Lessons Learned from Teaching at the Right Level (TaRL) in MIA Interventions
I. Educational innovation context

In the last two decades, Latin American and Caribbean countries have worked to expand access to pre-primary and primary education. However, instruments that measure student achievement, such as the Programme for International Student Assessment (PISA) 2018 and the Regional Comparative and Explanatory Study (ERCE) 2019, show a significant setback in learning at the regional level¹.

This means that attending school does not guarantee that children will acquire the foundational skills that they ought to during primary education. This situation was exacerbated by the COVID-19 pandemic; by 2022, estimated ‘learning poverty’ had risen, with 79 per cent of 10-year-old girls and boys unable to read and comprehend a simple text².

Focus on the solution

Basic literacy and numeracy competencies provide the foundational skills necessary for lifelong learning. A lack of such skills limits a person’s individual and psychosocial development, leaving gaps that are difficult to fill and that affect key aspects of their daily life, exposing them to social exclusion and decreasing their productivity.


Teaching at the Right Level: Pedagogical principles

Teaching at the Right Level (TaRL) is a methodology aimed at improving the level of foundational skills in reading and mathematics. It involves:

- **ORGANIZING** children into groups according to their actual learning level, rather than by age or school year.
- **IMPLEMENTING** specific activities for each learning level, in a variety of ways – including in-school and after-school interventions, and summer camps.
- **EVALUATING** progress continuously.

The TaRL methodology is based on three pedagogical principles: learning as a building process, education as a socializing practice, and assessment to improve outcomes.

### Learning as a building process

**All children:**

- Develop and learn in different ways.
- Play an active role in their learning and have the capacity to generate knowledge on their own.

### Education as a socializing practice

- From birth, all children’s learning and integral development are the result of their relationships with those around them and their interactions with their physical, social and cultural environment.
- School education is a social process based on students’ relationships with their teachers and peers. When these interactions revolve around a common goal, collective learning strengthens intellectual bonds.
- Cooperative learning consists of activities designed and led by a teacher that encourage students to actively participate in the teaching-learning process. The activities and outcomes of this learning approach are as follows:

### The activities

- They are adapted to the level of development and abilities of each child.
- They are adequately contextualized.
- They are collective, playful and fun, fostering positive emotions that drive learning.
Implementing TaRL in Mexico

In Latin America and the Caribbean, Mexico’s Medición Independiente de Aprendizajes [Independent Learning Assessment – MIA]³ programme has pioneered the application of TaRL principles in relation to redressing learning lags and losses in basic education. This has involved setting up the Campamentos de Aprendizaje MIA [MIA learning interventions], which are evidence-based, short-term educational innovations focused on reading and mathematics.

Describing the work of this programme in Mexico provides an opportunity to retrace the steps taken to implement the MIA interventions, to identify the core elements of these interventions, to understand how TaRL principles are applied, and to reflect on the lessons learned in the process.

Assessment to improve educational achievement

- An assessment is formative when it provides the teacher with information to improve student learning.

- This type of feedback enables teachers to reflect on the teaching-learning process, correct students in ways that optimize educational outcomes, and improve classroom practices.

- Formative assessment is an essential pedagogical activity because it ensures that teaching is adapted to the characteristics of each student, responding to his or her learning challenges and progress.

³The MIA programme is a special programme run by the Centro de Investigaciones y Estudios Superiores en Antropología Social [Centre for Research and Higher Studies in Social Anthropology – CIESAS] and the Instituto de Investigaciones en Educación de la Universidad Veracruzana [Education Research Institute of Veracruzana University – IIE-UV]. It seeks to improve education and foundational skills through innovation, collaborative work and citizen participation. MIA is an action-research project that generates scientific evidence about the acquisition of foundational skills by children, adolescents and youth in the region, and about the implementation of educational innovations to improve this learning. For more information visit: <https://www.medicionmia.org.mx/> and <https://campamentosmia.org/>.
II. Implementing the MIA interventions

1. Assessing correctly
2. Identifying learning levels
3. Defining the implementation modalities
4. Guiding implementation: manuals and descriptive charts
5. Acquiring the necessary materials
6. Monitoring the teaching-learning process
7. Involving parents and other family members
8. Searching for strategic partners

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In 2014, the MIA programme developed a valid and reliable instrument to assess basic skills in reading (fluency and inference) and mathematics (mathematical operations). However, to determine the progress of each child after an intervention, the assessment had to include a higher degree of difficulty in both reading and mathematics.

The MIA programme therefore adjusted its tool, adding levels and broadening the range of skills to be assessed. It created two valid, reliable, flexible and easy-to-apply assessment instruments: MIA-Plus Reading, with six learning levels, and MIA-Plus Mathematics, with nine.

As the intervention was consolidated, MIA-Plus became an indispensable tool for classifying children by their actual level of learning, as well as for assessing the impacts of the intervention in general.

Since the intervention sought to teach children in line with their actual level, rather than according to their school year, students’ skill levels had to be established. Groups could then be organized, with students allocated to the appropriate group for their level. In addition, it was necessary to work together on content with different degrees of difficulty and to teach other skills specific to each level.

However, using all the levels of MIA-Plus would mean creating many groups and deploying a large number of teachers per level, which would have consequences for the logistical operation and costs of the intervention. Therefore, the programme merged two or more levels of the MIA-Plus instruments to produce three learning levels: beginner, elementary and basic, as described below.

<table>
<thead>
<tr>
<th>Objective</th>
<th>Beginner</th>
<th>Elementary</th>
<th>Basic</th>
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<tbody>
<tr>
<td></td>
<td>- Syllable</td>
<td>- Sentence</td>
<td>- Comprehension 1</td>
</tr>
<tr>
<td></td>
<td>- Word</td>
<td>- Story</td>
<td>- Comprehension 2</td>
</tr>
<tr>
<td>Reading</td>
<td>Students are fluent readers capable of understanding simple texts; literacy activities should prioritize communication skills (speaking, reading and writing).</td>
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<td>Students are fluent readers capable of understanding simple texts; literacy activities should prioritize communication skills (speaking, reading and writing), and creative writing, aiming to produce short texts with accurate grammar, spelling and punctuation.</td>
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</table>
Once the three learning levels had been established, the MIA programme defined three implementation modalities: summer camps, after-school interventions and in-school interventions. We describe these in more detail below.

### Summer camps
- Camps run for three weeks and can be implemented in collaboration with municipalities and libraries, among other actors.
- At the beginning of the intervention, children are assessed using the MIA-Plus instrument and, according to their results, are placed in one of the groups at the appropriate level.

### After-school interventions
- These interventions are adapted from the summer camps and are held in municipal libraries or schools.
- The interventions run in schools take place outside school hours, i.e. children who attend school in the morning participate in the intervention in the afternoon, and vice versa.

### MIA in-school interventions
- A teacher guides students through a series of individual and collaborative pedagogical activities, working with groups of 20.
- Students are placed in a group according to their actual learning level, as identified by the initial assessment.
MIA in-school interventions are evidence-based, short-term educational innovations focused on foundational literacy and numeracy skills.

- **They are educational innovations** because, through an experimental process, they propose a change of method: (i) designing the intervention; (ii) developing pilot tests for rural and urban contexts; and (iii) monitoring the intervention’s development and evaluating the outcomes to incorporate adjustments and improvements.

- **They are focused** because they concentrate on foundational reading skills (reading fluency, communication skills, and inference) and mathematics (number identification and place value, basic mathematical operations, problem solving and mathematics for everyday life).

- **They are short-term interventions**: 20 reading sessions and 20 mathematics sessions, 90 minutes each, that students attend between three and five times a week.

- **They are evidence-based** because an initial diagnostic assessment and a final assessment are carried out to evaluate each participant’s progress and the outcomes of the intervention in general. This generates evidence about its effectiveness and provides feedback that serves to improve implementation.

### Guiding implementation: manuals and descriptive charts

To implement the MIA in-school interventions, a tool was needed that described the curricular set-up, the objectives and the step-by-step development of the activities. Manuals and descriptive charts were therefore created for each session and for each level. These:

- Made it more likely the intervention would be replicated and scaled up.

- Facilitated in-person/online training processes and the development of new training modalities.

- Reduced the possibility of content being distorted in the replication and cascade-training processes.

- Supported the adaptation of activities to each context.

- Simplified systematic adjustments and changes in the intervention to improve its effectiveness.
This was one of the most complex and time-consuming processes, as it required a series of iterations in which various activities were designed, tested and changed. However, this cumulative effort became an advantage, as it made it easier for organizations from different countries in the region to adopt the innovation.

The process also highlighted the need for different versions of manuals—including in indigenous languages, such as Tzotzil—to facilitate the adaptation of the MIA interventions to different contexts.

As flexibility was a key element, the descriptive charts were designed so that teachers and facilitators take the key steps to contextualize the process, since they know their students best and have the capacity and discretion to adjust or change content and activities.

It was decided that the MIA in-school intervention descriptive charts should include: the name of the session, a specific objective, recognition of previous learning, a didactic sequence for each activity, the length of the session, and a list of required materials, which should be easily available, recyclable and affordable.

These charts facilitated the replication of the MIA in-school interventions, as the necessary materials were available to adapt them to different realities and contexts, minimize possible content distortions, shorten planning times and reduce implementation costs.

To promote the expansion of TaRL in this intervention, the manuals, descriptive charts and other materials from the MIA in-school interventions were licensed under Creative Commons so that they could be freely reproduced.

However, this also involved collecting and selecting diverse reading materials appropriate to the interests and learning level of each group, and ensuring that they were free from restrictions on use and reproduction.

The impact of the sessions is much greater for students who participate in all or most of them. As good attendance ensures progress towards the expected learning achievements, it was necessary to create a system to monitor each child’s attendance. The monitoring also had to involve details about how sessions were adapted, allowing the teachers or facilitators to report on the changes and adjustments they made.

With this in mind, the MIA programme designed a flexible monitoring system to record the progress of the interventions, using a paper form or a user-friendly online form. The MIA Module was also created to integrate the results of each child’s initial and final assessments during the interventions. Some schools have incorporated the MIA Module into the school platform for recording attendance and grades. This step has further facilitated progress-tracking by teachers.
It was decided that before implementing the MIA in-school interventions, and as part of the process of entering schools and other spaces, workshops should be held for parents and other caregivers to raise awareness about their role in supporting their children’s learning. These workshops lasted for 90 minutes and each one was accompanied by a manual. The workshops included:

- A description of the intervention and the activities that children would take part in.
- The role of parents and other caregivers in motivating and supporting their children in the learning process.
- Recommendations on how to reinforce at home the foundational skills acquired during the educational intervention.

Evaluations of MIA in-school interventions have shown them to be cost-effective in terms of the investment required compared with the benefits achieved in educational attainment. Nonetheless, relationships need to be built with strategic partners who will support the implementation and scaling-up of this school-based innovation and provide the necessary funding to get it off the ground.

**Partners for implementation and scale-up**

**Schools**

These are natural partners; in addition to being a meeting place for the children who will benefit from the innovation, they can also provide the infrastructure to implement the in-school and after-school interventions.

**Churches, cultural centres and municipal libraries**

Similarly, these local organizations can also identify children who want to participate in the interventions and provide safe and appropriate learning facilities.

**Educational authorities**

These are key allies, as they allow contracted teachers, who receive a regular salary, to learn about and apply this methodology.

**Examples of strategic partnerships**

- In Mexico, UNICEF is funding teacher training and the purchase of educational materials to support the scaling-up of MIA interventions in various regions of Mexico for the 2021 to 2024 school cycles.
In financial terms, MIA in-school interventions require three types of investment: (i) human resources, particularly when teachers or facilitators must be hired for the intervention; (ii) resources for training facilitators; and (iii) resources for printing guides and annexes, acquiring teaching materials and stationery, and logistical distribution.

Financing partners

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Municipal governments and local companies

To facilitate advocacy with these types of partners and secure financing, the MIA programme:

- Is supported by proven empirical evidence.
- Runs a specific number of interventions.
- Provides a methodology that is described in manuals, guides and materials that can be used and reproduced without restriction and.
- Offers various training modalities, including free courses on the MéxicoX Platform.

Hiring facilitators

If it is necessary to recruit and hire staff for the intervention, the MIA programme has found that retired educators, students and graduates from universities and teacher training schools make excellent facilitators.

It is also possible to achieve good results working with public sector officials, volunteers from civil organizations and students doing internships or community work, or recent graduates from various disciplines, including social work and psychology.

In 2022 and 2023, the Tinker Foundation made a donation to cover the costs of training various civil society and government organizations interested in this methodology.

The government of the municipality of Totutla, Veracruz, purchased the materials required by the MIA interventions, making it possible to run the summer schools.
III. Implementing the MIA interventions

Implementing this educational innovation comprises two lines of work: training teachers and facilitators and developing the intervention itself.

Training teachers and facilitators

Over the years, the MIA programme has consolidated five training processes for MIA interventions:

- In-person courses for teachers and facilitators who will be in charge of the interventions, as well as for the staff involved in monitoring and follow-up.
- Simultaneous online courses via videoconference.
- Online courses (not simultaneously) via learning management systems (the Universidad Veracruzana EMINUS system).
- Massive Open Online Courses (MOOC) on the MéxicoX Platform, free of charge.
- Master-level training courses aimed at preparing training teams that can replicate the training for other teachers and facilitators, in a cascade-training process.
All these modalities share the same objective: to provide teachers and facilitators with the methodological and practical tools they need to carry out MIA assessments and educational interventions.

The courses include formative assessments of learning, and satisfaction surveys, to determine which aspects need to be strengthened and how to improve the training process.

**Profile of teachers and facilitators**

Being in charge of MIA interventions requires two key professional characteristics, which teachers generally have:

- **Motivation and willingness for teaching and learning.** The interventions awaken emotions not only in students but also in teachers, in encounters that allow students to achieve quality learning outcomes and are highly satisfying for educators.

- **Experience working with children.** This is an important requirement both for ethical and child-safeguarding reasons. It also means staff have the skills needed to keep students interested, be patient, resolve problems with discipline, and maintain communication with students’ parents and caregivers.

**MIA intervention development**

The interventions are developed in four stages: the initial assessment, the organization of the intervention, the intervention itself, and the closing stage.

**Initial assessment stage**

**Assessment of the appropriate level of learning**

At this stage, all children participating in the interventions are assessed, using the MIA-Plus instruments.

The assessment provides concrete data on the foundational skills of each child before the intervention starts, which allows assumptions based on age or school year to be set aside. The results may be recorded on paper, in an online form or using a school platform. They are important because they allow staff to:

- **ASSESS** the actual learning level of each child.

- **CLASSIFY** each student into one of the levels: beginner, elementary or basic, in order to organize reading and mathematics interventions in groups.

- **KEEP** an orderly record of each child’s progress and learning achievements.
The results of various evaluations of the effectiveness of the MIA interventions have shaped the way they are organized. Key characteristics include:

- Each teacher or facilitator is in charge of a group of 20 participants on average.
- Each session lasts 90 minutes.
- Sessions can be carried out at a rate of three per week, although the best outcomes are obtained with five sessions per week.
- Summer school interventions last three weeks, i.e. 15 working days.

According to the results of the diagnostic assessments, the children are placed into groups corresponding to their actual learning level. One lesson learned is that the questions that need to be asked should be clearly defined, to avoid overburdening participants with long questionnaires; and it should be determined in advance how the information collected will be used.

### Reading interventions

#### Beginner level

The child was able to read at syllable or word level but did not read correctly at sentence level.

| # of beginner-level reading interventions | 13 |

#### Elementary level

The child was able to read at sentence or story level but was not able to answer the question from the comprehension 1 exercise.

| # of elementary-level reading interventions |

#### Basic level

The child was able to read at comprehension 1 or comprehension 2 level.

| # of basic-level reading interventions | 15 |

### Organizational stage
### Mathematics interventions

<table>
<thead>
<tr>
<th>Beginner level</th>
<th>Elementary level</th>
<th>Basic level</th>
</tr>
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<tbody>
<tr>
<td>The child was able to identify numbers and do addition 1 or addition 2 exercises, but was not able to do the subtraction 1 exercises.</td>
<td>The child was able to do the subtraction 1 or subtraction 2 exercises, but was not able to do the division exercises correctly.</td>
<td>The child was able to do the division, problem 1, problem 2, or fractions exercises (final level of MIA-Plus).</td>
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<table>
<thead>
<tr>
<th># of beginner-level mathematics interventions</th>
<th># of elementary-level mathematics interventions</th>
<th># of basic-level mathematics interventions</th>
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### Intervention stage

In this stage, the activities proposed in the implementation guide (comprising descriptive charts and manuals) are carried out, as per the established teaching plan. The lesson plans provided include:

- The topic to be addressed.
- The learning objective.
- Didactic techniques and activities to meet the learning objective.
- The necessary teaching aids.
- The estimated time of the proposed activities.
- Annexes comprising easily reproducible and replicable support materials.

Each session begins with an energizing starter activity, adapted to the students’ mood. This is followed by the activities proposed in the guide, and using the didactic material found in the annexes. The session ends with a closing activity, depending on the time available.

The distinguishing features of MIA interventions include the type of materials used and the use of physical space in the classroom.

### Support and guidance during the intervention

When implementing the educational interventions, it was identified that there was a need to support teachers and facilitators to resolve queries or specific problems and to motivate them. This support was provided via telephone and messaging platforms such as WhatsApp, with groups formed of colleagues who had done the training.

However, since the second semester of 2023, an online Moodle platform has been operational, where teachers and facilitators can access guides, videos and training materials.

This support system allows staff to establish peer-group communities of practice and take advantage of the creativity and innovation of all those involved.
### Closing stage

Once all the intervention sessions have taken place, the closing event is held. This consists of three main activities:

#### Final assessment

This is the final assessment to identify each student’s learning achievements.

Using a tool aligned with the MIA-Plus instruments, it measures the development of each participant and group.

These results allow the facilitators to show the children how much progress each of them has made, including in the skills they found difficult before the intervention.

#### Presentation of results to parents and families

Thus, the interventions begin with an initial assessment and a workshop for parents, and end with a meeting with families to present the results. The presentation covers:

- The actual learning progress that the children have achieved through the playful activities in the intervention.
- The importance of parents and caregivers promoting positive emotions around learning and education.
- These presentations show parents and caregivers that their children are able to improve their mathematics and reading skills, and feel more confident in school.

In some cases, these closing events have turned into real celebrations, with dancing, communal meals, and formal closing ceremonies attended by municipal and educational authorities.

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### Distinguishing features of MIA interventions

#### Type of materials

The teaching materials are very simple and the guide’s annexes are easily reproducible. The stationery materials required are widely available in shops, both in rural and urban areas. In addition, there is no need to purchase any special books or materials, and no software or internet connectivity is required.

#### Special use of classroom space

During MIA interventions, the children are encouraged to move, run, jump, and work on the floor, which transforms teaching and learning in the classroom, moving away from the traditional organization of space with desks and chairs.
General evaluation of the MIA intervention

This evaluation consists of a brief report on learning achievements and the results of the parent, teacher and facilitator satisfaction survey. This closing activity is important because:

- it provides an analysis of the initial-final (pre-post) assessments, which helps with understanding the progress of the whole intervention
- it contributes to systematizing the process and generating knowledge, enabling those involved to learn from the experience
- it provides evidence on how to reduce learning lags and losses in fundamental skills, which drives interest in replicating and scaling up the intervention
- it provides input for those interested in educational research, as it is an opportunity to transform data into actionable information and
- it provides key data to keep all stakeholders and strategic partners informed of the programme’s progress.

IV. Lessons learned from the MIA interventions

Create or use appropriate assessment instruments to correctly identify children’s learning levels, select the correct intervention levels, and monitor progress.

Develop implementation modalities appropriate to the needs, possibilities and characteristics of each context.

Design manuals and descriptive charts for each level identified and modality selected so that the interventions are replicable, scalable and adaptable.

Establish collaborative links between the different actors, processes and actions.

Generate, systematize and improve recruitment profiles and processes, as well as training processes for teachers and facilitators.
Consider using low-cost materials and find partners to support their procurement and distribution.

Plan the diagnostic assessment of the children and allocate sufficient time to carry it out in an orderly and systematic manner.

Involve parents and other family members through workshops or other awareness-raising, information, support and motivation activities.

Develop support processes for teachers and facilitators, as well as increasingly systematic monitoring exercises.

Allocate time and effort to the final assessment of learning, as well as to the general evaluation of the process, which should measure the satisfaction of parents and teachers.

Provide feedback on the process, make results available and share information on the progress of each child.

Transition from a recovery approach to a prevention approach through timely literacy training.

From recovery to prevention of learning lags and losses

The description of the steps taken to integrate TaRL into the design, operational structure and deployment of the MIA initiatives allows us to understand why this educational innovation is effective in addressing learning lags and losses in basic education.

It is essential to ensure that the great efforts made in Mexico and other Latin American and Caribbean countries to increasingly extend schooling translate into children acquiring the foundational skills that they will need throughout their lives. While TaRL allows for recovery and acceleration of learning, it is necessary to work on two fronts: prevention and recovery. For this reason, since 2023 the MIA programme has been:

**Developing timely, evidence-based literacy interventions to:**

- create environments that are more conducive to learning to read
- improve the transition between pre-primary and primary education and
- improve teacher training processes and methodologies in relation to basic reading and mathematics.

**Supporting the implementation of TaRL-based interventions in the classroom and school to:**

- facilitate the systemic integration of these innovations into the educational structure
- encourage teachers to be aware of the alternatives available to address learning lags in the classroom and
- ensure that no child is left behind and that every child can develop to his or her full potential.
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