How can we assess the quality of material?

Rita developed one booklet on rice disease. She felt some points should be improved before finalizing the material. But she did not know exactly what points should be revised. She was advised by Varsha that the draft materials should be first tried out in pre-test with a small group of learners to get feedback from them. Varsha also said that it would be very nice if the revised material could be tried out once again in a second pre-test on a larger scale. This would give the material developer an idea for further improvement which she/he was not aware of earlier.

We can conduct a pre-test

What is a pre-test?

A pre-test is a process of evaluation of a draft material for further improvement before finalization and mass production. It is an indispensable step in materials development to finalize contents, language, formats, presentation, teaching-learning process and other elements of the material. The more complete the draft material is, peer material developers, facilitators and learners can give us better ideas and suggestions on the points to be revised.
What points should be pre-tested?
Since the material is developed by following the outline set in the curricular unit, pre-testing points should mainly be based on the curricular unit, as in the following.
1. Objectives
   - Are the objectives set in the curricular unit achieved after using the material?
2. Contents
   - Are the contents set in the curricular unit relevant to the learners’ context and needs?
   - If yes, does the material thoroughly convey the contents to the learners?
3. Language and text
   - Are the words used in the material appropriate to the learners’ literacy level?
   - Are language and text in the material are easily understood by the learners in terms of length, grammar, and vocabulary?
4. Visuals
   - Were the visuals used in the material accurate for conveying messages?
   - How can we make it more attractive?
5. Formats
   - Was the format of the material appropriate or convenient enough to achieve the objectives?
   - Is the format easily used or performed by facilitators and learners?
6. Teaching-learning process
   - Was the teaching-learning process set in the curricular unit appropriate or performable by facilitators?
   - Is the time required for covering the curricular unit too short or too long?
7. Other elements
   - Title: Is it catchy and clear enough to convey messages in the material?
   - Quality of paper, painting tools used for the material.
   - Durability and portability of the material
Steps in a pre-test

Requirements for pre-test

1. Pre-test agenda
   Carefully design the pre-test agenda to get maximum feedback.
   (1) Set date and time (time required for each material is set in the curricular unit.)
   (2) Arrange place where the pre-test is conducted
   (3) Inform clientele (invite volunteer learners and peers)
   (4) Arrange pre-testers’ role (facilitator, performer, note-taker)

2. Draft material
   Prepare sufficient number of copies of draft material.
   (1) Equal to the number of learners
      Materials to be used by individual learners such as an information sheet, booklet, and leaflet. If there are not enough copies, we can ask a few persons to share one draft.
   (2) One copy per group
      Materials to be used in a group such as a poster, chart, and drama.

3. Curricular unit
   Prepare a sufficient number of copies of the curricular unit of draft material for the pre-testers and facilitators.

4. Questionnaire
   Prepare a questionnaire and make sufficient number of copies for clientele and pre-testers and facilitators. See page 72 for sample questionnaires.

5. Equipment
   Arrange equipment and supplies required for using/performing the draft such as a hanging tool for a poster, audio cassette player, and pencils/pens for filling out questionnaire.
How to conduct pre-test and analyze the results

1. Learners pre-test
   (1) Invite learners or visit another learning centre to have clientele.
   (2) Provide a copy of the curricular unit of the material to the facilitator, and ask her/him to use the draft material according to the teaching-learning process set in the curricular unit.
   (3) Observe the performance of the facilitator and reactions of the learners.
   (4) Distribute the questionnaire and ask the learners to fill them out. If they cannot write, help them to fill in the questionnaire.
   (5) Discuss general impression of the draft with the facilitator and learners. Take note all the points raised.
   (6) After conducting pre-test, analyze the result of the pre-test aggregating the remarks in the questionnaire.
   (7) Find out and list up the points to be improved based on the analysis and observation.

2. Peer pre-test
   (1) Invite material developers/ facilitators and school teachers as clientele.
   (2) Distribute and explain the curricular unit of the draft to all the clientele.
   (3) Ask one facilitator to demonstrate the draft according to the teaching learning process set in the curricular unit
   (4) Observe the performance of the demonstrator and reactions of the clientele.
   (5) Distribute the questionnaire to all the clientele and ask them to fill out.
   (6) Discuss general impression of the draft among clientele. Take note all the points raised.
   (7) After conducting pre-test, analyze the result of the pre-test aggregating the remarks in the questionnaire.
   (8) Find out and list up the points to be improved based on the analysis and observation.
### 1 FOR LEARNERS PRE-TEST

1. **Title**
   - [ ] Appropriate
   - [ ] Somewhat appropriate
   - [ ] Not appropriate

2. **Size**
   - [ ] Right size
   - [ ] Too big
   - [ ] Too small

3. **Illustration(s)**
   - [ ] Attractive
   - [ ] Somewhat attractive
   - [ ] Not attractive

4. **Language and vocabulary**
   - [ ] Appropriate
   - [ ] Too difficult
   - [ ] Too easy

5. **Content**
   - (1) **Relevance**
     - [ ] Very relevant
     - [ ] Relevant
     - [ ] Not relevant
   
   - (2) **Information**
     - [ ] Very informative
     - [ ] Informative
     - [ ] Not informative
   
   - (3) **Usefulness**
     - [ ] Very useful
     - [ ] Somewhat useful
     - [ ] Not useful

6. **Level of difficulty**
   - [ ] Easily understood
   - [ ] Somewhat understood
   - [ ] Not understood

7. **Interest**
   - [ ] Very interesting
   - [ ] Interesting
   - [ ] Not interesting

8. **What more would you like to learn about this topic?**

   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________
FOR PEER PRE-TEST

Name of respondent:

1. Do you like the material as a whole?
   [ ] Yes  [ ] No
   Why?

2. Do you like the format?
   [ ] Yes  [ ] No
   Why?

3. Are the objectives:
   a) Specific?  [ ] Yes  [ ] No
   b) Measurable?  [ ] Yes  [ ] No
   c) Achievable/Attainable?  [ ] Yes  [ ] No
   d) Result-oriented?  [ ] Yes  [ ] No
   e) Time-bound?  [ ] Yes  [ ] No

4. Is the content:
   a) Relevant to the needs of learners?  [ ] Yes  [ ] No
   b) Interesting?  [ ] Yes  [ ] No
   c) Suited to the literacy level of learners?  [ ] Yes  [ ] No
   d) Easy to teach?  [ ] Yes  [ ] No

5. Are the teaching-learning process:
   a) Relevant to the learning objectives?  [ ] Yes  [ ] No
   b) Participatory?  [ ] Yes  [ ] No
   c) Interesting?  [ ] Yes  [ ] No
   d) Suited to adult learners?  [ ] Yes  [ ] No
   e) Easy to follow/teach?  [ ] Yes  [ ] No

6. Are the materials and supplies:
   a) Attractive?  [ ] Yes  [ ] No
   b) Easy to prepare/duplicate?  [ ] Yes  [ ] No

7. Is the time allotment:
   a) Just right?  [ ] Yes  [ ] No
   b) Too short?  [ ] Yes  [ ] No
   c) Too long?  [ ] Yes  [ ] No
Sample Questionnaires for Pre-Testing continued

8. Are the activities:
   a) Easy to follow/teach? [ ] Yes [ ] No
   b) Participatory? [ ] Yes [ ] No
   c) Interesting? [ ] Yes [ ] No
   d) Relevant to the learning process? [ ] Yes [ ] No

9. What are your suggestions to improve the material?

10. What are your suggestions to improve the teaching-learning process?

11. How would you rate the material as a whole?
    [ ] Needs improvement
    [ ] Fair
    [ ] Satisfactory
    [ ] Very satisfactory
    [ ] Excellent
3 OBSERVATION GUIDE FOR PRE-TESTERS

1. Were the objectives achieved? [ ] Yes [ ] No
   Why?

2. Which was emphasized more in the lesson?
   [ ] Functional content [ ] Literacy skills

3. Did the learners participate actively? [ ] Yes [ ] No

4. Were the learners interested? [ ] Yes [ ] No

5. Was the duration of presentation:
   [ ] Just right?
   [ ] Not enough
   [ ] Too long?

6. Points discussed by learners after the presentation.

7. What are your other observations?

Pre-testers should also fill-out the Questionnaire for learners or peer review.
Revision and Finalization

After the pre-test, we should revise and finalize the material in the following way:

1. Read through the questionnaires from learners and/or peers one by one.
2. Analyze both the summary data of the questionnaires and comments.
3. Interpret the data and list up the points for improvement of the materials.
4. Transfer all the improvement points onto a master copy of the draft, along with comments and suggestions made by the learners and peers, if any.
5. If the material is developed in a group, discuss with group members (illustrators, writers, etc.) points to revise and how to revise.
6. Revise the curricular unit, especially the teaching-learning process following the changes to be made with the material.

### Sample of Important Points to be Revised

<table>
<thead>
<tr>
<th>TITLE (FORMAT)</th>
<th>POINTS FOR IMPROVEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Let’s Clean the Pond” (booklet)</td>
<td>• Some illustrations are not appropriate (add duckling, realistic pond, men, etc)</td>
</tr>
<tr>
<td></td>
<td>• Have more text</td>
</tr>
<tr>
<td></td>
<td>• Additional information – the maintenance of the pond</td>
</tr>
<tr>
<td></td>
<td>• More technical information needed</td>
</tr>
<tr>
<td></td>
<td>• Change the main character’s name</td>
</tr>
<tr>
<td></td>
<td>• Add questions for the facilitator to ask</td>
</tr>
<tr>
<td></td>
<td>• Colour cover page</td>
</tr>
<tr>
<td>“Where to Get Financial Support?” (booklet)</td>
<td>• page 2 &amp; 7 most useful and liked.</td>
</tr>
<tr>
<td></td>
<td>• Text volume, too easy → add more practical information, such as local NGO name, local bank name</td>
</tr>
<tr>
<td></td>
<td>• Exercise → add more exercises and use as evaluation of learning</td>
</tr>
</tbody>
</table>
Chapter 2  We Can Do It!

Improvement process of a booklet on rice harvest

1st draft:
Developed to meet the needs of paddy farmers

2nd draft:
Creating a main character to make it more personal. Better show a farmer than a clinic.

3rd draft:
Add more information on variety of rice diseases and their causes. Make an index.

Final booklet:
Change the contents from rice disease cure to prevention. Illustration drawn by professional artist.
Dduplication

After making a master copy of a material, we should make duplicates if the material is to be used by individual learners.

1. Hand-copy
Ask the learners to draw illustrations and text for their own materials by hand-copying the master copy. It is a good writing exercise.

2. Use a mimeograph
A mimeograph is a simple printing device for duplicating written materials at low cost. It is good for making 10 to 100 copies of one material. For details, refer to the Tip below.

3. Use a photocopier
If a large number of copies are needed, seek the help of district education office or other offices that have photocopiers or printing facilities.

Making Copies without Electricity

Materials like booklets and leaflets need to be made in sufficient quantity for learners. If we are lucky enough to have a photocopy machine or printer, it is easy to make copies. If not, let us look for traditional ways of duplication. The manual mimeograph introduced here is a simple non-electric device for making copies of written, drawn or typed materials using stencil and ink. In some countries, it is called Toshaban.

(1) Place the master copy of the material over the stencil paper and trace over the text and illustration with a hard-tipped pen. Remove the master copy and retrace the lines on stencil paper clearly. Be careful not to

--- Supplies needed ---
1. Manual mimeograph machine
2. Stencil paper (ballpoint-pen stencil is commonly used)
3. Ink, rubber roller and ink plate
4. Paper
Chapter 2  We Can Do It!

Group of facilitators using Toshaban to duplicate learning materials.

1. Roll the rubber roller from bottom to top and rip the stencil.

2. Hold a stack of papers on the base board with clamps or clips. Attach the prepared stencil under the screen.

3. Pour ink onto the ink plate and moisten the rubber roller well with ink.

4. Ink the screen with the inked rubber roller. Make sure that ink is spread evenly over the screen by rolling from middle to top and middle to bottom several times. Keep the screen raised during this process.

5. Close the screen carefully and roll the roller in one direction only from bottom to top several times. Raise the screen to check if the stencil paper is stuck well. If not, close the screen and ink again.

6. Slowly put the screen down on top of the paper and carefully roll the rubber roller once from bottom to top.

7. Lift the screen up again and take the printed paper out. The first few papers may have too much ink.

8. Repeat the processes (5) and (6) until enough materials have been printed.

There are different kinds of mimeograph machine. Follow the instructions of the mimeograph you are going to use.
One day, Rita organized a song at her centre about women’s participation in community activities. After the session, all the learners expressed the opinion that they liked it very much and became interested in learning more about women’s participation. After the session, Rita distributed a booklet on this topic to each learner, all of whom showed much more involvement in the class than ever. Rita found that combining different types of materials to use with some related activities is much more effective than using one material. Now, she is thinking, “What other learning activities can be used in the centre?”
Different Kinds of Teaching-Learning Activities

In addition to the teaching-learning process pre-designed in the curricular unit, there are many activities that we can plan around a material. Listed here are some popular activities that have been found effective.

1. Self-learning,
2. Brainstorming,
3. Quiz,
4. Dialogue,
5. Debate,
6. Group discussion,
7. Field trips/visits,
8. Role-playing,
9. Simulation games,
10. Village mapping,
11. Drawing

Facilitator inviting discussion with a poster

Learners visiting a local expert to learn how to make organic fuel
Using materials as a package

Using several kinds of materials in combination is effective in conveying a comprehensive message. We can reinforce the learning contents by presenting them in different kinds of learning activities. Introducing several format of material can keep the learners interested.

**Theme 1: Water**

- **Motivational stage** through written material
  - Think and Act for Our Planet of Water (poster)
- **Participation stage** through game
  - Good Use of Water (jigsaw puzzle game)
- **Instructional stage** through audio-visuals
  - Mina’s Village and the River (video programme)
- **Follow-up stage** through written material
  - Our Water, Our Life (booklet)

**4 purposes of learning material**

- **Motivational:** materials to catch the learners’ attention
- **Participational:** materials to familiarize learners with content through hands-on activity
- **Instructional:** materials to teach necessary information
- **Follow-up:** materials to reinforce knowledge and provide additional information; also to maintain literacy skills.
Chapter 2  We Can Do It!

Theme 2: Women’s Participation

Motivational stage through written material

We Can Take Action! (poster)

Participation stage through game

Women’s Literacy (Box Puzzle)

Instructional stage through written material

A Wise Decision (flip chart)

Follow-up stage through written material

Why Literacy for Women (booklet)
What can we do to improve our material development skill?

Rita visited one CLC near her village. She found that the facilitators of that CLC had recently developed a booklet and the learners were using it at the centre. Rita asked them to give her a copy of the booklet and the feedback from the learners, since she thought they would be good references for her to adapt the booklet for her centre. However, the facilitators replied that they did not know how to get feedback and wondered why Rita wanted such a thing.

Evaluate the materials we produced

What is an evaluation?

Evaluation is a measurement of achievements in relation to objectives set in the curricular unit. The major part of material evaluation is included in post-testing of the finished product. Getting feedback from the users, including facilitators and learners, through evaluation is very helpful for us to develop better material next time and to improve our material development skill.
What should be evaluated?

1. To evaluate quality of the material
   
   Same indicators as in pre-test of the draft could also be used for the evaluation of the finished product. They could be:
   
   (1) Achievement of objectives
   (2) Relevance of contents
   (3) Attractiveness of visuals
   (4) Appropriateness of language level
   (5) Appropriateness of teaching-learning process
   (6) Others (format, durability, portability, size, etc.)
   
   For details refer to page 69.

2. To evaluate quantitative aspect of the development

   In addition to the above indicators, the data covering following areas could help us to plan the next material development activity.

   1. Number of materials produced
   2. Estimated development cost and actual expenditure
   3. Number of users (facilitators, learners and CLCs)
   4. Equipment and supplies used for developing the material
   5. Number and types of people involved in developing the material

How to conduct the materials evaluation

Same approach as pre-test of the draft could also be taken for the evaluation of the finished product. They could be:

1. Peer evaluation,
2. Learners’ evaluation.

Peer evaluation of material

After use of the developed material, the facilitators evaluate its weaknesses and strengths during the monthly facilitator meeting.
Sample of Evaluation Form

This evaluation form is distributed along with the AJP material to the users - mainly NFE offices, material developers, trainers in the Asia-Pacific region. Analysis of feedback helps in revising the material and development of new material.

1. **How did you find the material(s)?**
   [Please write 'A' for Excellent, 'B' for Good, 'C' for Fair, and 'D' for Poor.]

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Title of Materials</th>
<th>Overall Quality</th>
<th>Presentation</th>
<th>Content</th>
<th>Illustration</th>
<th>Attractiveness</th>
<th>Usefulness</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. **How do you plan to use the above material(s)?**

3. **Please write your comments/suggestions on the above material(s)**

4. **Your suggestions on future themes for ACCU literacy materials**
   [Mark the appropriate item(s)]

- health & sanitation
- generation
- HIV & AIDS/STD
- law & human rights
- science
- education
- agriculture
- women’s empowerment
- advocacy/promotion of literacy
- culture
- income
- drug abuse
- environment
- population

   [Please specify topics.]

5. **Who are the target learners for your/organization’s activities?**
   [Mark the appropriate item(s)]

- general
- girls
- women
- rural population
- urban population
- ethnic minority
- street children
- migrants
- people
- pre-primary school children
- out-of-school youth
- disadvantaged
- other(s) (please specify)
Conducting a Large-scale Evaluation

A large scale evaluation at District level could be tried as follows:

1. Identify several CLCs to conduct classes.
2. Ask the facilitators of these CLCs to use the material to be evaluated in their classes under normal conditions.
3. Ask the learners and the facilitators to complete the set questionnaire after the class.
4. Ask the facilitators to conduct a discussion on learners’ responses and general comments on the material and to summarize their comments and suggestions.
5. Collect and analyze the questionnaire and discussion summary.
6. Prepare a simple report on the large-scale evaluation and keep along with the material.
7. The large-scale evaluation should be conducted immediately after the completion of the materials. We can judge whether the material is good for reproduction with or without improvement.

What should we do with such feedback?
We should analyze both qualitative comments and quantitative data and interpret them as suggestions for the next material development activity. Summary of these comments and data should be noted in a report form and kept along with the material. This helps improve our materials development skill to a great extent.

Formative evaluation vs. summative evaluation
Formative evaluation is an evaluation conducted during the development stage of the material. The result of the evaluation tells the developer where and how to make necessary changes. In contrast, a summative evaluation is one that provides information necessary to make a decision at the end, whether to disseminate, re-develop, modify, adopt, or adapt the material.

The District Office can collect the questionnaires taken at each CLC, for analysis and discussion.
Exercises

Congratulations! We hope that you have already read Chapter 2 carefully. We believe you are more confident now in developing a variety of quality learning materials to satisfy your learners’ needs. If you complete the following 10 exercises your confidence will grow further.

Exercise 1:
Identify the 3 major problems in your community by adopting any needs assessment methods described in the handbook.

1. 
2. 
3. 

Exercise 2:
Study the problems identified and select one learning theme.

Exercise 3:
For the selected learning theme, list down major learning objectives, which you want your learners to achieve through the material.

1. 
2. 
3. 

Exercise 4:
To achieve the above-mentioned objectives, identify contents of your material and write down all the contents in sequence from easy to difficult.

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
Exercise 5:
Prepare a curricular unit for one theme.

Theme: ________________________________________________________________

Target Learner: _______________________________________________________

Literacy Level: _________________________________________________________

Objectives: _____________________________________________________________
______________________________________________________________________
______________________________________________________________________
______________________________________________________________________
______________________________________________________________________

Content: _______________________________________________________________
______________________________________________________________________
______________________________________________________________________
______________________________________________________________________
______________________________________________________________________
Exercise 6:
Let’s develop an information sheet based on the curricular unit you developed in Exercise 5. The title can be adapted from the theme, and messages can be made based on the objectives and contents. Finally, you need to decide what picture or illustration should be used to make these messages clear to your learners. Try to prepare your own illustration.
Exercise 7:
Compose a 6 to 10 line song on the theme you have selected, with your learners. Choose one popular tune, apply the lyrics to it, and sing this song in the centre.

Exercise 8:
Next, develop the layout for a six-page flip chart by combining text and illustrations on each page. First, arrange the contents in sequence and prepare the layout for each page, just as you did in Exercise 6. Consult with your learners in making the messages.
Exercises

**Exercise 9:**
Prepare a booklet based on the curricular unit you developed. You can refer to the steps outlined below.

- Develop the text for the booklet with an appropriate title.
- Develop a layout (text and illustration) for a six-page booklet.
- Draw or collect appropriate illustrations or photographs for the booklet (You can use book form of Literacy Clip Art to choose any suitable illustration for your booklet).
- Prepare a final dummy for the booklet.
- Use this booklet in the classroom and get learners’ feedback.

**Exercise 10:**
Try making a questionnaire!
For the flip-chart you prepared in Exercise 8, prepare a questionnaire for pre-test with learners.

Very well done!! You developed a package of learning materials under one theme, i.e. an information sheet for motivation, a song for participation, a flip chart for instruction, and a booklet for follow-up. Why don’t you present what you exercised here with other facilitators and co-ordinator. Make plans to further enhance your materials development skills with your learners.