

How PAL Solutions Can Make Teaching Effective in Multi-Grade Multi-Level (MGML) Classrooms?

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Discover how PAL solutions empower teachers in Multi-Grade Multi-Level (MGML) classrooms with personalized, & engaging learning experiences

In government schools across India, classrooms are a blend of diversity. Students from different grades and varied learning levels sitting together, learning under one teacher's guidance. Some children can barely identify letters, others are slowly learning to read, a few struggle with basic numeracy, while some are ready to take on new concepts but wait for the teacher's attention. This is the everyday reality of what we call Multi-Grade Multi-Level (MGML) classrooms, a scenario present in nearly 78% of India's schools.

Such MGML classrooms are not a result of choice but of necessity.

The teacher - student ratio in most government schools remains far from ideal. Despite the UDISE+ 2024 report noting that India has over one crore teachers, the no. of students and the growing learning diversity make it nearly impossible to provide personalized attention to every child. As a result, learning gaps have not only persisted but continue to widen each year, especially in foundational literacy and numeracy.

However, there's hope.

As India's education ecosystem evolves, Personalized Adaptive Learning (PAL) solutions have emerged as a transformative approach to address this challenge. This EdTech innovation leverages technology to identify each child's learning level, adapt content accordingly, and offer teachers actionable insights. By complementing the teacher's efforts, PAL solutions can help ensure that every student regardless of grade or ability receives learning experiences suited to their needs.

Let us First understand What PAL Solutions are, How PAL Works?

Personalized Adaptive Learning (PAL) solutions are an evolution in educational technology, designed specifically to address one of the biggest challenges in classrooms today: **learning gaps**. Unlike traditional teaching methods, which often follow a one-size-fits-all approach, PAL solutions are built around a remedial learning philosophy. They recognize that every student learns differently where some need more practice in reading, others in numeracy, and a few may be ready to explore advanced concepts. On PAL solutions, students begin at different levels, learn as per their need and at their own pace. PAL adapts to students' learning level differences by providing tailored content and guidance to help every student achieve grade level mastery.

Here's how PAL works in detail:

- **Diagnosis of Learning Levels:** The PAL software first checks what each student already knows, what they struggle with, and where misconceptions might be holding them back.
- **Personalized Learning Path:** Based on this diagnosis, the PAL Learning system adapts the content, offering adaptive practice exercises, remedial video lessons that directly target the student's gaps based on their grade.
- **Concept Mastery Before Progression:** Students complete the topic only after mastering a topic. This ensures that foundational skills are strong before taking on the next level.
- **One-to-One Tutoring Experience:** PAL solution acts like a personal tutor for each student. Every learner progresses on their own path without fear of comparison, gaining confidence as they master concepts efficiently.
- **Targeted Remediation:** Instead of treating all mistakes the same, PAL identifies the exact issue such as a misunderstanding in multi-digit multiplication/addition and provides step-by-step guidance to correct it.
- **Real Time update to Teachers:** PAL solutions also provide real-time feedback to students and actionable insights to teachers. This means teachers can monitor progress without spending hours on manual evaluations and can intervene meaningfully wherever needed. The system ensures that no student is left behind, and learning becomes self-paced, engaging, and effective.

In MGML classrooms, where a teacher's attention is stretched across students of many grades, PAL becomes a powerful ally.

How can PAL solutions make teaching more effective in Multi-Grade Multi-Level (MGML) classrooms across India?

PAL solutions enable teachers to manage Multi-Grade Multi-Level (MGML) classrooms more effectively by providing real-time insights into each student's learning progress. In these classrooms, catering to students at different academic levels is often overwhelming, but PAL equips teachers with diagnostic reports, insights on personalized learning paths, and performance analytics. This allows teachers to identify learning gaps quickly, provide targeted interventions, and group students strategically for collaborative learning. By digitising routine tasks such as assessments and progress tracking, PAL frees up teachers' time to focus on facilitation, mentoring, and personalized support, making teaching more structured, efficient, and impactful even in diverse learning environments.

At the same time, students in MGML classrooms can be given PAL on tablets or any other compatible device. With PAL solution in hand, they can explore topics at their own pace, and learn through practice exercises, remedial video lessons, and textbook references. They take assessments along the learning journey to achieve mastery in each topic, improving their grade-level learning. PAL's adaptive approach ensures that whether a student is at Level 2, Level 3, or Level 4, they all move forward confidently, leading to higher engagement, improved confidence, better attendance, and an enriched learning environment.

Here's how PAL Solutions Can Be Enabled and Used in Regular Multi-Grade Multi-Level (MGML) Classrooms

Teach by Grade

In MGML classrooms, teachers can group students by grade. Each group can use devices such as

tablets, laptops, or Chromebooks preinstalled with the PAL solution and curriculum-aligned content. Students log in with unique credentials, explore topics at their own pace, and focus on areas they find challenging or want to master. On the other hand, teachers can also assign common topics to all students, monitor progress, and identify those who need personalized guidance. This approach allows teachers to manage multiple grades simultaneously while keeping students engaged with self-directed, differentiated learning.

Teach by Learning Level

Teachers can begin by assessing each student's understanding of topics using PAL. Based on this diagnostic, students are grouped according to their learning levels. Each group then can be engaged in individualized learning on PAL, allowing them to take the time they need to achieve mastery. Teachers can also choose to provide personalized instruction to each group while simultaneously using PAL to reinforce concepts digitally. This blended approach combining targeted teacher guidance with self-directed digital learning has the potential to ensure that all students progress together, achieving the same level of understanding for each topic.

Regrouping Students as They Advance

After students engage with PAL solutions and progress at their own pace, teachers can regroup them based on updated learning levels. This ensures that students with similar understanding move together, while no one is left behind. Regular regrouping helps maintain a balanced, effective learning environment in MGML classrooms, where both individual growth and collective progress are supported.

How and What Type of PAL Solutions Can Work in MGML Classrooms

One of the most effective ways to enable PAL in Multi-Grade Multi-Level (MGML) classrooms is through PAL Labs. Let us know how:

- PAL labs are designed as compact, self-contained setups that include storage and charging racks for devices, making them easy to install without any infrastructural changes in schools, NGOs, or community centers.
- PAL Labs are simple to manage and can accommodate 5 to 60 devices depending on classroom size and student numbers. For most MGML classrooms, a lab with around 20 devices such as tablets, Chromebooks, or laptops works well. They can be set up in any space where students can comfortably sit and use the devices.

Teachers can facilitate use of PAL Labs by grouping students strategically:

Some students can continue with traditional teacher-led instruction while others use PAL for self-directed learning. Devices from PAL Lab can be shared on a rotation basis, with each student accessing their unique login credentials to continue their personalized learning journey.

PAL Labs combines flexibility, ease of use, and cost-effectiveness, providing an efficient way to manage MGML classrooms, helping teachers deliver consistent instruction while ensuring all students progress according to their learning levels.

If you'd like to learn more about how PAL Solutions can make teaching more effective in your Multi-Grade Multi-Level (MGML) classrooms, we'd be happy to share real use cases and provide a demo of

our PAL solution. To get in touch, please contact us at +91 7678265039. You can also write to us at share@idreameducation.rg or share your details here.