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Desk Review of ULA and Mathematics Student Textbooks and Teacher Guides

August 2023

UZBEKISTAN EDUCATION for EXCELLENCE PROGRAM

RTI INTERNATIONAL

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Desk Review of ULA and Mathematics Student Textbooks and Teacher Guides
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CONTENTS

FIGURES AND TABLES

List of Figures

List of Tables

ACRONYMS AND ABBREVIATIONS

M	Mualim (teacher)
MoPSE	Ministry of Preschool and School Education
O	O'quvchi (student)
PRG	Product Review Group
SEL	Social and Emotional Learning
STB	Student Textbook
TG	Teacher Guide
TLM	Teaching and Learning Materials
ULA	Uzbek Language Arts
USAID	U.S. Agency for International Development

DESK REVIEW: ULA AND MATHEMATICS TEACHING AND LEARNING MATERIALS

PURPOSE

The U.S. Agency for International Development (USAID) Uzbekistan Education for Excellence Program, implemented by RTI International, conducted the Teaching and Learning Material (TLM) Uptake Study to inform immediate- and medium-term revisions to the TLMs developed by both the Program and the Ministry of Preschool and School Education (MoPSE). This desk review forms part of the TLM Uptake Study. Under the desk review, we evaluated the quality of the teacher guides (TGs) and student textbooks (STBs) developed for the Uzbek Language Arts (ULA) and Mathematics courses for grades 1–4 during the piloting of these materials in schools.

RESEARCH QUESTIONS

The following research question guided the review, which focused on the appropriateness of the TLMs for ULA and Mathematics, grades 1–4.

- Research Question (RQ)1: Are the language and design (layout, formatting, and structure) of the Uzbek Language Arts (ULA) and Mathematics student textbooks (STBs) and teacher guides (TGs) appropriate for student and teacher ease of use within the local Uzbek context?

Also for the purpose of the desk review, two additional questions were added to ensure a review against best practice guidance and student-centered approaches and the four Cs – communication, collaboration, critical thinking and creativity, key to Uzbekistan's reform effort.

- Do the content, instruction, and design features adhere to best practices for TGs?
- Do the content and design features in the STB promote 21st century skills and student-centered approaches (collaboration, communication, critical thinking, creativity, i.e. individual and group work, open questioning, multiple choice problem solving, analysis)?

CONCEPTUAL FRAMEWORK

The review uses RTI's essential guidance and best practices for developing TGs[1] as the guiding conceptual framework. Rubrics were developed and used to evaluate best practices[2] for STBs (**Annex 1** and **Annex 2**).

[1] Piper, B., Sitabkhan, Y., Mejía, J., & Betts, K. (2018). *Effectiveness of teachers' guides in the Global South: Scripting, learning outcomes, and classroom utilization.* RTI Press Publication No. OP-0053-1805. Research Triangle Park, NC: RTI Press. https://doi.org/10.3768/rtipress.2018.op.0053.1805

[2] The rubrics incorporated best practice as outlined in the following articles: Nakamura, P., Shone, R., Saidoshurov, S. (2016). *Teaching and learning material in Tajikistan: How do they align with reading research?* American Institutes for Research (AIR) report on U.S. Agency for International Development (USAID) Quality Reading Project. https://pdf.usaid.gov/pdf_docs/PA00MHMX.pdf; RTI International. (2015). *A guide for strengthening gender equality and inclusiveness in teaching and learning materials*. EdData II: Data for Education Research and Programming (DERP). Washington, DC: U.S. Agency

METHODOLOGY

DESK REVIEW

From December 2022 to January 2023, our researcher for this study reviewed 153 combined lessons (from both the TG and the STB) as well as the front matter pages of the grade 1–4 TGs. Weekly sets of lessons were randomly selected from each grade level for each of the yearly terms. **Table 1** below lists the specific lessons reviewed.

Table 1. Lessons Reviewed, Grades 1–4

	Uzbek Language Arts	Mathematics
Grade 1	**Weeks 6 and 31** ▪ 16 lessons, STB ▪ 16 lessons, TG	**Units 4 and 11** ▪ 25 lessons, STB ▪ 25 lessons, TG
Grade 2	**Weeks 9 and 26** ▪ 14 lessons, STB ▪ 14 lessons, TB	**Units 7 and 10** ▪ 25 lessons, STB ▪ 25 lessons, TG
Grade 3	**Weeks 7 and 25** ▪ 14 lessons, STB ▪ 14 lessons, TG	**Units 5 and** ▪ 25 lessons, STB ▪ 25 lessons, TG
Grade 4	**Weeks 15 and 27** ▪ 14 lessons, STB ▪ 14 lessons, TG	**Units 6 and 13** ▪ 20 lessons, STB ▪ 20 lessons, TG 20 lessons

TOOL DEVELOPMENT

In collaboration with the Program technical teams, the researcher developed two review rubrics based on the best practice criteria: one for the TG and one for the STB (**Table 2**).

Table 2. Best Practice Review Criteria

TG CONTENT, INSTRUCTION, DESIGN	STB CONTENT, INSTRUCTION, DESIGN
▪ Layout ▪ Student standards and lesson objectives ▪ Cohesion and clarity ▪ Front and back matter ▪ Formatting ▪ One-page layout ▪ Instructional supports ▪ Physical features applied to all TGs	▪ Layout ▪ Scaffolding of skills ▪ Lesson objectives ▪ Formatting ▪ Language ▪ Illustrations ▪ MoPSE life skills ▪ Social and emotional learning

for International Development. Materials. A Guide for Strengthening Gender Equality and Inclusiveness in Teaching and Learning Materials (usaid.gov); Bulat, J., Dubeck, M., Green, P., Harden, K., Henny, C., Mattos, M., Pflepsen, A., Robledo, A., and Sitabkhan, Y. (2017). *What we have learned in the past decade: RTI's approach to early grade literacy instruction.* RTI Press Publication No. OP-0039-1702. Research Triangle Park, NC: RTI Press. https://files.eric.ed.gov/fulltext/ED582383.pdf

Table 2. Best Practice Review Criteria

TG CONTENT, INSTRUCTION, DESIGN	STB CONTENT, INSTRUCTION, DESIGN
	▪ Critical thinking ▪ Creativity ▪ Problem solving ▪ Individual, group, and pair work

FINDINGS: TEACHER GUIDES

This section describes the specific components of each best practice and briefly outlines the findings for each. We considered these practices, together with the specific components, during the development and revision of the TGs.

PAGE LAYOUT

Page layout refers to the organized and consistent placement of content and graphics on the page to best support lesson delivery. For the purposes of this desk review, we found page layout to be consistent throughout the ULA and Mathematics TGs. It included several specific components, as follows:

- Lessons began at the top of the page and were laid out in a single page in the Mathematics TG. The same was true for the ULA TGs, except for Lessons 1, 5, and 7, which include texts. These three ULA lessons allowed added space for the texts and extended to a second page, which was immediately followed by the next lesson.
- Each TG lesson included an easy-to-read thumbnail image of the relevant STB page allowing the teacher to quickly refer to the same pages the students saw in their textbooks. This practice further adds to the ease and efficiency of using the TG.
- Effective formatting also included the positioning of the text boxes, text, and images in each lesson. We found this to be consistent throughout the pages of the reviewed TGs. Lessons, weeks, and unit names were clearly and colorfully labeled, as were headings and subheadings. Footers clearly and consistently named each page of the relevant TGs.
- Teaching instructions were placed beside relevant content. This practice, observable in all reviewed lessons in the ULA and Mathematics TGs, ensures clarity and efficiency in planning and lesson delivery.

FORMATTING

Clear and predictable formatting of the TG lessons provides teachers with signposts that support uninterrupted movement through each lesson and clear delivery of instruction. For the purposes of this desk review, formatting refers to the deliberate use of font size and style, such as color, bold, and italics. Formatting of all reviewed ULA and Mathematics TG lessons followed the same guidance throughout. Several components of formatting were used to determine the quality of the Mathematics and ULA TGs. Findings on formatting are as follows:

- Full scripting in the beginning lessons of a TG supports the teacher in using the new methodology. In the ULA and Mathematics TGs, scripting was reduced as lessons progressed through the year. All scripting to be spoken by the teacher was written in blue font. It is typically expected that, as the term progresses, teachers become more familiar with the teaching language; hence, this scripting for the lessons was reduced in later lessons.
- Bolded text organized the content on the page and guided the teacher through various lessons and lesson parts each week or unit, such as in the Introduction (for ULA) and Discussion (for Mathematics). These labels maintained clarity within each lesson and were predictable as the year progresses, thereby facilitating the use of the TG.

- Italics were used consistently, yet sparingly, throughout the TGs to highlight the number of minutes allocated to lessons or lesson parts. Providing the approximate timing needed for lessons supports the teacher in time management so that no lesson parts are missed.
- The font size of 11 point Calibri, as specified by the MoPSE, was used consistently throughout all TGs.

STANDARDS AND LESSON OBJECTIVES

Presentation of the specific learning standard and/or objective in each lesson provides teachers with the overarching aim of each lesson and guides them in focusing instruction, learning activities, and assessment on exactly what students need to learn in a lesson. This desk review of the ULA and Mathematics TGs found the following regarding the inclusion of standards and lesson objective:

- Lesson design included a theme (ULA) or unit content (Mathematics) clearly labeled at the beginning of a lesson along with the individual learning standard addressed in the lesson. These set the overall aim of the activities for each lesson.
- All but one of the reviewed ULA weeks were found to include the student learning standard.
- All Mathematics lessons in the TG also provided teachers with a lesson objective. Unlike the Mathematics lessons, ULA lessons in the TG did not include a lesson objective.
- Additionally, the desk review confirmed that the learning activities supported the learning standard listed.

CLARITY AND COHESION

The consistent use of various components supported the clarity and cohesion of Mathematics and ULA TGs. These components included effective use of icons; placement of headings, subheadings, textboxes, and images; a list of learning materials needed; and the alignment of the TG with the STB lessons. The desk review found these components consistently applied in the TGs reviewed. Specific descriptions of the findings include the following:

- Use of icons in the Uzbekistan Education for Excellence Program TGs followed the best practice of being used judiciously and economically to guide teachers through the TG lessons. Both ULA and Mathematics lessons included minimal icons: a clock icon to draw teachers' attention to the time needed for particular lesson part and a home icon to signify homework for students. A few more icons were used in the Mathematics TGs to highlight the objective of the lesson (a clipboard), basic concepts to be taught (a block), needed materials (a ruler), and practice (a girl's face) and group discussion (two boys' and two girls' faces). Ideally, the front matter content should explain the meanings of the icons used. Some icons, such as the independent, pair, and group work icons in the Mathematics TG and STB, were explained in the front matter pages, but several others were not (the homework and lesson pacing/clock icons). Icons were not explained in the ULA front matter pages.
- Necessary didactic materials were clearly listed in each Mathematics lesson. None were listed in the ULA materials because lessons were designed to provide students with everything needed for each lesson in the STB. The desk review also confirmed

that the content of each ULA and Mathematics TG lesson matched the corresponding STB lesson, which provided additional cohesion to each lesson.

INSTRUCTIONAL SUPPORTS

A variety of instructional supports for teachers strengthen the effective use of a TG and, consequently, lesson delivery. The desk review of the Mathematics and ULA TGs validated the practice of providing teachers with instructional supports and revealed the following:

- As mentioned above, scripting scaffolded teachers new to the methodology and/or the subject area. This specific language for instruction was made available for teachers in both the ULA and Mathematics TGs. The use of heavier scripting in the lessons presented in the beginning of the TG declined in lessons slated for later in the year, according to the thinking that, as the teachers became more familiar with the structure of lessons and the methodology, they would need less support.

Mathematics

- Formative assessment tasks for monitoring learning were provided to Mathematics teachers in a colored textbox in most lessons.
- Mathematics TGs also provided teachers with suggestions for ways to simplify a task for struggling students and to provide enrichment to students who have mastered a task by providing them a slightly more difficult task to continue learning. The Mathematics TGs provide suggestions for how to do this.
- To support teachers in the modeling portion of the Mathematics lessons, specific language was provided in a colored textbox in each lesson.
- When appropriate, Mathematics lessons included a thumbnail-size image of what should be written on the black or white board as part of the lesson.

ULA

- Each of the reviewed ULA lessons included scripting for the teacher and expected responses from the students. These responses were clearly labeled teacher (M: (Mualim)) and student (O: (O'quvchi)).

STRUCTURE, FRONT MATTER CONTENT, AND FUNCTIONALITY

Best practice suggests that a TG should be lightweight so that it is easy for teachers to hold while teaching and take home when needed. The desk review found that the Mathematics and ULA TGs followed consistent practices regarding the structure, front matter content, and functionality of TGs by including the following desirable components:

- All ULA and Mathematics TGs included front matter pages consisting of the same content and in the same order: a cover, an introductory statement, a list of grade-level standards, the grade-level scope and sequence, and a detailed explanation of instructional methodology. (See **Annex 3 and Annex 4** for the full description).
- The TGs also followed a similar structure and formatting throughout, with similar borders, color schemes, and margins.
- Functionality refers to the ease with which teachers use the actual book and includes several additional suggested practices. Recommendations and specific findings follow.
  - Guidance suggests limiting the number of front matter pages, given that these pages are infrequently used by teachers and add to the bulkiness of the TGs.

The ULA front matter pages totaled 12 pages while Mathematics pages totaled 15. There is no specific page limit recommendation; however, no RTI projects aim for no more than 10 pages of front matter content.

- RTI's recommendation followed international best practice for the paper used to print TGs is that it be wood-free, bond white, matte-coated paper, of the stronger weight of 80 grams. These attributes make the paper heartier and increase reuse of the TG from one year to the next. For the pilot year, Mathematics and ULA TGs were printed according to these specifications. These materials did not follow the MoPSE specifications: 6080-grams, offset, not less than 80% bond white, matt paper. As students in Uzbekistan carry books to and from school, the MoPSE specifies a total book weight of 300 grams for primary students to ensure that books remain light enough to carry.
- Metal spiral binding is recommended as the best practice in binding. However, MoPSE requested perfect binding, where the pages and cover are glued together at the spine and the other three sides of the book are trimmed as needed to give them clean "perfect" edges. Program teams observed on school visits that the polyurethane reactive perfect binding of the TGs was not sturdy enough to secure the pages of the TGs.[3]

[3] Polyurethane reactive (PUR) binding is suitable for heavier papers, high-use and long-life items.

FINDINGS: STUDENT TEXTBOOKS

In addition to the reviews of the ULA and Mathematics TGs, for this study the reviewer completed a survey of selected STB lessons (1 week/unit per term per grade level) from grades 1–4. As the best practice criteria we used to review the TGs can support teachers' praxis, and students' learning, specific criteria also contribute to the design of the STB to support successful learning. These include:

- Layout
- Scaffolding of skills
- Lesson objectives
- Formatting
- Language
- Illustrations
- MoPE life skills
- Social and emotional learning
- Critical thinking
- Creativity
- Problem solving
- Individual, group, and pair work

LAYOUT

Consistent and predictable page layout guides and supports students through the learning process. The desk review found the STB page layout to be consistent, predictable, and supportive of the learning process. Findings include the following:

- All lessons in the ULA and Mathematics STB fit on a single page, which allowed all lessons for the year to fit into one reasonably sized, easy-to-carry book for each grade level.
- Clear and bolded headings guided students through the lesson by highlighting the objective of the lesson and unit name in Mathematics and the weekly theme in ULA and individual lesson parts.
- Lesson pages were easy-to-read with each component placed appropriately and in such a way as to not cause overcrowding on the page.
- Text boxes, literary text, and images such as illustrations and mathematics graphics were positioned appropriately to support the lesson. A footer on each page of the ULA textbook clearly and consistently named the theme of the week, subject, and grade level.
- Footers in the Mathematics books identified each page with subject and grade level.

SCAFFOLDING OF SKILLS

Learning is improved when skills build upon each other and progress from simple to more difficult. This building and progression were found to be present in the reviewed STB lessons. Details of findings include the following:

- In the Mathematics and ULA textbooks, skills were aligned to the grade-level scope and sequence and followed a logical progression of learning from simple to more difficult.
- Mathematics skills were presented in a spiral and as such were revisited throughout the year.
- While there were no clear options for student self-assessment, which is a critical component of student-centered instruction, opportunities for review and assessment were purposefully structured into the textbook lessons. For ULA, the seventh lesson

of each week was a review and assessment lesson. Each Mathematics lesson began with an Introduction (Kun Mashqi), which reviewed previous content. Additionally, five assessment lessons were included in the grade 1 textbook and nine in the grade 2, 3, and 4 textbooks.

FORMATTING

As it does in teacher guides, clear and predictable formatting contributes to the effectiveness of a student textbook. The desk review found the use of various formatting components, such as bolding and italics, footers, and font style and size, to be purposeful and consistent throughout the STB lessons for ULA and Mathematics. Specific information from the review includes the following:

- Colorfully bolded headings and clear footers guided students through the various lessons.
- Font size in the STB followed the MoPSE specifications and progressed from:
  - 18 to 20 point (grade 1)
  - 16 point (grade 2)
  - 14 point (grades 3–4)
- Similarly, the ancillary text used for captions and art labels was as follows:
  - 16 point (grade 1)
  - 14 point (grade 2)
  - 12 point (grades 3–4)
- The MoPSE requested that the Program use the Calibri font rather than Proxima Nova,[4] which has characteristics recommended for young readers. Therefore, before the Program printed the books for the 2022–2023 pilot year, it was necessary to change the font and the letter- and word-spacing.
- Bolded and italicized text was used throughout the STB lessons. All number problems in the Mathematics textbooks were written with bolded text. In the ULA STBs, bolded text identified new lessons, specific parts of a lesson, and text titles. Italicized font was used in the ULA STB to identify examples as well as individual words and phrases to be written by students.

LANGUAGE/TEXT

Age-appropriate and inclusive language in textbooks is a requirement if learning is to take place. Language and texts in the Program STBs were generally found to be age-appropriate and to effectively communicate the appropriate messages. Specific findings from the desk review include the following:

- Language in the Mathematics lessons was used in explanations and word problems. All reviewed lessons showed that situations presented in word problems reflected real-life context that students would find engaging.
- Two literary texts were included in each week of ULA lessons, along with an illustration and questions for an additional teacher read-aloud text. The desk review found the texts engaging for a young audience and found that they presented no unnecessary violence or inappropriate content.

[4] Available with an InDesign subscription at Adobe Fonts or at Fontspring for a licensing fee.

- Gender equity is an expectation in all STBs. The researcher reviewed selected ULA texts for gender balance and found women and girls and men and boys present in some texts and illustrations, but found primarily men and boys in the texts and illustrations of other lessons.
- Because mathematics content is number based, few representations of gender equity were evident.
- We also reviewed content, graphics, and illustrations for inclusion of people with disabilities and persons from different regions and different socioeconomic and cultural or ethnic backgrounds across lessons. This area was found lacking in both ULA and Mathematics lessons.

ILLUSTRATIONS AND GRAPHICS

Illustrations and graphics in STB lessons support student understanding of new and reviewed content. The desk review found the use of graphics and illustration to be effective. Details include the following:

- Illustrations and graphics accurately reflected and supported the lesson content.
- Illustrations and graphics of a few lessons included representations of children with disabilities as well as persons from different regions and socioeconomic and cultural or ethnic backgrounds. Most lessons, however, lacked these representations.

LIFE SKILLS AND SOCIAL AND EMOTIONAL LEARNING SKILLS

The expectation during development of the TLMs was to include and align the MoPSE life skills (**Annex 5**) and social-emotional skills (**Annex 6**) to better support student's learning and development. The review found the following:

- The MoPSE identified specific life skills for ULA as teamwork skills such as small group and pair work, making decisions, life safety, active citizenship, and initiative. The review found several of these life skills addressed in the reviewed lessons, specifically teamwork and active citizenship.
- Similarly, MoPSE life skills for Mathematics include patriotism and national values, creativity, critical and logical thinking, entrepreneurship, and financial literacy. Several of these life skills are regularly integrated into the grade 1–4 Mathematics lessons, including critical thinking and teamwork skills (small group and pair work.)
- Social and emotional learning (SEL) skills include self-management, self-awareness, social awareness, relationship building, and responsible decision-making. Between one and three SEL skills were integrated into all but two of the reviewed ULA lessons. SEL skills were less evident in the selected Mathematics lessons.

CRITICAL THINKING

The MoPSE identifies critical thinking as a 21st century skill. The use of critical thinking to evaluate evidence to solve problems or complete activities, independently and with others, and to interpret graphics, problems, and questions was present in most activities in the Mathematics and ULA textbooks. The review found the following:

- In each reviewed Mathematics lesson, students encountered multiple opportunities to think critically about the mathematical concepts and problem-solving activities. ULA lessons also offered these opportunities through the use of graphic organizers and Venn diagrams to evaluate language and texts in grammar, writing, and comprehension lessons.

- Similarly, the desk review found opportunities for students to interpret evidence of mathematical concepts, language, and graphics, such as number charts, number lines and graphs. ULA lessons offered students learning activities to use graphic organizers and Venn diagrams to interpret language and texts.
- As children pondered ULA texts and used various strategies for solving math problems, questions supported and strengthened their critical thinking skills. Literal (recall) and inferential (open or higher-order thinking) questions were used throughout the reviewed ULA and Mathematics lessons.
- ULA lessons included graphic organizers, Venn diagrams, word study, and comprehension questions to encourage and support problem-solving.
- Multiple opportunities also existed in the reviewed Mathematics lessons, specifically solving equations and word problems.

CREATIVITY

The desk review also evaluated the presence of another 21st century skill, creativity, and found lessons provided students with opportunities to explore and use their own creativity in relevant, interesting, and worthwhile ways. For example:

- ULA lessons gave students regular learning opportunities to draft original compositions and compose sentences with new vocabulary words. Additionally, lessons asked students to provide more than one correct solution by answering inferential or higher-order thinking questions.
- In some Mathematics lessons, students responded creatively with activities such as drawing pictures using various shapes. Even though the correct answer might be the goal for many Mathematics problems, the teaching methodology stressed using a variety of methods for solving problems, which gave students the opportunity to use more than one single method to arrive at a solution.

COMMUNICATION AND COOPERATION VIA STUDENT-CENTERED INSTRUCTION WITH GROUP, PAIR, AND INDEPENDENT WORK

Working with peers in small groups significantly improves learning and support students as they become more successful learners and collaborators or team players. The desk review of the Mathematics and ULA STBs found the following:

- ULA instruction incorporated the instructional model of *I Do, We Do, You Do,* which includes regular pair, group, and independent work. Pair and small group work was present in some but not all reviewed Mathematics lessons.
- Most ULA and Mathematics lessons were consistently structured for students to practice new skills independently.
- Although the reviewed lessons in the ULA and Mathematics STBs might not explicitly mention small group and pair group, the front matter content in all TGs encouraged teachers to give students regular opportunities to work together with their peers in small groups and pairs.

DISCUSSION

This section of the desk review provides an overview of the main conclusions regarding the Mathematics and ULA TGs and STBs. Conclusions are drawn from the above findings and are organized according to the guiding best practice criteria.The TG and STB lessons included in this desk review mostly followed the best practice criteria and are briefly discussed below.

Formatting and layout of the TG and STB lessons was consistent and effectively guided the teacher and students through various lesson parts. Text, illustrations, and graphics were well organized in both the TG and STB and fit in one page (Mathematics) and in one to two pages (ULA), thereby ensuring ease-of-use for both teachers and students. Each TG lesson also included a thumbnail image of the STB lesson so the teacher could refer to the same page content that students saw.

Student standards and lesson objectives (TGs only) were placed in each Mathematics TG lesson, which provided the teacher with the goal for each lesson. ULA lessons included the student standards, with a few exceptions that have been added by the Program technical team. Lesson objectives, however, were missing. This desk review recommends (see below) that these be added before the TGs are reprinted. Student standards and lesson objectives were not included in the STBs, which followed the common practice of only including them in the TGs.

Cohesion and clarity (TGs only) were evident in each lesson that was part of this desk review. Icons were effectively used to highlight timing of the lesson and homework assignments. Additionally, the Mathematics lessons included icons for individual, pair, and group work. This desk review recommends that future editions of the ULA TGs also include the group work icons. Headings, subheadings, textboxes, and images were clearly and consistently placed in both ULA and Mathematics TGs. Mathematics lessons included a list of learning materials needed for each lesson, while ULA lessons did not, as ULA lessons were written with the assumption that only the STBs were needed.

Layout and formatting, font size, and style as well as margins and footers, were also consistently included throughout the reviewed lessons in the ULA and Mathematics TGs and STBs. Headings for each lesson part contributed to the ease with which students and teachers could move through each lesson.

Instructional supports (for teachers) and scaffolding (for students) were included in all lessons. Scripting in the TG lessons provided added support to teachers. The Mathematics TG lessons also provided teachers with formative assessment tasks, differentiation strategies, lesson modeling, and a thumbnail image of what should be written on the black or white board. The ULA TGs would benefit from including these supports before reprinting. Scaffolding for ULA students was included through close alignment to the student standards, which provided a progression from simple to complex tasks and a regular review of previous skills.

Language and illustrations (STB only) throughout the reviewed lessons were age-appropriate. However, gender equity and inclusion of people with disabilities and persons from different regions, socioeconomic, and cultural or ethnic backgrounds were lacking in most Mathematics and ULA lessons. This desk review recommends that language and illustrations be revised before reprinting the STBs.

Similarly, “21st century skills” such as critical thinking, creativity, and problem-solving, were present in most TG and STB lessons in both Mathematics and ULA.

Individual, group, and pair work, as mentioned in the front matter of both Mathematics and ULA TGs, were included in only a few lessons. This desk review recommends that specific instructions to teachers and students, supported by icons, be added to future versions of these materials.

RECOMMENDATIONS

This section presents three sets of recommendations. **Table 3** lists recommendations and completed TG and STB revisions as per detailed feedback provided by teachers, the Product Review Group (PRG), and the Uzbekistan Education for Excellence Program technical teams. The second set of recommendations provided in **Table 4** includes completed revisions informed by this desk review. **Table 5** lists longer-term recommendations, to be considered by the MoPSE before reprinting the books for schools. In 2022–2023, the Program piloted the TLMs and used feedback from teachers, academics, the PRG, and an internal review by the Program technical teams to revise the Mathematics and ULA materials. These revisions have been included in the TGs and STBs and are detailed in Table 3 below.

Table 3. Completed Revisions Based On Feedback from PRG, Teachers, and Program Internal Review

Source of Feedback	Revisions	TG	STB	Scope and Sequence Student Standards	Status
Uzbek Language Arts Materials					
Product Review Group	All spelling errors corrected	√	√		**Completed** *(Uzbekistan Education for Excellence Program)*
	Phonics illustrations adjusted	√	√		**Completed** *(Uzbekistan Education for Excellence Program)*
	Rewrote selected texts for age-appropriateness and content (*any text that may cause students sadness or distress*)		√		**Completed** *(Uzbekistan Education for Excellence Program)*
	Aligned all lesson activities, including grammar and writing, with themes/topics		√		**Completed** *(Uzbek Linguist and Uzbekistan Education for Excellence Program text writers)*
Teachers	Aligned themes with writing, grammar, other lesson activities (Quarters 2–4 only)	√	√		**Completed** *(Uzbekistan Education for Excellence Program)*
Uzbekistan Education for Excellence Teams	Reviewed each grade's scope and sequence alignment to lessons	√	√	√	**Completed** *(Uzbekistan Education for Excellence Program)*
	Adjusted themes and topics so that all themes fall into one quarter and end the last week of the quarter; lengthened coverage when	√	√	√	**Completed** *(Uzbekistan Education for Excellence Program)*

Table 3. Completed Revisions Based On Feedback from PRG, Teachers, and Program Internal Review

Source of Feedback	Revisions	TG	STB	Scope and Sequence Student Standards	Status
	necessary, eliminated topics that were not needed (Quarters 2–4 only)				
	Adjust progression of skills for scaffolding, simple to difficult (Quarters 2–4 only)	√	√	√	**Completed** *(Uzbekistan Education for Excellence Program)*
	Extended Word Reading to include full year for grade 1 and grade 2 and early grade 3	√	√	√	**Completed** *(Uzbekistan Education for Excellence Program)*
	Reviewed all TG lessons for inclusion of student standards	√			**Completed** *(Uzbekistan Education for Excellence Program)*
	Improved and increased variety of writing activities	√	√		**Completed** *(Uzbekistan Education for Excellence Program)*
	Checked text content for factual accuracy, when appropriate		√		**Completed** *(Uzbekistan Education for Excellence Program)*
	Reviewed and adjusted texts and illustrations to reflect gender balance (Weeks 26–34 only)		√		**Completed** *(Uzbekistan Education for Excellence Program)*
	Revised front matter pages to include: ▪ Explanation of M:/O: and icons in front matter (ULA) ▪ Explain that no didactic materials, other than the textbook, in the front matter pages		√		**Completed** *(Uzbekistan Education for Excellence Program)*
Mathematics Materials					
Product Review Group and External Reviewers	All spelling errors corrected	√	√		**Completed** (*Uzbekistan Education for Excellence Program*)
	Filling in the blanks of the STB with tasks		√		**Completed** (*Uzbekistan Education for Excellence Program*)
	Correcting errors in the answers to tasks given in STB pages	√			**Completed** (*Uzbekistan Education for Excellence Program*)

Table 3. Completed Revisions Based On Feedback from PRG, Teachers, and Program Internal Review

Source of Feedback	Revisions	TG	STB	Scope and Sequence Student Standards	Status
	Ensuring consistency of using mathematical terms	√	√	√	**Completed** (*Uzbekistan Education for Excellence Program*)
Teachers	All spelling errors corrected	√	√	√	**Completed** *(Uzbekistan Education for Excellence Program)*
	Development of the second version of task set for assessment lessons	√			
	Correcting errors in the answers to tasks given in STB pages	√			
Uzbekistan Education for Excellence Team	Ensuring consistency of using mathematical terms	√	√		**Completed** *(Uzbekistan Education for Excellence Program)*
	Development of logic tasks for blanks		√		**Completed** *(Uzbekistan Education for Excellence Program)*
	Develop glossary for teachers	√			**Completed** *(Uzbekistan Education for Excellence Program)*
	Develop specific, measurable, achievable, relevant, and time-bound(SMART) objectives for each lesson	√		√	**Completed** *(Uzbekistan Education for Excellence Program)*
	Discussion Part 2 in the problem-solving lesson has been re-adapted	√			**Completed** *(Uzbekistan Education for Excellence Program)*
	Develop glossary for teachers	√			**Completed** *(Uzbekistan Education for Excellence Program)*
	Revise front matter pages to include:	√			**Completed** *(Uzbekistan Education for Excellence Program)*
	Explanation of blue and black text and icons in FM (Mathematics)	√			**Completed** *(Uzbekistan Education for Excellence Program)*
	Add instruction how to use logic tasks in STB and workbook pages	√	√		**Completed** *(Uzbekistan Education for Excellence Program)*

Table 3. Completed Revisions Based On Feedback from PRG, Teachers, and Program Internal Review

Source of Feedback	Revisions	TG	STB	Scope and Sequence Student Standards	Status
	Revise front matter pages to include:	√	√		**Completed** *(Uzbekistan Education for Excellence Program)*

Additionally, the Program technical teams revised based on the desk review findings as outlined in **Table 4.**

Table 4. Completed Revisions Based on Desk Review

ULA/Mathematics Findings	Adaptations	TG	STB
LANGUAGE			
A gender balance was lacking in that some texts and illustrations described and depicted women and girls and men and boys, but in two of the reviewed texts the main characters were primarily men and boys. In addition, since mathematics materials focus on numbers, there were fewer opportunities in them to illustrate gender equity.	Reviewed and adjusted texts and illustrations to reflect gender balance (Weeks 26–34 only)		√
Across lessons, inclusive content, graphics, and illustrations of people with disabilities and persons from different regions, socioeconomic and cultural/ethnic backgrounds were lacking.	Reviewed and adjusted texts and illustrations to reflect social inclusion and inclusion of children with disabilities (Weeks 26–34 only)		√
GOALS AND OBJECTIVES			
ULA lessons in the TG did not include a lesson objective.	Added an objective for each lesson (ULA only)		√
Student standards were lacking in some reviewed lessons.	Reviewed all TG lessons for inclusion of student standards	√	
CLARITY AND COHESION			
The front matter content of the printed materials should explain the meanings of the illustrative icons used. Some icons, such as independent, pair, and group work icons in the Mathematics TG and STB, were explained in the front matter pages, but several others were not (the homework and lesson pacing/clock icons). However, icons were not explained in the ULA front matter pages.	Revised front matter pages will include: ▪ Explanation of teacher/student abbreviation (M:/O) and icons in ULA front matter ▪ Included an explanation in the ULA front matter why no didactic materials, other than the textbook, are needed	√	

The desk review findings further suggest final recommendations for revisions to be made by the MoPSE before the books are reprinted for use throughout the country. These follow in **Table 5.**

Table 5. Recommendations for Medium-Term Revisions For MoPSE

Focus of Revision	ULA	Mathematics
Formative assessment activities including options for differentiation tasks	TGs: Explicit links to differentation instruction was limited by layout space. Instructions for assessment revised to direct teachers to do the review day based upon needs of their students. Also added text to front matter about assessment and differentation.	n/a
Gender Equity	STBs: Texts and illustrations to increase gender balance were revised, except for historical figures themes.	STBs: Revise wherever possible for increased gender balance in word problems and illustrations/graphics
Inclusion of children with disabilities and social inclusion	STBs: Revised texts and illustrations to more strongly reflect Inclusion (Weeks 1–25)	STBs: Revise texts and illustrations to more strongly reflect Inclusion (all units)
Social and Emotional Learning (SEL) *(self-management, self-awareness, social awareness, relationship, and responsible decision-making)*	TGs and STBs: Texts and activities for increased integration of SEL skills. Reviewed SEL scope and sequence with technical subject matter specialists and added to scope and sequences.	TGs and STBs: Integrate SEL skills into activities
Use of pair and small group work during lessons	TGs and STBs: Use of icons to label activities that are to be done in pairs and/or small groups	TGs and STBs: Increase use of pair and small group work

ANNEXES

ANNEX 1. DESK REVIEW RUBRICS: ULA TEACHER GUIDES AND STUDENT TEXTBOOKS

Research Question (RQ)1: Are the language and design (layout, formatting, and structure) of the Uzbek Language Arts (ULA) and Mathematics student textbooks (STBs) and teacher guides (TGs) appropriate for student and teacher ease of use within the local Uzbek context?

Table 1-1. Rubric for ULA TG: Grade X, Week XX (Lessons 1–7)

Criteria	Guiding Questions	Not Addressed or Limited	Adequate	Consistent Throughout
Layout	Is each reviewed lesson on a single or double page spread?			
	Do new lessons start at the top of a page?			
	Is there an image of the STB page embedded in the TG for each lesson?			
	Are the STB images legible?			
	Is the arrangement of textboxes, text, images, headers, footers, and headings consistent?			
	Is pacing guidance provided for each lesson (number of minutes?)			
Goals and Objectives	Is the relevant student standard listed for each lesson?			
	Is it clear how the activities work toward the goal or objective of the lesson?			
Clarity and Cohesion	Are icons used in a limited and consistent fashion?			
	Are all the resources needed for the lesson clearly listed?			
	Do the contents of the TG and the STB match lesson by lesson?			
Formatting	Are the styles of bold, italics, and underlining used consistently?			
	Are the styles of bold, italics, and underlining used effectively for cohesion across the page?			

Table 1-1. Rubric for ULA TG: Grade X, Week XX (Lessons 1–7)

Criteria	Guiding Questions	Not Addressed or Limited	Adequate	Consistent Throughout
Single Page Layout	Is all the necessary information for a lesson on a single page, whenever possible?			
	Are the instructions positioned next to the relevant content?			
	Is all the content needed for the lesson on the TG lesson page? (Teacher does not have to turn to different sections of the guide to find content or instructions.)			
Instructional Supports	Are formative assessment tasks offered in the lesson?			

Table 1-2. Rubric for ULA STB: Grade X, Week XX (Lessons 1-7)

Criteria	Guiding Questions	Not Addressed or Limited	Adequate	Consistent throughout
Layout	Is each lesson on a single page spread?			
	Are headings clear and consistently used?			
	Is the arrangement of textboxes, text, images, headers, footers, and headings consistent?			
	Does content combined with margins and white space result in a page that is not overcrowded?			
Scaffolding	Do the skills build upon each other (i.e., layering of grammar and mathematics skills)?			
	In the reviewed lesson, are there opportunities for self-assessment (review of skills)?			
Formatting	Does font size and style match Ministry of Preschool and School Education (MoPSE) recommendation per grade level?			

Table 1-2. Rubric for ULA STB: Grade X, Week XX (Lessons 1-7)

Criteria	Guiding Questions	Not Addressed or Limited	Adequate	Consistent throughout
	Is the font readable or legible (numbers and letters) for early readers?			
	Are formatting styles (bold, italics, font) used consistently to support layout?			
Language	Are texts engaging and appropriate for the grade level (no violence or inappropriate subject matter)?			
	Is factual content accurate? Immediate review by Uzbekistan Education for Excellence Program technical team.			
	Is the language sensitive to gender equality?			
	Is the language sensitive to inclusion?			
Illustrations	Do illustrations correspond to the text or problem by accurately depicting the action or characters in a story (or math problem)?			
	Are children from different regions; socioeconomic, cultural, or ethnic backgrounds; and persons with disabilities included across lessons?			
Social and Emotional Learning (SEL)	Are MoPSE life skills topics (teamwork, settling a decision, life safety active citizenship, and initiative) addressed?			
	Are SEL skills, such as self-management, self-awareness, social awareness, relationship, and responsible decision-making, integrated in messages in texts?			
Critical Thinking	Do essay and problem activities guide students to evaluate evidence and solve problems independently and with others?			
	Are opportunities to interpret evidence, statements, graphics, questions, and literary elements provided?			
	Are questions relevant and supportive of critical thinking?			
Creativity	Do activities allow students to explore their creativity in relevant, interesting, and worthwhile ways?			
	Do activities guide students to a range of possible solutions to a prompt, rather than a single correct answer?			
Problem Solving	Is dedicated problem-solving time provided, including time for discussion?			

Table 1-2. Rubric for ULA STB: Grade X, Week XX (Lessons 1-7)

Criteria	Guiding Questions	Not Addressed or Limited	Adequate	Consistent throughout
Independent and Group Work	Is pair work incorporated in the reviewed lesson?			
	Is small group work incorporated in the reviewed lesson?			
	Is time spent working independently incorporated in the reviewed lesson?			

ANNEX 2. DESK REVIEW RUBRICS: MATHEMATICS TEACHER GUIDES AND STUDENT TEXTBOOKS

RQ1: Are the language and design (layout, formatting, and structure) of the ULA and Mathematics STBs and TGs appropriate for student and teacher ease of use within the local Uzbek context?

Table 2-1. Rubric for Mathematics TG: Grade x , Unit X

Criteria	Guiding Questions	Not Addressed or Limited	Adequate	Consistent throughout
Layout	Is each reviewed lesson on a double page spread?			
	Do new lessons start at the top of a page?			
	Is there an image of the STB page embedded in the TG for each lesson?			
	Are the STB images legible?			
	Is the arrangement of textboxes, text, images, headers/footers/headings consistent?			
	Is pacing guidance provided to each lesson (number of minutes?)			
Goals and Objectives	Is the relevant student standard listed for each lesson?			
	Is it clear how the activities work towards the goal / objective of the lesson?			
Cohesion and Clarity	Are icons used in a limited and consistent fashion?			
	Are all the resources needed for the lesson clearly listed?			
	Do the contents of the TG and the STB match lesson by lesson?			
Formatting	Are the styles of bold, italics and underlining used consistently?			
	Are the styles of bold, italics and underlining used effectively for cohesion across the page?			
Single Page Layout	Is all the necessary information for a lesson on a single page?			
	Are the instructions positioned next to the relevant content?			
	Is all the content needed for the lesson on the TG lesson page? (Teacher does not have to turn to different sections of the guide to find content or instructions.)			
Instructional Supports	Are Formative Assessment tasks offered in the lesson?			
	Is a Teacher Modeling example included?			

Table 2-1. Rubric for Mathematics TG: Grade x , Unit X

Criteria	Guiding Questions	Not Addressed or Limited	Adequate	Consistent throughout
	Are differentiation options provided?			
	Is a chalkboard example provided?			

Table 2-2. Rubric for Mathematics TG: *Grade X Unit X*

Criteria	Guiding Questions	Not Addressed or limited	Adequate	Consistent throughout
Layout	Is each lesson on a single spread?			
	Are headings clear and consistently used?			
	Is the arrangement of textboxes, text, images, headers/footers/headings consistent?			
	Does content combined with margins and white space result in a page that is not overcrowded?			
Scaffolding	Do the skills build upon each other (i.e. layering of grammar, and mathematic skills)?			
	In the reviewed lesson, are there opportunities for assessment and review of skills?			
Formatting	Does font size and style match MoPE recommendation per grade level?			
	Is the font readable / legible (numbers and letters) for early readers?			
	Are formatting styles (bold, italics, font) used consistently to support layout?			
Graphics	When provided, do graphics correspond to the problem?			
	Is gender equity present in problems, including graphics?			
	Are children from different regions, socio-economic, cultural/ethnic backgrounds and persons with disabilities included across lessons?			

Table 2-2. Rubric for Mathematics TG: *Grade X Unit X*

Criteria	Guiding Questions	Not Addressed or limited	Adequate	Consistent throughout
Social and Emotional Learning	Are MoPE Life Skills topics (Patriotism and National Values, Creativity, Critical and logical thinking, Entrepreneurship, Financial Literacy) addressed?			
	Are SEL skills such as self-management, self-awareness, social awareness, relationship, and responsible decision-making, integrated in messages in texts?			
Critical Thinking	Do essay and problem activities guide students to evaluate evidence and solve problems independently and with others?			
	Are opportunities to interpret graphics, problems and questions provided?			
	Are questions relevant and supportive of critical thinking?			
Creativity	Do activities allow students to explore their creativity in relevant, interesting, and worthwhile ways?			
	Do activities guide students to a range of possible solutions to a prompt, rather than a single correct answer?			
Problem Solving	Is dedicated problem-solving time provided, including time for discussion?			
Independent and Group Work	Is pair work incorporated in the reviewed lesson?			
	Is small group work incorporated in the reviewed lesson?			
	Is time spent working independently incorporated in the reviewed lesson?			

ANNEX 3. MATHEMATICS METHODOLOGY

The methodology used in these books is based on a wide body of international research into how children learn mathematics. This methodology:

- Develops students' mathematical skills (algebraic thinking, logical thinking, critical thinking, and problem-solving) and enhances their ability to communicate effectively, to think independently, to explain one's own point of view, to discuss problems and solutions, to work in a team, and to manage time.
- Helps students gain conceptual knowledge and procedural fluency through multiple opportunities to practice foundational skills.
- Builds students' understanding of content through practical exercise, assignments and homework that can be adjusted by adding additional content, and tasks to meet the mixed ability of students so that all can meet the learning standards.
- Encourages use of small groups or pairs to problem-solve. Grouping should be flexible and meet the needs of all students in the classroom. For example, a strong student may be paired with a weak student, or groups may be composed of students at a similar level. These flexible groupings encourage communication skills, creativity, empathy, mutual assistance, and responsiveness.
- Encourages a strategy of **explanation and justification,** during which you will facilitate a discussion among multiple students as they share and discuss the strategies they used to arrive at the same solution. Students use explanation and justification to explain why they think their solution is correct. You will **question** individual and/or groups of students to explain why a solution is incorrect. This strategy helps students learn to question and verify their solutions, to better understand and clarify key concepts by using new strategies, thereby developing new and deeper mathematical understanding.
- Organizes content in **Learning Spirals** in which foundational content is retaught throughout the books, which helps children to learn the content more deeply.
  - Major spiral—topics are repeated progressively unit by unit, grade by grade at higher levels of complexity
  - Minor spiral—"**Kun mashqi**" part of the lesson is an opportunity for you and your students to repeat or review previously studied skills from five domains during a week. The Kun mashqi is not related to the content of the main lesson.
- Provides a convenient format for planning and teaching, color coding and layout of lesson elements, the same structure of lessons, all of which makes the lesson flow predictable.
- Encourages the use of simple didactic materials for teaching and learning rather than expensive or hard-to-reach materials. This allows all of you to be fully prepared for lessons and conduct them without difficulties.
- Proposes teaching materials as scaffolds for organizing the educational process. You all have the freedom to be creative and to improve or enrich these materials.

Gender Equity and Social Inclusion: In the student textbooks, images and characters show girls and boys, men and women, and persons with disabilities and from diverse backgrounds achieving in a variety of contexts.

Table 3-1. Mathematics Methodology

Type of Lesson		Description of Lesson
Problem- Solving Lesson Structure		
	Introduction	*No new content is introduced; the introduction is taught to the whole class (in front of the full class.)* Kun mashqi— Repetition of what was covered earlier as a spiral of the 5 domains (3 minutes) ▪ Day 1 – number sense ▪ Day 2 – arithmetic operations ▪ Day 3 – geometry ▪ Day 4 – measurement ▪ Day 5 – word problems and solution of a quick problem Review of the previous lesson (2 minutes)
Main Lesson Part		
	Problem Presentation (3–5 minutes)	▪ The goal of this lesson part is to encourage students to THINK, reflect on a problem, try to solve it on their own, without the teacher's help or solution. ▪ This supports students to develop independent thinking, critical thinking, problem solving ability, creativity, concentration, time-management, and patience. ▪ It is critical to give these 3–5 minutes to students to think through the problem without interruption. If the problem is simple and the students solve it, you can suggest that students think further and look for other solutions or ways of solving the problem.
	Discussion	*Part 1 The goal of this part is to discuss solutions found by students, give them the opportunity to explain their solutions to the class and, if necessary, to help with this.* Questions Provided will help you to manage discussions. Ask students (at least 3): ▪ "How did you find the answer?" ▪ "What steps did you follow to solve it?" ▪ "Explain your way of thinking." Suggest to the student to "think aloud." ▪ "Is there another solution?" Discuss multiple solutions (ideally, as many different solutions as possible). *Teacher model* is an explanation of the solution to the problem. When students generate a solution, you can explain a particular model out loud or use it to guide the class step by step to the solution. *Discussing wrong answers* is very important; it serves to develop students' reasoning skills and critical thinking. Part 2 The purpose of this part of the lesson is to solve a different yet similar problem and to further study the topic with your help and explanation.

Table 3-1. Mathematics Methodology

Type of Lesson		Description of Lesson
	Practice	This part aims to let students practice and to solve problems on their own (or in pairs). Your role as teacher is: ▪ to observe students' work according to instructions given in the "What to pay attention to" block ▪ to identify "weak points" in understanding for further development and support ▪ to identify students with a higher or lower level of understanding to apply the appropriate instructions given in the "Differentiation approach" block.
	Conclusion	The purpose here is to: ▪ conclude the lesson ▪ get students' feedback ▪ answer questions, if any ▪ to repeat key points, if necessary ▪ and to assign homework. *As the teacher, you have freedom within this block to address your students' particular needs.*
Review Lesson Structure	Introduction	*No new content is introduced here; the introduction is taught to the whole class (in front of the full class.)* Kun mashqi—Repetition of what was covered earlier as a spiral of the 5 domains (3 minutes) ▪ Day 1 – number sense ▪ Day 2 – arithmetic operations ▪ Day 3 – geometry ▪ Day 4 – measurement ▪ Day 5 – word problems and solution of a quick problem Review of the previous lesson (2 minutes)
Main Lesson Part		
	Practice	The purpose of this part of the lesson is to review the topics covered in the current unit with your help and further explanation. This part aims to let students practice and solve problems on their own (or in pairs). Your role as teacher is: ▪ to observe students' work according to instructions given in the "What to pay attention to" block ▪ to identify "weak points" in understanding for further development and support ▪ to identify students with a higher or lower level of understanding to apply the appropriate instructions given in the "Differentiation approach" block.
	Discussion	*The goal is to discuss solutions found by students, give students the opportunity to explain their solutions to the class and, if necessary, to help with this.*
	Conclusion	The purpose here is to:

Table 3-1. Mathematics Methodology

Type of Lesson	Description of Lesson
(5 minutes)	▪ conclude the lesson ▪ get students' feedback ▪ answer questions, if any ▪ to repeat key points, if necessary ▪ and to assign homework. *As the teacher, you have the freedom within this block to address your students' particular needs.*
▪ Formative and summative assessments are built into the materials. ▪ Formative assessments are embedded in every lesson, such as the differentiation box, which guides the teacher on what to observe and how to adjust the content according to student achievement levels. Every unit has a review lesson that can provide the teacher with valuable information on what students have learned. ▪ Summative assessments are included periodically in every grade level, with problems for students to solve.	

ANNEX 4. UZBEK LANGUAGE ARTS METHODOLOGY

Table 4-1. Grade 1 ULA Methodology

Type of Lesson	Description of Lesson
Reading Comprehension	The purpose of the reading comprehension lesson is to introduce a new topic and develop students' reading comprehension skill. The components of introduction are as follows: ▪ Sounds ▪ Letters ▪ Syllables ▪ Word units ▪ Vocabulary ▪ Student's text ▪ Text comprehension (four questions: literal, inferential, social and emotional learning [SEL]) ▪ Homework
Writing	The purpose of this writing lesson is to introduce grammar and develop writing for purpose. The components of a writing lesson are as follows: ▪ Grammar ▪ Handwriting ▪ Writing for purpose
Reading Comprehension (Consolidation)	The purpose of this lesson is to revise the content of the reading comprehension lesson. The components of a practice lesson are as follows: ▪ Word reading ▪ Vocabulary ▪ Text reading ▪ Text comprehension (text structure analyses) ▪ Homework
Listening Comprehension	The purpose of the teacher read aloud (TRA) lesson is to improve and enhance listening and comprehension skills. TRA texts are meant to be read by the teacher and are provided only in the teacher guide. The components of TRA lessons are as follows: ▪ Vocabulary ▪ TRA ▪ Listening comprehension ▪ Handwriting
Assessment	The assessment lesson contains revision activities taught over a quarter.

Table 4-2. Gradea 2–4 ULA Methodology

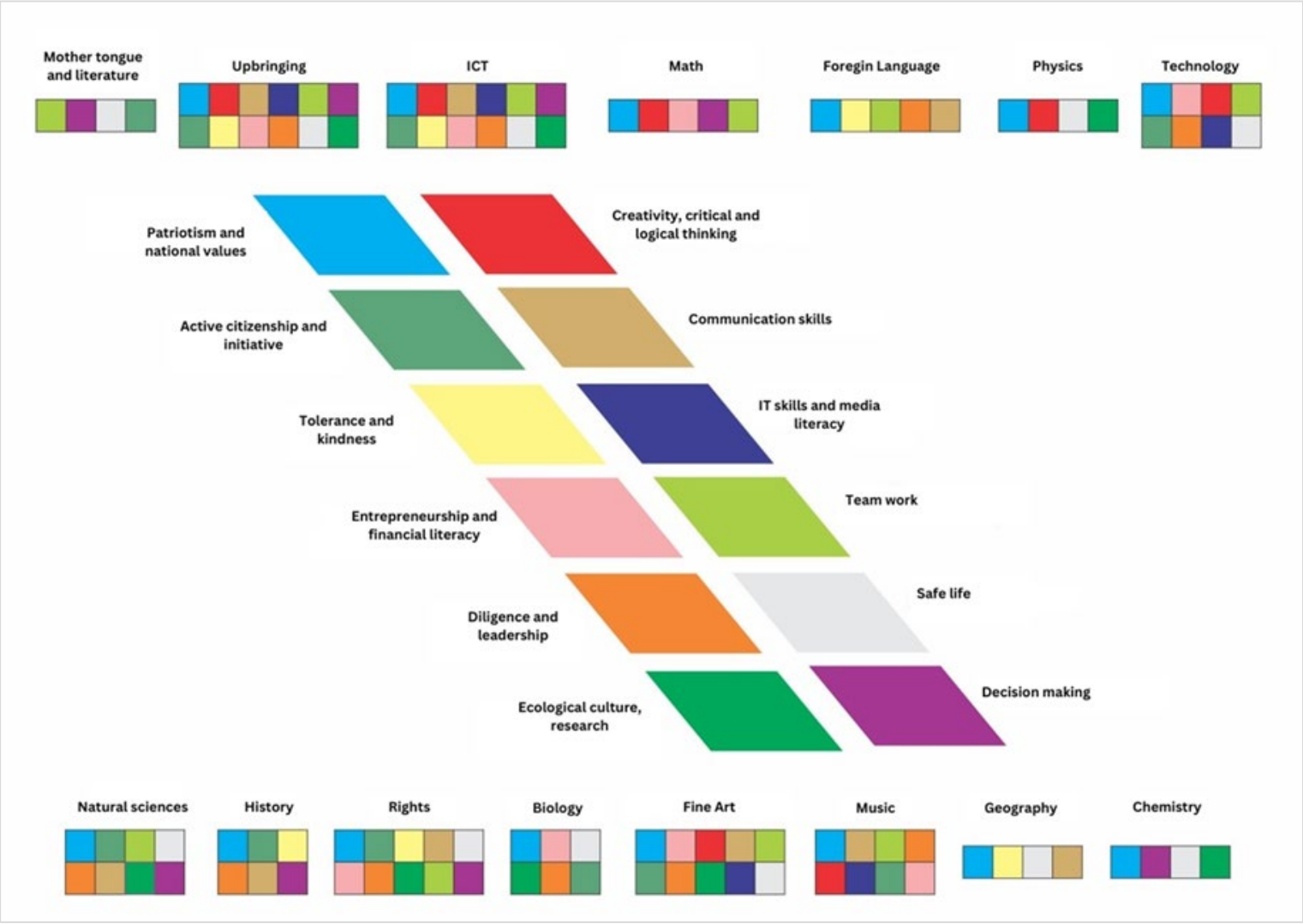
Type of Lesson	Description of Lesson
Reading Comprehension	The purpose of the reading comprehension lesson is to introduce a new topic and develop students' reading comprehension skill. The components of introduction are as follows: ▪ Letters (grade 2 only) ▪ Syllables (grade 2 & 3) ▪ Word units (grade 2 & 3) ▪ Vocabulary ▪ Student's text

Table 4-2. Gradea 2–4 ULA Methodology

Type of Lesson	Description of Lesson
	▪ Text comprehension ▪ Homework
Writing	The purpose of the writing lesson is to introduce grammar and develop writing for purpose. The components of the writing lesson are as follows: ▪ Speaking or oral conversation on topic ▪ Grammar ▪ Writing for purpose
Reading Comprehension (Consolidation)	The purpose of the practice lesson is to revise the content of the introduction lesson. The components of practice lessons are as follows: ▪ Word reading ▪ Vocabulary ▪ Text reading ▪ Text comprehension ▪ Homework
Listening Comprehension	The purpose of the listening comprehension lesson is to improve and enhance listening and comprehension skills. Teacher read aloud (TRA) texts are meant to be read by the teacher and are provided only in the teacher guide. The components of TRA lessons are as follows: ▪ Vocabulary ▪ TRA ▪ Listening comprehension ▪ Handwriting
Assessment	An assessment lesson contains: Type A for reading comprehension: ▪ Word reading ▪ Reading text ▪ Comprehension questions Type B for listening comprehension: ▪ Listening text ▪ Comprehension questions ▪ Writing task

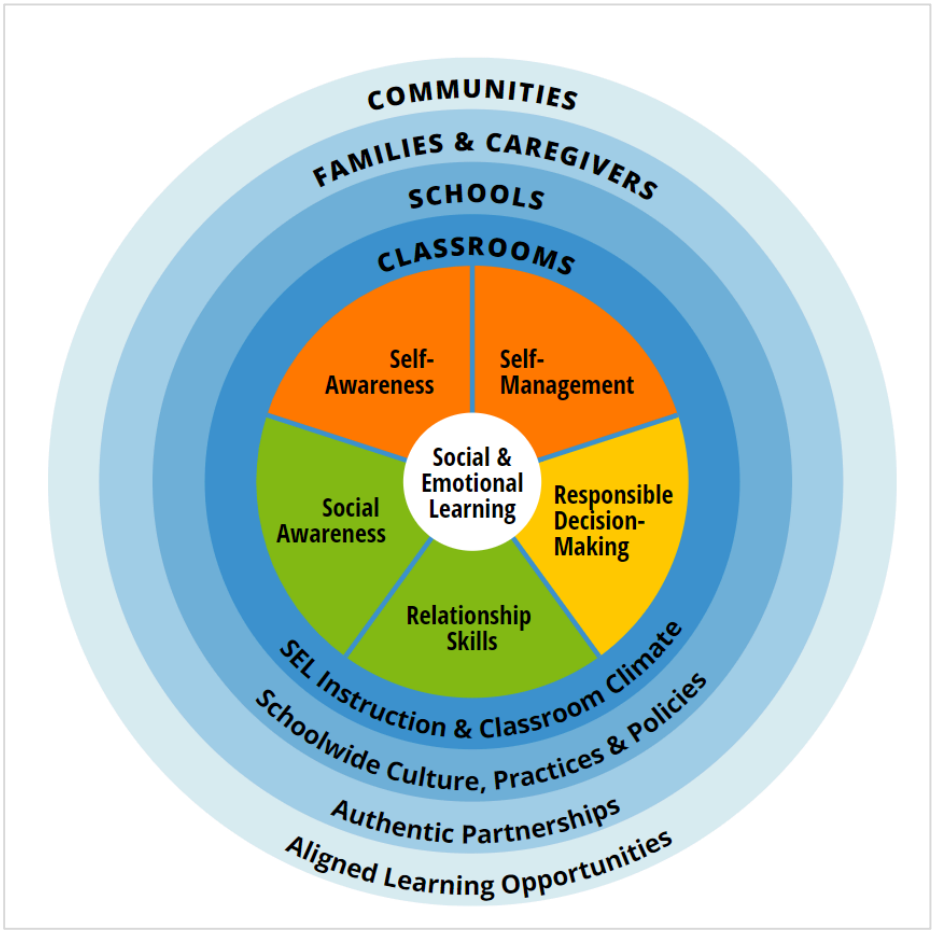
ANNEX 5. MoPSE LIFE SKILLS FRAMEWORK

Figure 5-1. MoPSE Life Skills Framework



ANNEX 6. SOCIAL AND EMOTIONAL LEARNING FRAMEWORK[5]

Figure 6-1. Learning Framework



[5] This social and emotional learning framework is from the Collaborative for Academic, Social and Emotional Learning (CASEL), and can be found here: https://casel.org/fundamentals-of-sel/what-is-the-casel-framework/