PUNJAB EDUCATION SECTOR PROJECT

Package D: Improving quality, access and governance in education

TEXTBOOK EVALUATION THROUGH FIELD TESTING

Report number

VR-5

Damien Tunnacliffe
9 September 2012
Report Distribution and Revision Sheet

Project Name: Improving Access, Quality and Governance in Education
Code:
Report No.:

Report Title: Textbook evaluation through field testing

<table>
<thead>
<tr>
<th>Rev No*</th>
<th>Date of issue</th>
<th>Originator</th>
<th>Checker</th>
<th>Approver</th>
<th>Scope</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>20 Oct 2012</td>
<td>Damien Tunnaciffe</td>
<td>Rosalind McGinley</td>
<td>Team Leader CE UK</td>
<td>Technical QA, Proofreading, style and structure</td>
</tr>
</tbody>
</table>

Scope of Checking
This report has been discussed with the originator and checked in the light of the requirements of the terms of reference. In addition the report has been checked to ensure editorial consistencies.

Disclaimer
This document is issued for the party which commissioned it and for specific purposes connected with the captioned project only. It should not be relied upon by any other party or used for any other purpose.

We accept no responsibility for the consequences of this document being relied upon by any other party, or being used for any other purpose, or containing any error or omission which is due to an error or omission in data supplied to us by other parties.
Acknowledgements

The consultant wishes to express grateful thanks to:

Mr Shahid Ahmed Bhutta, Chairman, PTB
Mr Sajid Ahmad, Secretary, PTB
Dr M Mirza, Director C&TW
Mr Ahmad Riaz, deputy Director C&TW
Dr Z Ali Segib, Deputy Director DSD
Professor Shahid, Programme Officer, GIZ
Group of subject specialists, PTB
Group of textbook authors at GIZ workshop
Mrs Shahida Sohail, DEO, Lahore Cantt
Mr M Zulfiqar Ali, DEO Lahore City
Mr Liaquat Ali Malik, DEO Lahore City
Mrs Shahida Javed, Director Humanities Textbooks, PTB
Dr Roxana Nighat, Director Science and Technical Textbooks, PTB
Dr Shahid Majeed, Rector, Ali Institute, and teacher training staff of Ali Institute
Contents

Executive Summary .......................................................................................................................... 5
Purpose of the Consultancy ............................................................................................................. 5
Achievement of the terms of reference .......................................................................................... 6
TOR Tasks ...................................................................................................................................... 6
Progress made and agreements reached ....................................................................................... 6
Proposed/agreed follow up ............................................................................................................ 6
Background ..................................................................................................................................... 7
Findings and Issues Arising .......................................................................................................... 8
Options and next steps .................................................................................................................... 16
**Acronyms and Abbreviations**

- AEO  Assistant Education Officer
- CE   Cambridge Education
- CIDA Canadian international Development Agency
- C&TW Curriculum and Textbook Wing (also known as Curriculum Wing - CW)
- DEO  District Education Officer
- DFID Department for International Development
- DSD  Directorate of Staff Development
- GIZ  German Agency for International Cooperation
- NOC  No objection certificate
- PCA  Punjab Curriculum Authority
- PMIU Project Monitoring and Implementation Unit
- PTB  Punjab Textbook Board
- PESP Punjab Education Sector Project
- PESRP Punjab Education Sector Reform Programme
- UNICEF United Nations International Children’s Education Fund
- WB   World Bank
Executive Summary

The purpose of this consultancy is to develop ways of field testing new textbooks both before publication and after publication according to the TOR given for this assignment (See Annex 1).

Field testing is a useful tool to help produce better quality teaching and learning materials. It brings the textbook developers, the writers and developmental editors into direct contact with students, teachers and teacher trainers – the people who are in the classroom with the most direct responsibility for effective learning.

Field testing is a means to an end. It is not academic research. It is not a question of statistics and percentages. It is a procedure used by publishers around the world as one part of their constant efforts to improve or develop new school materials.

At the present time, as a result of the reorganisation of the Curriculum Wing and its incorporation into the Punjab Textbook Board, the field testing side of textbook evaluation has lapsed. Following the establishment of the Punjab Curriculum Authority, field testing is planned to re-start in October 2012.

In this report, it is strongly recommended that actions undertaken in connection with the proposed technical assistance should support and strengthen this process.

It is further recommended that a Field Testing Coordinator should be designated and trained for leading the process.

Five textbooks for pilot field testing have been suggested, along with four pilot districts. These districts reflect the urban/rural/developed/under-developed divide, and schools chosen for piloting the books will also reflect these criteria.

A work plan for the pilot is given, together with an analysis of capacity building and support needed.

More general recommendations concerning wider issues of the PTB/CW (beyond field testing of textbooks) are given in Annex 2.

Examples of international practice in the evaluation of textbooks are given in Annex 3.

Terms of reference for a possible ‘Editorial Unit’ of the PTB are given at Annex 4.

Purpose of the Consultancy

The Textbook Board (through PMIU) has engaged the services of Cambridge Education Technical Assistance to advise on how the process of field testing of textbooks can be revitalised and improved with a sustainable mechanism for evaluating textbooks in schools.
## Achievement of the terms of reference

<table>
<thead>
<tr>
<th>TOR Tasks</th>
<th>Progress made and agreements reached</th>
<th>Proposed/agreed follow up (by whom and when)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop a detailed work plan to design, pilot and implement a system of field evaluation of textbooks which will inform future textbook design, development and production;</td>
<td>Work plan prepared. This will re-activate and improve past Curriculum Wing practice</td>
<td>Director of CW and Textbook Consultant By mid October 2012</td>
</tr>
<tr>
<td>Develop a programme of capacity building based on the needs assessment</td>
<td>Selection and training of a field testing coordinator</td>
<td>Authorisation from the Chairman of the PTB.</td>
</tr>
<tr>
<td></td>
<td>Workshop for writers of questionnaires to be used in field testing</td>
<td>Director CW to make selection of field testing coordinator.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Textbook consultant to carry out training Dec 2012</td>
</tr>
<tr>
<td>Conduct a rapid needs analysis with Textbook Board staff to ascertain the areas for capacity development related primarily to the above objectives;</td>
<td>Group and individual meetings held with PTB staff</td>
<td>Further training of PTB staff by Textbook Consultant and/or a professional editor Dec 2012</td>
</tr>
<tr>
<td>Design and plan a programme of capacity building based on the outcomes of the needs analysis. The plan will recommend the support/training which will provided by this project;</td>
<td>Programme designed involving creation of an editing unit within the PTB and retraining of subject specialists to verify content and pedagogy, and not do editing tasks. Specialisation the key to improving quality.</td>
<td></td>
</tr>
</tbody>
</table>
Background

1. CE is currently implementing the three year technical assistance package of the WB Punjab Education Sector Project (PESP) - this is under the Punjab Education Sector Reform Programme (PESRP) which is aimed to support the Government of Punjab as it embarks on developing and implementing second generation reforms in the education sector.

2. Working with the institutions of the Punjab School Education Department (Programme Monitoring and Implementation Unit, Directorate of Staff Development, Punjab Textbook Board, Punjab Examination Commission, and Punjab Education Assessment System) and donors (GIZ, UNICEF, WB, CIDA and DFID) Cambridge Education is providing a diverse range of technical services to i) enhance fiscal sustainability and the effectiveness of public expenditures including education, ii) enhance the quality of school education; (iii) improve and expand access through improvements in school participation and completion rates and reduction in gender and regional disparities, and iv) strengthen school management and governance within the sector.

3. The background to the current assignment is the policy of the Punjab government to improve the quality of education by, among other means, ensuring higher quality textbooks and teaching materials (teachers’ guides etc) and by making education more easily accessible to all schoolchildren through the free distribution of textbooks.

4. Additionally, the field testing of textbooks formerly undertaken by the Curriculum Wing of the Punjab Textbook Board (in addition to internal reviewing of both manuscripts and finished books) has been in abeyance for some time. Currently, only internal reviews are undertaken, but the Director of the CW intends and plans to recommence field testing in October 2012. Against this background the PTB is seeking to reinstate and strengthen its system for field testing, and to set up a sustainable system for evaluating textbooks in schools.

5. The Consultant visited Lahore between August 30 and September 10, 2012, during which time he held meetings with PMIU, undertook extensive discussions with officials from the Punjab Textbook Board and Curriculum Wing. He also visited the District Education Offices in Lahore, holding discussions with three DEOs (see list above) and through the kindness of the Chairman, PTB, visited two schools in Lahore. He visited DSD to review the teachers’ guides being developed there, and also Ali Institute of Education to investigate how private sector institutions might play a part in the textbook evaluation process. The visit ended on September 10 with wrap-up meetings in the PTB and PMIU.
Findings and Issues Arising

Current practice

Field testing does not take place at the present time in the Punjab. In the past, it consisted of teachers and some students filling in questionnaires produced by the Curriculum Wing. The idea is good as a starting point and should be revived as soon as possible. With improvements to the questionnaires and by appointing a field testing coordinator, field testing could again be a valuable tool to improve the quality of textbooks.

Field testing: some general principles - and their relevance to textbook production in Punjab:

General

To get the best results from field testing all the people involved should be directly concerned with the classroom and with what makes successful teaching.

Field testing should be seen as a practical tool, not an academic exercise.

Why carry out field testing?

Field testing is desirable as it ensures that the students and teachers who use the textbooks have expressed their views. In other words, it helps all stakeholders be more involved in the learning process. In the case of Punjab, the author benefits, the PTB internal reviewers, the editor and the publisher all benefit. Field testing helps writers to write at the level of the student, to know if their texts, activities and overall approach are motivating and relevant. This is the most important aspect of field testing.

In Punjab, the Curriculum Wing and the Curriculum Authority, and the author and publisher, need to know:

- How well does the textbook work in the classroom?
- Is the textbook motivating to the students?
- Can the book be completed in the school year?
- How good is the book for independent study?
- What topics or chapters do teachers find difficult to teach?
- Does the textbook prepare the students for assessment (tests and examinations)?
- Is the language level too difficult? (this will become even more of an issue as the medium of instruction changes to English)
These are just some of the questions that field testing must ask.

**Pre-testing and post-testing of textbooks**

**i] Pre-testing:** is the mechanism by which publishers improve the quality of a manuscript before writing begins and during the writing process. When the initial consultation has finished (questionnaires to teachers and students, focus groups, 1-1 interviews) and the objectives of the textbook have been agreed, the writer starts work. The editor and the editor’s advisers (teachers, teacher trainers, subject experts) make comments and write reports on the manuscript as it is developed, until the time when the editor and reviewers are satisfied that the manuscript is sufficiently good to be published.

**In Punjab,** there is a fundamental problem with field pre-testing. There may be a dozen different manuscripts submitted by private publishers. Field testing so many different textbooks is a logistical challenge. If on the other hand you wait until one manuscript has received an NOC, the value of field pre-testing is reduced.

**ii] Post-testing:** takes place after the textbook is published and has been used in schools for a period of time. This could be anything from three months to a whole school year. The emphasis is on how teachers and students feel about the textbook, what they like and dislike, how easy or difficult it is to use, etc. This information is collected using the same techniques as for pre-testing: questionnaires, interviews, focus groups.

**What are the basic principles of efficient field testing?**

It is not the quantity of schools that are field tested, but how well chosen are the selected schools and teachers that is important. For instance, there is likely to be little difference between one rural girls’ school and another. But there will be big differences between any rural school and an urban school from a middle-class area.

There must be a representative sample of schools. In **Punjab,** the sample should include:

- A girls’ rural school
- A boys’ rural school
- A boys’ urban deprived/poor area
- A girls’ urban deprived/rural area
- A boys’ or girls’ urban school in a prosperous area

**How is field testing organised?**

It is important that field testing is carefully prepared. It depends on the cooperation of a number of people. In the case of **Punjab,** it may involve:

- Designated persons from the PTB
- One or more teacher trainers (DTEs)
• District Education Officers (DEOs)
• Assistant Education Officers (AEOs)
• (and, of course) selected teachers and students

Who ideally should lead the field testing?

In international educational publishing, a developmental editor would lead and coordinate the field testing in collaboration with the author, and the publisher’s advisers - usually teacher trainers, and selected teachers. This model may not be suitable for Pakistan in the immediate future but should be seen as the model to work toward. In the meantime a field testing coordinator should be appointed.

What is a developmental editor?

A developmental editor is a highly experienced editor with a background in teaching, at primary or secondary level, who works closely with the author as the manuscript is developed. This person would work closely with the field testing coordinator who would manage the day-to-day running of the field testing and feed the results back to the developmental editor and the author.

What does international practice tell us?

Examples of field testing of textbooks in action in other countries are given in Annex 3

Supporting and strengthening field testing of textbooks in Punjab

I. The Curriculum Wing and field testing – the current position

The CW has a clear vision of field testing. Although field testing has lapsed because of organisational changes and because of lack of resources, human and material, the Director has plans to restart field testing in October 2012.

II. Improving field testing

The CE Technical Assistance is in a position to support the improvement of this process so that the feedback is really useful for the authors and developmental editor(s). This would be done through training the personnel and advising on restructuring within the PTB so that both quality editing and informative feedback comes out of field testing, leading to the production of better quality textbooks. Authors should also be closely involved in these processes, and again, CE Technical Assistance would offer invaluable advice based on the best international experience.
III. A field testing coordinator within the PTB Curriculum Wing

One of the challenges facing the PTB is to have line managers who actively manage their staff. A second challenge is to have specialists to do specialist jobs. This is essential for quality editing and desirable for field testing. A field testing coordinator would be the central person in charge of planning, organising and conducting field testing. The field testing coordinator would report either to the Director of the Curriculum Wing or preferably, to the head of the editorial unit (proposed in this report, see Annexes 3 & 4) because the work of field testing is so closely connected with writing and editing.
Work plan for establishing a system for field testing of textbooks in Punjab

Selection of textbooks:

Five textbooks have been suggested by the PTB for use in the pilot:

<table>
<thead>
<tr>
<th>Textbook</th>
<th>Grade</th>
<th>Rationale / Key questions for field testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>2</td>
<td>The increasing importance of English as a medium of instruction. There are doubts expressed over suitability of the textbook to help learners master the language. Boring material may discourage all but the keenest student.</td>
</tr>
<tr>
<td>Maths</td>
<td>3</td>
<td>A core subject. How well does the textbook support average or weaker learners? Is there any differentiation? This is a key concept in maths teaching.</td>
</tr>
<tr>
<td>General Science</td>
<td>4</td>
<td>A core subject. How related is the textbook to the child’s world? How well does the textbook arouse curiosity and questioning?</td>
</tr>
<tr>
<td>Computer Studies</td>
<td>7</td>
<td>If the class has no computers, how well does the textbook work? Should computer studies be integrated with other subjects or should it be a stand-alone subject?</td>
</tr>
<tr>
<td>Biology</td>
<td>9</td>
<td>Questions of pedagogy. How is the book used in a way that makes student to student interaction possible? How accessible is the language? Too much technical language?</td>
</tr>
</tbody>
</table>

Selection of schools/districts

The following four districts are suggested by PTB to reflect a representative cross-section of the Punjab:

- Rural - Mianwali
- City - Rawalpindi
- Rural - DG Khan
- City - Lahore

No more than four schools should be selected from each district. Adding more would not improve the quality of the feedback.
## Schedule for establishing a system for the field testing of textbooks

<table>
<thead>
<tr>
<th>Timeframe</th>
<th>Steps to be taken</th>
<th>Those responsible</th>
<th>Capacity building/support required</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Design phase</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nov 2012</td>
<td>Finalise model to be adopted for field testing of textbooks</td>
<td>PTB/CW</td>
<td>Support in clarifying issues at stake</td>
</tr>
<tr>
<td>Nov 2012</td>
<td>Identify Field Testing Coordinator</td>
<td>PTB/CW</td>
<td></td>
</tr>
<tr>
<td>Dec 2012</td>
<td>The field testing coordinator calls a meeting of authors, subject specialists and other concerned persons to discuss matters of principle and the practical issues relating to field testing. At this meeting it is important to agree what the pedagogical/methodological guidelines for the textbooks should be. For example, learning strategies, provision for independent learning, approaches to assessment, etc.</td>
<td>Field testing coordinator</td>
<td>Training and mentoring of field testing coordinator by the textbook consultant</td>
</tr>
<tr>
<td>Dec 2012</td>
<td>Design of questionnaires, focus groups, feedback systems</td>
<td>Field testing coordinator</td>
<td>Mentoring/support from textbook consultant</td>
</tr>
<tr>
<td>Dec 2012</td>
<td>Select schools for participation in field trials</td>
<td>PTB/CW field testing coordinator DEOs/AEOs</td>
<td></td>
</tr>
<tr>
<td><strong>Pilot phase</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jan 2013</td>
<td>Initial briefing meetings with selected schools</td>
<td>PTB/CW Field testing coordinator DEOs/AEOs</td>
<td>Training in interview techniques / handling questionnaires</td>
</tr>
<tr>
<td>Feb - April 2013</td>
<td>Field testing process starts with selected textbooks in selected schools: Classroom observation</td>
<td>PTB/CW field testing coordinator</td>
<td>Mentoring/support</td>
</tr>
<tr>
<td>Questionnaires</td>
<td>Focus groups</td>
<td>Recording of feedback</td>
<td>Processing of feedback</td>
</tr>
<tr>
<td>----------------</td>
<td>--------------</td>
<td>-----------------------</td>
<td>------------------------</td>
</tr>
</tbody>
</table>

| May 2013 | Review of process and improvement | All concerned | Support in review process |

**Embedding phase**

| 2013 and onward | On-going field testing and feedback to authors and to CW and Curriculum Authority | Editor supported by field testing coordinator | Editor training and mentoring |

**NOTE:** Discussion should take place about the number of schools to be included in the field testing. In the opinion of the consultant eight districts is too many. Experience shows that the results will be very similar between schools of the same type.
### Needs analysis for capacity building and support for re-establishing field testing of textbooks system

<table>
<thead>
<tr>
<th>Specific Needs for field testing</th>
<th>Beneficiaries</th>
<th>Training/Support</th>
<th>Timeframe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interview techniques for focus groups and 1 to 1 interviews</td>
<td>Field testing coordinator(s)</td>
<td>Mentoring by focus group specialist</td>
<td>By Dec 2012</td>
</tr>
<tr>
<td>Questionnaire writing</td>
<td>Selected CW staff</td>
<td>Group and pairwork to develop improved CW questionnaires with tutor guidance</td>
<td>By Dec 2012</td>
</tr>
<tr>
<td>PTB review committee standardisation</td>
<td>PTB review committees</td>
<td>Coaching to reach a common understanding of field testing questionnaires</td>
<td>By Dec 2012</td>
</tr>
<tr>
<td>Feedback to editors and authors</td>
<td>Field testing coordinator</td>
<td>Mentoring by experienced (private sector?) editors</td>
<td>By Dec 2012</td>
</tr>
<tr>
<td>Field testing process</td>
<td>Field testing coordinator and PTB/CW staff</td>
<td>Ongoing support to the process</td>
<td>Feb – May 2013</td>
</tr>
<tr>
<td>Textbook improvement process</td>
<td>All concerned staff at PTB/CW</td>
<td>Ongoing support</td>
<td>June 2012 onwards</td>
</tr>
</tbody>
</table>

#### 2: Wider capacity building: (This does not form part of the current field testing exercise, but is recommended for general improvement in TBB/CW – see Annex 2)

| Author training | Textbook writers | An initial two week workshop followed by mentoring via electronic communication with international professional writers | Dec 2012 and onward |
Editor training | Editors from the PTB | An international editor to train the PTB editors on a two week course | By Dec 2012

## Options and next steps

**TORs for next consultancy:**

- Provide support as necessary to the C&TW in appointing a field testing coordinator (perhaps two, one male, one female)
- Provide training to the field testing coordinator(s)
- Give support to the setting up focus groups and questionnaire construction
- Support the setting up of systems for feedback; how it is summarised and how it benefits the writers and other concerned bodies (C&TW and the Punjab Curriculum Authority). Suggest improvements as necessary.
- Monitor and mentor first run of field testing
- If approved by the PTB, advise on the creation of an editorial unit within the PTB (See Annex 4)

## Conclusion

The Curriculum and Textbook Wing is the body responsible for field testing and evaluation of textbooks. There has been a reduction in its activities in recent time but it is rebuilding after the 2010 reorganisation. The Director has a clear vision of where he wants to move forward, and future actions undertaken in connection with this project should support this.

- The creation of a field testing coordinator post would give focus to this important activity.
- If kept practical and straightforward, field testing can add a quality input to the textbook publication process.

- **Of even greater importance** is the creation of a professional editorial unit in the PTB, given the responsibility to oversee the quality of textbooks produced by private publishers who do not have qualified, experienced editors and to provide high level editorial services. This is discussed in Annex 4.