Leveraging GenAI in Teaching Learning

Guided & Mentored by Expert Facilitator

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Phase 1

It wasn't your usual teacher workshop.
There were no bulleted notes on the board, no generic lectures on "digital transformation," and certainly no yawns.

Instead, what unfolded was a room buzzing with curiosity. Heads tilted toward screens. Teachers exchanging glances that said — *"Wait, can it really do that?"* Laughter when a poem was rewritten as a rap. A pause of amazement when an essay rubric appeared on screen — tailored, clear, ready to use.

This was **"Rebooting Education with GenAI"**, an orientation that felt less like a training session and more like an awakening.

From Apprehension to Activation

At the heart of the session was a simple question — *Can AI make teaching better, not just faster?*

Most teachers came in with a cautious curiosity. Some had heard of ChatGPT from students, others had tried it once or twice, and a few were openly skeptical.
But as the session progressed, caution gave way to wonder.

In one moment, a science teacher watched a detailed explanation of photosynthesis transform into a simple metaphor about a food-making factory. In another, a social science teacher saw how a textbook question — "Describe the events of the Dandi March" — could be reimagined as a provocative discussion starter:

"If the Dandi March happened today, how would it unfold in the age of Instagram and viral videos?"

Suddenly, the boundaries of what a lesson could look like — stretched wide open.

A Tale of Two Learners

The orientation didn't start with tools. It started with students.
A slide flashed on the screen: **Student A vs Student B**.

- One asked questions, made mistakes, and created things.
- The other memorised model answers and aced tests — but rarely ventured beyond.

It was an invitation — *not just to adopt a tool, but to reflect on the kind of learner we were nurturing.*
And in doing so, to reflect on the kind of teacher we were becoming.

What GenAI Did in the Room

It's hard to explain the shift unless you saw it.

- A math teacher whispered, "This is *exactly* the kind of real-life example I needed for fractions."
- An English teacher giggled when ChatGPT turned a Class 7 grammar drill into a detective game.
- Heads nodded when the facilitator said, *"It's not just about getting answers faster. It's about asking better questions."*

The room felt alive — not just with tech, but with **possibility**.

A Tool for Every Kind of Learner

The session moved gently into learning design. But this time, it didn't start with a syllabus — it started with the child.

What does a **visual learner** need to understand the water cycle?
What would an **auditory learner** prefer?
Could a **kinesthetic learner** act it out instead?

With each profile, teachers saw how a single ChatGPT prompt could birth:

- an infographic
- a podcast script
- a classroom role-play

And it wasn't theoretical. They tried it. They wrote prompts. And they smiled when the results appeared — not in hours, but in seconds.

Discovering Your "GenAI DNA"

Before closing, the workshop turned inward again — this time with the results of a self-check.

Teachers had taken a reflective quiz at the beginning of the workshop to find their **"GenAI DNA"** — were they Digital Pioneers, Explorers, Beginners?

The results were grounding:

- Only **10%** were already confident enough to lead integration - **Digital Pioneers**
- Nearly **half** were **Digital Explorers** — eager, but needing guided support
- And a surprising **1%** identified as **Digital Beginners** — facing the starting line of digital literacy

It was a reminder that any transformation must begin with where people *are*, not where we expect them to be.

The Closing Thought

The workshop didn't end with a task list. It ended with a question:

"What's one part of your lesson that could use a little help — a concept that's tricky to explain, a topic that never quite excites your class?"

And then came the nudge:
"Try redesigning just that one piece — with GenAI as your thinking partner."

No pressure. Just play.

The room emptied slowly — not because it dragged, but because no one really wanted it to end. Teachers stayed back, trying one last prompt.
"Can you turn the Preamble of the Constitution into a rap?" one asked.
The answer came in under 10 seconds. It rhymed. It made sense. And yes, it sparked a grin.

Teacher Quotes:

> *"One of the most exciting aspects of the workshop was seeing firsthand how GenAI tools can support differentiated instruction and reduce teacher workload without compromising educational quality. I was particularly inspired by the live demonstrations of how AI can assist in generating customized lesson plans, formative assessments, and student feedback instantly, tailored to specific learning levels and outcomes."*

> *"I found the hands-on exercises with ChatGPT to be incredibly helpful. Being able to experiment with the tool and see its capabilities firsthand was really exciting. What I found most exciting was the potential applications of GenAI in our daily work. The examples shared during the workshop opened up new possibilities for automation and efficiency."*

Phase 2

Next STEP: Designing Lessons with GenAI — One Subject at a Time

If the orientation was about opening doors, the follow-up workshops were about stepping through them — into the heart of classrooms, into real lessons, into the messiness and magic of teaching.

Over four immersive sessions, teachers gathered not by grade or designation, but by subject — **Mathematics, Sciences, Social Sciences, and Languages** — to dive deeper into designing AI-supported lessons. Each session began with a warm, familiar energy — not of authority, but of **co-creation**.

Where We Started: Every Learner Is Different

Before we talked about GenAI or lesson plans, we talked about learners.
A simple but powerful question set the tone:

"How do you teach the same concept to a child who learns by watching... and to one who learns by moving?"

And that's when the room met the **Learning Styles Map** — a vibrant guide that helped teachers visualise how content could land differently for **visual, auditory, kinesthetic, reflective, or collaborative learners**.

For every teaching strategy, there were suggestions:

- For the **visual learner**: infographics, color-coded notes, and drag-and-drop digital tools.
- For the **auditory learner**: podcast-style explainers, read-alouds, and Socratic circles.
- For the **kinesthetic learner**: role-plays, scavenger hunts, and tactile sorting games.

The idea wasn't to check boxes. It was to **see students again** — not as a batch, but as individuals with wildly different ways of understanding the world.

Then Came the Canvas: The Lesson Plan Template

Each teacher received a new kind of planning tool — not a rigid format, but a flexible frame.
A place where they could ask:

- What learning outcome matters most?
- What kind of learner am I designing for?
- Which part of the lesson could use some GenAI support — the hook, the explanation, the activity?

And then, embedded within the template were little AI cues:

- **Prompt this** to create a riddle
- **Try this** to generate a differentiated worksheet
- **Use this** to spark reflection

It didn't feel like replacing their style. It felt like **sharpening their tools**.

"What Can I Ask the AI?" — Enter the Prompt Banks

Each subject group was handed its own curated **Prompt Bank** — not as a list of instructions, but as a **starting point for imagination**.

🔷 **For Math Teachers:**

They saw how a dry formula could turn into a story.

"Explain the concept of fractions using a cricket match."
"Design a shopping-based word problem to teach percentages."

Math became **movement and metaphor**. Concepts were made visible, even playful.

🔬 **For Science Teachers:**

Prompts helped shift from explaining content to **designing curiosity**.

"Create 3 'what if' questions to introduce combustion."
"Describe osmosis using a comic strip scenario."

There were even templates for designing hands-on experiments using household items — safe, scalable, and student-friendly.

🗺️ **For Social Science Teachers:**

History and civics came alive.

"Write a diary entry by a student at Jallianwala Bagh."
"Design a map quiz on Indian rivers with clues."
"Frame a classroom debate on: Should students have more rights or responsibilities?"

This wasn't just content. It was **connection, emotion, empathy**.

📚 **For Language Teachers:**

From reflective journaling to skit writing, prompts encouraged students to **step into the shoes of characters**, explore grammar in context, or turn a chapter's message into a poem.

“Convert a scene into a dialogue for a 2-character skit.”
“Create 5 visual vocabulary cards from Chapter 4.”
“Write a journal entry as Tom Sawyer after being caught lying.”

One teacher whispered with a smile, “I think I’m finally enjoying grammar again.”

From Planning to Playtesting

The workshops didn’t stop at theory. Teachers began shaping their **own lesson plans**, using the template and choosing where GenAI would support them:

- Some used it to **simplify explanations** for mixed-ability learners
- Others created **tiered question sets** — from recall to challenge
- A few explored **cross-curricular integrations** — linking science to art, history to debate

And the best part?
No one was following a formula. They were **finding their own flow** — guided by pedagogy, enhanced by AI.

Exploratory Discoveries

- Development of a Board game for Reactions
- Building a counting game for numbers
- Reverse Analysis for Ratio & Proportion
- Role play with scripts for Reflex action
- Vlogs on the Geographical Relief structures in India
- Creating Crosswords & Find the Word exercises in Social sciences

And so many mindboggling ideas

No Pressure, Just Progress

Each teacher left the room with:

- A draft lesson idea
- A sense of what prompt worked best for their topic
- A growing confidence in shaping tech to serve **their style**
- And a quiet excitement about how students might respond

No one had to submit anything. There were no marks.
Just a shared understanding: *“We’re learning to teach differently — together.”*

Moving Forward - From Plans to Possibilities

What begins now is more than implementation — it’s transformation.

As these lesson plans evolve into real-time teaching moments, we’re not just testing prompts — we’re reimagining the classroom itself.

A space where content meets creativity, where AI becomes a quiet partner in personalization, and where every student has a better chance to feel seen, heard, and challenged.

This is just the beginning.

The future of teaching isn’t automated — it’s **amplified**,

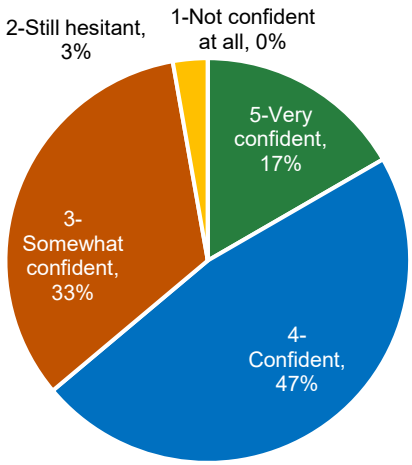
powered by the wisdom of educators and the possibilities of GenAI.

Listening to the Designers – What Teachers Said

If the follow-up workshops were about lighting the creative spark, the post-workshop reflections gave us a rare and honest glimpse into the minds of educators standing at the edge of pedagogical reinvention.

Across all four cohorts — Math, Science, Social Sciences, and Languages — **53 teachers** responded to the reflective survey. Their voices, layered with excitement, curiosity, and cautious optimism, offer a window into where GenAI now sits in their professional journey: not as a distant idea, but as a tool in hand, being thoughtfully shaped.

Quantitative Insights: What the Numbers Tell Us



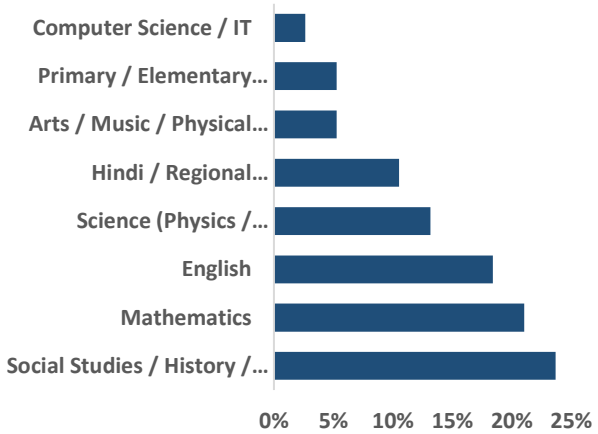
Confidence with GenAI Tools

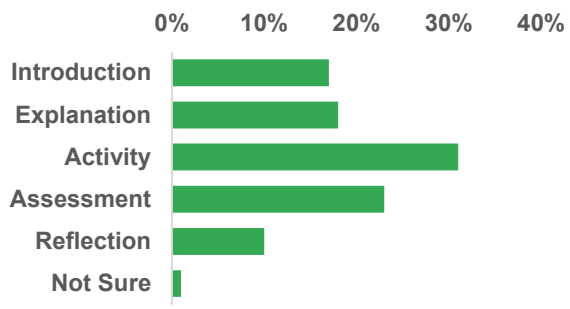
Teachers rated their confidence on a scale of 1 to 5. Here's what emerged:

Takeaway: A total of **64%** of teachers rated themselves at **4 or 5**, indicating a strong shift from tentative curiosity to hands-on confidence after the workshops.

Subject-Wise Representation of Respondent

Takeaway: With strong engagement from **Math, Social Sciences, English**, and **Science**, the reflection pool represents a **diverse teaching community**. Importantly, non-core and primary teachers have also begun exploring GenAI, hinting at **school-wide adoption potential**.



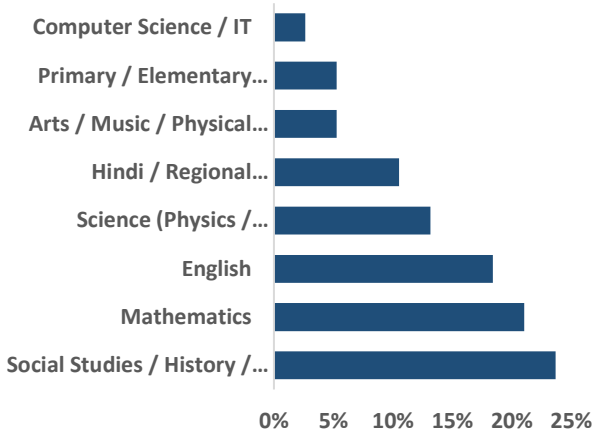


Where Teachers Plan to Use GenAI in Lessons

Teachers are clearly leaning on GenAI to help design activities and develop assessments. These stages require significant time and creativity — and AI is offering an efficient way to boost both.

Types of Outputs Teachers Have Already Tried Using GenAI

Takeaway: Beyond just planning, teachers are using GenAI to reinvent classroom formats — quizzes, dialogues, group tasks, and even reflection prompts. It shows a readiness to move from instruction to engagement.



Qualitative Insights: What the Voices Reveal

1. Pedagogical Excitement: Rediscovering the Joy of Design

Many teachers expressed **excitement about personalization**, faster content creation, and new ways of reaching diverse learners.

"I'm thrilled about how AI enables me to design content for different learning levels without starting from scratch every time."
– Science teacher, Grades 6–10

"Creating personalized worksheets and tasks using AI feels like I finally have time to teach the way I always wanted to."

– English teacher, Senior Secondary

2. Clear Use Cases: Where Teachers See Immediate Impact

- Explanations simplified through analogies
- Tiered questions generated in seconds
- Student-friendly skits, diary entries, and prompts for reflection
- Time-saving in routine planning and worksheet formatting

"It's like I know what I want to do — but now I actually have the time and support to do it."

3. Anticipated Challenges

Despite enthusiasm, teachers expressed thoughtful concerns:

- Need for **more examples tailored to specific topics**
- Uncertainty around **assessment design**
- Infrastructure and **student access issues**
- Worries about **AI bias, hallucinations**, or overdependence

"For a few topics, aligning AI-generated content with curriculum needs more careful thought."
"I'd love more hands-on demos on using AI without overshooting class time."

4. Learning Styles and Inclusivity

Teachers were quick to connect GenAI with **multi-modal learning**:

- Visual learners: infographics, comic strips
- Auditory learners: read-alouds, podcasts
- Kinesthetic learners: role-plays, station tasks

"Every child is different — with AI, I feel better equipped to offer multiple entry points into the same topic."

5. The Emerging Mindset Shift

Perhaps the most heartening theme was the tone of **professional growth**:

- Teachers viewing themselves as **designers**, not just deliverers
- Feeling **empowered to differentiate**
- Curiosity replacing scepticism

"GenAI has changed the way I think about lesson planning — not just faster, but more thoughtful."
"I used to think AI would make things robotic. But now, it's actually helping me humanize my teaching."

6. AI as a Tool for Differentiation

One of the most consistent undercurrents in teacher feedback was this: **GenAI makes personalization possible** — at speed, and at scale.

"The ability to instantly create differentiated practice questions for varied student abilities is a game-changer."

Whether it was simplifying questions, adjusting the language level, or offering challenge tasks, teachers were quick to recognize how GenAI could respond to **a range of learner needs** — without having to create five separate lesson versions from scratch.

Why it matters: For many, this was the first time they felt equipped to offer **true differentiation** — not just in theory, but in action. It wasn't about lowering the bar; it was about offering **multiple ways to climb it**.

7. Visual and Creative Support

While many started with text-based prompts, teachers quickly discovered GenAI's potential to **expand their visual toolkit**.

"It can create images, storyboards, games…"
"Adding audio-video aids in the content"

What began as a lesson plan often ended as a comic strip, a podcast script, or an animated dialogue. The creativity wasn't in the AI's output alone — it was in how teachers imagined **new formats** for familiar content.

Why it matters: Visual and auditory strategies aren't just "add-ons." For many learners — especially those who struggle with long-form text — they are **essential entry points** into understanding. GenAI helped teachers see these formats not as extras, but as **equal players in the learning process**.

8. Shifting from Passive to Active Lesson Design

Perhaps the most subtle — and profound — shift came in how teachers began to reimagine the **role of the student**.

"Suggest a crossword puzzle…"
"I'm now designing tasks that require more doing than listening."

Teachers moved from planning what they would *say* to thinking about what students would *make, solve, or act out*. And GenAI offered the scaffolding to do that — generating quiz formats, gallery walk prompts, classroom simulations, and even peer-review checklists.

Why it matters: This wasn't just an upgrade in content — it was a **philosophical shift**. From passive absorption to active construction. From teacher talk to student task. GenAI didn't just support lessons. It **nudged teachers toward deeper engagement strategies**.

9. Designing for Different Learners — Finally Made Possible

"The ability to instantly create differentiated practice questions for varied student abilities is a game-changer."

Teachers now feel empowered to **meet every learner where they are**, not just teach to the middle. GenAI's flexibility lets them **adjust complexity, formats, and examples** with just a tweak of a prompt.

Why this matters: Differentiation has long been an aspiration. Now, teachers can **design for real diversity in classrooms — without it becoming a burden.**

10. From Text to Tools — Visual & Creative Formats Come Alive

"It can create images, storyboards, games etc."
"Adding audio-video aids in the content"

Teachers are tapping into GenAI's **visual and multimedia capabilities** to move beyond worksheets. Whether it's a **model of atoms, a story map, or a quick cartoon**, the classroom is becoming more dynamic — and more inclusive for different types of learners.

Why this matters: It's not just about more formats — it's about **engagement, memory retention, and accessibility.** Students who struggle with text finally have other doors opening.

11. A New Type of Creativity — From Crosswords to Comic Strips

"Suggest a crossword puzzle"
"Tried and tested both the above options."

Teachers are actively experimenting with **interactive tools** — GenAI-generated puzzles, role-play prompts, visual quizzes, and classroom challenges. They're not just consuming content — they're **engineering experiences.**

Why this matters: This is where GenAI shifts teachers from instructors to designers — opening up **game-based, inquiry-led, and discovery-focused learning paths.**

12. Excitement + Hesitation = Honest Professional Reflection

"Balancing technology with traditional teaching methods…"
"Extra time needed to prepare and adapt content… check accuracy…"

The reflections don't paint a blind utopia. Teachers are asking real questions:

- How do we stay aligned with curriculum objectives?
- How do we verify AI-generated content?
- How do we manage time and technology within a fixed period?

Why this matters: These insights reflect a **mature professional mindset** — one that is hopeful, yet cautious. GenAI is being **questioned, not worshipped** — and that's the healthiest adoption curve possible.

13. Mindset Shift: From Delivery to Design

"Design more engaging lesson plans catering to the need of different types of learners…"
"Reflection — encourage students to reflect on their learning."

Teachers aren't just planning **what they'll teach** — they're now rethinking **how students will experience it**. With GenAI, they're reflecting more on emotional tone, entry points, and learning depth.

Why this matters: We're witnessing a shift from content delivery to **experience architecture** — with teachers at the heart of it.

14. Clear Ask: Support for Deeper, Better Use

“Technical assistance.”
“More specific search.”
“Students need to access ChatGPT too.”

The request is simple:

- More subject-specific **prompt examples**
- Classroom **infrastructure support**
- Opportunities to **collaborate and test ideas** before full deployment

Why this matters: Teachers aren’t passive participants. They are co-builders. They know what they need — and they’re ready to ask for it.

Teachers on the Edge of a Pedagogical Shift

These reflections don’t merely hint at change — they **resound with the voice of transformation**. What began as a workshop has grown into a movement of educators who are rethinking not just *what* they teach, but *how* and *why*. They are not asking *“What can AI do?”* — they’re asking *“What can I do better, now that I have AI?”* And in that question lies the real transformation.

The journey ahead isn’t about replacing human insight, but **amplifying it** — and these teachers are ready to lead the way. With GenAI in their hands, teachers are stepping into a new role — not as content deliverers, but as **architects of engagement**, creators of differentiated pathways, and facilitators of deeper inquiry. They’re designing lessons that respond to **individual learners, real-world connections, and creative formats** — and they’re doing it with intention.

What’s striking is not just the excitement, but the **professional maturity** in these voices — a desire for clarity, relevance, and impact. These educators know GenAI is not a silver bullet — it’s a power tool. And like any tool, its value lies in the craft of the user. They are asking sharp questions, sharing prompt ideas, planning boldly, and seeking collaboration — not to follow a trend, but to **shape a future**.

“The future of education won’t be coded in silicon — it will be sparked by teachers who dare to create with it.”

And this cohort? They’ve already lit the fire.