilot test students should be representative of the testing population:
 - Urban, rural areas
 - Male, female, mixed school students
 - Different medium of schools, Sindhi, Urdu, English
 - Different types of school, public and private

Different types in terms of one teacher, two teacher less than 10 teachers/ more than ten teachers.

- Different in terms of teacher qualifications and parent SES.
- Different in terms of school non-educational and educational facilities.

Appropriate software should be used to analyze the data and to provide feedback reports. The report of piloting will also be shared by the client with RSU.

Deliverables:

- Pilot testing sampling frame, sampling method and sample.
- Pilot testing report indicating the process, sampling and sample, methodology, item profiles and feedback item improvement, reliability, item sorting according to specification and achievement scale.

3. Pilot testing report will also include information regarding:

- the length of time required for the tests to be completed:
- the possible answers for the open-ended test items;
- the criteria to be used for marking open-ended test items.
- the items that are culturally biased.
- Item profiles, difficulty and decimation index.
- The focus of the tools to be used for parents and teachers
- Appropriateness of test administration manuals
- The Challenges/issues and recommendations.

4. Format of the Test Papers'

The format of the test will be agreed with the contracted firm. The format of tests affects test reliability and validity. It is internationally recognized that the test format has **an influence on the** test performance of students. It is important that the formats of all the tests match. There is **a need to ensure that** the tests are easy for the students to read and to make them to want to complete the tests.

Four test booklets (Booklet A, Booklet B Booklet C& Booklet D), consisting of test items of the same level of difficulty will be presented to students. This will prevent copying

during the testing. The format of the test papers will also be dependent on whether the contracted firm uses optical mark readers and optical character readers.

Deliverable:

- A complete template with Paper layout and format along with a two pager report on reason for using the particular layout

5. Student Population to be tested

The population to be tested will be all students of Grades 5 and grade 8 enrolled in public schools of Sindh province after verification of enrollment. Selection criteria for the selection of the private schools will be developed.

Deliverable:

- 1. Detail about the Population according to district and school type.**

6. Printing of the Tests

The printing of the tests will be the responsibility of the contracted firm. The booklet should be on appropriate gram paper and should be illegible.

Deliverable:

- **Booklets to the entire population appearing in the tests**
- **Five sets of the test booklets to RSU.**
- **Booklet printing schedule distirctwise / talukawise before 1 week of actual test**

7. Testing Dates and Timing

The tests are expected to be conducted in the 1st week of January 2017 before the Schools annual exams. The tests will be administered according to a rotation timetable drawn up by the contract firm. It is expected that one division will be covered in one week and the testing will be completed in 29 districts (or as per new administrative structure) in one month.

The time required for the tests will be approximately 30 minutes for each test. All the subject areas will be tested in a school in one day.

Deliverable:

- **A complete testing timelines and dates per division, districts and schools addresses to be provide at least 1 week prior to test administration to RSU.**

8. Standardized Procedures for Test Administration and Monitoring.

The test administration is one of biggest challenge in large scale testing in Pakistan. It has been observed that candidates, teachers and even parents use to apply malpractices for achieving higher grades in examinations. The test administration requires adequate planning, training of test administrators and monitoring by the testing agency.

The third party will engage monitors/firm involved in monitoring to observe at least 5% test centres identified by the IP to collect information about the quality of test administration. The third party will submit a report developed by monitors/ monitoring firm highlighting strengths and weaknesses along with some recommendations so that the quality of test administration may be enhanced for upcoming SAT rounds.

Deliverables:

- Workshop for test administrators.
- Dates and list of test administrators and along with their profiles
- Planning details of the workshop, power point presentation and report.
- Engagement of monitors during administration and 5 pager report on test administration.

9. Monitoring

The contracted firm will engage monitors for monitoring the entire SAT processes on an agreed monitoring framework with key outcome indicator guideline with Government of Sindh Education & Literacy Department and submit a monitoring report.

Deliverable:

- Detail profile of the Monitoring and Evaluation firm
- A Monitoring and Evaluation framework,
- A Monitoring and Evaluation Report.

10. Review of Background Questionnaires developed for classroom teachers/students, school facility

SAT has another feature of collecting detailed background information from classroom teachers, school leaders candidates and parents separately. Such information may be used to unfold the various trends of teaching and learning practices among public schools of the province. The background questionnaire for examining classroom teachers and candidates will be reviewed by the contracted firm. The firm will diagnose the appropriacy of the desired background information, language, structure, length and instructions of the tool and make changes accordingly. The firm will be required to provide:

Deliverables:

- The finalized background questionnaire including major areas of focus related to teachers, parents, head teachers, educational and non-educational facilities, type of school and other important aspects to inform development, policy and planning.
- The review criteria sharing rationale for inclusion/not inclusion of questions and report.

11. Ensure the Quality of Marking and Scoring the Tests

The subjectivity in marking of answer scripts has been widely observed in public examination systems. This challenge is greatly hindering actual student performances and the quality of teaching and learning is continuously decreasing due to the subjectivity of marking.

Deliverables:

- The firm will develop, share details and adopt standardized procedures for increased marking reliability and accuracy so that overall quality of marking can be increased.
- Training of markers based on a marking key and use of e-marking procedures. To provide training manual, dates and list of trainees and trainers.
- Marking criteria and standardized procedures adopted to reduce variance and increased intermarker reliability for CRQs, ERQs and procedural problem solving in mathematics.

12. Statistical Analytical Report on Student Performances

During SAT round one the third party managed to draw mean score from school to province level. However; the need is felt to further unfold the student achievement so deeper understanding of student ability, achievement level, variance in the population, the difficult areas of curriculum can be identified for further decision making.

The third party firm will use modern software to explore the evidence of equating using statistics, analysis of not only raw scores but ability of students on a national norm, percentile/5 level achievement scale, internal consistency and parallel forms reliability will be presented.

The contracted firm will also present achievement in relation with the independent variables in the background questionnaire to identify the correlations, also to identify good schools and districts, schools and districts needing additional support. The kind of support will also be suggested by the quality assurance firm based on the data for Evidence based planning.

Reports:

A Technical Analytical Report presenting.

Section 1: Standardized Testing Purpose, Process and Methodology.

Section 2: Descriptive Results Reporting.

Section 3: Analytical Results Reporting in relation to the key areas in the background questionnaire

Conclusion, Recommendations, Implications for policy, planning, practice....

The results should indicate achievement through percentiles and achievement scales for each subject to the results should be analyzed for the following:

- Achievement of individual students for each subject, cognitive level..achievement scale..
- Mean achievement, standard deviations, percentiles, grade/subject specific achievement scale for each subject for provinces, districts, talukas, teshils, UCs/wards and schools
- Achievement(Mean achievement, standard deviations, percentiles, grade/subject specific achievement scale) comparing district results (result of one district as compared with the rest of the districts), talukas (result of each taluka as compared with other talukas in the same district), tehsils (result of each lasi! as compared **with** other tehsils in the same district); UCs (result of each tIC as compared with the rest of the UCs **in a** tehsil)
- Achievement (Mean achievement, standard deviations, percentiles, grade/subject specific achievement scale) according to rural, urban areas
- Achievement (Mean achievement, standard deviations, percentiles, grade/subject specific achievement scale) according to gender — male, female
- Range of scores within province, district, taluka, tehsil
- Regional trends within the province

- Achievement (Mean achievement, standard deviations, percentiles, grade/subject specific achievement scale) of private schools according to fees charged. the analysis tools used should be able to provide data to enable year upon year trends to be
- Achievement of students related to information provided by the background Questionnaires by teachers and parents obtained as well as comparisons between subject achievements.

13. Device Strategy for Dissemination of Student performances with Stakeholders

The sharing of student performances with parents and other stakeholders is one of the major innovations introduced through SAT reform. The purpose of disseminating student performances

was to make public realize the issues and challenges of public school system and the parents may start inquiring about their child's performances.

The firm will devise strategies for dissemination of student performances for the multiple stakeholder. For this purpose the firm will generate and share appropriate data for different stakeholders including policy makers and implementers, district staff, head teachers, teachers, curriculum planners, textbook writers, and most important the parent and child. Moreover the usability of the information, and its relevance to the participants will be very important.

Deliverables:

Regional Seminar,

Planning details of seminar, power point presentation and report.

Dissemination of achievement through individual SRC.

A poster presentation and flyers for stakeholders.

14. Process and Ex-post Review

The process and ex-post review of the achievement test is one of the major distinctions of SAT reform. The firm will develop a monitoring and evaluation framework for process to feedback into the process for improvement and ex-post review to diagnose the strengths and weaknesses of the whole process from exam development to dissemination workshops for next round of SAT. The firm will review the whole process and make suggestions which may help to refine the process for coming rounds of SAT.

The firm will separately diagnose the process of exam development process test administration, test evaluation, and dissemination of result with stakeholders along with few specific suggestions which may help to improve the quality of each step. The firm will review the SAT website user trends to identify the number and nature of SAT website users. The firm will also suggest and refer some material/links which may be uploaded on SAT website so that information available on website can be used by various stakeholders.

Deliverables

For Quality Assurance:

1. Process and Outcome Monitoring and Evaluation Framework with indicators for the entire contracted work, monitoring timelines, process, methodology and tools.
2. A 5 pager process M& E report for each TOR.
3. A comprehensive M&E report for post review.

For ToR 1:

1. The third party will share the developed and the finalized validated paper specification for mathematics, science and English prior to paper development.
2. The expert validation process and the review report on expert validation and modification in the specification for target population.
3. The list of expert validation committee and their profiles.

For ToR 2:

1. 1500 items developed and reviewed according, criteria for quality item, fit or purpose i.e. Alignment of test item with the targeted difficulty/ cognitive level and cognitive domain. and bias, including also cultural bias, content bias, language bias, gender bias, along with item profiles.
2. The development and review process report along with review criteria and detail profiles of item developers and reviewers.
3. 10% items reviewed along with comments and changes made to the items.
4. The firm will create and maintain a web portal where the test items **will** be available. Firm will upgrade it to international standards.
5. Questionnaire based on socio economic indicators for parents teachers and school profile developed to establish relations will be uploaded on the website.
6. These test items with all major parts (Stem, Possible Answers and Checking hints) will be placed on-line for schools to access **to** enable them to understand the nature of the SATs assessments.
7. The firm is also required to pilot test a sample of items on a representative sample and share item profiles.

For ToR 3

Deliverables:

- a) Pilot testing sampling frame, sampling method and sample.
- b) Pilot testing report indicating the process, sampling and sample, methodology, item profiles and feedback item improvement, reliability, item sorting according to specification and achievement scale.
- c)

Pilot testing report will also include information regarding:

- d) the length of time required for the tests to be completed:
- e) the possible answers for the open-ended test items;
- f) the criteria to be used for marking open-ended test items.
- g) the items that are culturally biased.
- h) Item profiles, difficulty and discrimination index.
- i) The focus of the tools to be used for parents and teachers
- j) Appropriateness of test administration manuals.

ToR 4:

Deliverable:

1. A complete template with Paper layout and format along with a two pager report on reason for using the particular layout

ToR 5:

Deliverable:

1. **Details about the testing Population according to district, urban/rural. and school type.**

ToR 6

Deliverable:

1. **Booklets to the entire population appearing in the tests**
2. **Five sets of the test booklets to RSU.**

ToR 7

Deliverable:

1. **A complete testing timelines and dates per division, districts and schools addresses to be provide at least 1 week prior to test administration to RSU.**

ToR 8

Deliverable:

1. Workshop for test administrators.
2. Dates and list of test administrators and along with their profiles
3. Planning details of the workshop, power point presentation and report.
4. Engagement of monitors during administration and 5 pager report on test administration.

ToR 9:

Deliverable:

1. Detail profile of the Monitoring and Evaluation firm
2. A Monitoring and Evaluation framework,
3. A Monitoring and Evaluation Report.

ToR 10:

Deliverable:

1. The finalized background questionnaire including major areas of focus related to teachers, parents, head teachers, educational and non-educational facilities, type of school and other important aspects to inform development, policy and planning.
2. The review criteria sharing rationale for inclusion/not inclusion of questions and report.

ToR 11:

Deliverable:

1. The firm will develop, share details and adopt standardized procedures for increased marking reliability and accuracy so that overall quality of marking can be increased.
2. Training of markers based on a marking key and use of e-marking procedures. To provide training manual, dates and list of trainees and trainers.
3. Marking criteria and standardized procedures adopted to reduce variance and increased intermarker reliability for CRQs, ERQs and procedural problem solving in mathematics.

ToR 12:

Deliverable:

A Technical Analytical Report presenting.

Section 1: Standardized Testing Purpose, Process and Methodology.

Section 2: Descriptive Results Reporting.

Section 3: Analytical Results Reporting in relation to the key areas in the background questionnaire

Conclusion, Recommendations, Implications for policy, planning, practice....

The results should indicate achievement through percentiles and achievement scales for each subject.

The results should be analyzed for the following:

- Achievement of individual students for each subject, cognitive level. Achievement scale.
- Mean achievement, standard deviations, percentiles, grade/subject specific achievement scale for each subject for provinces, districts, talukas, teshils, UCs/wards and schools
- Achievement(Mean achievement, standard deviations, percentiles, grade/subject specific achievement scale) comparing district results (result of one district as compared with the rest of the districts), talukas (result of each taluka as compared with

other talukas in the same district), tehsils (result of each lasi! as compared **with** other tehsils in the same district); UCs (result of each taluka as compared with the rest of the UCs **in a** tehsil)

- Achievement (Mean achievement, standard deviations, percentiles, grade/subject specific achievement scale) according to rural, urban areas
 - Achievement (Mean achievement, standard deviations, percentiles, grade/subject specific achievement scale) according to gender — male, female
 - Range of scores within province, district, taluka, tehsil
 - Regional trends within the province
- Achievement(Mean achievement, standard deviations, percentiles, grade/subject specific achievement scale) of private schools according to fees charged the analysis tools used should be able to provide data to enable year upon year trends to be
 - Achievement of students related to information provided by the background Questionnaires by teachers and parents obtained as well as comparisons between subject achievements.

the complete set of data, raw and processed with complete codification, will be made available to the government in a manner and substance that cross-sectional and time series analysis can be carried-out on the data as the body of research grows year after year. Such data should also be available to research centers, civil society, NGOs, development partners and others for any further analyses they may wish to undertake.

- **A report for each of the Talukas** containing the results of individual schools- public and private (as the case may be) and the results of the taluka compared with other talukas in the same district.
- **A report for the teachers and schools** containing information about students in their schools as well as the mean(average) achievement of all the other schools in their UC and Taluka. The mean (average) of the school should also be compared with Talukas of the district.
- **Report Cards for parents and students** containing information regarding the achievement of their child/children (on the basis of standards **of each subject**) **as well as information regarding the achievement of child in comparison to other children in the districts, UC and Talukas indicated through percentile and grade level achievement scales.** The contents of the reports should be so designed that literate as well as illiterate parents/households could understand it.
- The report will be submitted after 8 weeks

ToR 13:

Deliverable:

4. Regional Seminar,
5. Planning details of seminar, power point presentation and report.
6. Dissemination of achievement through individual SRC .
7. A poster presentation and flyers for stakeholders.

ToR 14:

Deliverables

1. Process and Outcome Monitoring and Evaluation Framework with indicators for the entire contracted work, monitoring timelines, process, methodology and tools.
 2. A 5 pager process M& E report for each TOR.
 3. A comprehensive M&E report for post review.
-

Note :-

Test specification table may be developed by the assessment expert after.
Items for each subject may be developed in three cognitive levels as according to weightage given in the curriculum.

- The firm will Develop Teacher Background & socio economic questionnaire with report.

Payment Procedure:

Payment for SAT-V (2016-17) shall be made in accordance with the break up given below.

- a) 10% of the cost of lump sum contract shall be released on preparation of Project Inception Report, Project Implementation Plan, collection of enrollment verification data and other requisite plans / protocols.
- b) 10% of the cost of lump sum contract shall be released on submitting review report of test items (science, Maths and language)
- c) 10% of the cost of the lump sum contract shall be released on submission of pilot testing report (technical and statistical).
- d) 10% of the cost of lump sum contract shall be released on sample papers dissemination through newspapers and sending sample papers to all schools.
- e) 20% of the cost of the lump sum contract shall be released on test administration in 75% schools by sending authenticated attendance report.
- f) 20% of the cost of the lump sum contract shall be released on submission of final colorful report (technical and statistical)
- g) 20% of the cost of the lump sum contract shall be released on sending the student report cards to parents (including schedule of dissemination of SRC regional workshops)

All the submitted reports shall be treated as draft until the satisfactory comment received from concerned portfolio manager. Payment shall be made on actual basis in case of assessment, stationary, SRC printing and dispatching .

Qualification of Firm

Under the education sector reforms, the education and literacy department, reform support unit plans to hire the services of a reputable registered consulting firm to undertake Standardized Achievement Test (SAT). The broad objectives of the Standardized Achievement Test (SAT) will be to use it as a tool to provide policy information to various areas of education reform.

The test will be conducted in all public schools for class V and VIII (approximately 45,000 schools) across all districts of Sindh of subjects Science, Mathematics and Language. This could be Sindhi, Urdu or English depending on the medium of instruction. The total expected student participation may be 350,000 ±, subject to the verification of enrollment to be carried out by the firm also at least 2 months before the actual test. The firm is expected to provide high quality professional services in following areas:

- **Collect actual enrollment of students (Class V, VIII) of all public schools of Sindh.**
- **Develop new test items and review the previous test items based on curriculum.**
- **Design the test papers to be used as model papers by teachers and students prior to the actual test and its piloting.**
- **Piloting the test items for developing the actual test.**
- **Establish an online test item bank for teachers & Head masters.**
- **Conduct test in the field in a specific time i.e. in one month time period.**
- **Provide on-site monitoring and supervision during the administration of the test.**
- **Establish a system of e-marking of the papers and analysis.**
- **Provide comprehensive reporting on test with documentation.**
- **Establish a mechanism to communicate effectively and achieve deliverable in a timely manners.**
- **Develop a format of sharing achievement of students i.e. SRC with their parents.**

Eligibility Criteria

1. **Registered organization with relevant tax authorities.**
2. **Completed at least 3 assignments of relevant scope i.e. test designing, administration, monitoring, data processing, E-marking and empirical analysis of large number of students.**
3. **Overall demonstrable experience at least 5 years (from the date of registration) of professional services for social sector data collection and analysis. Experience in the education sector in assessment administration/monitoring i.e. item development, test construction student learning outcomes based education assessment aligned with the National curriculum.**
4. **Preferably firm's presence in the regional headquarters.**
5. **Experience of working in education sector will be preferred.**
6. **Relevant section /experienced high qualified Staff/personnel in the designing, administration and monitoring i.e. experienced project manager, data analysis, IT specialists, monitoring officers and district/taluka level staff for test administration must be available.**
7. **Relevant equipment with high speed scanners, printers, laptops, computers & licensed software.**