Science of Teaching



Structured Pedagogy Teaching and Learning Materials Development: Guiding Principles Checklist

This document offers a set of guidelines in the form of a checklist to aid governments, implementing partners, and other stakeholders in the process of developing high-quality core teaching and learning materials aligned with their established curriculum and scope and sequences for foundational literacy and numeracy (see the How-to Guide on Curriculum and Scope and Sequence Development). It is intended as a companion to the How-to Guide on Teaching and Learning Materials Development.

KEY TERMS

| KEY TERM | EXPLANATION |
|-------------------------|--|
| Scope and sequence | A document that details the content to be learned (scope) and the order in which it is to be learned (sequence). |
| Leveled readers | A set of books or stories written at gradually increasing levels of difficulty. |
| Consumable workbook | A workbook with activities and exercises requiring the student to write their answers in the book; once a student has done the exercises, the book has been used and cannot be reused by another student. |
| Page production | The process of putting the manuscript content and images into page templates to create a book, usually in InDesign or a similar publishing software. |
| Page production team | The group within a publishing services or design firm charged with composing the pages of a book, website, etc. by putting the content into a given set of templates and ensuring page design integrity. |
| Production manager | The person responsible for the process of establishing the print-ready book files; they coordinate the various passes of page production, fix issues with the templates or pages, and perform the initial quality assurance. |

Materials Development Checklist

| What teaching and learning materials need to be developed? | |
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| A teacher's guide with structured lesson plans and guidance on how to teach and assess the target content and skills. | |
| A student textbook with the core materials needed for the lessons. | |
| Additional reading materials (e.g., story books, leveled readers, big books, etc.). | |
| Consumable student workbooks with practice exercises or activities (optional). | |
| Additional teaching aids (math manipulatives, alphabet chart, etc.). | |



What is the schedule for the materials development process?

Adequate time (ideally at least 12 months) is allocated to the overall process, in careful consideration of the number of grades, subjects, and languages, as well as the size and experience/expertise of the materials development team.

A detailed schedule exists for the development process that includes logical sequencing and adequate time for the drafting, review, revision, and copy editing of each the following components:

- the **scope and sequence** (see the <u>How-to Guide on Curriculum and Scope and Sequence</u> Development)
- the weekly schedule of lesson types/activities
- a **prototype week of lessons** for both the teacher's guide and student textbook, including any scripting of the instructional routines (or a prototype for a sample week from each term if the routines change significantly from one term to the next)
- a **prototype of the weekly page layout** (for each term, if applicable) for the teacher's guide and student textbook
- detailed content specifications for the writers and parallel review rubrics or checklists for reviewers
- the lesson contents for every week
- illustrations

The schedule calls for sample lesson templates to be field tested early on and feedback from teachers to be incorporated into their finalization.

The schedule calls for content reviews to happen early and frequently as the content is being developed.

The schedule includes adequate time for page production as well as for editing and proofreading.

The schedule includes adequate time for the materials to pass through existing government processes for official validation and approval.

The schedule includes adequate time for the printing and distribution process, including the process of screening and hiring a publishing house (if applicable), reviewing proofs, printing, and distributing to remote school locations.

Materials are systematically piloted (ideally for at least a year), and feedback from teachers and key stakeholders is incorporated into corrections and revisions before finalization.

Is there a qualified materials development team?

The materials development team includes at a minimum:

- a content development lead
- instructional/technical subject-matter experts
- writers (content developers)
- reviewers
- copy editors/proofreaders (with expertise in the language of instruction and its orthography)
- illustrators
- a graphics designer
- a page production team
- a production manager

Each position in the team has clearly defined qualification criteria and responsibilities.

What resources are available for the materials development team?

The up-to-date scope and sequence.

Lesson templates for the teacher's guide and student textbook (including one for each term if the template evolves over the course of the year).



| ı | Page layout templates for the teacher's guide and student textbook. |
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| | Content specifications for each lesson type and week/term, including review lessons and remediation activities. |
| 1 1 | Guidelines for the core instructional approach(es) to be used for each lesson type or skill, including sample activities and any scripted routines. |
| | Page design specifications (including font type and size, number and placement of images, color scheme, paper size, and maximum number of pages) and guidelines for formatting and the systematic use of icons. |
| | Reference materials (e.g., the curriculum or syllabus, dictionaries, word lists, other teachers' guides and student books, repositories of Creative Commons-licensed materials). |
| What | are the qualities of the envisioned materials? |
| | The level of scaffolding in the teacher's guide is tailored to teachers' level of familiarity with the approach, prior training, and experience. |
| - | The units and lesson structures follow a predictable pattern. |
| 1 1 | The content is relevant to the lived experiences of the children, as well as to topics and themes aid out in the curriculum (if applicable). |
| | All the guidance and resources that a teacher needs for a lesson are located together in one place in the teacher's guide for easy reference. |
| 1 1 | Images of pages from the corresponding student materials are embedded in the lessons in the teacher's guide. |
| 1 1 | The daily lesson plans in the teacher's guide are a reasonable length (ideally 1–2 pages), and each volume of the teacher's guide is a reasonable size. |
| 1 1 | Page design and formatting, including font type and size, and the use of bolding, italics, icons, and white space are used consistently and strategically to optimize readability. |
| 1 1 | The scripts or instructions to the teacher are clear, succinct, and consistent across similar activities. |
| - | The following components are embedded in the materials: |
| | regular and frequent checks for understanding |
| | activities and time for remediation (for struggling students) and enhancement (for more advanced students) |
| | regular and frequent opportunities for collaborative practice via small-group or pair activities |
| | regular and frequent opportunities for independent practice |
| | evidence-based instructional approaches (e.g., the gradual release of responsibility model, where appropriate) |
| - | The materials are aligned with high standards for gender equality and inclusiveness |

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What resources are in place for the development or adaptation of complementary reading materials, if applicable?

Repositories of Creative Commons-licensed children's reading materials have been examined and potential titles for adaptation have been identified. See, for example, the <u>Global Digital</u> <u>Library</u>, <u>the Bloom Library</u>, <u>Pratham Books Storyweaver</u>, <u>the African Storybook Project</u>, <u>the Asia Foundation's Let's Read</u>, and Book Dash.



| A leveling framework has been established for ranking books by reading difficulty in the target languages and context. |
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| Specifications for the envisioned set of reading materials include a variety of genres, topics, themes, illustration types, and reading levels, and topics and themes with connections to the curriculum. |
| The writers have expertise and experience in writing children's literature and are fluent in the target language(s). |
| The writers are trained in writing for children, characteristics of quality children's literature, and writing strong fiction and informational text. |
| Guidelines are available for correctly attributing the original source material as required by Creative Commons or other license requirements. |
| is the materials development, publishing, and distribution process embedded in the system ong-term sustainability? |
| Key Ministry of Education stakeholders fill roles on the materials development team where qualified to do so. |
| Key Ministry of Education stakeholders review the materials early and at timely points throughout the process. |
| The materials are subjected to all steps of the official approval and validation process. |
| Core materials for teachers and students are non-consumable and use durable materials so that they can be used for several years (ideally at least three). |
| The materials distribution strategy includes systematic checks and balances to ensure that books arrive in time to schools with transparency and accountability. |
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