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Strengthening the Textbook Production Chain in Morocco: Study Conclusions and Recommendations

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EXECUTIVE SUMMARY

The Ministry of Education (MoE) took a bold step when, in 2001–2002, it decided to open up the process of textbook development to the principle of competition among publishers. The vision was that publishers would submit their textbooks for approval by the MoE, and the best of the approved textbooks would be selected by each user.

According to the National Charter, this step was taken for two reasons:

- To use the competition process among textbook writers and publishers to improve the overall quality of textbooks, on the basis that the publishers who best reflected the needs of the end user would be more successful
- To separate the concept of the syllabus from the concept of the textbook, to encourage inspectors and teachers to address the teaching of overall competences rather than memorizing the content of the textbooks.¹

The 2002 textbook policy placed Morocco in a unique position compared with the rest of the Arab world, where the MoE in each country continues to provide the content of all textbooks for government-supported schools and in which there is therefore a single textbook for each subject and grade. In some ways, Morocco's textbook policy has followed a trajectory that is closer to that of several countries in East and Southeast Asia.²

Several positive developments have resulted from the new policy. The number of textbook publishers has increased from 6 to more than 50, and many writers, editors, and other specialists have gained useful experience. The textbook sector is well organized, and almost all textbook publishers are members of the *Association Marocaine des Éditeurs*. There are tried-and-tested industry agreements between publishers and booksellers regarding the distribution of textbooks to schools. As a result, the Moroccan textbook sector is able to play its part in providing textbooks on time and in generally adequate quantities for each school year.³

However, the MoE still has work to do toward implementing the intended policy, in terms of competition among publishers and school-based textbook choices, and therefore in terms of seeing qualitative improvements in the approved textbooks. Although some changes were proposed in the call for proposals that was prepared in 2011, they were not implemented and the system has not progressed. (This does not include the changes introduced by the *Un Million de Cartables* initiative.⁴) For 14 years, textbooks in

¹ Paragraph 108 of the National Charter refers to “...la production des manuels, des livres scolaires et des autres supports magnétiques ou électroniques, sur la base de cahiers des charges précis, par le recours transparent à la concurrence des développeurs, créateurs et éditeurs, en adoptant le principe de la pluralité des références et supports scolaires” (“...the production of textbooks, educational books, and other video or digital resources, on the basis of detailed specifications, by means of transparent competition among suppliers, writers, and editors, following the principle of multiple sources and educational resources”).

² In addition to systems whereby textbooks are either centrally developed or centrally approved, there is a third model that is followed, for example in most of Europe, where there is no textbook approval process and schools may select freely from the open market.

³ The MoE's statistics on textbooks (*mu3tiyaat wa ihsaa'iyaat*) show that a total of 36 publishers supply the textbooks that have been approved for primary and secondary schools.

⁴ *Un Million de Cartables* = A Million Backpacks, the initiative introduced in 2008, by which the MoE supplies free schoolbags, textbooks, and stationery to students in all primary schools and rural middle schools (*collèges*).

Moroccan schools have therefore not been replaced or revised (apart from minor corrections), and the published prices of the approved textbooks have remained unchanged.

The 2011 call for proposals included an important new element of school-based textbook selection but did not specify how this would happen.⁵ Since the revised 2011 call for proposals has never been implemented, there has been no change to the system that was set up in 2002. Since that time, all provinces (delegations) have allocated equal quantities of each MoE-approved textbook across all schools in their jurisdictions. As a consequence, schools have not had an opportunity to express their own opinions about the relative merit of the approved textbooks by means of their annual textbook orders. The implementation of the intentions of the original policy statement, as further detailed in the 2011 *Cahier de charges*,⁶ is therefore one of the main themes of this study.

Furthermore, while the 2002 policy was introduced at a time when most parents were expected to buy their own textbooks, the introduction of the *Un Million de Cartables* initiative in 2008, with its provision of free textbooks for all students in public primary schools and rural middle schools, has led to great challenges for the textbook sector due to delays in payments to booksellers (and therefore, publishers) when schools are not transferred *Un Million de Cartables* funds to pay suppliers in a timely manner. The significant delays in paying suppliers are not only contrary to commercial law, which stipulates payment within 60 days, but in some cases are as long as four years. These delays have a significant impact on the commercial viability of both the booksellers and the publishers, who face the risk of going out of business due to over-extended credit lines.

The challenges faced by the MoE as well as the book sector as a result of the delays to payments under the *Un Million de Cartables* initiative are part of a wider challenge—how to ensure a long-term, sustainable system of financing for all students in government schools. **Appendix C** of this study addresses this question and explores options based on examples from countries that have responded to the same challenges.

Appendix B of this study is a brief overview of some of the issues relating to the possibilities offered by digital learning materials. By focusing on digital textbooks (or e-textbooks), rather than on the wider implications of a digital education strategy, the authors of the study propose a cautious strategy based on collaboration between the MoE and materials providers, supported by a well-designed research strategy.

The provision of both printed and digital textbooks is based on a lively partnership between government and the private sector, each of which plays a vital role in the so-called textbook chain. The links in this chain extend from the call for publishers to submit their proposals, to the delivery of textbooks to the schools. This study addresses all links in the textbook chain with a focus on the principle embodied in the textbook policy of supporting a partnership between government and textbook publishers and benefitting from competition among alternative textbooks.

The study draws on examples of textbook policies from many countries, but particularly those in East and Southeast Asia, which are seen as having characteristics that are

⁵ See paragraph 42 of the 2011 *Cahier de charges*: “The school will select its preferred textbook according to the conditions set out in the ministerial note relating to this, bearing in mind the need for the selection to be free from any influence by any publisher or author.”

⁶ This report uses the MoE’s own title of *Cahier de charges* to refer to the textbook specifications that are issued with each call for proposals.

applicable in Morocco. Singapore, Hong Kong, South Korea, and China are not only high-performing education systems, but they also share common characteristics in terms of the alignment of curriculum and textbooks, the process of textbook evaluation and approval, the principle of user-based textbook selection, and the desire for learning environments based on both printed and digital resources.

It is hoped that the partnership between the MoE and the textbook sector, based on transparency and collaboration, can be demonstrated through the national workshop that the MoE is considering holding later in 2016, at which all parties, including the publishers and booksellers, will have the opportunity to comment on the study and its recommendations.

The main recommendations emerging from this study may be summarized as follows:

- The content of the approved textbooks can be improved considerably by means of an improved framework for publishers and textbook writers. The revision of the curriculum, currently scheduled for 2018, provides an opportunity to focus the curriculum documents more closely on achieving their objectives through improved textbooks. The vision and instructional approach for each subject should be coherent and consistent through all the guiding documents currently provided to pedagogical content developers: the curriculum, the Pedagogical Guide, the Terms of Reference for submissions (*Cahier[s] de charges*), and the requests for proposals (*Appels d'offres*). The new syllabi should explicitly define and illustrate the expected quality of textbooks, including aspects of instructional methodology, content load, and formative assessment.
- The textbook evaluation process can be strengthened by means of improved submission requirements, evaluation criteria, and evaluation procedures. The evaluation and approval system should be aligned with textbook specifications and promote transparency between the MoE and publishers. To ensure coherence and transparency, the evaluation criteria—for each subject and cycle—should be developed centrally by the MoE, including the physical specifications of books. These criteria should be made available to publishers in the *Cahier(s) de charges* and publishers should be required to provide detailed justification of their adherence to these criteria. Evaluators should be trained on how to evaluate textbooks on the basis of these pre-established criteria. To promote the consistency of an instructional approach, calls for proposals should request offers for a series of grades, or cycle, for each subject. The evaluation and approval process can be made more efficient by evaluating the general pedagogical approach in a first round of evaluation, and then focusing on supporting publishers that pass the first round to improve their content in the second round of evaluation.
- Experienced teachers, with knowledge of the conditions and learning needs of students in the different regions of Morocco, should be actively involved in the development of textbook specifications, as well as in the evaluation process. The documents that specify criteria for textbook quality should be easily accessible to textbook developers, teachers, and teacher trainers alike (i.e., specific and concise, and written in simple, non-academic language).
- The multiple textbook policy that was envisaged in the National Charter has only been partially implemented. The combination of continuously extended periods of approval for all textbooks, along with allocating all approved textbooks an equal share within each delegation, means that the system has not evolved to a point

where the merits of one textbook over another have been tested by end-users. Either the end-user should have the final say in which textbook to use or the choice of textbooks should be made by the delegation or commune on behalf of its schools, based on an assessment of the quality and relevance of the approved textbooks for each cycle. Implementing the principle of end-user textbook selection will require reliable and transparent procedures for the promotion, selection, and ordering of textbooks.

- The free (gratis) provision of textbooks to all primary-level students in government schools, and all junior secondary-level students in government schools in rural areas, requires a significant investment of funds that must be sustained in the long term. To improve the cost-efficiency (and therefore, sustainability) of this substantial investment, the principle of re-using textbooks that has already been introduced via the *Un Million de Cartables* initiative should be strengthened and supported. Possible strategies for making the general profile of textbooks more cost-efficient include eliminating at least some of the workbooks, which are usually provided in addition to textbooks, and reconsidering the need for textbooks in subject areas that do not require a traditional textbook approach.
- Finally, the study also examined issues related to the introduction of digital learning materials (e-textbooks) into government schools, and to the cost and financing of textbook provision, in more depth. The findings and recommendations on these particular topics are available in Appendices B and C, respectively.

INTRODUCTION

Objectives and methodology of the study

The objectives of this study were set out in a document agreed upon with the Curriculum Department of the Ministry of Education (MoE) in April 2016. The document is attached as Annex 1. The authors' provisional overall findings were presented to the MoE at the end of the authors' visit on Friday, June 24, 2016.

In brief, the objective of the study was to analyze the textbook chain and recommend options for improvement, in order to better reflect the policy described in the National Charter of 2001. The study is based on the following research questions:

1. Sound textbook specifications as the basis for bidding documents and adequate profiles and competencies of publishers' writing teams:
 - How can the MoE align the curricular reform with reform of the textbook procurement system?
 - What are the pedagogical and technical qualifications and experience of publishers' writing teams?
2. A transparent and rigorous textbook validation and approval process:
 - How are textbook evaluators selected and trained?
 - What are the strengths and weakness of the current evaluation and approval system? Is the system protected from any charge of outside interference?
 - How is the evaluation process paid for? Do the financial aspects have an impact on the outcome or quality of the work?
 - Are evaluators trained and given opportunity to practice their scoring first, before working on actual submissions?
 - Is there a mechanism for textbooks to be evaluated as a series?
 - What mechanisms are in place, if any, to monitor the integrity of the commissions charged with validating textbooks?
3. A competitive market based on an authentic, local selection of approved titles:
 - Is an open system of an unlimited number of approved textbooks per subject better than a system that limits the number of approved textbooks?
 - What is the best mechanism for allowing free market competition on the basis of price, among other criteria, while still ensuring that the price is within an acceptable range?
 - For what length of time will the textbooks' approval be valid?
 - What mechanisms are in place to monitor the integrity of textbook selection decisions, as well as the timeliness of textbook selection, delivery, and deployment in classrooms?

The study builds on an analysis of the textbook procurement chain and of the market for supplementary reading materials in Morocco conducted by another team of RTI researchers in early 2015 as part of a broader series of studies entitled *Research on*

Reading in Morocco. The findings of this previous research are available in **Appendix A** of this report.

The fieldwork for this new study was carried out in June 2016 by a team of specialists in textbook policy as well as textbook and general publishing, production, and distribution. While the work of the research team that conducted its analysis in early 2015 was focused exclusively on educational materials for early reading instruction in Arabic, the fieldwork conducted in June 2016 expanded this focus to review the textbook procurement chain in general, for all grades and subjects, with the mission of producing concrete recommendations on how to strengthen the textbook procurement system in Morocco overall. In addition to meetings with the Directorate of Curriculum at the MoE, the 2016 research team interviewed respondents from the following domains:

- Publishing
- Distribution
- Printing
- Assessment and examinations
- Inspection
- Teacher training
- Regional and provincial (delegation) education officers
- Schools (directors and teachers)

A full list of the respondents is provided as [Annex 2](#).

The team also examined examples of the current approved textbooks, in terms of both content and manufacturing, as well as the following official documents:

- *Le Cahier de charges* (Instructional materials submission specifications: general and specific) (2011)
- *Al barnaamij al daraasi li madat al lugha al a3rabiya* (2011) (Primary school curriculum)
- *Al daliil al bedagooji lil ta3liim al ibtida'i* (2009) (Pedagogy guide for primary cycle)
- *Pedagogy Guide for English*
- *Le livre blanc* (2002)
- *Statistics concerning textbooks approved by the Ministry of Education (mu3tiyaat wa ihsaa'iyaat)*
- *La fiche technique pour l'Initiative royale « Un Million de cartables »: Contexte, objectifs et finalités* (Technical description of the royal *Un Million de Cartables* initiative: context, aims, and objectives)
- Timetable for the operation of *Un Million de Cartables* (English translation provided as [Annex 3](#))
- *Recueil des Statistiques de l'Éducation 2014–2015* (2015) (Summary of education statistics 2014–2015, published in 2015)

Structure of the study

The study highlights the critical elements in the textbook chain, from the focus and format of the curriculum to the use of textbooks in the classroom. Each element sets out the “problem statement” in a brief discussion, followed by a series of recommendations.

The report addresses three main areas:

- Specifying high-quality textbooks within a cost-effective instructional materials profile
- Improving the textbook submission and evaluation process
- Implementing an authentic multiple textbook policy

While each of the focus areas listed above can be considered separately from the other two, the authors believe that improvements in all three areas are equally important and mutually beneficial overall.

The findings of the early 2015 RTI research mission that analyzed Morocco’s textbook procurement chain and examined the market for supplementary Arabic-language reading materials are available in **Appendix A**.

Appendix B is a short survey of options for a digital textbook strategy, including a framework of proposed actions.

Appendix C addresses options for the long-term financial sustainability of the textbook policy.

Theory of change

The authors of the report have carried out their work on the basis that achieving change in any system is difficult but can be made easier by means of the following priorities:

1. Focus on the policy objectives and ensure they are reflected in all aspects of the system. Policymakers need to demonstrate a continuity of policy or provide a rationale for policy change.

2. Study the strengths and weaknesses of the current system. Change must build on what works, as well as modify or replace what is not working.

3. Raise awareness of alternative processes. While change must be based on a logical application of already agreed-upon policy, all the actors in the system (in both the government and private sector) will benefit from becoming more aware of practical and workable alternatives.

4. Create a vision. A simple and persuasive narrative of change must be developed that enables all stakeholders to work toward a common end goal.

5. Create a path. A clear and logical sequence of actions must be laid out, with reference to the roles of the stakeholders in achieving the vision.

6. Ensure that all stakeholders have the capacity to play their part successfully. Each part of the system must have the capacity and expertise to play its part, and the relationship between all parties must be strengthened through transparency and collaboration.

7. Ensure a good working relationship between all stakeholders, based on confidence, trust, and shared purpose.

We believe that the present study can help the MoE to deliver these essential elements of change.

1 SPECIFYING HIGH-QUALITY TEXTBOOKS

Educationalists often divide education interventions into quantitative and qualitative elements. Textbooks are sometimes, by their very presence, considered to be qualitative. That is, the fact of providing sufficient quantities of textbooks is in itself a qualitative intervention. Of course, the actual quality of a textbook is the degree to which it reflects a high-quality curriculum and provides an effective teaching and learning tool for teachers and students.

The emergence of international assessments such as PIRLS (Progress in International Reading Literacy Study) and TIMSS (Trends in Mathematics and Science Study) in the past 20 years has led to valuable analyses of education systems that consistently perform at a high level. Several analyses of the data emerging from these assessments have pointed to the relationship between high-quality curriculum and high-quality textbooks, within a culture of high educational expectations.

1.1 The quality of curriculum documents

The foundation of high-quality textbooks is a coherent and clearly organized curriculum that provides a sound framework for textbook writers.

The MoE is currently planning to review and revise the school curriculum at the same time as revising the way in which the textbook policy is implemented. The planned review and revision of the curriculum is therefore an opportunity to revisit the format and content of the syllabuses⁷ in order to provide a clear, coherent, and consistent reference for textbook writers as well as for those responsible for teacher education and student assessment. While it is beyond the scope of this study to go into detail regarding the priorities for the curriculum revision, certain points can be usefully made that may provide a starting point for the MoE when it begins revising the curriculum, with the aim of providing a basis for improved textbooks.

In the same way that the MoE's textbook policy should be reflected in the actions undertaken to implement the policy, the syllabus for each subject should set out a **concise vision** for the subject that should be reflected in the detailed syllabus specifications. Such a vision is not always expressed with clarity in the current syllabus documents. The vision should seek to answer the fundamental questions of how and why the subject should be taught in each cycle, through a short, persuasive, and dynamic narrative.⁸

A key objective of the National Charter was to establish that the textbook is not equivalent to the syllabus. It therefore sought to reduce the focus for students on memorizing the content of the textbook. While the essential knowledge, concepts, and skills appropriate to each subject must be specified in the syllabus, the current syllabuses appear to specify, almost on a week-by-week basis, the **detailed teaching content**. This level of precision has probably had the effect of leading to a similarity of content in the textbooks approved for each subject, thereby reducing the scope for textbook writers to offer different approaches.

⁷ In this study, the authors use the term "curriculum" to refer to the complete set of curriculum documents, while "syllabus" refers to the specific program for each subject.

⁸ For an example of a very concise language syllabus, covering all nine grades of basic education, see pp. 44–55 of the Finnish syllabus, "Learning objectives and core contents of education": http://www.oph.fi/download/47675_POPS_net_new_2.pdf

Related to the question of curricular focus and coherence—and their importance for coherent, high-quality textbooks—is the question of the overall **syllabus “load.”** The syllabus content appears to be overloaded in some cases. While further study on this topic will be necessary during the curriculum review, we note from our interviews with teachers and our own study of the textbooks that the books—in attempting to cover everything in the syllabus—appear to include too much content to be covered properly in the time available.⁹ Syllabuses can be constructed to help ensure that the demands on the teacher (as well as the demands on those responsible for student assessment) are realistic in terms of the amount of the available teaching time as well as the time required to adequately address the key concepts and skills. One analysis of the results of recent international assessments notes that:

“Curricular materials in high-performing nations focus on fewer topics, but also communicate the expectation that those topics will be taught in a deeper, more profound way...[which] means making real choices about what to teach and how to teach it and, of equal importance, articulating those choices in a consistent manner in key ‘policy instruments’ like standards, textbooks, and assessments.”¹⁰

As an example, the current subject syllabuses for Arabic sometimes promote an overall approach that is contradicted by the specifics of the syllabus, with the result that the **essential concepts and skills** become blurred or lost in practice.¹¹ Similar observations can be made on the mathematics syllabus, which allows little time for exploration of key concepts.

The syllabus documents and pedagogy guides appear not to refer to the **use of textbooks** or learning materials in each subject and cycle. Since the main audiences for the syllabus include the textbook writers and the teachers, for both of whom the textbook is the essential expression of the syllabus, this appears to be a gap in the foundations of the syllabus.

Recommendation 1.1.1

The vision and approach for each subject should be coherent and consistent throughout the syllabus, textbook specifications, and pedagogical guide.

The **syllabus vision** should describe the approach to teaching the subject, including how the syllabus reflects the overall methodological approach of the curriculum, and the role of student assessment (both formative and summative) within the subject. Syllabus formats from Singapore and Hong Kong show how such documents can be concise and coherent and provide a clear framework for publishers to respond to (as well as for other departments of MoE, including teacher education and assessment). The syllabus may

⁹ MoE has already carried out a peer review of the current curriculum. We have not studied this review.

¹⁰ Schmidt, W. H. & Prawat, R. S. (2006). Curriculum coherence and national control of education: Issue or non-issue? *Journal of Curriculum Studies*, 38(6), 641–658.

¹¹ For example, in section 2 of the Arabic syllabus (*al barnaamij al daraasi li madat al lugha al a3rabiya*) for grades 1–2, the strand of expression and communication (*ta3biir wa tawaasul*) does not indicate that it is based on a grammar framework, although section 2.1.1.2 presents “expression and communication” as consisting of *asaliib* (question words and interrogative pronouns), *tarakiib* (structures), *sarf* (morphology), and *tahwiil* (declension). See *Al baraamij wa al tawjihaat al tarbawiya al khaasa bi silk al ta3liim al ibtida'i* (September 2011), pp. 26 and 31.

also include a vision for the role of textbooks and other learning materials in the classroom.

See Annexes 4–6 for examples from Singapore’s primary mathematics syllabus.

For an analysis of how high-quality curriculum and high-quality textbooks align (for mathematics), see Dr. Lianghuo Fan’s paper, *Principles and processes for publishing textbooks and alignment with standards: A case in Singapore*.¹²

Recommendation 1.1.2

The guide to **pedagogy** should also be written in language that is concrete and practical for teachers, rather than aimed at an academic audience. Expert teachers (probably with at least 10 years of experience in the appropriate cycle and discipline) should be involved in or review the draft syllabus and the pedagogy guide.

MoE might consider including exemplars of classroom practice for each subject, similar to the exemplars provided in each syllabus in Hong Kong, which includes guides to planning, learning activities, and impacts on learning.¹³ Providing such exemplars in the syllabus will also indicate to publishers/textbook writers how much classroom time (or time on task) should be allowed for each activity in order for the teaching and learning to be effective. (There should be time for the students—not only the teacher—to work. There should also be opportunities for the teacher—especially in the early grades—to provide remedial support.)¹⁴

For an alternative example of how syllabus documents can indicate classroom pedagogies, see the Ontario Language syllabus.¹⁵

Recommendation 1.1.3

Syllabus developers should carry out appropriate research among teachers to ensure that the syllabus content is manageable within the time available, so that the new syllabuses and the textbooks themselves will **not be overloaded**.

Syllabus developers may consider relaxing some of their specific requirements for the content of the textbook so that a variety of approaches may be found among the approved textbooks. Over-specifying the syllabus content limits the freedom of publishers to be creative in their interpretation and also limits the choices that the end-user makes when selecting preferred textbooks.

¹² Fan, L. (2010). *Principles and processes for publishing textbooks and alignment with standards: A case in Singapore*. Asia-Pacific Economic Cooperation (APEC) Conference on Replicating Exemplary Practices in Mathematics Education, Thailand, 2010. Available at: <http://eprints.soton.ac.uk/168833/>. Dr. Lianghuo Fan was the editor-in-chief of the leading Singapore mathematics series and has knowledge of the Chinese, US, and UK mathematics curricula and textbooks.

¹³ See page 216 onwards in the Hong Kong Curriculum Development Council. (2004). *English Language Curriculum Guide (Primary 16)*. Available at: http://www.edb.gov.hk/attachment/en/curriculum-development/cla/eng-edu/primary%201_6.pdf

¹⁴ According to our interviews, students from Morocco are strong in mathematical theory but weak in the application of concepts, which may be traced back to the balance between the presentation of syllabus “content” and the activities that enable students to master the concepts. Other respondents described an “over-ambitious” mathematics syllabus leading to “over-ambitious” textbooks.

¹⁵ Canadian Ministry of Education. (2006). *The Ontario Curriculum, Grades 1–8: Language*. Available at: <http://www.edu.gov.on.ca/eng/curriculum/elementary/language18currb.pdf>, pp. 35–149. Each element of the syllabus includes in italics examples of how the competency/standard could be elicited.

Recommendation 1.1.4

MoE should define the characteristics and functions of a high-quality textbook. These characteristics should be drafted by MoE, with subject specialists, but they should also be reviewed by teacher-experts.¹⁶ The teacher-experts will benefit from orientation in the task, in order to carry out what is an academic exercise. These teacher-experts may be developed into a resource that the MoE can also draw on for other activities, such as textbook evaluation.

The textbook characteristics may vary from subject to subject and cycle to cycle and might include the ways in which the textbook is a reliable informational resource for teacher and learner, as well as an effective teaching and learning instrument and a vehicle for the promotion of social values. The characteristics will vary from subject to subject and cycle to cycle. See Annex 7 for an example of the description of the expected quality of the textbook, as provided within the syllabus documents in Hong Kong.¹⁷

By providing such a definition, the MoE will focus the attention on the actual use of the textbook, which can be important in helping to ensure that the textbook writers approach their task with the students' classroom and home use firmly in mind.

Recommendation 1.1.5

Formative assessment principles should be coherently presented in the syllabus documents so that publishers can incorporate them in the textbooks.¹⁸

Good teaching and learning require activities that allow the teacher from time to time to observe and support individual learning. The syllabus and the *Cahier de charges* should keep in mind that regular teacher feedback to students is an essential aspect of high-quality teaching and learning. The textbook should include appropriate activities that allow time for this feedback to take place within activities that provide opportunities for students to demonstrate their competences. This can be reflected in the structure of the syllabus as well in the criteria included in the *Cahier de charges*.

Recommendation 1.1.6

The syllabus document(s) should be concise; the writers of such documents should bear in mind that many teachers (and textbook writers) are not themselves used to—or motivated by—reading extensive theoretical documents.

1.2 Textbook evaluation criteria: Criteria for content

The current call-for-proposals system provides publishers not only with a general *Cahier de charges* but also with a separate annex for each subject, allowing the MoE to specify criteria for each subject and for each cycle within a subject. This is a good basis. While

¹⁶ For this study, “teacher experts” are defined as teachers with at least 10 years’ experience, preferably in the target subject and cycle.

¹⁷ For a further excellent description of what a high-quality mathematics textbook should offer, see the UK National Centre for Excellence in the Teaching of Mathematics (NCETM). (2015). *NCETM mathematics textbook guidance*. Available at: <https://www.ncetm.org.uk/files/21383193/NCETM+Textbook+Guidance.pdf>

¹⁸ For example, this might build on the description of “teaching through standards” in the MoE’s pedagogy guide for English (*English Language Guidelines for Secondary Schools*, p. 9), which describes how formative assessment underpins the lesson plan and teaching.

high-quality textbooks share some common characteristics, across subjects and grades, other characteristics are specific to each subject and cycle.

However, neither the *Cahier de charges* nor the syllabus documents (including the pedagogy guides, from what we have seen) refer to the functions and expectations of a high-quality textbook or learning materials for each subject and cycle.

While there is a specific *Cahier de charges* for each subject, the criteria for content quality currently do not provide a sufficient basis for evaluation commissions to carry out their work. Each commission has in the past developed its own set of criteria for evaluating and scoring the submitted textbooks. It is a general principle of requests for proposals in most countries—for textbooks as well as many other goods and services—that the evaluation criteria should be available to the offeror rather than being developed “internally” by each evaluation commission.¹⁹ This kind of transparency leads to greater trust in the process, more clarity and efficient use of time for the textbook evaluators, and a better outcome overall.²⁰

Recommendation 1.2.1

In order to ensure high-quality criteria, to promote transparency between the MoE and publishers, and to make the best use of the evaluation commissions’ time, the MoE should develop its own evaluation criteria, rather than leaving the development of criteria to the evaluation commissions. The criteria should include generic criteria applicable to all textbooks as well as specific criteria for each subject (and possibly also each cycle). Once they have been prepared, the criteria should be reviewed by expert teachers. The evaluation commissions will not modify these criteria, but they will—during the training—ensure that they apply a common interpretation and application of the criteria. A pre-defined scoring system can help ensure consistency across evaluators in the way they approach the evaluation, and facilitate communication of the results to offerors. Providing offerors with the specific marks or weighting for each criterion is not essential but is helpful in communicating the MoE’s priorities to publishers.

The specific *Cahier de charges* for each subject should therefore include a list of the actual evaluation criteria:

- For reference by textbook publishers and writers
- For use by evaluators

The criteria should be written in a way that communicates the vision for the subject as well as other general curriculum aims. When writing evaluation criteria it is important not only to list the criteria as bullet points but to reflect at all times the syllabus vision in a qualitative way. “To align textbooks with the curriculum in terms of the coverage of contents... is important and relatively easy. What is more challenging is for textbooks to reflect other aspects that the curriculum intends to achieve, for example, developing

¹⁹ To date, evaluation commissions in Morocco have developed their own lists of criteria before starting their evaluations.

²⁰ It may be noted that in 2012, the textbook evaluation process in South Korea moved to a system of improving the transparency of the process in this same way. See Joo, H-M., et al. (2011). *Developing an evaluation model for textbook authorization*. Korea Institute for Curriculum and Evaluation. Available at: <http://www.kice.re.kr/boardCnts/view.do?boardID=1500253&boardSeq=2128510&lev=0&m=0301&searchType=null&statusYN=W&page=4&s=english>

students' high-order thinking skills, critical thinking skills and creativity, and positive attitudes towards [the subject], etc.”²¹

The criteria *for each subject and cycle* should be developed by the MoE as part of the preparations for the new call for proposals, and may be grouped under the following five headings:

- **Content:** The syllabus coverage
- **Learning and teaching:** The methodology
- **Structure and organization:** While some aspects of the organization and sequence of the textbook may be prescribed by the syllabus, textbook writers should have some freedom to interpret the syllabus in their own way and provide creative solutions
- **Language:** The language of the textbook is vital to the learner's ability to access the content of the page. The research and activities currently being undertaken by MoE into children's actual literacy in Arabic (whether they are mother tongue Arabic or Tamazigh speakers) suggest strongly that the language of textbooks should be kept strictly at an accessible level.
- **Textbook layout:** Visual aspects, including minimum appropriate font size and line spacing for a given grade level

A version of these criteria can also be used later by schools (or by those who make the final selection of textbooks for use in each school).²²

The criteria need not be too extensive.²³ It is more important that they are clearly understood and consistently applied during the evaluation process.

For a set of guidelines for high-quality textbooks in each subject that has been recently developed by a leading publishing research organization in the UK, see: <http://www.publishers.org.uk/about-us/information/guidance-for-the-publishing-of-educational-teaching-resources/>

There is no contradiction between recommending that the MoE provide more specific qualitative criteria for publishers and evaluators and the recommendation made previously that syllabus developers relax the specific requirements for textbook content.

Recommendation 1.2.2

Publishers should be required to show in their proposals how they have responded to the vision set out in the syllabus. The call for proposals may describe the specific

²¹ Fan, L. (2010). *Principles and processes for publishing textbooks and alignment with standards: A case in Singapore*. APEC Conference on Replicating Exemplary Practices in Mathematics Education, Thailand, 2010.

²² For an example of selection criteria from a US adoption state (some states in the USA operate a policy of approved textbooks, while other states allow schools to select textbooks from the open market—the states that require approval are known as “adoption states”). See: http://www.doe.virginia.gov/instruction/textbooks/review_process/evaluation_criteria.pdf

²³ For practical purposes, the criteria should be “deep and few.” Each criterion reflects an aspect of the textbook that is found throughout the textbook. A thorough textbook analysis requires either remembering all the criteria throughout the reading and review of the textbook, or constantly re-reading the textbook for each criterion.

elements of the vision that publishers should address and can also indicate how long this document, within the publisher's overall proposal, should be.

To ensure that the submitted manuscript prescribes appropriate allotted times for activities, as well other critical aspects such as the language level of the textbook, publishers should also be required to show they have micro-tested the materials in schools. The MoE should cooperate with publishers to ensure that publishers have access to schools in order to carry out their micro-tests.

1.3 Textbook evaluation criteria: Physical specifications

Physical specifications for current textbooks are in many ways well defined, in terms of printing, paper, and binding. The use of thread-sewing for textbooks of 128 pages or more, which is more durable—but more expensive—than perfect binding and can increase book life considerably, is not a common practice in other comparable education environments. However, the covers of the textbooks that were inspected appear to suffer from being too light and not well glued, with the result that the covers often become detached and expose the textbook to excessive wear and tear.

There is a clear difference between the premise of the *Un Million de Cartables* initiative, which assumes a durability of three years for textbooks in all grades, and the facts on the ground, which suggest that—at least for textbooks in the lower primary grades—book life is two years at most in the primary grades. Book life in secondary grades is reportedly longer. The used books that were seen in schools suggest that while the paper and binding of the textbooks is generally well specified; however, the fact that in many cases the covers have become detached from the books suggests that some improvements will be needed to the specifications for the covers and binding.

The extents (number of pages) of the textbooks do not appear to be excessive, compared to those of other countries. In fact, some respondents commented that the textbook content and page layout was sometimes too dense. The textbook formats (page sizes) appear to be well planned. Based on the fieldwork conducted by a professional of the printing industry, the physical specifications of textbooks are, for the most part, cost-efficient, though improvements could be made to the binding to ensure greater durability.

Recommendation 1.3.1

In the current system, under which textbooks and workbooks are provided free to all public primary school students, the MoE should base its calculations of textbook needs on the fact that textbooks in primary schools do not generally last more than two years.²⁴ In the middle schools, where textbooks are generally not subjected to the same kind of handling by students as they are in the primary grades, book life may be estimated at a minimum of three years.²⁵

If the MoE were to move to a system in which parents made a contribution to the cost of the textbooks, it is possible that book life will increase to more than two years since

²⁴ This recommendation refers only to textbooks, which are re-used for more than one year. Workbooks, which are designed to be written in and therefore are used for one year only, are a separate matter.

²⁵ These recommendations are based on the team's own experiences in other countries as well as on comments by respondents.

parents will have more incentive to ensure that textbooks are well cared for.²⁶ More detail on this recommendation can be found in Appendix C of this study.

Recommendation 1.3.2

The MoE should set a maximum number of pages per textbook (extent), but allow publishers to use fewer pages if they wish in order to interpret the syllabus in different ways. The MoE should address the problem of overcrowded layouts by means of:

- The syllabus itself (see [Recommendation 1.1.3](#) above)
- The criteria included in the *Cahier de charges* (e.g., minimum appropriate font size and line spacing for a given grade level)

Recommendation 1.3.3

The specifications for textbook covers should be improved as follows: a minimum 240 gsm one side coated art paper (rather than both sides coated, as uncoated surfaces absorb the glue better than coated surfaces), with appropriate thickness of lamination (not UV varnish).

The cover should be scored four times, to create hinges 4 mm from the spine.

The spine and hinges should be fully glued to the cover, using PUR (polyurethane reactive) glue.

Recommendation 1.3.4

All textbooks should carry appropriate instructions on the back cover, regarding care of the book, including:

- Emphasizing that the book belongs to the school
- Covering the book with plastic
- Not writing in the book
- Not folding the pages

Recommendation 1.3.5

The MoE should consider a public awareness campaign to encourage better care of textbooks by families. (See also recommendations under Appendix C of this study.)

²⁶ It was not possible to do a comparison in the time available, but it would be useful to compare the rates of re-use in middle schools that receive free textbooks through the *Un Million de Cartables* fund and middle schools in urban areas where parents have to buy the books. Although the urban-rural differences would be a factor, this comparison would nevertheless provide interesting evidence, especially if the rural schools were not “very rural” and the urban schools were not “very urban.”

2 IMPROVING THE TEXTBOOK SUBMISSION AND EVALUATION PROCESS

The evaluation and approval of the textbooks is the link in the textbook chain that comes under the most scrutiny and receives the most possible criticism in many countries. The MoE in Morocco must design procedures that are practical and efficient, while at the same time ensuring that there is sufficient expertise and time to carry out a high-quality evaluation.

The relationship between the buyer and the seller in a textbook evaluation process can be considered “before” and “after” the call for proposals. In the period before the call for proposals is issued, it is in the MoE’s interests to ensure that the principles of the process are clear—especially any changes that have been made to the process—and to allow publishers to raise questions in a public forum. These questions can often be valuable in helping the MoE clarify the details of the formal documents.

2.1 Calls for proposals, textbook development, and textbook submission

It was apparent from interviews with publishers that in the calls for proposals during the period 2002–2008, many publishers submitted several textbooks under different imprints. Even though the *Cahier de charges* specified that no author should be included in more than one textbook, there is no limit to the number of textbooks per subject and grade that a publisher—or different imprints²⁷ of a single publishing company—may submit. On occasions, therefore, a single publishing “group” has had more than one textbook approved for a particular subject/grade. The result is a similarity between some of the textbooks approved for a particular subject/grade, as well as a huge burden on the evaluation process.

During the same calls for proposals, a large number of textbook proposals did not receive approval. Some publishers found that one or two titles (books) in a series were approved while others were not. In most well developed textbook evaluation and approval systems, a textbook draft that reaches the point of submission will have a high probability of being approved, perhaps with the condition that certain modifications are made.²⁸

In some countries, especially in sub-Saharan Africa, the number of textbooks to be approved in each cycle has an upper limit (e.g., six titles per subject and cycle in Kenya, and three in Uganda). In such “high stakes” approval systems, the price operates as a critical factor: publishers are forced to submit at low prices in order to have a greater chance of winning an approved place within the list of three or six titles. In Morocco, as in the countries of East and Southeast Asia that have been referred to in this report (for example, China, Hong Kong, Singapore, South Korea), there is no limit to the number of textbooks that may be approved. It is therefore in all parties’ interests that publishers that submit textbook proposals have a high probability of receiving approval. This requires clear specification of criteria, high-quality submissions, and a degree of collaboration between the two parties.

²⁷ A single publisher—with a single commercial license—may publish under several different imprints, or names. This is normal in the publishing sector in many countries.

²⁸ For example, one publisher submitted more than 100 textbooks but received approval for less than 20, and another submitted 50 but received approval for only 5.

The development period for manuscripts has been a problem in the past. All eight publishers who were interviewed for this study observed that calls for proposals did not allow them enough time to develop high-quality manuscripts. The revised *Cahier de charges* of 2011 has increased the development time to 10–14 months.

The MoE's decision to ask publishers to submit series of two to three titles at one time is a good one, as long as the MoE is able to approve all titles in a series. It is important that teachers and students have the complete series and are able to experience a coherent approach to the subject. However, publishers will therefore need time to develop a complete textbook series, especially if all the manuscripts in the series must be fully illustrated.

In some countries the submission process takes two stages, with a varying amount of feedback provided at the first stage. In China for example, "...once a publishing house has decided to create a new series of school textbooks and has organized a writing team, a proposal and sample chapters of the textbook are required to be submitted to the MoE.... The committee will give detailed feedback to the publishing house. After modification, the textbooks have to be re-examined."²⁹ Dr. Lianghuo Fan says, "...as textbooks are essentially textbook developers' own interpretation and reflection of the intended curriculum in the process of textbook development, they must study and hence establish good knowledge of the curriculum, and more importantly, work together and get information and feedback from curriculum developers."³⁰ This can be achieved through:

- The MoE's requiring publishers to demonstrate in their proposals that they have considered the vision of the syllabus adequately
- The MoE's also providing suitable feedback following stage 1 of the submission process

Approving textbooks in series rather than grade by grade may also have implications for the timing of curriculum implementation, which the MoE has usually rolled out over a period of six years. It is worth noting that until 2012 South Korea also followed the practice of approving grade by grade, but has now moved to a cycle-based or "bunched" system.³¹

According to interviews with respondents, as well as through studying the rights information provided (or not) in the textbooks themselves, it appears from our observations that some textbooks have used textual or graphic material without the necessary permission.

²⁹ Li, J. (2008). Curriculum development in China. In Usiskin, Z., and Willmore, E. (Eds.), *Mathematics Curriculum in Pacific Rim Countries: China, Japan, Korea and Singapore*. Charlotte, NC: Information Age Publishing, p. 130.

³⁰ Fan, L. (2010). *Principles and processes for publishing textbooks and alignment with standards: A case in Singapore*. APEC Conference on Replicating Exemplary Practices in Mathematics Education, Thailand, 2010.

³¹ Joo, H., et al. (2013). *A study on the development of digital textbooks: Designing a prototype of digital English textbooks*. Korea Institute for Curriculum and Evaluation. Available at: <http://www.kice.re.kr/boardCnts/view.do?boardID=1500253&boardSeq=2141832&lev=0&m=0301&searchType=null&statusYN=W&page=1&s=english>

Recommendation 2.1.1

Morocco's current profile of the textbooks and teacher's guides required for each grade and cycle is due for an update. Now that the textbook policy has embraced the principle of re-using textbooks as far as possible, the MoE can probably achieve a more cost-effective policy by replacing some single-use workbooks with re-usable textbooks, and possibly also by considering a teaching methodology—in some subjects—that is not based on a traditional textbook approach.

Workbooks may give the appearance of being “child-friendly” but—given a choice between one or the other—they are not widely believed to be as cost-effective as textbooks, even for mathematics.³² An exception can be made in the earliest grade(s), when the amount of writing required is not great.³³ In subsequent grades, pupils can get more practice with the support of a textbook rather than a workbook.³⁴

Textbooks for grade 1 (and possibly grade 2) can continue to be “write-in” workbooks, so that children's first experience of school includes new textbooks. Many textbooks for grades 1–2 currently do not last more than one year in any case, and in addition most children are not able to do extended writing in grade 1. On the other hand, specifications for offers should require that textbooks for all grades above grade 1 (or grade 2) should not include written exercises, so as to permit the books to be re-used over two or more years.

In all cases, publishers could be free to publish their own supplementary workbooks for sale on the open market, which would not require approval.

³² See, for example, evidence from a randomized control trial in South Africa in Fleisch, B., et al. (2011). Evaluation of *Back to Basics* mathematics workbooks: A randomised control trial of the Primary Mathematics Research Project. *South African Journal of Education*, 31, 488–504. Available at: <http://www.scielo.org.za/pdf/saje/v31n4/v31n4a03.pdf>. “The present study shows that Grade 6 learners exhibit the same degree of learning improvement in mathematics, whether they use a conventional textbook or a workbook specifically customised to address the problems exhibited by poor learners.” Or a report by Richard Allington, former President of the International Reading Association in Allington, R. (2002). What I've learned about effective reading instruction from a decade of studying exemplary elementary classroom teachers. *Phi Delta Kappan*, reprinted online as “The six Ts of effective elementary literacy instruction.” *Reading Rockets* website. Available at: <http://www.readingrockets.org/article/six-ts-effective-elementary-literacy-instruction>. “In less-effective classrooms, there is a lot of stuff going on for which no reliable evidence exists to support their use (e.g., test-preparation workbooks, copying vocabulary definitions from a dictionary, completing after-reading comprehension worksheets).” However, for evidence of effectiveness of worksheets in higher education, see Omega, L. (n.d.). *Standpoints on the use of workbook in English classes*. Uploaded to the Academia website at: https://www.academia.edu/6362409/Standpoints_on_the_Use_of_Workbook_in_English_Classes

³³ However, the authors would also recommend that for Arabic in the early grades, children need more opportunity and space to practice in writing than a workbook alone can provide.

³⁴ Also see Ministry of Education, New Zealand. (2013). *Payments by parents of students* (Circular 2013/06). Available at <http://www.education.govt.nz/ministry-of-education/publications/education-circulars/2013-circulars/circular-2013-06-payments-by-parents-of-students/>. “Workbooks lie somewhere between textbooks, which are provided free to students, and stationery, which students are expected to provide for themselves. On the one hand, it is not absolutely necessary to write answers in the workbook itself; they could be written in an exercise book so that the workbook could then be used by other students in subsequent years. On the other hand, workbooks can have ongoing usefulness to students.”

For Arts Education, the principle of encouraging creativity suggests that pupils can be better served by having a *cahier* (workbook) of blank pages, rather than a formal textbook.³⁵

The MoE should consider cancelling the workbook for Arts Education and instead provide a large format blank exercise book of appropriate art quality paper. This will provide considerable savings.

Although this study has not investigated the issue of regional curriculum variations, which are outside the scope of this work, by cancelling the Arts Education textbook, the Regional Academies for Education and Training (known as AREFs)/regions can more easily deliver on their mandate of adapting the Arts syllabus to their own regional culture.³⁶

Recommendation 2.1.2

The MoE can consider including in the *Cahier de charges* and in discussions with publishers the principle that each publisher should focus on submitting only one series per subject. Implementation of this principle would result in fewer offers being submitted, thereby reducing evaluation time and improving the clarity of choice for schools or other selecting bodies.

Recommendation 2.1.3

To further the message of quality over quantity of offers, breaking the submission process into two stages would offer the MoE and publishers an opportunity to exchange qualitative feedback before a full set of materials is finalized and enhance the likelihood of obtaining acceptable final offers. In such a revised process, publishers would submit their textbooks in two stages, as follows.

STAGE 1:

- Proposal (vision and rationale) for the series: The proposal should show how the series reflects the vision described in the curriculum and syllabus and make clear the unique features of the approach followed by the series, with a rationale.
- Either sample units (following the Chinese system) or a complete layout of book 1, with illustrations in color
- Possibly also complete manuscripts of books 2–3, without illustrations. The precise requirement for the first stage will need to be decided by the MoE.

Stage 1 is followed by a first round of evaluation. Publishers whose initial proposals are found to be acceptable will receive feedback to strengthen their initial submission and will be invited to submit the remaining books in the series.

³⁵ In Europe, it appears that only Greece and Malta provide a textbook or workbook for art education. See Eurydice Network. (2009). *Arts and cultural education at school in Europe*. European Union's Education, Audiovisual and Culture Executive Agency. Available at: http://eacea.ec.europa.eu/education/eurydice/documents/thematic_reports/113en.pdf. For primary school art education in France see Maziere, C. (2015). Artistic education in France: From the state to the classrooms' practices. *International Journal of Education & the Arts*, 16(23). Available at: <http://www.ijea.org/v16n23/v16n23.pdf>

³⁶ The regions have a mandate to adapt up to 30 percent of the curriculum to local needs.

STAGE 2:

- Final layouts with illustrations for books 2–3 (and possibly also for book 1, if only sample units for book 1 have been submitted at Stage 1)

Publishers generally need at least 6 months to develop a complete, illustrated textbook. The subsequent textbooks in the series may take somewhat less time, since the overall approach will have been established during the preparation of the first textbook in the series.

The precise timetable for Stages 1 and 2 will need to be decided by the MoE, with a maximum of 14 months per series as stated in the 2011 *Cahier de charges* (which publishers are already aware of and have welcomed).

Recommendation 2.1.4

Requests for offers, through evaluation criteria and stated requirements, should instruct or encourage publishers to do the following:

- Show that they have understood the vision of the syllabus
- Include a description of the approach taken and the rationale for it, based on the curriculum, and include evidence from within or outside the country as to how and why the approach will be effective
- Present an approach (at least in primary cycles) that allows for effective formative assessment
- Pilot samples of the material in schools, to ensure the effectiveness of the methodology, the level and density of the content, and an appropriate level of the language

The above points should be included in the general *Cahier de charges*.

Recommendation 2.1.5

The MoE may consider implementing consecutive grades at the same time, for some cycles. For example, grades 1–3 might be implemented together in year 1 of the rollout process. Grades leading up to key national examinations would be implemented more gradually. (*Annex 8* suggests possible options.) There is therefore little risk in terms of curriculum coherence.

Several countries implement new curricula in this way. *Annex 9* includes a timetable for the rollout of the new curriculum in South Korea. It is common in the states of the US to implement the whole cycle (e.g., K–8) of a new curriculum at the same time.³⁷

It will be seen that in order to allow publishers to develop the textbooks, as well as to provide time for evaluation, approval, printing, and marketing—whichever implementation timetable is followed—the first call for proposals for textbooks for the new curriculum must be issued almost 24 months before delivery of the first of the new textbooks would be due in September 2019.

³⁷ For example, see the adoption cycle in New Mexico. New Mexico Public Education Department, Program Support and Student Transportation Division, Instructional Material Bureau. (n.d.). *Instructional Material Adoption Framework*. Available at: <http://ped.state.nm.us/InstructionalMaterial/dl10/Adoption%20Framework1.pdf>

Recommendation 2.1.6

As part of their submission in Stage 2 of the submission process, publishers should confirm that they have permission to use all the texts and illustrations included in their textbook submissions. The MoE can provide publishers with a suitable template through which they can obtain and demonstrate permission.

Recommendation 2.1.7

The *Cahier de charges* will also have to take into account the fact that writers/publishers of textbooks in Morocco have sometimes included activities and exercises that encourage students to write in the textbooks, which prevents reuse of the textbook. All textbook activities should be clearly intended for work in exercise books or the classroom.

2.2 The eligibility of publishers

There are some good textbook publishers in the country, and others may emerge. However, many of the publishers are in fact associated with each other in some way. It is likely that with the restructuring of the textbook submission and evaluation process, and in a more authentically competitive policy environment, publishers will no longer see it as in their interests to submit more than one series for any subject/cycle, and the number of textbook publishers will therefore fall.

Recommendation 2.2.1

It is in the MoE's interest, as well as in the interest of professional publishers themselves, to ensure that publishers who wish to submit textbooks for evaluation and approval are able not only to mobilize the appropriate skills but also to gain the necessary textbook publishing experience and financial capacity. Publishers need capacity to respond to the needs of a market that is often financially challenging, with long credit times.

Recommendation 2.2.2

In the same way that the MoE's evaluation process will benefit from including expert teachers in the evaluation commissions, publishers should ensure that teachers with experience in the target subject and cycle are included in the writing teams. This will in turn ensure the appropriateness of the presentation of the concepts, the kinds of methodology, and the level of language used. Publishers should also offer a description of how the editor in chief of the series is able to provide the necessary overall guidance and quality assurance to the authors. In China for example, the writing teams are composed of university academics, inspectors/supervisors, teachers, and editors, though the majority are academics. The MoE may also indicate in the call for proposals that it supports the inclusion of women among the writing teams.

2.3 Financing the evaluation process

The MoE's evaluation commissions have traditionally carried out their work with a minimum level of financial compensation for evaluators. In some countries, evaluators receive payment. In other countries, including the so-called "adoption states"³⁸ of the US,

³⁸ Some states in the USA operate a policy of approved textbooks while other states allow schools to select textbooks from the open market. The states that require approval are known as "adoption states."

participation in evaluations is voluntary, and evaluators (usually education administrators and teachers) are given time off their normal work for the period of the evaluation.

Different countries follow different systems in terms of financing the cost of textbook evaluation. Most countries in sub-Saharan Africa, where textbooks are generally financed through donor funding, operate a system of publishers' fees.³⁹

In some countries there are three stages of payment of the publishers' fees:

- Purchase of the *Cahier de charges*
- Submission of textbooks
- Award of approved status

However, the majority of countries that operate a textbook approval system finance the process themselves.

Recommendation 2.3.1

It is recommended that the MoE introduce a small fee for each stage of submission by publishers:

- Submission of the initial proposal and sample
- Submission of the complete series

The fees can either be set at a level that represents "cost-sharing" or at a level that will cover the costs of evaluation.

The MoE may decide to offer a payment to the moderators of each evaluation commission, with expenses/attendance payments to the evaluators themselves.

2.4 Selecting and orienting evaluators

Since the evaluation of the textbooks is a high-stakes process, it is crucial that it is conducted with the full confidence of all parties, both in the evaluators and in the process. At the same time, the commercial significance of textbook evaluation puts great potential pressure on those entrusted as evaluators and administrators of the process. In some countries the selection of textbook evaluators is a closely-guarded secret,⁴⁰ while in other countries it is much more open and includes selected members of the public.⁴¹

From our interviews with publishers in Morocco, there appears to be a degree of mistrust in the evaluation system, based partly on publishers' perception of possible links

³⁹ Other countries also follow this system, for example Trinidad. See Government of the Republic of Trinidad and Tobago. (n.d.) *Evaluating textbooks for use by the Ministry of Education*. On the ttconnect website. Available at: https://www.ttconnect.gov.tt/gortt/portal/ttconnect!/ut/p/a1/04_Sj9CPykssy0xPLMnMz0vMAfGjzOK9A40MTD0tjQ3cLUMNDYyCAh39zL08jQ0szYEKlpEV-Ae5uwEVuJoaeniHGRsYGBcN3wAHcCS0Pzg1Tz9cPwqvMpArUBVgcSZYAR53FOSGRIR4ZjoCAPuTMj/s!dl5/d5/L2dBISEvZ0FBIS9nQSEh/?WCM_GLOBAL_CONTEXT=/gortt/wcm/connect/gortt+web+content/TTConnect/Business/Role/AnInvestor/GovernmentBusiness/Evaluating+Textbooks+for+use+by+the+Ministry+of+Education

⁴⁰ In one sub-Saharan African country, the evaluators were protected throughout the evaluation process by members of the Special Branch police.

⁴¹ Some of the states in the US include members of the public, who apply to be evaluators as a public service.

between evaluators and other publishers or writers. In addition, publishers feel that their textbook submissions have not always been evaluated consistently.

Evaluation panels generally include a balance between academic expertise and practical experience in the relevant subject and cycle.⁴² From our observations, the evaluation commissions in Morocco include personnel of high caliber, but they do not include enough practicing teachers from the relevant subject and cycle.

Recommendation 2.4.1

Criteria for the composition of the evaluation commissions (and selection of the moderator, see Recommendation 2.4.4 below) should be prepared, so that there is an adequate balance between academic qualifications and practical experience. Other criteria might include regional and gender balance. These criteria might also be included in the call for proposals, as an indication to publishers of the MoE's commitment to high standards of evaluation. The Higher Council for Education may be asked to approve the composition of the evaluation commissions.

Recommendation 2.4.2

The evaluator commissions should include at least two expert teachers, each with a minimum of 10 years' experience of teaching in the target cycle and discipline. The teachers should be newly selected for each evaluation, so that there is no risk that they might be suspected of having links with any publisher. It might also be desirable for each evaluation commission to include a member with current or recent experience of rural schools in the target cycle, in order to ensure appropriate content and language level.

Recommendation 2.4.3

All evaluators must sign an affidavit to confirm that they have no conflict of interest with any potential offeror.

⁴² For the composition of evaluators in Japan, for example, see Ministry of Foreign Affairs of Japan. (n.d.). *Textbook examination procedure*. Available at: <http://www.mofa.go.jp/policy/education/textbooks/overview-3.html>. In California, the State Board of Education appoints two panels, the Instructional Materials Advisory Panel, composed of mostly classroom teachers, and the Content Review Panel, composed of subject matter experts (usually professors of education and of the subject under review). Regarding California, "In a recent adoption of reading/language arts texts, the California instructional materials advisory panel and the content review panel consisted of 103 members, including classroom teachers, school administrators, local school board members, and parents/guardians. Members of the panels were appointed by the state board of education based on advice from the curriculum commission. Members of the panels are volunteers who are not compensated for their work." See Watts-Taffe, S. (2006). Textbook selection and respect for diversity in the United States. In E. R. Schweitzer, V. Greaney, & K. Duer (Eds.), *Promoting social cohesion through education: Case studies and tools for using textbooks and curricula* (pp. 107–122). Washington, DC: World Bank. Available at: <http://info.worldbank.org/etools/docs/library/232529/watts.pdf>. This document includes descriptions of the evaluation processes in three states of the USA. For a simple description of the evaluation process in the state of Kentucky, see: *Selection of evaluators: Kentucky*. Available at: <http://www.lrc.ky.gov/statutes/statute.aspx?id=3178>. For more on the adoption systems of the US, see Watt, M. G. (2009). Research on the textbook selection process in the United States of America. *International Association for Research on Textbooks and Educational Media e-Journal*, 2(1). Available at: <http://files.eric.ed.gov/fulltext/ED506523.pdf>

Recommendation 2.4.4

Each panel should include an evaluation moderator who will orient evaluators to the requirements of their task, review the scores given by evaluators, and if necessary, ask them to clarify any inconsistencies. The moderator may be someone with outstanding experience in their field, and not necessarily a former teacher of the subject in the cycle being evaluated.

The evaluators should be oriented by the moderator prior to the evaluation, using sample materials in order to practice using the evaluation criteria and to agree to a common approach.⁴³

The moderator will sign to confirm that each evaluator has—to the best of their knowledge—worked freely of any external interference.

2.5 Evaluating and approving textbooks

In the past, the evaluation commissions in Morocco have carried out their work as a single, continuous, part-time activity, which consists first of filtering out any textbooks that are considered not to be of an acceptable standard to warrant a detailed evaluation, followed by a detailed evaluation by each member of the commission.

In the past, the evaluation commissions have only given rudimentary feedback, whether for rejections or approvals. In Singapore and China, which both operate a two-stage submission and evaluation process, feedback is an essential part of the process. According to Dr. Lianghuo Fan, “When I served as a chief editor in both countries, I received rather detailed feedbacks and sometimes even recommendations.”⁴⁴

The 2011 *Cahier de charges* (section 25) states that the evaluation period (presumably including all activities, not only the work of the evaluation commission) will take 4–8 months. This is in line with the period of time taken in other comparable countries. We do know of several countries in which the evaluation and approval period is a matter of weeks, not months, but in these countries the evaluators are convened to work full time on the evaluation until all submissions have been evaluated.⁴⁵

Recommendation 2.5.1

The MoE evaluation commissions should evaluate submissions anonymously but should provide feedback to publishers. The feedback on the initial proposal should be objective, with references to the curriculum and syllabus documents and the criteria included in the *Cahier de charges*. In the case of provisional acceptance, the feedback provided will include requests for specific revisions or improvements to the initial proposal.

Proposals that are not approved will receive comments supported by reference to the appropriate curriculum documents. “Proposal not approved,” supported by proper

⁴³ In some high security evaluation systems, a trainer trains more evaluators than actually required. At the end of the training/orientation, the evaluators are selected from among those who have been trained. This also has the advantage of ensuring that nobody knows which individuals will form the actual evaluation commission. However, this is probably too extreme for the MoE.

⁴⁴ Email interview with authors.

⁴⁵ In the US, evaluation periods may be two months, as seen in the North Carolina Department of Public Instruction’s 2016 *Invitation to Submit Textbooks for Evaluation and Adoption in North Carolina* (p. 7). Available at: <http://www.dpi.state.nc.us/docs/textbook/publishers/invitation/2016-invitation.pdf>.

evidence, will be final, unless the MoE includes an appeal process in the call for proposals.

After evaluating the initial proposal and sample, each member of each evaluation commission will write a short report, justifying the scores given for each set of criteria. This report will serve as an important record of the evaluation process, providing evidence of the integrity of the process should it later be called into question.

The moderator of each evaluation commission will write a summary report on each textbook that is evaluated, whether it is approved or not, approved pending modifications. This summary report will be shared with the offeror.

It should not be the intention of the evaluation process to reject textbooks, but to support publishers in publishing the best textbook possible.⁴⁶

Recommendation 2.5.2

Publishers that have been approved by the initial evaluation, after submitting their complete and final manuscripts/layouts, will receive further comments relating to accuracy (factual and language) as well as any sensitive social issues. This second report will be provided by an academic authority, supported by the evaluation manager from the Curriculum Directorate.⁴⁷

Recommendation 2.5.3

As at present, approval of a given title should remain valid for a period of 4–5 years, to ensure that publishers have time to amortize costs.⁴⁸ In return, publishers should guarantee that they will make no changes to the textbook within the approval period, unless required or authorized to do so by the MoE.

Recommendation 2.5.4

Publishers will sign a contract with the MoE to say that they will carry out any corrections required by the MoE during the approved period, and that such corrections will be approved by the MoE in good time so that they are able to print and deliver in time.

⁴⁶ In Japan, the guidelines say “Requests for revisions do not mean rejection; such cases are extremely rare.” See Ministry of Foreign Affairs of Japan. (n.d.). *Textbook examination procedure*. Available at <http://www.mofa.go.jp/policy/education/textbooks/index.html>. In South Korea however, “The overall approximate approval rate is 1 out of 3 for middle school mathematics textbooks, and 1 out of 2 for high school textbooks. The low rate is mainly due to the fact that the approval committee evaluates the 20 criteria in a strict and rigid way to select textbooks of good quality.” See Usiskin, Z. and Willmore, E. (Eds.). (2008). *Mathematics curriculum in Pacific Rim countries*. Charlotte, NC: Information Age Publishing.

⁴⁷ This may be already the practice. We are not sure.

⁴⁸ Paragraph 52 of the 2011 *Cahier de charges* states, “Each textbook shall be approved for a period of three academic years, which may be extended for one further period of two academic years.”

3 IMPLEMENTING AN AUTHENTIC MULTIPLE TEXTBOOK POLICY

Implementing a successful multiple textbook policy requires an understanding by all stakeholders, not only by policy-makers, of the rationale for such a policy. In some countries of sub-Saharan Africa that have operated a multiple textbook policy for many years, teachers in some schools have not fully grasped the fact that having more than one approved textbook on the MoE list does not mean that the school should order copies of each textbook for each subject and grade. A multiple textbook policy requires a major change in thinking about the nature of teaching and learning and the role of the teacher and school.

Parents are also vital stakeholders in such a policy shift. Whether or not textbooks are provided free of charge, parents—as well as schools—need to be aware that it is the content of the syllabus, not the content of the textbook, that will be examined at the end of the year or cycle.

The MoE itself includes a range of views as to the wisdom of a multiple textbook policy, even though the new policy of 2002 has still only been partly implemented. The decision to require provinces to allocate all approved textbooks across the schools within their jurisdiction has meant that the competition principle has not been allowed to operate fully—schools have not yet been given the opportunity to evaluate and select their preferred textbooks.

From our research, it is apparent that certain stakeholders (including some publishers) would prefer to keep the current system remain in place, or even to revert to the former policy in which the MoE would contract publishers to publish the MoE's own textbook content. The current part-way multiple textbook policy provides a kind of security. Publishers know that the number of copies required each year will be more or less the same. Other publishers, on the other hand, wish to see a more open competitive system develop.

In many ways, Morocco's textbook policy has evolved on similar lines to those of the countries of East and Southeast Asia that have been referenced in this study. Having started with contracting MoE-developed content out to publishers, the MoE moved to the current system. This pathway is similar to the one that has been followed in China, for example, where the relationship between curriculum content and textbooks has evolved from

- “Unified national textbook; textbook-centered, difficult, complicated, obscure, and outdated content in textbook,” to
- “Curriculum context connected with real-life interests and experiences of students and modern society; new textbook system of one standard and multiple versions.”⁴⁹

⁴⁹ From Qiquan, Z. and Liya, T. (2013). A continuous journey: Curriculum policy change in Mainland China. In E. H. Law and C. Li (Eds.), *Curriculum innovations in changing societies: Chinese perspectives from Hong Kong, Taiwan and Mainland China*, (pp. 13–40). Rotterdam: Sense Publishers. Zhong Qiquan has been Director of the Institute of Curriculum and Instruction at East China Normal University since the 1980s.

The MoE now has a choice as to whether to continue to implement the intended multiple textbook policy in an authentic way, similar to the path that China, Singapore, and South Korea have taken over the past 20 years.

3.1 Competition between textbooks

The MoE took a pioneering step when it launched the competitive textbook policy in 2001–2002. No other country in the Arab world has empowered local publishers in this way.⁵⁰

Competitive multiple textbook policies usually assign the end user the ultimate choice of textbooks so that the choice is based on specific needs rather than administrative decisions. In such systems, it is generally the school that selects the textbook. Exceptions include Japan and China, where the local school board makes the selection on behalf of its schools.⁵¹ Nevertheless, there is still a selection process at the local level.

Few countries in Africa, with the exception of Ghana, have followed the path of Morocco, in which the provincial delegations allocate the approved textbooks equally between all the schools in their area.⁵²

The decision by the MoE to allocate approved textbooks equally between the schools in each province appears—initially—to have been taken for pragmatic reasons, due to pressures of time. The evaluation of the first round of textbooks was completed only in August 2002, only weeks before the start of the school year. There was no time for the lengthy process of schools selecting their preferred textbooks. The decision has since become entrenched.⁵³

⁵⁰ See for example Tunisia (Ministère de l'Éducation, Centre National Pédagogique. (n.d.). *Édition et diffusion des manuels scolaires et des outils pédagogiques éducatifs*. Available at: http://www.cnp.com.tn/french/edition_vente.htm and Algeria (Bourékhis, M. (2009). *Conception et exploitation pédagogique du manuel scolaire de FLE en context algérien*. Mémoire de Magister. Option : Didactique du FLE. Université Ferhat Abbas – SETIF. Available at: <http://www.univ-setif2.dz/images/PDF/magister/MLF13.pdf>), both of which follow the policy previously followed in Morocco, by which the MoE prepares the content of the sole textbook per subject/grade and contracts the publication to private sector publishers. This is also the policy followed in Egypt.

⁵¹ See Ministry of Foreign Affairs of Japan. (n.d.). *Textbook examination procedure*. Available at: <http://www.mofa.go.jp/policy/education/textbooks/overview-1.html>. Also see Usiskin, Z. and Willmore, E. (Eds.). (2008). *Mathematics curriculum in Pacific Rim countries*. Charlotte, NC: Information Age Publishing: “Usually, all schools within a city select the same textbook series in the same year. A textbook selection committee is chaired by a local education bureau director and composed of several members who are teaching supervisors, headteachers, classroom teachers and parents... They make their final decision in 2 days.” In some states in the US, the selection of textbooks is made by the districts, on behalf of the schools.

⁵² See Read, T. (2015). *Where have all the textbooks gone? Toward sustainable provision of teaching and learning materials in sub-Saharan Africa*. Directions in Development, Washington, DC: World Bank, pp. 43-44. Available at: <https://openknowledge.worldbank.org/bitstream/handle/10986/22123/9781464805721.pdf?sequence=1>. Read adds, “The thinking behind this approach is that schools do not have the skills to make title selection decisions. However, practical experience suggests that in most countries schools do have the ability to make selection decisions although training and some practice is usually required.”

⁵³ On the other hand, the allocation of textbooks on a more or less random basis within each province does provide an opportunity for research into relative textbook effectiveness. Such research could be carried out by MoE in collaboration with a university department. This opportunity will disappear if schools start to choose their own textbooks, because the schools would—in research terms—be “self-selecting.”

The rationale for multi-textbook competition in Morocco, as partly set out in the National Charter, is as follows:

- Publishers and writers respond and adapt to the needs of the end users, with improved textbook content at each new cycle of approval
- A multi-textbook policy supports a more diverse publishing sector
- A multi-textbook policy separates the concept of the syllabus from that of the textbook, discouraging memorization and encouraging both teachers and examination writers to target the syllabus rather than the textbook content⁵⁴

However, the current system in Morocco is a half-way house on the road to a fully competitive multi-textbook market. A division of the “market” within each province does not lead to improved textbooks. The only result of the current policy has been the emergence of more publishers. There has probably not been any improvement in the quality of the textbooks as a result of competition, since at no stage have the actual users chosen between textbooks. There is therefore less incentive for authors and publishers to reflect the actual needs of the schools.

Section 41 of the 2011 *Cahier de charges* describes the proposed new system in which schools choose their textbooks.⁵⁵ This is to be encouraged.

Discussion of the principle of multiple textbooks cannot be separated from the cost of the textbooks. The issue of cost has been significant in Hong Kong, for example, despite a well-developed multiple textbook system.⁵⁶ Morocco has successfully avoided this problem, with a fixed price agreed upon between the MoE and publishers.

The process by which Morocco—in principle—approves however many textbooks meet the quality threshold is similar to that followed by most other multiple textbook policies. In some countries, a limit is placed on the number that can be approved, which means that price is an important factor in the evaluation of textbooks.⁵⁷ Such policies are generally found in sub-Saharan Africa, where textbook budgets are partly funded by international donors, although they can also be found in newly emerging market economies in Europe, such as in Albania and Macedonia.

Some countries operate a multiple-textbook process for some subjects, while textbooks for other subjects are published by the government. For example, in Singapore the MoE publishes the textbooks for languages (Chinese, Malay, or Tamil), as well as for ethics. In South Korea, the MoE until recently published the sole mathematics textbook series for primary schools, while allowing competing mathematics textbooks for lower and

⁵⁴ As one teacher trainer respondent commented, with multiple textbooks “*la sacralité du livre unique est diminuée*” (broadly translated as “the textbook is no longer sacred”).

⁵⁵ “In the context of multiple textbooks and the quantities for printing and distribution, the schedule on page 18 sets out the timetable for meetings between education officials and parent associations to review and select from among the approved textbooks for each school, and the school administration will arrange for these meetings.” (Author translation.)

⁵⁶ The MoE in Hong Kong blames publishers for “bundling” extra components with the approved textbooks.

⁵⁷ In Kenya, for example, six textbooks are approved per subject/cycle. In Uganda, it is three.

upper secondary schools. In 2011, the Korean MoE changed this policy “to allow the existence of more than one elementary textbook series” for mathematics.⁵⁸

Occasionally, countries have opted to take a step in a different direction. In Indonesia in 2013, the government stepped back from the prevailing public-private partnership when it re-centralized all textbook publishing under its own roof. The textbooks are printed by private sector printers and sold on the market at controlled prices.⁵⁹ Poland and Hungary have also considered reverting from a multiple-textbook policy to a single, government-published textbook.⁶⁰

Recommendation 3.1.1

It is recommended that the MoE pursue the principle of school-based textbook selection, as described in the 2011 *Cahier de charges*. If there is any hesitation by the MoE in this matter, the MoE can consider giving the regions a choice as to whether to remain with the current policy or move to such a policy. Assuming that some regions opt to stick and some opt to switch, there would be valuable evidence for the MoE as to the effectiveness of each policy. At the same time, there would be little risk for any region that opted to switch.

Recommendation 3.1.2

It is likely that schools will need orientation/training not only in how to evaluate and select textbooks, but also in the essential principle of how the textbook relates to (but is not equal to) the curriculum.

3.2 The textbook ordering cycle

Whether the system is multiple or single textbook, so long as the system is based on a budget that is provided to schools, the book sector needs time to receive and process the school's order. At the moment, in schools that are supported by free textbooks through the *Un Million de Cartables* initiative, the ordering cycle begins only when the school has carried out its stock take at the end of the year (in June). This can work for re-orders of textbooks, as long as publishers have enough stock. However, since the MoE will be implementing a new curriculum over a period of several years, with new textbooks required each year, the ordering cycle should move back, in order to allow publishers time to market their books, collect orders, and print the appropriate quantity. (Furthermore, when publishers have more time to print, they are often more likely to print with local Moroccan printers.) Therefore, it is in everyone's interests for the textbook ordering cycle to move to the early part of the calendar year (January–February).

⁵⁸ Ferreras, A., Kessel, C., and Kim, M. (2015). *Mathematics curriculum, teacher professionalism, and supporting policies in Korea and the United States: Summary of a workshop*. Washington, DC: National Academies Press, chapter 2, p. 14. Available at: <http://www.nap.edu/read/21753/chapter/3#13>.

⁵⁹ Organisation for Economic Co-operation and Development (OECD)/Asian Development Bank (2015). *Education in Indonesia: Rising to the challenge*. Paris: OECD Publishing. Available at: <http://www.adb.org/sites/default/files/publication/156821/education-indonesia-rising-challenge.pdf>

⁶⁰ For Poland, see Zublin, F. (2016, June 1). *This conservative country is trying something radical in education*. The Daily Dose, OZY Media. Available at: <http://www.ozy.com/fast-forward/this-conservative-country-is-trying-something-radical-in-education/69026>. The process in Hungary has not been successful in ensuring textbooks for all students. See Novak, B. (2015, April). Hungarian primary school students to receive free textbooks from September. *The Budapest Beacon* (online). Available at: <http://budapestbeacon.com/public-policy/hungarian-primary-school-students-to-receive-free-textbooks-from-september/22136>

Recommendation 3.2.1

Under the current procurement system, Regional Academies for Education and Training (the AREFs) are not usually able to submit consolidated orders to the central directorate of *Un Million de Cartables* until June, although books are required in schools by early September.

For the first orders of the new curriculum textbooks, the MoE should schedule the call for proposals so that publishers can print copies of the textbooks in the first quarter of the calendar year, in good time for textbooks to be promoted and selected before the end of the school year.

3.3 Textbook prices and overall cost to the system

Morocco has been successful in restricting the prices of the approved textbooks, in some cases for 14 years. It is unusual for countries to be able to hold textbook prices down in this way for so long, or even to be able to hold them down at all. However, there is no reason not to continue with a model that works.

Prices will have to rise, if only to cover the cost of developing new textbooks for a new curriculum. This in itself will place considerable pressure on the system of textbook provision.

The MoE can consider introducing some flexibility in pricing into the call for proposals, so that price becomes a factor in the selection of the textbook by the end user.

More detailed discussion of the costs of the textbook system can be found in Appendix C of this study.

Recommendation 3.3.1

The call for proposals for new textbooks can set a maximum price, and publishers would be free to submit proposals at prices up to the maximum. Publishers would continue to include the published price on the cover of the textbook, so that wherever the schools are located they will all pay the same price.

Recommendation 3.3.2

The prices at which the textbooks are submitted would be maintained for the period of approval (i.e., five years), following which—if there were no significant changes to the syllabus requiring a new call for proposals—there would be a mechanism to review the published prices. This mechanism for increasing prices should be developed jointly by the MoE and publishers (via the *Association des Éditeurs Marocains*).

Recommendation 3.3.3

Projecting the overall cost of textbook provision under a range of price, coverage, and single- and re-use assumptions over the medium term can provide useful information to guide the MoE's financing and cost management decisions. A basic projection tool and accompanying user's guide have been developed as part of this study, and are available (in French only) under separate cover upon request. The tool permits definition and comparison of up to four distinct scenarios, each of which involves specification of five key cost drivers (price and its evolution over time, user coverage, number of books per grade, mix of single- and re-use materials per grade, and replacement cycle of re-used materials per grade).

3.4 The promotion of competing textbooks

The principle of multiple textbooks depends in turn on the ability of publishers to promote the textbooks to those who are responsible for selection. It also depends on the ability of the selector to carry out the selection effectively.

It is unlikely that publishers will have difficulty in promoting their textbooks, although there will be a cost associated with such promotion. Some publishers in the country are already promoting their books effectively to private schools, which can be found in all corners of the country.

As part of their promotion, publishers would also have an incentive to offer training to schools on the use of their textbooks, in the same way that some publishers already do for schools in the private sector.⁶¹

Textbook promotion must begin in advance of the beginning of the school year, possibly as early as six months prior to selection and purchase, so that publishers have time to project sales and print enough copies to fulfill expected demand. This means that textbooks would have to be printed at an earlier stage, to ensure that copies are available for promotion.

Recommendation 3.4.1

In regions that opt to give schools a choice of textbooks, publishers would have to be able to promote their textbooks across the region. This would have to be discussed between the MoE and publishers, possibly making use of the *secteur scolaire* grouping of primary schools or planning promotional exhibitions. Publishers of approved textbooks could be required to submit a sample (or two) at each of the provincial or regional offices. Discussions about effective ways to support the promotion of textbooks would form an important part of the transparent forum/dialogue between the MoE and suppliers, which will be of value to all parties.

Recommendation 3.4.2

The delegation/province should monitor the marketing and ordering of textbooks, to ensure that publishers or booksellers do not use illegitimate means to promote their textbooks. For example, the school *annajah* association would be responsible for the textbook order (as at present, for the *Un Million de Cartables* orders), and would keep a written and signed record of the decision-making process and the rationale for choosing the preferred textbook. If the schools' selection of textbooks was made at a provincial or regional exhibition, there would be opportunities to monitor the process more easily.

⁶¹ Several publishers commented that in their view the teachers are "*le maillon faible dans la chaîne*" ("the weak link in the chain").

4 OVERALL CONCLUSIONS AND SUGGESTED NEXT STEPS

The authors of this study do not claim a causality between competitive textbook systems and high-quality textbooks, nor that there is a causality between textbook quality and successful educational outcomes. Such claims would ignore the enormous impact of the teacher in the educational process, as well as the overall cultural environment.

What we are suggesting, based on our own evidence and on the experiences of a large number of countries, is that there is a widespread correlation between high-quality textbooks and good educational outcomes, and that competitive textbook systems generally provide the basis for a sustainable, flexible, efficient, and innovative educational publishing sector that is able to support the MoE.

High-performing educational systems tend to share some characteristics, as this study has shown. However, examples of other scenarios can easily be found. Vietnam is an outstanding example of a country in which all textbooks are developed centrally by the MoE and supplied at very economic cost to all students across a very large and diverse education sector. Vietnam's rapid emergence into the upper levels in the latest Program for International Student Assessment rounds may have surprised many observer, but it did not surprise those who had worked within the education sector in Vietnam and witnessed the constant dedication to learning from the best and to implementing with caution and consistency.

Critics of the role of the private sector in textbook publishing may argue that the profit motive inevitably leads to higher prices. There are certainly examples of systems where this is the case. There are also examples—such as Vietnam, India, and Bangladesh—where hundreds of millions of textbooks are efficiently supplied every year at very low prices. On the other hand, one of the many strengths of the policy introduced in Morocco in 2002 is the price control mechanism, which has worked well.

Critics of multiple textbook systems may argue that the evaluation process may not be robust enough to filter the low quality textbooks out, and that the end users may not make the best choice. Such critics may also argue that the end users prefer to get on with the core activity of teaching and have choices about textbooks made for them. Experience in many countries shows that as long as the conditions are controlled and there is no undue influence on those making the choice, the role of the school and its teachers in the selection of textbooks is generally a positive one. There is a common tendency in many countries—whether high, middle, or lower income—for academic specialists to overestimate the conditions in the classroom, whether in terms of teaching time, language level, or the abilities and interests of the students. By involving the teacher in the process of textbook selection, the MoE will provide a valuable counter-balance to this tendency.

The authors believe that the experience of the past 14 years, since the introduction of the new textbook policy, provides a good foundation for the MoE to follow the example set by Singapore, China, South Korea, and Hong Kong in building on the infrastructure that has already been developed and continuing on its path towards an authentic multi-textbook policy.

A final point should be made about the costs of the textbook system. A separate study (see Appendix C) has been provided to the MoE, which analyses the current system of

free textbooks for large numbers of families across the country. The recommendations in the present report, and in Appendix C, are to a large extent separate. Both sets of recommendations can be implemented at the same time or at different times, or not at all. The decision lies with the MoE.

Next steps

1. MoE is considering holding a workshop for MoE policy makers and management in October, at which the recommendations in this study will be reviewed. The authors of this study fully endorse the plan to invite members of the textbook sector to take part in the workshop.
2. This study has shown the close links between curriculum format and textbook quality. The MoE may invite international specialists to lead workshops in each of the core curriculum subjects, at the start of the process of curriculum review. This would help MoE's subject specialist teams focus on such links.
3. While some publishers in Morocco are familiar with examples of textbooks from other countries, including France and Singapore, other publishers would benefit from workshops. An informational workshop can be held at the beginning of the procurement process, before the release of the first call for proposals. The MoE can consider inviting international textbook development specialists for the core subjects (at primary and middle school level), as part of the preparation for issuing the call for proposals for textbooks for the new curriculum. These workshops would be based on examples of high-quality textbooks from other countries.

Annex 1: Terms of Reference for Strengthening the Textbook Production Chain In Morocco: Actionable Recommendations

Morocco Textbook Production Chain study: Methodological note

- INTRODUCTION

The Morocco Textbook Production Chain study sets out to research options for an improved and more efficient national textbook⁶² policy, and procedures to ensure that practice reflects policy.

Morocco is unusual among the countries of the Arab world in having a textbook policy that is to some extent competitive and operates as a partnership with the private sector. Lebanon has a fully liberalised textbook sector, in which publishers of approved textbooks market their books to all schools including government schools. Egypt has recently brought private sector publishers into the process, although only one publisher per subject receives approval and all textbooks are supplied to MoE for distribution by the MoE's own transport network. Some of the Gulf countries, such as Qatar and the UAE, have contracted out the development of textbooks but with a single approved textbook per subject. Most of the Arab world, including otherwise reform-minded education systems such as Jordan, continues to operate with highly centralised government-controlled textbook publishing.

Textbook policies in countries that neighbour the Arab world are varied. In many sub-Saharan countries, the MoE operates a competitive, liberalised policy but imposes a limit on the number of textbooks that can be approved for each subject, with price playing a part in the evaluation and approval of the textbooks (thereby maintaining downward pressure on prices).

It is probably more instructive for MoE in Morocco to examine textbook policies in countries whose education sectors are not dependent to a large extent on external assistance. The countries of central Europe, for example, Singapore or even Finland all provide useful comparisons – all have made the journey over the past 20-25 years from centralised textbook supply to an almost fully liberalized system. In an era of globalization, there are many points of reference. The challenge is to learn from the experiences of others while always being aware of the contexts in which they operate.

Throughout the planned work on the key aspects of Morocco's textbook policy, two reference points therefore will be kept in focus:

The textbook policy and procedural recommendations will be grounded in the relevant national policies and key education sector documents

International case studies will be provided in order to demonstrate concrete policy alternatives.

The Morocco Textbook Production Chain study will focus on improving each of the four key links in what may be called the "textbook production chain" so that they effectively support obtaining high-quality textbooks: 1) the textbook specifications (cahier de charges); 2) the publisher's development team profiles and competencies; 3) a transparent, rigorous validation process; and

⁶² This document uses the term 'textbook' to stand for all approved 'learning and teaching materials'.

4) authentic, competitive market functioning with local selection of validated titles, and dismantling of the current practice of “distributing” the market across publishers artificially. The following sections provide further detail on the context and key issues relating to each of these links, and RTI’s proposed activities on which to base actionable policy recommendations.

- LINK 1: Sound textbook specifications as a basis for bidding documents and evaluation criteria

- Context

The design of a textbook procurement process, from the broad policy issues down to the small detail, is not the “start” of a cycle. The procurement of textbooks, like the development and review of curriculum, is a continuous cycle. The design of the process reflects what has gone before. Change will most probably be gradual, because it is not easy to change a complex system. On the other hand, there should be enough flexibility in the system for regular improvements. The current frozen situation, in which the textbooks have remained unchanged for 15 years, is not a healthy system.

However, the past 15 years have also given everyone plenty of time to understand the strengths and weaknesses of the present system. We must be sure to build on those strengths and strengthen the weaknesses.

- Issues

General textbook guidelines and specifications are required, which will be used by all textbook evaluators as well as publishers. It is expected that these guidelines will be short and will describe MoE’s vision for high quality textbooks and their role in the classroom. If schools are to select their own textbooks in the revised policy, these guidelines will be valuable also to them.

Key headings for the content criteria will be developed. As an example, Hong Kong does this well, with a weighting system for the quality and appropriateness of each of five dimensions or categories, including language level and pedagogical approach of the textbooks. Hong Kong uses the following five categories:

Content

Learning and Teaching

Structure and Organisation

Language

Textbook Layout

Specific criteria will be developed within each category and for each discipline and grade level as appropriate. However, there is no necessary equation between highly specific criteria and high quality textbooks. There are many examples, from lower and higher income countries, in which publishers have been obliged to conform to hundreds of detailed criteria at the expense of the overall coherence of the textbook.

The involvement of practicing teachers in the process of developing textbook criteria is important, as a means of monitoring specifications for adequate emphasis on textbooks’ practical utility. There is a clear sense in the current textbooks that they have been written and evaluated without much input from practicing teachers.

Teacher's guides are an issue: the degree to which they are actually used, and how to support teachers to use the textbooks effectively (including the role of the *Guide Pédagogique*)

Technical/production aspects of the textbooks also need to be considered

Note: Are all disciplines to be included within the policy? (eg Singapore's MoE continues to publish some textbooks itself, although most are published commercially and approved by MoE)

- **Proposed activities**

Discuss the vision for textbook policy reform with key actors in MOE

Review key national documents, including *Le Livre Blanc*, curriculum and *Le Guide Pédagogique*, for an illustrative set of disciplines and grade levels, including early-grade reading

Compare current policy and textbooks with the key statements in the documents reviewed

Identify with MoE (and possibly representatives of teacher education) the functions of the textbook, eg:

For the teacher

Content reference, including factual, linguistic, and social elements

Pedagogical reference, with activities that derive from a clear theory of learning

For the student

Content reference during classroom activities

Self-study

With MOE, develop illustrative general textbook guidelines, categories of criteria, specific criteria and weightings with reference also to documents from other countries' systems, for review and discussion

With MOE, discuss and design options for selecting and engaging "expert teachers" currently in the classroom to carry out review of current textbooks, as a means of providing real-world input into the revision of textbook guidelines and specifications.

- **LINK 2: Adequate profiles and competencies of publishers' writing teams**

- **Context**

The documentation on which a textbook procurement is based is similar to any complex legal agreement. It needs to serve two functions: first, it sets out what each party will do; second, it provides guidance and sanctions in case either party does not conform to the agreement. Like the best of such legal agreements, a good procurement procedure results from good prior understanding between the parties involved; for this reason MoE and the publishers should seek to work together for the benefit of each party. This is especially the case in a procurement scenario in which publishers are required only to meet the *threshold* for approval of a textbook – i.e., when there is no competition for a maximum number of approved textbooks.

In order to build a sound understanding between MoE and publishers, the following options are possible:

Invite publishers to submit written comments on the current textbook procurement system. This can be done very transparently, in which all comments are shared with all publishers who have signed up for such a process, probably working through the Publishers Association.

Hold open meetings with publishers, to present the outline of a new strategy, and invite questions from those attending.

Provide textbook exemplars for particular subjects and grades, to demonstrate MoE's vision (sample activities or units only)

In order to achieve good understanding and transparency, MoE needs to have a clear vision of what it wants to achieve. (See Part 1 above.) Of course, understanding and transparency are not enough. In order to achieve improvements, the publishers and writers of the textbooks need to be capable of changing. This is most likely to come about through exposure to changing demands from the actual textbook users, as well as from exposure to alternative ways of developing textbooks (in other countries).

Currently in Morocco, publishers appear to have commissioned primary school inspectors as the core of their writing teams. These writers generally do not have, nor are they provided, specific training in how to write textbooks, and no experience of textbook development other than the textbooks that were traditionally used in government schools.

- **Issues**

Who is eligible to take part in the procurement? (including whether it is open to foreign companies, and those with local representation)

Who actually writes the textbooks? What are the pedagogical and technical qualifications and experience of the writing teams, as teachers and as writers? Do writing teams include practising teachers?

How can textbook publishers and writers become better at what they do?

Monitoring publishers' teams: As part of the bidding process, is the composition of writing teams required information?

- **Proposed activities**

Study the issue of bidding eligibility, including achieving a balance between attracting new participants with new ideas, while also ensuring some protection for national publishers

Identify who actually writes the textbooks in other countries (for example in France, see: [http://edu-data.edumeres.net/index.php?id=22&tx_tbs_tbs\[tbs\]=2#approval1974](http://edu-data.edumeres.net/index.php?id=22&tx_tbs_tbs[tbs]=2#approval1974))

Invite publishers to submit written comments on the current textbook procurement system.

Hold open meetings with publishers, to present the outline of a new textbook strategy.

Assemble a set of exemplary textbook material for a sample of subjects and grade levels that illustrates MOE expectations (including relevant material from other countries), to be provided as part of the bidding process

With MOE, develop guidelines and tools for structuring and conducting a pre-bid conference. Before a new bid is announced, workshops can be provided for policymakers and publishers. Specific case studies of textbooks from other countries can be provided, for example in Arabic, Maths, and Science.

Note: How US publishers do it: <http://publishers.org/our-markets/prek-12-learning/quality-content-learning-resources>

- **LINK 3: Transparent and rigorous textbook validation / approval process**

- **Context**

In the previous round of evaluations (12 years ago), many textbooks were rejected, including individual titles within a series (even though other titles in the same series were approved). Understanding the basis for those rejections will be helpful.

The quality of the textbook evaluation process can only be as good as the evaluators' understanding of MoE's overall vision of the characteristics of high quality textbooks.

In the revised specifications document announced a few years ago, MoE was to appoint several teams to evaluate and approve the textbooks, and allocated itself eight months for evaluation and approval.

- **Issues**

How are textbook evaluators selected and trained?

What legal undertakings do they make?

How do the evaluators work? Do they take the textbooks home and evaluate them individually?

What are the strengths and weakness of the current system? Is the system protected from any charge of outside interference?

How is the evaluation process paid for? Do the financial aspects have an impact on the outcome or quality of the work?

Are evaluators trained and given opportunity to practice their scoring first, before working on actual submissions?

Does MoE have a mechanism for requesting / requiring corrections of factual or language errors in an approved textbook?

Is there a mechanism for textbooks to be evaluated as a series? (This provision has implications for the length of time it takes to develop a whole series, but also for the schedule of implementation of a new curriculum or new textbook series.)

What mechanisms are in place, if any, to monitor the integrity of the commissions charged with validating textbooks?

- **Proposed activities**

Analyse the composition of evaluation panels and (if possible) interview some of the evaluators from the previous round of evaluation

Through interviews with key MOE actors as well as publishing houses, explore the questions raised in the Issues section above.

Provide to and discuss with MOE relevant approaches and experiences of other countries with regard to textbook validation and approval, as potential examples for Morocco to draw from.

- **LINK 4. Competitive market - based on authentic, local selection of approved titles**

- **Context**

The current multiple-textbook policy is based on the National Education and Training Charter (Charte nationale d'éducation et de formation), published in 1999, which states in Article 108 (my own translation):

While the education and training authorities are responsible for defining the educational outcomes, general objectives and main stages of the syllabi and curriculum, the committee mentioned in Article 107 will supervise the production of textbooks, school books and other electronic learning materials, on the basis of detailed specifications, by means of open competition between developers/writers, designers/illustrators and editors, based on the principle of multiple references and learning supports. However, all educational materials, however they are produced, must be submitted for approval by the education and training authorities.⁶³

The new policy had two main educational objectives: that learning should not be restricted to a single source of knowledge, and that the knowledge content should be subjected to periodic renewal. Consequently, publishers would be invited to submit textbooks for approval, with competition between the approved textbooks. Furthermore, a textbook would be approved for only three years.

The principles of the new textbook policy soon unraveled. There was no competition between the approved textbooks, because each region ordered quantities of each approved textbook (and divided them among its schools). Furthermore, the three-year contracts with publishers were extended to five years and were then renewed on an annual basis. The same contracts with publishers continue to govern the textbooks currently in the market, and the textbooks themselves have therefore – apart from minor factual corrections – not been changed or updated.⁶⁴

A step towards announcing a new call for textbook submissions, with new conditions and criteria, was taken in 2011 with the new *Cahier des charges*. However, this initiative was subsequently cancelled.

The 2002 textbook policy, which includes strict physical specifications and pricing for each title produced, was introduced at a time when parents paid for their children's textbooks. Since 2011, the cost of textbooks has been provided by MoE and managed via the Association NAJAH in each school. This school-based association operates in cooperation with the Parents Association and has its own bank account into which the MoE pays a sum based on school enrollments, the price of textbooks, and an estimated 20 percent loss and damage to the

⁶³ 'Etant entendu que les autorités d'éducation et de formation ont la responsabilité de définir les profils de sortie, les objectifs généraux et les principales étapes de progression des programmes et curricula scolaires, le comité mentionné à l'article 107 ci-dessus, supervisera la production des manuels, des livres scolaires et des autres supports magnétiques ou électroniques, sur la base de cahiers des charges précis, par le recours transparent à la concurrence des développeurs, créateurs et éditeurs, en adoptant le principe de la pluralité des références et supports scolaires.'

Cependant, tout matériel didactique, sous quelque support que ce soit, doit être soumis à l'approbation des autorités d'éducation et de formation.'

See http://www.men.gov.ma/sites/AdministrationCentrale/DAJC/DocLib1/charte/charte_fr.pdf

⁶⁴ In addition, according to the 2002 textbook policy, publishers could submit textbooks for one or more grades, which MoE approved on a grade by grade basis. Consequently some publishers had only one title in a particular subject approved for use in primary schools.

school's textbook stock each year.⁶⁵ The school therefore re-uses as many as possible of the textbooks that it issues to the students at the start of the year, while workbooks must be replenished each year. Publishers also report that schools' NAJAH associations can take several months to pay their bills.

While it used to be the case that publishers would often supply their own textbooks direct to schools, it appears – due to agreements within the industry that were designed to protect the role of booksellers and distributors – that all textbooks are now supplied to schools via wholesalers or retailers, who receive a percentage of the sales income (around 30%).

Although the national charter set out 'le principe de la pluralité des références', as far as the school is concerned there is a single 'set text' which teachers follow as the main or sole source of knowledge and pedagogy for each subject.⁶⁶

- **Issues**

Is an open system of an unlimited number of approved textbooks per subject better than a system that limits the number?

How might a school-based textbook selection and ordering system work? Might it be possible to trial this in one or two regions?

Pricing: although publishers complain about the fact that the prices have not changed for 12 years, the original prices were obviously attractive to publishers. (Price ceilings for textbooks are found in some other countries, including Canada.)

How long will textbooks be approved for? (In Singapore, for example, the period is 5 years.)

The period of approval has an impact on the development of textbook writing, design and illustration skills

Options (pros and cons) for selection of textbooks: at school or province level.

Promotion and marketing of textbooks

What mechanisms are in place to monitor the integrity of textbook selection decisions, as well as the timeliness of textbook selection, delivery, and deployment in classrooms?

- **Proposed activities**

With MoE and other key actors, review **alternative** market approaches used in other countries in light of the above issues, and discuss feasibility / adaptability to Moroccan context

⁶⁵ NAJAH is the programme launched by the MoE within the Emergency reform Programme initiated in 2009. One of the components of the NAJAH programme was the establishment of greater school-based financial autonomy.

⁶⁶ The lack of genuine competition in the textbook sector was the subject of a 2009 report by the 'Conseil de la concurrence' (Competition Council), which found that the market was heavily dominated by certain major groups. It appears also that the structure of the textbook tender of 2001 encouraged some publishers to form groups or subsidiaries under names that differ only in minor ways, in order to improve their opportunities (eg Alamaïya/Ilmiya, and their Top Editions co-editions with Librairie Essalam Al Jadida, as well as Maarif/Maarifa).

- **Special considerations with regard to digital teaching and learning materials**

- **Context**

Some ministries of education in the Arab world have begun to make their textbooks available online. For example in the UAE, see <http://gulfnews.com/news/gulf/uae/education/uae-education-initiative-textbooks-online-1.987949>, and in Kuwait the app called 'Kitabi', developed by Regional Center for Development of Educational Software (ReDSOFT): <https://itunes.apple.com/us/app/ktaby/id632016943?ls=1&mt=8>. In 2014 the UAE also launched a national digital Arabic reading campaign: <http://www.ipadeducators.com/#!/uae-reading-campaign/c1ue0>

In Egypt, long-established publisher Nahdet Misr has collaborated with the Ministries of both Education and Communications in several digital projects: see

<http://www.nahdetmisr.com/home/achievements/1955>, and http://www.nahdetmisr.com/home/digital_solutions

Jordan was an early pioneer in attempting to make electronic textbooks an essential element of government school classrooms, as part of its ERFKE (Education Reform for a Knowledge Economy) programme, which began as early as 2003.

- **Issues**

MoE rationale for investing in digital learning content

Balancing digital learning content v. digital teaching content (including learning content that is controlled by the teacher, such as smart boards, and visualisers)

Classroom management of student-controlled digital learning content

Digital textbooks v. other digital learning media (including digital content to support print textbooks)

Development, evaluation and approval process for digital teaching and learning content

Costs (initial and long-term)

- **Proposed activities**

Identify with MoE the rationale for wishing to introduce digital media into the classroom, and analyse the pedagogical and financial implications

Examine case studies (from other countries) of possible uses of digital media, including digital textbooks

Consider with MoE a limited initiative to test the viability of any new textbook policy to capture digital materials also.

Annex 2: List of Interviewees

Date	Interviewees	Organization
Saturday, June 11, 2016	Younes Toumi	Imprimerie Toumi
Monday, June 13, 2016	Fouad Chafiki	Ministry of National Education
	Rachid Amrani	
	Mariam Britel-Swift	USAID
	Thomas Leblanc	
	Nadia Essalmi	YOMAD Edition
Tuesday, June 14, 2016	Rachid Chraïbi	Marsam/Quadrachromie
	Ahmed Filali Anssari	Association Marocaine des Editeurs Dar Errachad El Haditha
	Jamal Touimi Benjelloun	Librairie Dar essalem / Top Edition
Wednesday, June 15, 2016	Mohammed Frirah	Ministry of National Education
	Yassine Jabraoui	
	Rachid Amrani	Ministry of National Education
	Fayçal Guerbaoui	Imprimerie Beni Znassen - Intergraph
Thursday, June 16, 2016	Fouad Learyeche	Imprimerie Ideale
	Camille Hobballah	Afrique-Orient
	Jad Hobballah	
	Hamouda Bourhaleb	Librairie des Ecoles
	Bouchra Bourhaleb Raïs	
	Nisrine Bourhaleb Chraïbi	
	Abdellatif Zhiri	Imprimerie Almaarif Al Jadida
	Ilham Zhiri	
Friday, June 17, 2016	Emmanuel Geraudet	Librairie Papeterie Nationale/Hachette
	Mahjoub Haguig	
	Fatima-Zahra Abouchikhi Lahlou	Sochepress
	Rachid Amrani	Ministry of National Education
Monday, June 20, 2016	Camille Hobballah	Afrique-Orient
	Mohammed Frirah	Ministry of National Education
Tuesday, June 21, 2016	Ahmed Chaïbi	Ministry of National Education
	Abdelatif Zeroual	Ministry of National Education

Date	Interviewees	Organization
Wednesday, June 22, 2016	Noureddine Bousag	Académie de Rabat
	Abdelilah Charyate	Teachers school in Rabat
	Abdelkrim Boussetta	Teachers school in Rabat
	Brahim Fllili	Teachers school in Rabat
	Souad Zahraoui	Teachers school in Rabat
	Amina Oujilali	Delegation de Témara
	Boubeker Med Cherif	Delegation de Témara
	Abdelaali Zakini	Delegation de Témara
	Mustapha Halyadane	Delegation de Témara
	Hassan Afere	Delegation de Témara
Thursday, June 23, 2016	Khalid Zeroual	Delegation de Khemisset
	Tabkha Hamid	Delegation de Khemisset
	Omar Hammounatcha	Delegation de Khemisset
	Eddamoh Hassan	Delegation de Khemisset
	Hassan Kechane	Primary school Abou Bakr Razi
	Mohamed Ameziane	Primary school Abou Bakr Razi
	Said Ouahi	Primary school Abou Bakr Razi
		Middle School in rural khemisset
Friday, June 24, 2016	Fouad Chafiki	Ministry of National Education
	Thomas Leblanc	USAID
	Mariam Britel-Swift	USAID
	Rachid Amrani	Ministry of National Education
Monday, July 4, 2016	M. Ahmed El Karimi	AREF Marrakesh
Thursday, July 28, 2016	Rita El Kadiri	Fondation Zakoura

Annex 3: Timetable for the Operation of *Un Million de Cartables*

The royal *Million de Cartables* initiative takes place according to the schedule of the school year and the requirements of the schools, as follows:

Table 1: At the central level

(Timetable depends on the timetables of supporters/funders)

		From	To	Expected outcome
1	MoE issues basic guidelines	Start of January	End of March	Memos
2	Set the budget for the year	Start of January	End of March	Budget
3	Convene the participants and supporters involved in implementing and financing the initiative	Start of January	End of December	Partnership agreement
4	Establish, keep up with and follow up all aspects of the process	Start of March	End of October	Reports
5	Fix the budget	Start of October	End of October	Actual cost of initiative
6	Transfer part of the budget to the AMAS ⁶⁷	Mid-October	End of October	Confirmation of transfer
7	Set the performance criteria	Start of November	Mid-November	Statement for all AREFs
8	Transfer remainder of budget to AMAS	Mid-November	End of November	Confirmation of transfer
9	Finalise accounts for end of cycle	Start of December	End of December	Accounts finalized
10	National end of year report	Start of January	End of March	National report

⁶⁷ Association Marocaine d'Appui à la Scolarisation.

Table 2: At the regional level (AREF)

(Timetable depends on the timetables of contributors/funders)

		from	to	expected outcome
1	Estimate the number of beneficiaries by grade	Start of January	End of March	Table of beneficiaries
2	Estimate the annual budget	Start of January	End of March	Annual budget for each AREF
3	Frame, keep up with and follow up all scheduled operations	Start of March	End of October	Reports
4	Convene participants and partners in implementing and financing the initiative	Start of January	End of December	Partnership agreements
5	Fix the budget	Start of October	Mid-October	Actual cost of initiative for each AREF
6	Partial transfer of credits to the AMAS representatives	Mid-October	End of October	Credits transferred
7	Set the performance criteria	Start of November	Mid-November	Performance criteria set
8	Transfer of final credits to regional AMAS representatives	Mid-November	End of November	Final credits transferred
9	Accounts finalized for end of cycle	Start of December	End of December	Accounts finalized at each AREF
10	Report completed by each AREF	Start of January	End of March	Regional reports completed

Table 3: At the delegation (provincial) level

(Timetable depends on the timetables of supporters/funders)

		from	to	expected outcome
1	Estimate the number of beneficiaries by grade	Start of January	End of March	Table of beneficiaries
2	Estimate the annual budget	Start of January	End of March	Annual budget for each AREF
3	Frame, keep up with and follow up all scheduled operations	Start of March	End of October	Reports
4	Convene participants and partners in implementing and financing the initiative	Start of January	End of December	Partnership agreements
5	Record the number of re-usable returned textbooks by grade	Start of July	Mid-July	Stock take of textbooks
6	Finalize contracts with supporters	Before September		Contracts with supporters
7	Fix the budget	Mid-September	End of September	Budget set for each AREF
8	Transfer of part of credits to school NAJAH associations and Payment of booksellers	Mid-October	End of October	Partial credits transferred for each delegation (province)
9	Fix the budget and accounts	Start of November	End of November	Budget fixed for each delegation (province)
10	Transfer of final credits to school NAJAH associations and payment of book sellers	Mid-November	End of November	Credits transferred
11	Fix the final budget and accounts	Start of December	End of December	Final budget and accounts for each delegation (province)
12	Write provincial report	Start of January	End of March	Provincial report

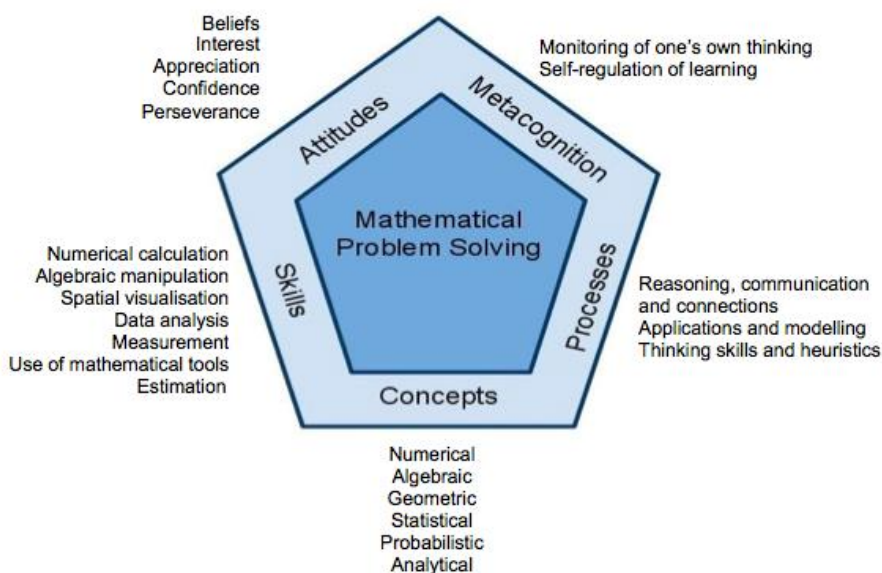
Table 4: At the communal level

		from	to	expected outcome
1	Return of re-usable textbooks and calculate textbooks required	Start of July	Mid-July	Stock take of re-usable textbooks
2	Calculate enrolments and numbers of textbooks and exercise books needed from suppliers	Mid-July	Start of September	Book orders to suppliers
3	Delivery of textbooks and exercise books by suppliers	Start of September		Textbooks, exercise books, equipment
4	Distribute materials to students	First day of school		Materials distributed
5	Fix budget according to receipted costs	Mid-October	Mid-October	Budget fixed
6	Determine the situation of payments, supported by the paperwork justifying the expenses.	Mid-October	Mid-November	Final costs
7	Convene participants and supporters	Start of November	End of December	Agreements between the head of each Association NAJAH (i.e., the director) and the bookseller, and the between the Association NAJAH (the director) and the delegation

Annex 4: Singapore Primary Mathematics Framework

Problem Solving Concepts, Skills, Processes, Metacognition, Attitudes

The Mathematics Framework has been a feature of our mathematics curriculum since 1990, and is still relevant to date. The central focus of the framework is mathematical problem solving, that is, using mathematics to solve problems. The framework sets the direction for and provides guidance in the teaching, learning, and assessment of mathematics at all levels, from primary to pre-university. It reflects also the 21st-century competencies.



The framework stresses conceptual understanding, skills proficiency and mathematical processes, and gives due emphasis to attitudes and metacognition. These five components are inter-related.

Concepts

Mathematical concepts can be broadly grouped into numerical, algebraic, geometric, statistical, probabilistic, and analytical concepts. These content categories are connected and interdependent. At different stages of learning and in different syllabuses, the breadth and depth of the content vary.

To develop a deep understanding of mathematical concepts, and to make sense of various mathematical ideas as well as their connections and applications, students should be exposed to a variety of learning experiences including hands-on activities and use of technological aids to help them relate abstract mathematical concepts with concrete experiences.

Skills

Mathematical skills refer to numerical calculation, algebraic manipulation, spatial visualisation, data analysis, measurement, use of mathematical tools, and estimation. The skills are specific to mathematics and are important in the learning and application of mathematics. In today's classroom, these skills also include the abilities to use spreadsheets and other software to learn and do mathematics.

To develop proficiencies in mathematics skills, students should have opportunities to use and practise the skills. These skills should be taught with an understanding of the underlying mathematical principles and not merely as procedures.

Processes

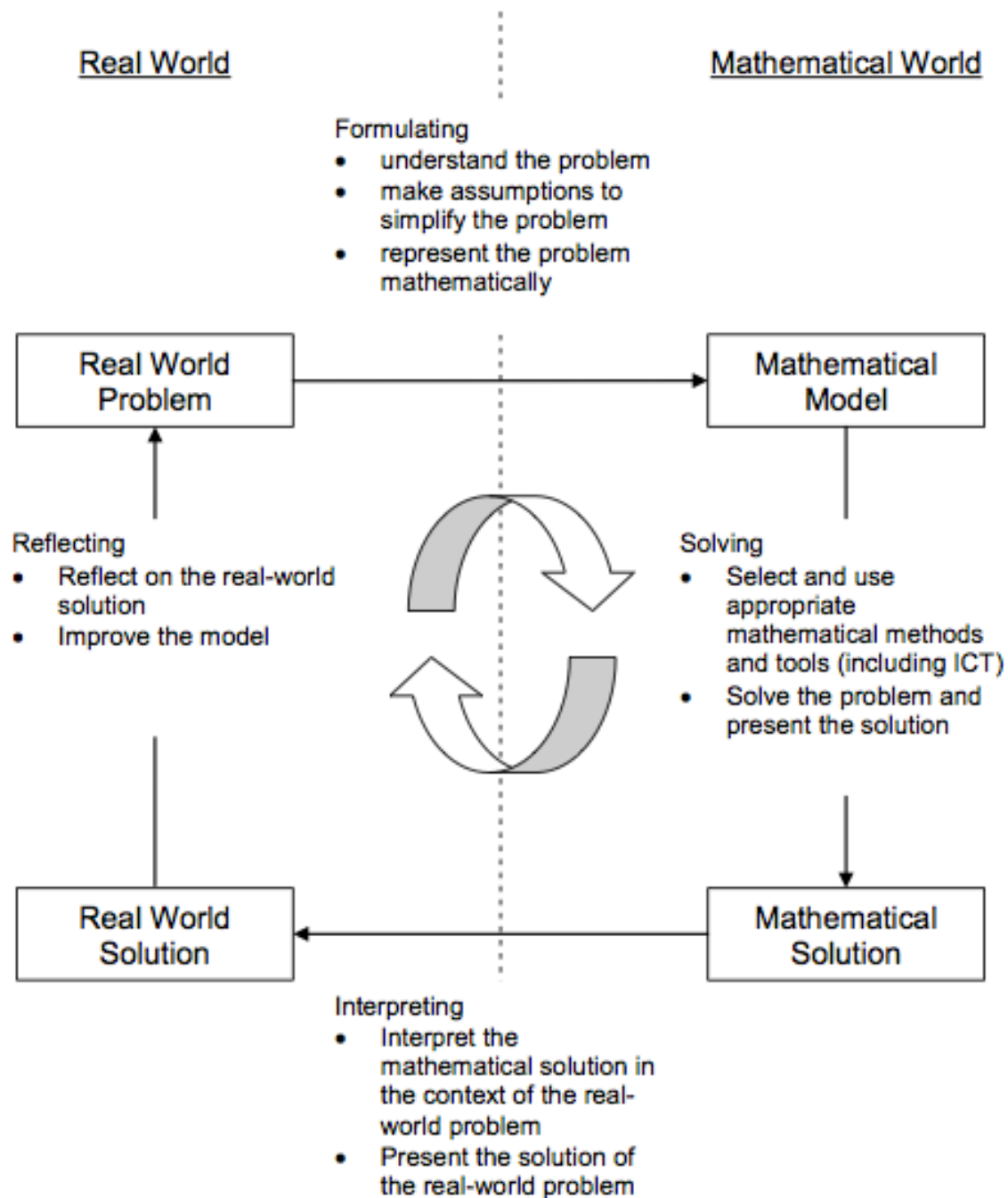
Mathematical processes refer to the process skills involved in the process of acquiring and applying mathematical knowledge. This includes reasoning, communication and connections, applications and modelling, and thinking skills and heuristics that are important in mathematics and beyond.

In the context of mathematics, reasoning, communication and connections take on special meanings:

- Mathematical reasoning refers to the ability to analyse mathematical situations and construct logical arguments. It is a habit of mind that can be developed through application of mathematics in different contexts.
- Communication refers to the ability to use mathematical language to express mathematical ideas and arguments precisely, concisely and logically. It helps students develop their understanding of mathematics and sharpen their mathematical thinking.
- Connections refer to the ability to see and make linkages among mathematical ideas, between mathematics and other subjects, and between mathematics and the real world. This helps students make sense of what they learn in mathematics.

Applications and modelling allow students to connect mathematics that they have learnt to the real world, enhance understanding of key mathematical concepts and methods, as well as develop mathematical competencies. Students should have opportunities to apply mathematical problem-solving and reasoning skills to tackle a variety of problems, including open-ended and real-world problems. Mathematical modelling is the process of formulating and improving a mathematical model⁴ to represent and solve real-world problems. Through mathematical modelling, students learn to deal with ambiguity, make connections, select and apply appropriate mathematics concepts and skills, identify assumptions and reflect on the solutions to real-world problems, and make informed decisions based on given or collected data.

Mathematical Modelling Process (version 2010)



Thinking skills and heuristics are essential for mathematical problem solving. Thinking skills are skills that can be used in a thinking process, such as classifying, comparing, analysing parts and whole, identifying patterns and relationships, induction, deduction, generalising, and spatial visualisation. Heuristics are general rules of thumb of what students can do to tackle a problem when the solution to the problem is not obvious. These include using a representation (e.g., drawing a diagram, tabulating), making a

guess (e.g., trial and error/guess and check, making a supposition), walking through the process (e.g., acting it out, working backwards) and changing the problem (e.g., simplifying the problem, considering special cases).

Metacognition

Metacognition, or thinking about thinking, refers to the awareness of, and the ability to control one's thinking processes, in particular the selection and use of problem-solving strategies. It includes monitoring of one's own thinking, and self-regulation of learning.

To develop metacognitive awareness and strategies, and know when and how to use the strategies, students should have opportunities to solve non-routine and open-ended problems, to discuss their solutions, to think aloud and reflect on what they are doing, and to keep track of how things are going and make changes when necessary.

Attitudes

Attitudes refer to the affective aspects of mathematics learning such as:

- beliefs about mathematics and its usefulness;
- interest and enjoyment in learning mathematics;
- appreciation of the beauty and power of mathematics;
- confidence in using mathematics; and
- perseverance in solving a problem.

Students' attitudes towards mathematics are shaped by their learning experiences.

Making the learning of mathematics fun, meaningful and relevant goes a long way to inculcating positive attitudes towards the subject. Care and attention should be given to the design of the learning activities to build confidence in and develop appreciation for the subject. Above all, students' beliefs can influence their attitudes in learning, especially in student-centred learning where students are encouraged to take on more responsibility for their own learning.

What does it mean to teachers?

The five components of the mathematics framework are integral parts of mathematics learning and problem solving. The intent of the framework is to help teachers focus on these components in their teaching practice so as to provide a more engaging, student-centred, and technology-enabled learning environment, and to promote greater diversity and creativity in learning.

Annex 5: From Singapore Primary Mathematics Syllabus⁶⁸

Learning Experiences: It matters how students learn

Learning mathematics is more than just learning concepts and skills. Equally important are the cognitive and metacognitive process skills. These processes are learned through carefully constructed learning experiences. For example, to encourage students to be inquisitive, the learning experiences must include opportunities where students discover mathematical results on their own. To support the development of collaborative and communication skills, students must be given opportunities to work together on a problem and present their ideas using appropriate mathematical language and methods. To develop habits of self-directed learning, students must be given opportunities to set learning goals and work towards them purposefully. A classroom, rich with these opportunities, will provide the platform for students to develop these 21st century competencies.

Learning experiences are stated in the mathematics syllabuses to influence the ways teachers teach and students learn so that the curriculum objectives can be achieved. These statements expressed in the form “students should have opportunities to ...” remind teachers of the student-centric nature of these experiences. They describe actions that students will perform and activities that students will go through, with the opportunities created and guidance rendered by teachers. The descriptions are sufficiently specific to provide guidance yet broad enough to give flexibility to the teachers.

For each topic, the learning experiences focus on the mathematical processes and skills that are integral parts of learning of that topic. There are also generic learning experiences that focus on the development of good learning habits and skills such as:

Students should have opportunities to:

- take notes and organise information meaningfully;
- practise basic mathematical skills to achieve mastery;
- use feedback from assessment to improve learning;
- solve novel problems using a repertoire of heuristics;
- discuss, articulate and explain ideas to develop reasoning skills; and
- carry out a modelling project.

These learning experiences, whether they are topical or generic, are not exhaustive. Teachers are encouraged to do more to make learning meaningful and effective.

⁶⁸ [https://www.moe.gov.sg/docs/default-source/document/education/syllabuses/sciences/files/mathematics-syllabus-\(primary-1-to-4\).pdf](https://www.moe.gov.sg/docs/default-source/document/education/syllabuses/sciences/files/mathematics-syllabus-(primary-1-to-4).pdf), p20.

Annex 6: Sample of Singapore Mathematics Syllabus Content⁶⁹ and Textbook⁷⁰

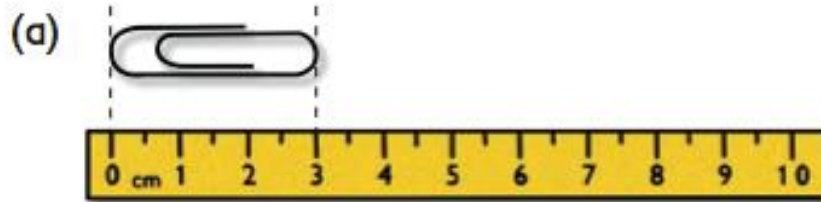
The following example from the grade 2 Singapore Mathematics syllabus shows how the content of the syllabus is reflected in the sample textbook page that follows.

MEASUREMENT AND GEOMETRY	
SUB-STRAND: MEASUREMENT	
Content	Learning experiences
1. Length, Mass and Volume	Students should have opportunities to:
1.1 measuring <ul style="list-style-type: none"> length in metres/centimetres mass in kilograms/grams volume of liquid in litres 1.2 measuring and drawing a line segment to the nearest cm 1.3 using appropriate units of measurement and their abbreviations cm, m, g, kg, l 1.4 comparing and ordering <ul style="list-style-type: none"> lengths masses volumes 1.5 solving word problems involving length/mass/volume	(a) recognise that the term 'weight' is commonly used to mean mass in everyday situations. (b) compare masses of objects using balance scales. (c) use everyday examples to develop a sense of - how long 1 m/1 cm is, e.g. using a metre ruler, width of a fingernail. - how heavy 1 kg/1 g is, e.g. using a packet of sugar/flour/ rice, a pin, a piece of paper. - how much 1 litre of liquid is, e.g. using a bottle of mineral water/cooking oil, and 1-litre containers in different shapes. (d) use their arm span to show 1 m and estimate length in metres. (e) work in groups to measure the length of curves using a string. (f) work in groups to measure length/mass using appropriate units and explain their choices of units and how the measurement is done, e.g. measure the length of a longer object in metres and the mass of a heavier object in kg. (g) estimate length/mass/volume before measuring it and use the word 'about' (e.g. about 20 cm) to describe the estimation and measurement.

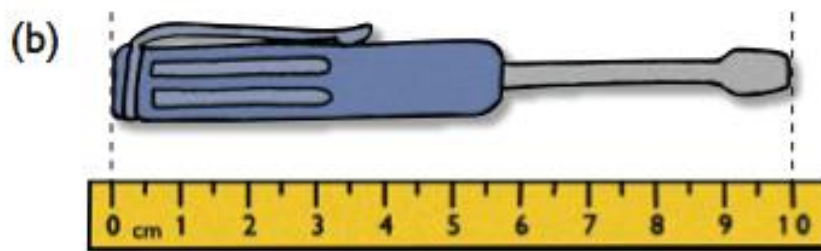
⁶⁹ [https://www.moe.gov.sg/docs/default-source/document/education/syllabuses/sciences/files/mathematics-syllabus-\(primary-1-to-4\).pdf](https://www.moe.gov.sg/docs/default-source/document/education/syllabuses/sciences/files/mathematics-syllabus-(primary-1-to-4).pdf), p40

⁷⁰ For further samples of Singapore Maths textbooks see <http://www.singaporemath.com/SearchResults.asp?Cat=260>

1. How many centimeters long are these things?



The paper clip is cm long.



The screwdriver is cm long.

2. Use your ruler to measure the length and width of your textbook.



The length is about cm.

The width is about cm.

Annex 7: Extract from Hong Kong’s “English Language Education Key Learning Area: English Language Curriculum Guide, Primary 1–6”

Hong Kong provides a booklet of this format for all subjects and cycles, similar to the Pedagogical Guide published by the MoE, Morocco. The balance of coverage of pedagogy, curriculum, and assessment is clear and coherent. In addition, it includes a focus on the use of teaching and learning materials, as well as valuable exemplars of practice that show very concretely how the intended pedagogy might be put into practice in the classroom. This provides textbook writers with a clear model.

Quality Learning and Teaching Resources⁷¹

6.1 Textbooks

In most of the primary English classrooms, textbooks are the basic learning materials used to support learning and teaching. With the aid of quality textbooks and good pedagogy, teachers enable learners to achieve the appropriate Learning Targets, and develop subject knowledge and skills, generic skills, and positive values and attitudes. The development of a school-based English Language curriculum does not preclude the use of textbooks. The English Language Education curriculum framework encourages the use of a wide range of learning and teaching materials, including textbooks and community resources, for effective language education.

6.1.1 Choosing Textbooks

Schools should choose textbooks according to the needs, interests and abilities of their learners, taking into account:

- what they already know;
- what they need to learn; and
- what will enhance their motivation and learning effectiveness.

Besides, schools should consider the following when choosing textbooks: whether:

- the textbooks provide quality resources for a task-based approach in learning, teaching and assessment in English;
- there is a balanced coverage between the learning and teaching of language forms (e.g. text types, vocabulary, grammar items and structures) and communicative functions;
- opportunities for meaningful and appropriate use of English for purposeful communication are provided and language skills are practised integratively;
- a range of text types is introduced at the level appropriate to the learners;

⁷¹ See pages 211–216 from *English Language Education Key Learning Area: English Language Curriculum Guide, Primary 1-6* (Hong Kong, 2004): http://www.edb.gov.hk/attachment/en/curriculum-development/kla/eng-edu/primary%201_6.pdf

- grammar is learned and taught in context and through tasks;
- enabling skills such as phonics and vocabulary building skills are built in to facilitate lifelong language learning;
- there are opportunities for learners to develop the generic skills and practise the five fundamental intertwining ways of learning and using knowledge;
- there are attempts to cultivate learners' positive values and attitudes in general and promote them to enhance second language learning in particular; and
- the content contains cross-curricular elements to enhance learning by helping learners connect English to other learning experiences.

6.1.2 Using Textbooks

Teachers should not feel obliged to use a textbook from cover to cover. They can exercise their professional judgement and adapt textbook materials flexibly according to the needs, interests and abilities of their learners. The following should be considered when textbooks are used:

- keeping the Learning Targets and Objectives of a key stage in mind and identifying the focus of each unit;
- matching the textbook content against the school's English curriculum and making sure that there is a balanced coverage of the Learning Targets and Objectives, not only at a particular year level but also across year levels;
- omitting certain parts—the more able learners may skip the easy parts and the less able learners may skip the more challenging parts;
- using different parts flexibly for different groups of learners—the parts that overlap with what has already been taught should be omitted, and the parts that are insufficient should be supplemented with other materials;
- adapting learning tasks and activities to cater for the learners' needs, interests and abilities; and
- designing extended tasks and projects to promote further learning.

6.2 Other Learning and Teaching Resources

Teachers can make use of a wide range of learning and teaching resources other than textbooks to arouse interest, broaden learning experiences, enhance learning effectiveness and meet different learning needs and styles. Language arts materials (e.g. stories, poems, songs, rhymes, cartoons), information books, children's magazines, children's encyclopaedias, picture dictionaries, language games, multi-media resources and IT tools available online or offline, and authentic materials are all useful resources to support learning at primary level. To support the implementation of the English Language curriculum, resource packages and publications have been developed by the EMB.

6.2.1 Choosing Other Resources

Given the variety of resources available on the market, teachers should exercise their professional judgement when choosing them. The following are some considerations in choosing resources other than textbooks to support learning and teaching:

- In general, the resources should be relevant to the learners' needs, experiences, prior knowledge, interests and abilities. The content should be interesting and challenging, and the language used should be accurate, authentic, purposeful and not too difficult for the learners. Resources which involve the use of mechanical drills and decontextualized uses of English will not be beneficial to the learning of English at primary level.
- Print materials can be effective in cultivating learners' interests and developing their skills in reading. Teachers can choose books on different themes relevant to the interests and daily experiences of their learners. At times, new or foreign experiences should be introduced as long as the learners can make a link between these experiences and their prior knowledge. Books on different subjects can help learners establish cross-curricular linkage in their learning. This can often arouse interest in reading. Furthermore, teachers should not confine their choices to stories, plays and rhymes. They should ensure that the selection covers a wide range of text types, including information texts appropriate to the level of the learners.
- Multi-media resources and IT tools such as audio-books, e-books, computer-assisted skill-based programmes such as phonics packages, interactive simulation games or activities can be good tools for enhancing learner motivation and promoting self-directed learning.
- Good multi-media and IT resources should have the following characteristics:
 - They involve good models of English use.
 - The teaching approach is based on sound pedagogical principles.
 - The design is user-friendly. Graphics, sounds and animations are appropriately used to arouse learners' motivation and to support learning.
 - The design of the activities promotes interactive learning and integrated use of language skills.
 - The resources encourage learner input, allow learners to work at their own pace and provide feedback to learners and teachers if applicable.
- Many IT resources are produced in countries where the target users' first language is English. The age range or level specified may not be applicable to local learners. Teachers need to exercise their professional judgement on their suitability.
- The Internet provides a massive amount of information that can be exploited for language learning purposes such as searching for information for a project and accessing online language resources for pleasurable and self-access learning. As most of the web sites are not written primarily for second language learning, teachers should choose the web materials appropriate to the linguistic and cognitive abilities of the learners, and prepare them adequately for Internet-based tasks.

6.2.2 Using Other Resources

Language arts materials such as rhymes and poems can provide pleasurable experiences for learners who want to have fun with English sounds and rhythms. Storybooks and information books on special themes can cultivate learners' interest in

reading and therefore are conducive to the development of a reading to learn culture. Multi-media resources and IT tools can engage learners in an interactive mode of learning and develop learner independence. Language games provide pleasure in learning and create an opportunity for learners to practise the target language items and the language for interaction. [...]

- In planning lessons with the use of other resources, teachers should make sure that the use of the resources really helps learners work towards the planned Learning Targets and Objectives. The use of the resources should be purposeful and integrated with the school English curriculum.
- Setting up a school library or a class library that provides a wide variety of learning materials is an effective means of fostering learners' interest in reading, providing enjoyment and greater exposure to the English Language. The resources can also help build up learners' knowledge of English and promote learner autonomy in learning.
- Schools can make use of community resources to provide life-wide learning opportunities for learners. Schools may organize visits to community facilities such as museums with tasks and projects as learning activities. Inter-school functions involving non-Chinese-speaking learners will also generate opportunities for meaningful use of English outside the classroom and for cultural exchange. [...]

Annex 8: Proposed Timetable for Evaluation and Approval

Option 1: Grade by grade implementation (example)

Timetable for development and delivery of first phase of textbooks	
Curriculum review and revision	Oct 2016 – Oct 2017
Announce call for proposals	Oct 2017
Submission of initial textbook proposals	Apr 2018
Evaluation of initial textbook submissions	Apr – Jun 2018
Submission of complete textbook series	Oct 2018
Contracts with awarded publishers	Dec 2018
Textbooks printed	Jan – Feb 2019
Promotion of textbooks to schools	Mar – Jun 2019
Booksellers deliver first textbooks to schools	Jul – Aug 2019

Curriculum/textbooks implementation timetable (grade by grade)

Grades	2018	2019	2020	2021	2022	2023	2024
P1 and S1		I					
P2 and S2			I				
P3 and S3				I			
P4 and S4					I		
P5 and S5						I	
P6 and S6							I

P = Primary, S = Secondary, I = Implementation

Option 2: Bunched implementation (example)

	2018	2019	2020	2021	2022
P1-3 and S1-2		I			
P4-5 and S3-4			I		
P6 and S5				I	
S6					I

Annex 9: Timetable of Introduction of New Curriculum Textbooks in South Korea⁷² and Singapore

The following table shows the timetable followed in the implementation of the new curriculum in South Korea. It can be seen that the implementation process took three years, with a cycle of evaluation and approval for each year.

It is worth noting that the textbooks for grades 1–2 and 7–9 were submitted in August 2012, and approvals were awarded in October 2012. That is, the entire evaluation and approval process took two months.

(On the other hand, the process in Japan takes much longer: “The entire process takes a considerable amount of time. Most textbook projects run at least three years from the launch of the writing committee to the actual use of books in classrooms.”⁷³)

	2011	2012	2013	2014	2015
Grades 1-2	D	D/A	I		
Grades 3-4		D	D/A	I	
Grades 5-6			D	D/A	I
Grades 7-9	D	D/A	I		
Grades 10-12		D	D/A	I	

D = development of textbooks

A = approval

I = implementation

Implementation of Singapore primary curriculum⁷⁴

	2013	2014	2015	2016	2017	2018
Grade 1	I					
Grade 2		I				
Grade 3			I			
Grade 4				I		
Grade 5					I	
Grade 6						I

⁷² <http://www.nap.edu/read/21753/chapter/3#17>

⁷³ See Ministry of Foreign Affairs of Japan. (n.d.). *Textbook examination procedure*. Available at: <http://www.mofa.go.jp/policy/education/textbooks/index.html>

⁷⁴ [https://www.moe.gov.sg/docs/default-source/document/education/syllabuses/sciences/files/mathematics-syllabus-\(primary-1-to-4\).pdf](https://www.moe.gov.sg/docs/default-source/document/education/syllabuses/sciences/files/mathematics-syllabus-(primary-1-to-4).pdf), p6

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