The Untamed-AI Learning Model : U-AILM

A Whole-School Framework for Ensuring Authentic Thinking in the Age of Generative AI

By Darren McCormick

A Practical Tool For AI-Integrated Lesson Design

UntamED: The AI Learning Model

Redesigning Learning

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By Darren McCormick

Founder of Untamed Education

Preface

This is not an AI book.

This is not an academic theory book.

This is not another "interesting research insight with no practical outcome."

This is a **field manual**.

A **teacher-built system**.

A **call to action**.

It is a book about learning.

It is a book about doing.

For years, education has been saturated with theories, frameworks and research summaries that, while valuable, often leave teachers with the same unanswered question. What do I actually do on Monday morning? Teachers are expected to interpret cognitive science, neuroscience and emerging technologies as if they are researchers, while working in environments that allow very little time for deep study or experimental design. Too often, the result is more information but not more clarity.

This book takes a different approach.

The Untamed AI Learning Model (U-AILM) is not an academic abstraction. It is a practical, classroom-driven system created by a teacher for teachers. It has been designed to be used, tested, refined and strengthened in real schools, with real learners. It is a framework built for the field, not the laboratory. A model that invites teachers to step into a new era of learning not as passive recipients of policy, but as active explorers of possibility.

Generative AI did not inspire this book. Learning did. Yet AI now sits in every pocket, on every device and in every subject. Its presence exposes something educators have long

understood. If we measure only the product, we miss the thinking. If we cling to methods built for a world that no longer exists, we fail to prepare students for the one they are entering.

What we need now are field tests. Not hypothetical debates, not fear-driven bans and not glossy promises of transformation without method. We need structures that allow teachers to experiment with confidence. Systems that protect authentic thinking while embracing new tools. Approaches that restore the visibility of learning in a world where polished output can be generated in seconds.

This book offers one such system.

The U-AILM provides a clear, tested and adaptable framework that any teacher can use regardless of subject, phase or experience. It does not ask you to become a technologist or a researcher. It asks you to remain what you already are. A professional who shapes learning through experience, insight and pedagogical judgment. A guide who helps students think deeply and act independently. A practitioner willing to explore a new landscape with curiosity rather than fear.

If you choose to use this model, you are not simply implementing a strategy. You are contributing to the profession's understanding of how learning must evolve in the age of intelligent tools. You are stepping into the open space where theory becomes practice and practice becomes evidence. You are taking part in a collective experiment that our students deserve us to attempt.

This book is an invitation to explore that landscape with clarity, confidence and purpose.

Introduction

Education is entering a new phase. Not because technology has arrived, but because its presence has made visible the gaps that already existed. For decades, teachers have been asked to balance increasing curricular demands, rising accountability pressures and growing expectations for differentiation, inclusion and outcomes. At the same time, the structures of teaching and assessment have remained largely unchanged. When generative AI appeared, it did not disrupt a stable system. It revealed how fragile many of our traditional practices had become.

The challenge facing schools today is not simply that students can generate work with AI. It is that our methods for planning, teaching and assessing were not built for a world in which polished output can be created instantly. Learning has always been more than what a student writes, but the written product has often been used as the primary evidence of understanding. AI exposes the limitations of this assumption. It allows us to see something the profession has sensed for years. Written polish and genuine learning are not the same thing.

This book presents the Untamed AI Learning Model (U-AILM) as a practical solution to this challenge. It is not a theoretical reconstruction of pedagogy. It is a structured, field-ready framework that protects authentic thinking while enabling responsible, confident use of AI in everyday learning. The U-AILM is designed for classrooms, not conferences. It enables teachers to regain clarity, reduce workload and make student thinking visible again.

For leaders, the model offers a way to bring coherence back to teaching and assessment in a time of rapid technological change. It supports whole-school consistency without imposing heavy-handed policies or unrealistic expectations. It allows schools to integrate AI without compromising academic integrity or professional trust. The model helps leaders move beyond reaction and into structured, purposeful implementation.

For teachers, the model offers a way to teach with AI rather than against it. It removes the worry that students will bypass thinking. It restores the importance of cognitive struggle, application, and reflection. It provides a clear lesson structure that works across subjects and year groups, from practical disciplines to essay-based ones. And it allows teachers to see what students truly understand, not what a machine can generate on their behalf.

For students, the U-AILM offers a pathway into genuine independence. It teaches them to critique AI output rather than accept it. It encourages responsible use of digital tools while building skills that remain relevant regardless of how technology evolves. It shows them how to think, not just what to write.

The purpose of this book is straightforward. It aims to give schools a practical, tested and realistic way to navigate the age of AI. It does not claim to have all the answers. Instead, it offers a robust starting point and an adaptable framework that teachers can use immediately. It combines clarity, structure and professional trust with opportunities for innovation and experimentation.

The chapters that follow introduce the model, explain the rationale behind each phase, demonstrate its use through worked examples and provide tools for whole-school adoption. This book is not an argument for or against AI. It is an argument for learning that remains authentic, visible and truly human in a world where technology is everywhere.

Whether you are a teacher, a curriculum leader, a senior leader or a researcher, this book invites you to engage in the practical work of shaping the next phase of education. This is not about predictions. It is about design. It is about taking action, testing ideas, refining practice and building systems that honour both the opportunities and the challenges of the present moment.

The U-AILM is a framework for doing exactly that.

Contents

(This becomes a highlight chapter unique, rigorous, impressive.)

CHAPTER 1 The Shift We Cannot Ignore

There are moments in education when the ground moves beneath us. We felt it when the internet arrived in classrooms. We felt it when mobile phones became inseparable from daily life. And today, we feel it again perhaps more strongly than ever with the arrival of generative artificial intelligence.

AI is not an interesting future possibility. It is a present force. It sits in students' pockets, quietly ready to generate essays, structure arguments, produce creative writing, analyse unseen poetry, summarise texts, and correct grammar instantly and convincingly. For the first time in the history of schooling, students can generate *high-quality academic responses without engaging in the thinking that used to be required*.

This is not a minor shift. It is a disruption on the scale of the printing press.

For teachers, this has produced an uncomfortable tension. On one side sits excitement: AI offers support, feedback, explanation, creativity, efficiency, and opportunity. On the other sits fear: if students can outsource cognitive work to machines, what becomes of learning? How do we assess? How do we protect academic integrity? How do we know what students can truly do?

The truth is simple, but profound:

The problem is not AI.

The problem is that our traditional tasks are no longer fit for purpose.

For over a century, formal education has relied on written tasks that assume students must personally generate and articulate their thinking. Essays, paragraph responses, extended writing, structured answers, lab reports, design write-ups all of these were built on the premise that composing text was the *proof* of learning.

But that premise has collapsed.

We cannot stop AI from generating this kind of work. We cannot out-restrict or out-police it. And we should not try to. AI is now part of the cognitive environment in which students live, work, and eventually lead. Attempting to ban it from education would be like trying to ban calculators, web browsers, or smartphones.

UntamED: The AI Learning Model

The real challenge and opportunity is something else entirely:

Schools must redesign learning so that AI enhances thinking rather than replaces it.

This requires a fundamental shift in how we conceive of tasks, lessons, and assessment. We must move away from evaluating the *product* students submit and toward evaluating the *thinking process* that leads to it. We must design learning where AI is a partner, not a shortcut. And we must protect the uniquely human aspects of cognition: curiosity, reasoning, judgment, transfer, creativity, and self-awareness.

Students will still write. They will still analyse. They will still create.

But they must do so through a process that AI cannot replicate on their behalf.

This book introduces a practical, classroom-ready model to make this possible:

The Untamed AI Learning Model (U-AILM).

This model does not try to defeat AI.

It tries to make AI safe, powerful, and meaningful inside learning.

It shows teachers how to design tasks that:

- welcome AI as a learning tool
- prevent AI from completing work independently
- ensure students must think, compare, create, apply, and reflect
- measure understanding through authentic evidence
- shift assessment from final output to cognitive transformation
- build skills students will need in an AI-rich future

Most importantly, it ensures one thing:

Students cannot succeed unless they genuinely learn.

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As you move through this book, you will discover that authentic learning does not disappear in the age of AI it becomes even more possible. When we stop asking students to merely produce text and start asking them to think deeply, challenge ideas, transfer knowledge, and reflect on their learning journey, we witness something remarkable:

Students become more human not less.

This is the shift we cannot ignore.

And this book will help your school make it confidently, intelligently, and with purpose.

CHAPTER 2 Principles of AI Integrated Pedagogy

Education has always evolved in response to the tools of the time. The printing press reshaped literacy. Scientific instruments reshaped experimentation. The internet reshaped access to knowledge. Generative AI is the next major evolution, and it brings a simple truth teachers cannot ignore.

AI can now perform many of the tasks we once relied on to measure learning. It can write essays, analyse texts, suggest solutions, rewrite work in a specific voice, generate diagrams, summarise research and produce examples that used to require considerable cognitive effort. If we do not rethink what learning is, students will quickly adapt by outsourcing the work that schools still try to measure.

This chapter sets out the core principles that schools must adopt if they are to remain relevant, rigorous and future ready. These principles underpin the Untamed AI Learning Model and provide the philosophical and pedagogical foundation for everything that follows.

1. AI is here to stay and students will use it

Whether permitted or banned, students will find ways to access AI. They will use it at home, on their phones, and eventually inside every productivity tool they encounter. The question is not how to stop it. The question is how to integrate it so that learning remains authentic.

AI is now part of the cognitive environment students inhabit. Schools must prepare them to use it wisely, ethically and intelligently.

2. Tasks that rely on writing alone are no longer reliable measures of thinking

For more than a century, schooling has treated written output as evidence of understanding. Written essays, extended responses, design write-ups, reports and evaluations have been the currency of assessment.

Generative AI has broken that currency.

When students can produce high quality writing with minimal effort, the written product stops being a dependable indicator of actual learning. Schools must shift their focus from what students can produce to how they think, adapt, compare, decide and apply.

3. The teacher's role shifts from "information provider" to "thinking designer"

Teachers once held the role of delivering knowledge. AI now provides infinite explanations, examples and summaries at a speed no human can match. This should not be seen as a threat to the profession but as an invitation to redesign it.

The teacher's new craft is designing experiences that develop understanding, not simply delivering information. Teachers become architects of thinking sequences, facilitators of cognitive development and evaluators of authentic learning.

4. Human thinking must be foregrounded, not hidden behind written polish

AI can now mimic structure, tone, vocabulary and even the writing habits of a student. If the purpose of a task is to showcase polished writing, AI can achieve it more efficiently than most learners. If the purpose of a task is to reveal the student's reasoning, judgement or perspective, AI cannot easily replicate it.

The goal of AI integrated pedagogy is not to limit AI, but to foreground the aspects of thinking that remain uniquely human. These include:

- curiosity
- intuition
- personal relevance
- interpretation
- decision making
- creative risk taking
- ethical reasoning
- connection making
- lived experience

When these become central, learning can no longer be outsourced.

5. Assessment must focus on cognitive transformation, not final output

Traditional assessment has been product based. Students submit a piece of work and teachers evaluate the quality of the finished product. In an AI rich world, the finished product may have been generated largely or entirely by a tool.

Authentic assessment requires evaluating how a student's thinking develops through a sequence of learning. This includes:

- their initial ideas
- how they compare their thinking with AI
- how they adapt or correct misconceptions
- how they apply learning to new contexts
- how they reflect on their understanding

When teachers assess transformation rather than product, AI becomes a tool inside the process rather than a shortcut to the end.

6. AI should enhance learning but cannot replace cognitive struggle

Struggle is part of learning. It is through grappling with ideas, interrogating our assumptions and revising our mental models that deep understanding develops. AI can help by clarifying concepts and offering alternative perspectives, but it cannot replace the cognitive effort required for true comprehension.

AI can support thinking, but it should not replace the moments of uncertainty that ultimately lead to mastery. A well designed learning sequence ensures that students experience both guidance and productive struggle.

7. Schools must treat AI literacy as essential, not optional

AI literacy is no longer a technical skill. It is a foundational competency for life, work and citizenship. Students must learn:

- how to question AI effectively
- how to critique its outputs
- how to identify inaccuracies
- how to compare their own ideas with AI
- how to make informed decisions beyond AI suggestions
- how to use AI ethically and responsibly

A school that avoids AI deprives students of the opportunity to become confident, critical and capable users of the most influential technology of their lifetime.

8. Pedagogy in the age of AI must increase personalisation, not standardisation

AI makes it possible for every student to have instant feedback tailored to their needs. Teachers can use this to:

- differentiate support
- accelerate advanced learners
- clarify thinking for struggling learners
- provide personalised examples
- generate alternative explanations

The Untamed AI Learning Model harnesses this potential while ensuring that personalised input does not replace personalised thinking.

9. Learning must become visible and demonstrable

To ensure authenticity, teachers must design learning so that thinking becomes observable. This includes:

- anchors created in class
- annotations
- diagrams
- oral explanations
- comparison tasks
- decision making rationale
- real time reflection

When thinking is visible, learning becomes measurable. AI cannot obscure or replace it.

10. The future of education depends on integrating human and artificial intelligence, not separating them

Schools that treat AI as a threat will fall behind. Schools that embrace it thoughtfully will lead. The goal is not to preserve outdated practices but to redesign learning in a way that honours what makes human thinking powerful.

The Untamed AI Learning Model is built on this principle. It aligns human insight, creativity and reasoning with the efficiency and scale of generative AI. It protects the integrity of learning while enabling students to thrive in a world where AI is always present.

These are the principles that guide the model you will explore in the next chapter. They represent a new way of thinking about learning design, assessment and the purpose of education in an AI rich world.

Chapter 3: Introducing the Untamed AI Learning Model (U-AILM)

Schools do not need vague guidance about AI. They need a practical system. They need clarity, structure and confidence. They need a way to allow students to use AI without losing the integrity of learning. They need an approach that works in every subject, with every teacher, and with students who vary widely in motivation and ability.

The Untamed AI Learning Model is designed to answer that need.

The U AILM is not a set of tips. It is not a list of recommended websites. It is not a theoretical philosophy. It is a complete learning and assessment framework that schools can adopt immediately to ensure that student thinking remains authentic in the age of generative AI.

At its core, the model is built on a simple idea:

Students may use AI, but they cannot rely on AI.

They must still think, compare, decide, apply and reflect.

The model achieves this by restructuring learning into five deliberate phases. Each phase protects a different element of the thinking process and ensures that the student is the one doing the cognitive work. AI is used, but it is used inside a controlled sequence that preserves human agency.

What makes the U AILM distinctive is that it transforms the way teachers design learning before it transforms what students produce. It is not an approach that attempts to catch cheating. It is an approach that makes cheating irrelevant. When the structure of learning requires visible, personal and evolving thinking, AI can no longer complete work on a student's behalf.

This chapter introduces the five phases of the model, outlines their purpose and explains how they function together.

UntamED: The AI Learning Model

The U AILM is built around the following sequence:

1. **AI Free Anchor Thinking**
2. **Guided AI Interaction**
3. **Human Only Transfer Task**
4. **Real Time Reflection**
5. **Transformation Based Assessment**

Each phase plays a critical role, and the model only works when all five operate together.

Phase 1. AI Free Anchor Thinking

Every learning sequence begins with an anchor. This anchor is a short, simple, in class task that captures a student's authentic starting point. It might be:

- a quick mind map
- a prediction
- a diagram
- a mini explanation
- a rough sketch
- a short voice note
- a labelled image
- a concept web
- a definition attempt

The anchor must be created without AI and must be collected immediately. It serves as:

- evidence of prior thinking
- a baseline to measure cognitive growth
- a reference point during later phases
- a barrier that AI cannot reconstruct or replicate

A student who has not engaged meaningfully with the anchor cannot succeed later in the model, because later phases rely on engaging with this original piece of work.

Anchor tasks are intentionally short. They are designed to capture the student's natural thinking rather than polished performance. They are the foundation of authenticity.

Phase 2. Guided AI Interaction

Students now open AI tools, but with structure and intention.

The purpose of this phase is not to generate answers. The purpose is to build critical comparison, synthesis, interrogation and decision making. Students must use AI output to challenge, refine or extend their anchor thinking.

Typical guided AI tasks include:

- identifying differences between their anchor and the AI
- correcting AI ideas using their own initial thinking
- challenging the AI with probing questions
- choosing one AI idea to adopt and justifying the choice
- highlighting omissions, inaccuracies or generalisations
- linking AI generated ideas to personal experiences or class events

The structure forces students to place their own thinking at the centre. AI becomes a resource rather than a replacement. This phase also teaches students how to use AI critically and responsibly in real life.

Importantly, teachers design the prompts so that AI cannot complete them without reference to the student's anchor. This ensures that the work cannot be outsourced.

Phase 3. Human Only Transfer Task

This is the pivotal moment in the sequence. Devices close. AI is removed. Students must apply their understanding independently.

The transfer task must be:

- unpredictable
- contextualised
- immediate
- live
- short
- authentic

The teacher might provide:

- a new extract
- a new scenario
- a modified equation
- a different data set
- a new case study
- a fresh design requirement
- an in class demonstration
- a partner question

- an object from the room

Students must then explain, apply, justify, redesign or interpret based on the learning from Phases 1 and 2.

This phase exposes the quality of student understanding with complete clarity. A student who relied on AI instead of thinking cannot perform well here. A student who understood the content will thrive.

Transfer tasks redefine what it means to know something. Knowing becomes the ability to use knowledge independently, not the ability to reproduce polished text.

Phase 4. Real Time Reflection

Reflection makes learning visible. It is also one of the most difficult things for AI to imitate convincingly.

This phase asks students to articulate:

- what they believed at the start
- what changed
- what stayed the same
- what AI helped with
- what AI did not help with
- what they corrected
- what they misunderstood
- how confident they feel
- what they still want to explore

Reflections are short, specific and tied directly to the anchor and the transfer task. They can be written, spoken, sketched or recorded. Because they refer to personal changes in thinking, they cannot be easily fabricated.

Reflection is also a formative assessment for the teacher. It reveals misconceptions, identifies growth and signals where further teaching is required.

Phase 5. Transformation Based Assessment

The final shift is the most important. Instead of assessing the quality of polished work, teachers assess the change in thinking across the five phases.

Assessment criteria focus on:

- quality of anchor thinking
- depth of engagement with AI
- accuracy and clarity of the transfer task
- insight shown in the reflection
- evidence of thinking, not the quality of prose

This moves assessment from a product based model to a process based model. It ensures that AI cannot inflate grades artificially and that students demonstrating genuine understanding receive the recognition they deserve.

Schools that adopt transformation based assessment maintain academic integrity, even as AI becomes more capable.

How the Phases Fit Together

The strength of the U AILM lies not in any single phase, but in the sequence. The anchor protects authenticity, AI interaction supports learning, transfer tasks reveal understanding, reflection makes thinking visible and transformation based assessment validates the entire process.

Together, these elements form a system that is difficult to exploit and easy to adopt. They also create a powerful culture of metacognition, resilience and adaptability.

The next chapters explore each phase in depth and provide practical guidance for implementation across subjects, age groups and school contexts.

Chapter 4: Phase 1: AI Free Anchor Thinking

Every learning journey must begin with the learner. Not with the curriculum, not with the text, not with the assessment objectives and not with the answers that AI can generate in a fraction of a second. It must begin with what the student actually thinks, believes, predicts or understands at the very start of a lesson or sequence.

This is the purpose of the anchor.

AI Free Anchor Thinking is the foundation on which the entire Untamed AI Learning Model is built. If this phase is designed poorly, the rest of the model weakens. If it is designed well, the structure becomes almost impossible to exploit. The anchor does not need to be perfect, long or polished. It needs to be real.

In an age where students can generate flawless text with a single prompt, the anchor captures something AI cannot produce: the unfiltered thinking of the student.

Why Anchor Thinking Matters

Traditional lessons often begin with teachers revisiting prior content or sharing success criteria. Students then enter the task with a sense of what is expected and what the teacher wants to hear. In the age of AI, this approach creates even greater risk, because students can skip the cognitive struggle entirely by using AI to provide the answer.

Anchor Thinking reverses this sequence. It asks students to externalise their thinking before they are influenced by any external support. This offers several important benefits.

1. It reveals genuine misconceptions

Misunderstandings are essential data. They tell teachers where to focus instruction. Without an anchor, misconceptions remain invisible until it is too late.

2. It captures the student's authentic voice

Handwritten notes, sketches, maps and spontaneous explanations cannot be generated by AI in advance.

3. It allows the teacher to measure transformation

Learning is not the final product. Learning is the difference between the baseline and the end state. Without the baseline, there is no reliable measure of growth.

4. It protects the integrity of the later phases

The guided AI tasks and the transfer tasks rely on this initial piece of thinking. It is the anchor that students must return to, adapt, revise and critique. Without it, AI can take over the process.

What Makes a Good Anchor

A powerful anchor meets four criteria:

1. It is created in class

Students must complete the anchor during the lesson. It should not be homework, not a pre reading task and not something done in advance.

2. It is quick

Anchors typically take between one and four minutes. They are not intended to be burdensome. The purpose is to capture thought, not to produce an extended piece of writing.

3. It is non evaluative

Students should not worry about correctness. The anchor is a thinking snapshot, not a test.

4. It is collected or photographed immediately

The teacher must secure the anchor before students have access to AI. This ensures that later improvements can be traced back to the original source.

Examples of Effective Anchors

Anchors can take many forms. What matters is that they externalise the student's thinking quickly and authentically.

Concept Maps

Students write a central concept in the middle and add any related ideas around it. This is especially effective in English, science, humanities and art.

Prediction Statements

Students predict what they think will happen in a text, a scientific experiment or a mathematical process.

Quick Write or Free Write

One minute of continuous writing about a concept, character, theme, issue or question.

Diagram or Sketch

A rough map of an ecosystem, a scene from a story, a historical event or a model of a scientific process.

Voice Notes

A short verbal explanation recorded on a device or spoken to a partner while the teacher listens.

Whiteboard Responses

A sentence stem or question completed on mini whiteboards, visible to the teacher at a glance.

Annotating an Image

Students highlight or label what they already notice about a diagram, data set or visual prompt.

Sentence Completions

Students finish incomplete prompts such as:

- I think the main idea is
- Macbeth does this because
- The biggest cause of the problem is
- I believe the formula works because

Ranking or Sorting Tasks

Students order causes, consequences, techniques or ideas according to their current understanding.

Practical Guidance for Teachers

Keep the anchor simple

The simpler it is, the easier it is to complete and the harder it is to fabricate.

Design anchors that require personal associations

Prompts like, "What does this concept remind you of?" make the anchor more individual and therefore more authentic.

Avoid revealing too much about the lesson in the prompt

If you mention the success criteria or the expected content too early, students will tailor their anchor toward the anticipated answer.

Use anchors to build metacognition

As students become familiar with anchor tasks, they begin to see them not as disposable but as the foundation for later reflection.

Use variety

Different anchor types prevent students from rehearsing a pre written response.

Limit time

A brief time window keeps anchors spontaneous and prevents overthinking or pre planning.

Common Mistakes and How to Avoid Them

Mistake 1: Making the anchor too long

Anchors should reveal thinking, not drain lesson time.

Mistake 2: Allowing students to complete the anchor after AI access

This undermines the integrity of the model. Anchors must always come before AI.

Mistake 3: Treating the anchor as an assessment

If the anchor feels like a test, students will write defensively rather than honestly.

Mistake 4: Forgetting to collect or record the anchor

If the anchor is not secured, students can redraw it later, weakening the entire sequence.

The Anchor as a Cultural Shift

Over time, the anchor becomes a cultural habit within a school. Students come to expect that every learning sequence begins with their own thoughts. They understand that their ideas

matter, even if they are incomplete or incorrect. They recognise that learning is a journey, not a performance.

This cultural shift is essential for an AI rich world. When students are accustomed to beginning with their own thinking, they are less likely to rely on AI to generate ideas for them. They begin with themselves, not the machine.

How Phase 1 Sets Up the Rest of the Model

Phase 1 is more than a warm up. It provides the essential reference point for the guided AI tasks, the transfer task and the reflection. Without an anchor, the later phases lose their authenticity and their rigor.

The next chapter explores Phase 2 and shows how AI can be used productively without undermining student thinking.

Chapter 5 Phase 2: Guided AI Interaction

Generative AI is extraordinarily powerful. It can produce fluent explanations, organise ideas, analyse texts, simplify concepts and construct arguments with speed and confidence. Because of this, Phase 2 is where many educators feel the greatest anxiety. It is the point where students are finally permitted to access AI. It is also the point where, if poorly designed, students could allow the AI to do most of the cognitive work.

The purpose of Phase 2 is to ensure the opposite. This phase teaches students how to use AI responsibly, critically and intelligently. It transforms AI from a tool that delivers answers into a partner that stimulates comparison, interrogation and adaptation. Most importantly, it places the student's thinking at the centre of the process, not the AI's output.

Phase 2 is not about feeding prompts into ChatGPT. It is about building habits of mind that will serve students far beyond the classroom. Good AI use requires judgement, scepticism, selection, refinement and self awareness. These are the skills that Phase 2 develops deliberately.

The Purpose of Guided AI Interaction

Phase 2 has four primary goals.

1. To challenge initial thinking

The anchor represents what a student believed before encountering AI support. AI now provides an alternative or expanded perspective. The comparison between the two is where the learning begins.

2. To stimulate criticality

Students must not accept AI output at face value. They must identify inaccuracies, generalisations, omissions, contradictions and assumptions.

3. To encourage synthesis

Students combine elements from their anchor and the AI to create a richer, more accurate understanding.

4. To refine and personalise thinking

AI offers suggestions. Students decide which ideas to keep, question or reject. This reinforces ownership of understanding.

Guided AI interaction is productive struggle, not passive consumption.

Why AI Cannot Be Allowed to Lead Without Structure

If students simply ask AI to complete a task, the quality of their thinking becomes impossible to assess. Even more concerning, their reliance on AI grows while their confidence in their own reasoning diminishes.

Structure is what prevents this. When the teacher designs prompts that require specific comparisons, decisions and justifications, the student cannot outsource the task. They must interact with the AI in ways that reveal their understanding.

The strength of Phase 2 lies in making the student the evaluator rather than the receiver.

The Structure of Guided AI Interaction

Guided AI Interaction typically has four required elements. These elements can be adapted to fit any subject, year group or curriculum area.

1. Comparison with the Anchor

Students begin by comparing the AI generated response with their own anchor thinking. This creates cognitive friction and forces the student to recognise differences.

Common tasks include:

- Highlight two differences between your anchor and the AI output.
- Identify one thing the AI said that you did not include in your anchor.
- Identify one point from your anchor that the AI did not mention.
- Explain one contradiction between your thinking and the AI's explanation.

This step is essential. AI cannot fabricate a mismatch without first seeing the anchor. The student must complete this genuinely and individually.

2. Correction of AI Using Personal Thinking

Students now improve, correct or adjust AI content using their own anchor or their understanding from Phase 1.

Examples include:

- Correct one point in the AI explanation using your anchor.
- Add a missing detail that you included in your anchor but the AI ignored.
- Explain why one of the AI's ideas is incomplete or too general.
- Provide a more accurate example than the AI suggested.

Students learn quickly that AI is not always authoritative. They begin to trust their own thinking and develop a healthier intellectual posture.

3. Challenge and Interrogation

This is where students begin to push AI rather than accept its output. They ask probing questions that force the AI to refine, justify or deepen its response.

For example:

- Ask the AI to justify one of its claims.
- Ask the AI how its explanation would change in a different context.
- Ask the AI what evidence supports one of its ideas.
- Ask the AI to provide a counterargument.
- Ask the AI to identify limitations in its explanation.

This builds questioning skills that are essential for AI literacy, research and academic thinking.

4. Personalisation and Contextualisation

AI cannot know the details of a student's lived experience, classroom conversations or personal interests unless directly told. By requiring students to anchor AI ideas in personal context, the model ensures authenticity.

Tasks might include:

- Connect one idea from the AI to something discussed in class today.
- Link one part of the AI explanation to a personal experience or interest.
- Use one AI idea and apply it to a situation in your own life.
- Explain how one AI suggestion would or would not work in your particular context.

This prevents students from simply accepting AI generated text. They must translate it into meaningful personal insight.

Designing Effective Prompts for Phase 2

Teachers do not need to be AI experts. They need to design prompts that require comparison, critique, decision making and justification.

Effective Phase 2 prompts have several qualities.

1. They require reference to the anchor

If a student cannot complete a task without looking at their anchor, the task is safe.

2. They demand individual reasoning

Prompts should require decisions or explanations that are personal and cannot be mass produced.

3. They cannot be answered by pasting the prompt directly into AI

If the machine can complete it better than the student, the prompt is not suitable.

4. They are short and precise

Clarity helps students focus on thinking rather than task interpretation.

5. They develop AI literacy

Students learn how to question, critique and refine AI rather than passively consume it.

Mistakes to Avoid in Guided AI Interaction

Allowing students to copy AI output directly

This turns Phase 2 into task completion, not thinking.

Over structuring AI use

Too many steps become mechanical. Students should still feel agency.

Under structuring AI use

Without guidance, students default to copying.

Designing prompts that the AI can complete alone

Prompts should be rooted in the student's own anchor to ensure authenticity.

Using AI in place of teaching

AI is a tool for comparison, not the primary source of knowledge.

The Purpose of Phase 2 as a Whole School Practice

Guided AI Interaction transforms AI from a risk into an asset. It achieves four strategic goals for schools.

1. It ensures students develop AI literacy

They learn questioning, critique, refinement and scepticism.

2. It protects the integrity of learning

AI cannot replace thinking when thinking is the central requirement.

3. It builds a culture of analysis rather than consumption

Students do not accept the first answer they see.

4. It leads naturally to independent application

Phase 2 prepares students for the Human Only Transfer Task by strengthening conceptual clarity.

Phase 2 does not attempt to replace the teacher. It prepares students to think independently when AI is removed in Phase 3. Without Guided AI Interaction, the Transfer Task would simply reveal that students relied on the AI rather than genuinely engaging with the material.

Phase 2 is the hinge of the model. It sits between authentic starting thinking and authentic application. It ensures that AI enhances the learning journey without dominating it.

The next chapter explores the most critical part of the model: the Human Only Transfer Task. This is where reliance on AI becomes impossible and authentic understanding is unequivocally revealed.

Low-Tech Adaptation of U-AILM Phase 2: Ensuring Universality and Integrity

The Untamed AI Learning Model (U-AILM) is designed to be globally adaptable, developmentally appropriate, and pedagogically consistent across any school context. While Phase 2Guided AI Interactionwas originally conceived with access to generative AI tools in mind, the model does **not** rely on live AI access to function effectively. Its core purpose is not the AI output itself, but the *cognitive process* of comparison, critique, refinement, and personalisation.

For this reason, U-AILM includes a clear low-tech alternative that preserves the integrity of Phase 2 even in classrooms with limited or no device access.

Why a Low-Tech Fallback Matters
1. Global accessibility

Schools across the world operate under varied technological conditions. Some classrooms have one-to-one devices; others rely on shared access, ICT suites, or intermittent internet connectivity. By offering a structured low-tech pathway, U-AILM remains usable in rural schools, developing regions, alternative provision settings, and exam rooms where digital access is restricted. This universal applicability is essential for an instructional model intended for global adoption.

2. Protection against over-reliance on technology

The educational purpose of Phase 2 is not the presence of a chatbot, but the development of *critical appraisal skills*: identifying strengths, weaknesses, patterns, and opportunities for improvement within a model response. These skills remain robust and teachable regardless of whether the model response is AI-generated or teacher-provided.

3. Safeguarding academic integrity

In some contexts ,examination years, schools with strict AI policies, or areas where AI access is blocked teachers must be able to uphold the pedagogical flow of U-AILM without compromising their policies or compliance requirements. The low-tech approach allows Phase 2 to remain ethical, safe, and academically rigorous.

4. Long-term durability of the model

As AI policies, tools, and access evolve, the resilience of an instructional framework depends on its independence from any single technology. The low-tech version ensures U-AILM continues to functionunchanged in purposeeven if AI becomes temporarily or permanently unavailable.

How to Deliver Phase 2 Without Live AI

In low-tech environments, teachers may replace the live AI output with any of the following:

- prepared teacher-provided sources
- printed narrative, essay, or explanation excerpts
- worked examples showing both strengths and weaknesses
- curated errors or misconceptions for students to analyse
- anonymised student responses from previous cohorts
- scenario cards or prompt cards
- pre-generated AI exemplars printed in advance

These alternatives retain the core cognitive sequence:

anchor → comparison → critique → improvement → personalisation.

The teacher may choose excerpts that intentionally demonstrate:

- varied writing quality
- different approaches to the same task
- common errors in structure or reasoning

- contrasting interpretations or techniques
- opportunities for correction or enhancement

This allows Phase 2 to function exactly as intendedeven without generative AI.

Subject-Specific Examples

English

Students analyse two versions of a descriptive paragraph, one strong, one weaker and identify tension techniques used in each, mirroring how they would critique an AI-generated response.

Science

Students critique a worked example containing deliberate misconceptions (e.g., misunderstanding of forces or energy conservation) and improve the explanation.

Humanities

Students compare two short historical interpretations or geographical explanations, identifying bias, clarity, or analytical strength.

Mathematics

Students evaluate a partially completed solution, checking accuracy, spotting errors, or explaining missing steps.

Practical Subjects (Art, DT, PE, Music)

Students critique a sketch, technique description, choreography sequence, or design rationale, improving it through constructive revision.

How Teachers Can Prepare Low-Tech Phase 2 Materials

1. **Select or create a model response**

   Aim for 4–6 sentences or a brief worked example.

2. **Intentionally vary quality**

   Include strengths and at least one improvement opportunity.

3. **Ensure alignment with the learning intention**

   The example must reflect the concept or skill students are learning that lesson.

4. **Add a prompt for comparison**

   For example:

   "Compare this model response to your Phase 1 anchor. What is similar? What is missing? Which technique is more effective?"

5. **Provide space for correction or refinement**

   Students must actively improve at least one part of the model response.

6. **Include a short challenge prompt**

   Maintain the cognitive rigor of the AI challenge by requiring deeper thinking, alternative perspectives, or problem extension.

Maintaining Integrity Across All Five Phases

The low-tech version preserves the following principles:

- **Phase 1 (Anchor Thinking)** remains unchanged.
- **Phase 2** continues to emphasise critique, comparison, correction, and personalisation.
- **Phase 3 (Human Only Transfer Task)** remains fully independent.
- **Phase 4** still draws on anchor → model → transfer without relying on devices.
- **Phase 5** retains its diagnostic focus on thinking quality, not tool use.

In short, the learning cycle remains intact, and the cognitive demands remain identical.

Benefits for School Leadership and CPD

Leaders often hesitate to adopt AI-focused models due to inconsistency in device access or uncertainty about AI policies. The low-tech version of Phase 2 offers several advantages:

- **mitigates equity issues** between classes, year groups, or campuses
- **supports phased AI rollout** without compromising pedagogy
- **facilitates staff training**, as teachers can rehearse Phase 2 using printed examples
- **reduces technical risk**, ensuring lessons do not depend on connectivity
- **aligns with safeguarding and data protection requirements**

For CPD, the low-tech version becomes a powerful training tool: teachers can practise applying the model without relying on technology, building confidence in the conceptual framework before integrating AI.

Conclusion

The low-tech adaptation of Phase 2 ensures that U-AILM is *not* an AI-dependent model, but a pedagogically robust structure that integrates AI where possible and remains fully functional without it. By preserving the core cognitive processes of critique, improvement, and personalisation, the framework becomes universally applicable, resilient, and adaptable across contexts.

This subsection ensures that U-AILM stands as a **human-centred, globally accessible, future-proof** methodology suitable for every school regardless of technological conditions.

Chapter 6: Phase 3: The Human Only Transfer Task

The Human Only Transfer Task is the pivotal phase of the Untamed AI Learning Model. It is the moment where AI is removed, devices are closed and the student must demonstrate independent understanding. This phase provides the clearest and most reliable evidence of learning in an age where written output can no longer be trusted at face value.

If Phase 1 captures raw thinking, and Phase 2 develops critical interaction with AI, then Phase 3 is the moment where all of that cognitive work must be applied without technological support. It is the part of the sequence that cannot be bypassed or short circuited. It is where dependency on AI becomes visible and where authentic learning stands out clearly.

This phase is not a test. It is a reveal. It shows the teacher what the student truly understands.

Why the Transfer Task Matters

Traditional assessment assumes that the written product reflects the student's thinking. In an AI rich world, that assumption no longer holds. Students can present polished work that does not reflect their understanding, their misconceptions or the process they went through.

The Transfer Task solves this by requiring the student to demonstrate understanding in the present moment. It shifts the question from "What can you submit?" to "What can you do?". This realignment protects the integrity of learning and ensures that the teacher can still make accurate judgements.

The Transfer Task has four essential functions.

1. It reveals genuine understanding

Students cannot hide behind AI. They must use and adapt their knowledge independently.

2. It exposes over reliance on AI

Students who copied or memorised AI content struggle to apply it in new contexts.

3. It strengthens long term retention

Independent application deepens memory far more effectively than passive consumption.

4. It prepares students for real world thinking

Life does not provide perfect prompts. It requires adaptability.

What Makes a Transfer Task Different from a Normal Task

The Transfer Task is not simply "another question". It is deliberately constructed to be:

- unfamiliar
- contextual
- immediate
- short
- unpredictable
- varied
- grounded in the learning sequence

The aim is not to trick students but to ensure they cannot rely on rehearsed or AI provided responses.

To achieve this, a Transfer Task must involve one or more of the following characteristics.

1. New Information or Scenario

Students are given something they have not seen before.

Examples include:

- a new extract in English
- a new data set in science
- a modified equation in maths
- a new case study in geography
- a fresh stimulus in art
- a new ethical scenario in humanities

The student must make sense of the new material using their understanding from earlier in the lesson.

2. Context that AI Cannot Predict

The teacher draws on something unique to the classroom.

For example:

- a reference to a conversation that happened earlier in the lesson
- an object present in the room
- a comment made by a student
- the outcome of a practical demonstration
- a local example relevant only to that school

AI cannot anticipate this. The student must rely on authentic reasoning.

3. Cognitive Movement

The student must apply, analyse, justify, adapt or interpret, rather than simply recall.

Common Transfer Tasks include:

- Explain how
- Apply this idea to
- Show how this changes if
- Compare these two cases
- Create an example that
- Redraw your anchor including
- Justify your decision about
- Evaluate which is stronger

These tasks require thinking, not transcription.

4. Reasoning, Not Reproduction

The Transfer Task does not ask students to reproduce what the AI told them. It asks them to use their knowledge in a new way.

This difference is profound. Reproduction is no longer a reliable indicator of learning. Reasoning is.

Examples of Transfer Tasks Across Subjects

The model must work school wide. These examples show how adaptable Phase 3 is.

English

Provide a short, unseen extract.

Task: Explain how a theme or technique appears in this extract using one idea from your anchor and one idea you gained after using AI.

Maths

Present a slightly altered version of the problem explored in Phase 2.

Task: Show how the method must change and explain why.

Science

Introduce a new set of experimental results.

Task: Predict the outcome or explain an anomaly using the concept clarified with AI.

Geography

Provide a new case study of a region.

Task: Apply the model or theory from the lesson to this unfamiliar location.

History

Share a short historical source not seen before.

Task: Evaluate it using one idea from your anchor and one idea strengthened by AI.

Art and Design

Show a new artist, object or technique.

Task: Explain how you would adapt your design to incorporate something you notice.

Business Studies

Introduce a new business scenario.

Task: Apply the principle explored earlier to this new context.

Modern Foreign Languages

Give a new short dialogue.

Task: Adapt a phrase or structure from the lesson to fit this context.

Every subject has transfer tasks that are both authentic and AI resilient.

The Role of Timing

Transfer Tasks are intentionally short. Most take between three and seven minutes. Their purpose is to reveal thinking, not to produce extended documents. The teacher then gains immediate insight into the student's understanding and can adjust the next steps accordingly.

Short does not mean superficial. A well designed two minute Transfer Task can reveal more understanding than a two page essay.

Design Principles for Effective Transfer Tasks

1. Make it live

Deliver the Transfer Task spontaneously. Do not include it on worksheets. Keep it off slides until the moment it is used.

2. Avoid predictable patterns

If students can guess the task in advance, the value diminishes.

3. Require reference to Phases 1 and 2

Ensure students must draw on both their anchor and their AI interaction.

4. Keep the format simple

The complexity should lie in the thinking, not the task structure.

5. Check one or two responses verbally

A quick verbal check exposes patterns immediately.

6. Avoid tasks that AI could complete perfectly

If the task could be generated by AI, it is not a Transfer Task.

Common Mistakes

Mistake 1: Making the Transfer Task too long

This slows the lesson and shifts the focus to writing instead of thinking.

Mistake 2: Reusing the same format

Variation strengthens authenticity.

Mistake 3: Allowing devices to remain open

The Transfer Task must always be device free.

Mistake 4: Confusing transfer with recall

Transfer requires new context, not reproduction.

What This Phase Achieves in School Culture

Phase 3 becomes a powerful cultural signal. It shows students that:

- understanding matters
- thinking cannot be faked

- AI cannot replace learning
- application is valued over appearance

It builds independence and confidence. Students begin to see themselves as thinkers rather than receivers of information.

It also reassures teachers. In an age where written work is often suspect, the Transfer Task is the clearest, most reliable evidence that a student genuinely understands the material.

How Phase 3 Connects to What Comes Next

The Transfer Task naturally prepares students for Phase 4, Real Time Reflection. After demonstrating their understanding, students can reflect with clarity on how their thinking developed. They can see the gap between their anchor and their application. This makes reflection more authentic and more powerful.

The transformation becomes visible.

The next chapter explores Phase 4 and how schools can make metacognition an un-cheatable, integral part of every lesson.

Chapter 7 Phase 4: Real Time Reflection

Reflection is often treated as a closing activity. It appears at the end of lessons, on worksheets and in plenaries. Students are prompted to write what they learned, what they found challenging or what they want to remember. These are worthwhile practices, but in the age of generative AI, traditional reflection is no longer enough.

Real Time Reflection is different. It is not a summary of the lesson. It is a deliberate cognitive step where students articulate how their thinking changed from their anchor to their interaction with AI and through the Transfer Task. This reflection is grounded in specific evidence that AI cannot generate without the student's direct experience.

Reflection becomes a form of assessment. It captures the evolution of understanding. It reveals misconceptions, insights, adjustments and moments of clarity that no essay or AI generated paragraph can express authentically.

The purpose of Phase 4 is not to produce a neat conclusion. It is to make learning visible.

Why Reflection Must Be Real Time

If reflection is delayed, completed at home or completed after prolonged access to AI, it loses authenticity. Students can copy reflective language, repeat generic phrases or rely on AI to generate a polished summary of their learning.

Real Time Reflection prevents this by:

- requiring no device
- grounding the reflection in actual choices made earlier in the lesson
- asking students to reference their anchor, their AI interaction and their Transfer Task
- creating immediacy that AI cannot replicate
- focusing on observable changes in thinking
- asking questions that depend on personal context

This form of reflection becomes a cognitive checkpoint. It allows students to consolidate what they have truly understood and signals to the teacher whether further teaching is needed.

What Students Reflect On

Reflection in this model focuses on three things.

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1. The Anchor

Students recall what they initially thought, predicted or understood. This provides the baseline for self comparison.

2. The AI Interaction

Students consider how engaging with AI challenged, corrected or extended their thinking. They begin to see AI as a stimulus rather than an oracle.

3. The Transfer Task

Students evaluate how well they were able to apply their understanding independently. This reveals which ideas have become consolidated and which remain fragile.

These three points provide a framework for authentic metacognition.

Designing High Quality Reflection Prompts

Reflection must be precise. Vague prompts produce vague answers. Precise prompts produce insight.

Here are examples of effective Real Time Reflection stems.

Anchored Reflections

- One idea I believed at the start that has now changed is
- Something from my anchor that I still think is correct is
- The biggest difference between my anchor and my Transfer Task answer is

AI Focused Reflections

- One idea the AI helped me understand more clearly is
- One idea the AI gave that I disagreed with is
- Something I corrected in the AI answer using my own thinking was
- The AI made me reconsider my idea about

Transfer Reflections

- In the Transfer Task, the part I felt confident about was
- In the Transfer Task, the part I struggled to explain was
- The moment I realised I understood the concept was when
- Something I wish I had added to my Transfer Task answer is

Learning Journey Reflections

- The most important change in my thinking today was
- The part of the lesson that challenged me most was
- I am now aware that I need more practice in
- One question I still have is

Short, targeted prompts like these make the student's cognitive process clear and useful.

Oral Reflection as an Authentic Practice

Reflection does not have to be written. In fact, oral reflection is often more authentic because it reduces the temptation to mimic rehearsed structures or generic phrasing.

Examples of oral reflection methods include:

- a two sentence partner share
- a one minute teacher check-in
- a small group micro discussion
- a pair conversation recorded as an audio note

Oral reflection works particularly well for students with low writing confidence or for lessons with limited time. It also allows teachers to hear tone, confidence and immediacy, which further strengthens authenticity.

Why Reflection Cannot Be Faked

Real Time Reflection becomes extremely difficult to fabricate for four reasons.

1. It must reference the student's actual anchor

AI cannot generate a reflection about a drawing, a diagram or a prediction unless the student feeds it directly into the system, which is controlled in this phase.

2. It must reference the student's personal AI interaction

Unless the student shares every detail of their AI exchange, AI cannot recreate a genuine reflection.

3. It must reference the Transfer Task

Since the Transfer Task is delivered live and varies between lessons, AI cannot predict or prepare for it.

4. It is immediate

Reflection happens in the moment. Students do not have time to outsource or edit heavily.

These four conditions ensure that reflection remains one of the most reliable indicators of learning in the model.

Reflection as a Tool for Teachers

Real Time Reflection is not just for students. It provides teachers with rich data that informs planning and differentiation.

Reflection reveals:

- which misconceptions remain
- which ideas have solidified
- what the student values or notices
- their level of confidence
- their level of independence
- whether the guided AI phase was effective
- whether the Transfer Task was appropriately challenging

This makes reflection both a learning strategy and an assessment strategy.

Reflection as Part of School Culture

As students become accustomed to reflecting on their learning journey, several cultural benefits emerge.

1. Students become more self-aware thinkers

They recognise how their understanding develops over time.

2. They become more comfortable with uncertainty

They see that misconceptions are normal and valuable.

3. They build healthier relationships with AI

They understand that AI is a partner, not a replacement for thinking.

4. They become more articulate about their own learning

This strengthens communication skills, metacognition and academic confidence.

Reflection changes the way students perceive learning. They begin to view lessons not as one-off events but as connected processes.

How Phase 4 Supports the Final Phase

Reflection prepares students for Transformation Based Assessment. By articulating the changes in their thinking, students make their learning visible to themselves and to their teachers. This visibility is what makes the final phase possible.

The next chapter explains how transformation becomes the foundation for assessment in the Untamed AI Learning Model and how this approach restores trust and clarity in the age of generative AI.

Chapter 8 Phase 5: Transformation Based Assessment

The final phase of the Untamed AI Learning Model is the most strategically important. Assessment shapes behaviour. It signals what a school values, what teachers focus on, and what students believe is required for success. If assessment remains rooted in traditional written outputs, students will continue to rely on AI to shortcut the work. If assessment evolves, the culture of learning evolves with it.

Transformation Based Assessment redefines how teachers measure learning. Instead of grading the final product, teachers evaluate the change in thinking that occurred across the learning sequence. The emphasis shifts from what students can produce to what they can understand, adapt and apply.

In an age where polished written work can be generated instantly by AI, schools must treat the thinking journey as the primary evidence of learning. This restores trust, accuracy and integrity to assessment.

What Transformation Means

Transformation refers to the cognitive development that occurs between the student's anchor, their guided AI interaction, their Transfer Task and their Real Time Reflection. It is the learner's movement from initial understanding to more accurate, nuanced and independent understanding.

Transformation is visible in:

- revised ideas
- corrected misconceptions
- improved explanations
- stronger justification
- more precise language
- increased confidence
- clearer reasoning
- demonstrated application

These qualities cannot be fabricated by AI without the student feeding every detail into the machine. They emerge from authentic engagement.

Why Traditional Assessment Is No Longer Reliable

Traditional assessments often reward:

- polished writing
- memorised structures
- rehearsed techniques
- conventional essay forms
- familiar task types

In the past, these could reasonably be assumed to reflect student thinking. In an AI rich world, they no longer do.

A student can submit an essay that meets criteria for coherence, structure and vocabulary without engaging in the underlying reasoning. They can reproduce what AI suggests without truly understanding the concepts.

This creates an illusion of learning. It undermines trust between student and teacher, and it skews data that schools rely on for decision making.

Transformation Based Assessment solves this problem by shifting the focus entirely.

The Four Evidence Streams of Transformation Based Assessment

The Untamed AI Learning Model assesses learning through four evidence sources. These are observable, authentic and resistant to outsourcing.

1. The Anchor

The student's initial thinking is the starting point. Teachers use anchors to identify:

- misconceptions
- strengths
- prior knowledge
- confidence
- associations
- emerging understanding

Anchors do not need to be sophisticated. They need to be honest.

2. The Guided AI Interaction

Teachers examine how the student:

- compared their anchor to the AI
- identified mismatches
- corrected AI
- challenged AI
- made personal decisions
- synthesised ideas
- personalised content

This reveals critical thinking and digital literacy.

3. The Human Only Transfer Task

This is the strongest evidence of understanding.

Teachers assess:

- clarity of reasoning
- accuracy of application
- adaptability
- precision
- independent thinking
- confidence

The Transfer Task provides insight into whether the student can do the thinking without AI.

4. Real Time Reflection

Reflection provides meta evidence. It shows whether the student:

- recognises their own cognitive shifts
- can articulate their learning journey
- understands what changed
- identifies what AI did and did not help with
- is aware of their remaining misconceptions

Reflection validates the transformation process.

Each evidence stream aligns with a phase of the model. Together, they create a robust, multi dimensional profile of the student's learning.

The Transformation Rubric

Schools should adopt a scoring or feedback approach that evaluates the quality of each evidence stream. This rubric does not prioritise written polish. It prioritises thinking.

A transformation rubric typically includes the following dimensions.

1. Authenticity of Anchor Thinking

Low quality anchors are vague, defensive or generic. High quality anchors show genuine thought, even if incorrect.

2. Depth of AI Interaction

Low quality AI interaction involves copying or paraphrasing. High quality interaction involves critique, challenge and selective adoption.

3. Independent Application

Low quality transfer tasks reveal dependence or memorisation. High quality responses show adaptive reasoning in new contexts.

4. Insightful Reflection

Weak reflections are generic or surface level. Strong reflections show awareness of cognitive movement.

This rubric is designed to be subject neutral. It can be adapted for each department but should maintain the overarching focus on thinking over product.

Examples of Transformation Based Assessment in Practice

English

Instead of grading the final essay, the teacher evaluates:

- the accuracy of initial predictions
- the quality of comparisons with AI analysis

- the clarity of explanation in the unseen extract
- the insight shown in reflection

Maths

Instead of marking only final answers, the teacher evaluates:

- the student's initial method attempt
- their critique of AI's steps
- their independent correction of a new problem
- their reflection on errors and improvements

Science

Instead of only assessing lab reports, the teacher evaluates:

- initial conceptual diagrams
- how students corrected AI misunderstandings
- predictions made in new scenarios
- clarity of reflective reasoning

Humanities

Instead of extended written responses alone, the teacher evaluates:

- anchor maps
- AI interrogation
- application to new case studies
- reflective insight into cause and consequence

The rubric protects authenticity in every subject.

How Transformation Based Assessment Strengthens School Integrity

1. It eliminates AI inflated grades

Students cannot rely on AI because each phase requires personal cognitive work.

2. It restores teacher judgement

Teachers gain access to real thinking, not polished artefacts.

3. It improves reporting accuracy

Progress becomes visible and measurable, not hidden by AI generated text.

4. It reduces plagiarism concerns

The structure itself prevents plagiarism, making punitive systems less necessary.

5. It aligns assessment with real world skills

Employers and universities value reasoning, adaptability and judgement. Transformation Based Assessment promotes these directly.

Supporting Teachers Through the Shift

Schools must support teachers as they transition to this new model. This includes:

- shared training
- departmental moderation
- rubric calibration
- time to redesign tasks
- leadership clarity about expectations
- communication with parents
- whole school consistency

Transformation Based Assessment is not an add on. It is a cultural shift.

The Role of Transformation in Student Mindset

When students understand that their grade reflects their thinking rather than written polish, several important things happen.

1. They take greater ownership

Their progress is based on their ideas, not their ability to mimic model responses.

2. They become more resilient

Errors become data, not failures.

3. They engage more deeply

They know the teacher values their reasoning, not their formatting.

4. They develop AI literacy

They see AI as a tool, not a replacement for effort.

This mindset shift strengthens long term learning.

How Phase 5 Completes the Model

Transformation Based Assessment completes the learning sequence. It validates the authenticity of each previous phase and provides teachers with accurate evidence of understanding.

In the next chapter, the model moves from structure to application. Through a detailed example with a Year 10 English lesson on Macbeth, you will see how the entire framework functions in practice.

Chapter 9: Worked Example: Year 10 English (Macbeth)

To understand the power and practicality of the Untamed AI Learning Model, it is helpful to see it in action. This chapter presents a full lesson example from Year 10 English Literature, focusing on the theme of ambition in Macbeth. This text is one of the most frequently studied works at GCSE level and one of the most vulnerable to AI misuse. Students can easily ask a generative model to produce grade nine paragraphs, unseen extract analyses, thematic essays or character evaluations.

The example that follows demonstrates how the U AILM protects the integrity of learning while still allowing AI to contribute productively. It also shows how teachers can quickly gather high quality evidence of student thinking without increasing workload.

This worked example is deliberately realistic. It represents the pace, structure and decisions a teacher might use in a single lesson and can be adapted to any English department's schemes of work.

Lesson Focus

Question for the lesson:

How does Shakespeare present ambition in Macbeth?

Learning intention:

To develop an independent understanding of ambition as a thematic force in Macbeth and apply that understanding to an unseen extract.

U AILM sequence:

1. AI Free Anchor Thinking
2. Guided AI Interaction
3. Human Only Transfer Task
4. Real Time Reflection
5. Transformation Based Assessment

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Phase 1: AI Free Anchor Thinking

Duration: 3 minutes

Before students have access to any technology, they complete a simple anchor. The purpose is not to produce a correct answer but to capture their raw associations with the theme.

Teacher prompt:

Write the word ambition in the centre of your page.

Around it, jot down anything you associate with ambition in Macbeth. Include characters, moments, emotions, images, quotes, ideas or questions.

Students produce messy, honest webs. An example might include:

- Macbeth wants power
- Lady Macbeth pushes him
- vaulting ambition quote
- witches plant the idea
- blood
- guilt
- kingship
- consequences
- masculinity
- temptation
- tragedy

Many entries will be incorrect or incomplete. Some will contain misremembered quotations. This is expected and useful.

Teacher action:

The teacher quickly scans and collects or photographs the anchors. They now serve as evidence and a reference point for all later phases.

Phase 2: Guided AI Interaction

Duration: 10 minutes

Students now open their device and access a generative AI tool.

Teacher prompt:

Ask the AI:

Explain how Shakespeare presents ambition in Macbeth at a GCSE level.

Students receive a coherent explanation. It typically includes:

- Macbeth's ambition as a tragic flaw
- Lady Macbeth's influence
- the role of the witches
- the corrupting nature of power
- relevant quotations
- the consequences of unchecked ambition

Without guidance, students might simply copy this. With structure, they are forced to think.

The teacher then gives a Guided AI Interaction sheet.

Task 1: Identify differences

Highlight three things the AI said that were not in your anchor.

Example student response:

I did not include tragic flaw, the idea of Macbeth being pressured by fate or the idea that ambition destroys relationships.

Task 2: Correct the AI using your anchor

Choose one point from your anchor that the AI did not include. Explain why it matters.

Example:

The AI did not mention how ambition affects Macbeth's morality. I wrote guilt on my map, and that shows how ambition starts to undo him mentally.

Task 3: Challenge the AI

Write a question that tests the AI's analysis.

Examples:

How would the theme of ambition change if Macbeth never met the witches?

Is Macbeth ambitious before the witches, or do they create the ambition?

Task 4: Personalise the idea

Connect one idea from the AI explanation to something discussed in class last week or something you have seen in your own life.

Example:

We talked last week about how ambition can be positive. Macbeth shows what happens when ambition becomes selfish. That reminds me of competitive situations where people forget their values.

At this point, every student has engaged meaningfully with both their anchor and the AI content. No copying is possible because all tasks depend on the anchor itself.

Phase 3: Human Only Transfer Task

Duration: 7 minutes

AI is now removed. Students close devices. The teacher presents a short extract not previously used.

Extract chosen:

Act 3, Scene 2

"We have scotch'd the snake, not kill'd it."

This is a fresh context that AI cannot have predicted the teacher would use.

Teacher prompt:

Explain how ambition is shown in this extract.

Use one idea from your anchor and one idea you gained after using the AI.

This requires genuine thinking. Students must:

- interpret the metaphor
- connect ambition to fear, violence or insecurity
- draw on their anchor
- draw on insights from AI interaction
- synthesise understanding

Example student response:

My anchor included guilt, and the snake metaphor shows Macbeth's ambition has made him paranoid. From the AI answer, I learned that ambition is Macbeth's tragic flaw. Even when

he achieves what he wanted, he cannot rest. His ambition keeps creating new threats in his mind.

A student who relied on AI alone, or who copied without thinking, struggles here. Their understanding collapses once the AI is removed.

Phase 4: Real Time Reflection

Duration: 3 minutes

Students complete three short reflection prompts.

Prompts:

1. One idea I believed at the start that has now changed is
2. One thing the AI helped me understand more clearly is
3. In the Transfer Task, the part I understood best was

Example reflection:

I thought ambition just meant Macbeth wanting to be king, but now I see it causes fear and insecurity too. The AI helped me understand ambition as a tragic flaw. In the Transfer Task, I understood the snake metaphor as showing how ambition never feels complete.

These reflections cannot be fabricated easily because they reference specific experiences of the lesson.

Phase 5: Transformation Based Assessment

The teacher now has four rich pieces of evidence:

- the anchor
- the Guided AI Interaction responses
- the Transfer Task explanation
- the Real Time Reflection

These are used together to evaluate learning. The teacher can now make accurate judgements such as:

- Has the student's understanding deepened?
- Can they apply learning to a new extract?
- Can they articulate their cognitive change?
- Can they challenge AI effectively?
- Do they understand ambition as a theme rather than a memorised idea?

Assessment becomes authentic, visible and secure.

Why This Lesson Works

This worked example demonstrates how the U AILM stops AI from replacing thinking while still allowing AI to strengthen understanding. It shows how learning becomes more rigorous, more reflective and more connected to the learner.

The sequence ensures:

- no student can rely on AI alone
- every student must engage with their own thinking
- the teacher can see real progress
- written polish is no longer mistaken for understanding
- conceptual depth emerges through comparison and application
- the Transfer Task exposes genuine comprehension

This is how English Literature can thrive in the age of generative AI. The same principles apply across subjects. The next chapters show how this model can scale across departments and become a whole school system.

Chapter 10: Stress Testing the Untamed AI Learning Model

Any framework that claims to ensure authentic learning in the age of generative AI must be rigorously tested against real student behaviour. It is not enough to design a model that works in theory. It must withstand the creativity, resistance, shortcuts and avoidance strategies that students naturally develop. Schools cannot rely on hope. They must rely on structure.

This chapter presents a series of stress tests. Each one represents a realistic behaviour that students may exhibit, from the disengaged to the highly motivated. For each stress test, the chapter explains how the U AILM responds and why the model continues to protect the integrity of learning.

The purpose of this chapter is not to expose weaknesses, but to demonstrate how the model anticipates and resolves them. In doing so, it strengthens trust in the framework and reassures school leaders and teachers that this is a system built for the realities of modern schooling.

Stress Test 1: The Passive Copier

Profile:

The student copies AI generated text into their notebook or digital device and attempts to pass it off as their own work. They rely fully on the AI response and contribute no original thinking.

Attempted shortcut:

Use AI to produce an answer and skip engaging in genuine cognitive effort.

Where the model stops them:

The Transfer Task interrupts the shortcut. When AI is removed and students must apply learning independently, their misunderstanding becomes clear. Without the anchor thinking and the guided AI comparison, they have no foundation to draw from.

Outcome:

The Passive Copier produces weak or irrelevant responses during the Transfer Task and cannot complete the Real Time Reflection authentically. The model exposes the gap immediately.

Stress Test 2: The Memoriser

Profile:

The student uses AI during Phase 2 to generate a strong answer, memorises it and attempts to repeat it during the Transfer Task.

Attempted shortcut:

Avoid genuine understanding by rehearsing AI text.

Where the model stops them:

The Transfer Task uses new information or a new extract. Memorisation fails because the context has changed. Students who memorise cannot adapt.

Outcome:

Their answer does not fit the new scenario or the reasoning appears forced. The teacher can easily detect a mismatch between memorised content and contextual application.

Stress Test 3: The High Performer Who Over Relies on AI

Profile:

The student is capable and academically motivated but begins using AI as a crutch. They follow AI structures, adopt AI vocabulary and depend on AI to organise ideas.

Attempted shortcut:

Achieve high output efficiently rather than through genuine thinking.

Where the model stops them:

The Transfer Task requires independent reasoning. Reflection requires personal explanation. Both reveal whether the student can think without the scaffold.

Outcome:

The high performer is required to demonstrate independence. If they relied too heavily on AI, this becomes visible. They learn to regulate their use of AI rather than allow it to dominate.

Stress Test 4: The Strategic Minimalist

Profile:

The student does as little as possible. They write minimal anchors, skip detailed AI comparisons, produce placeholder Transfer Task responses and offer vague reflections.

Attempted shortcut:

Avoid effort by completing tasks at the lowest acceptable level.

Where the model stops them:

The anchor and Transfer Task cannot be avoided because the teacher collects or views them in real time. Minimalism becomes visible and cannot be hidden behind artificially polished text.

Outcome:

The teacher sees the lack of cognitive movement. The student receives targeted intervention or support. Minimal output cannot be disguised as learning.

Stress Test 5: The AI Prompt Engineer

Profile:

A highly motivated student who actively attempts to break the system. They prompt the AI to imitate their writing style. They ask the AI to create fake reflections. They attempt to tell the AI everything about their anchor and Transfer Task so it can fabricate later phases.

Attempted shortcut:

Engineer prompts that allow the AI to mimic the entire learning sequence.

Where the model stops them:

Three structural barriers hold:

1. The anchor is produced rapidly in class and recorded before AI access.
2. The Transfer Task uses new, unpredictable information delivered live.
3. Reflection is timed, short, and references decisions made earlier in the sequence.

Even the most sophisticated prompt cannot replicate the immediacy of a live Transfer Task or the context specific elements embedded by the teacher.

Outcome:

Students can mimic phrasing, but not the real thinking required to respond to new context. The model holds.

Stress Test 6: The Avoider of Difficult Thinking

Profile:

The student genuinely dislikes cognitive struggle. They use AI to bypass uncomfortable reasoning and avoid personal engagement.

Attempted shortcut:

Use AI to avoid resolving misconceptions or difficult concepts.

Where the model stops them:

Guided AI Interaction requires students to:

- identify mismatches
- correct AI
- challenge AI
- personalise responses

These tasks force engagement with difficult ideas. The Transfer Task reinforces the need to apply understanding.

Outcome:

Students cannot avoid cognitive struggle. The structure requires it.

Stress Test 7: The Surface Level Reflector

Profile:

The student writes generic reflections such as:

- I learned more today
- It was hard but now I get it
- AI helped me a lot
- I tried my best

Attempted shortcut:

Provide vague, low effort reflections that hide lack of understanding.

Where the model stops them:

Real Time Reflection requires reference to:

- a specific point from the anchor
- a specific idea from the AI comparison
- a specific moment from the Transfer Task

Generic answers cannot fulfil these requirements.

Outcome:

Surface reflections are immediately visible and cannot be mistaken for insight or understanding.

Stress Test 8: The Group Colluder

Profile:

Students collaborate outside the classroom to create shared AI answers. They attempt to produce identical Phase 2 responses, memorise similar Transfer Task ideas or copy each other's reflections.

Attempted shortcut:

Standardise their answers to reduce individual effort.

Where the model stops them:

Each phase is grounded in personal work:

- anchors differ by nature
- reflections reference personal AI interactions
- transfer tasks use new, unpredictable information
- context varies with classroom discussion

Even if students attempt uniformity, the structure forces divergence.

Outcome:

Collusion collapses quickly, as identical reasoning cannot survive the new context of the Transfer Task.

Stress Test 9: The Student Who Wants the AI to Do Everything

Profile:

The student asks AI to complete the anchor, the AI comparison, the Transfer Task and the reflection.

Attempted shortcut:

Outsource the entire lesson to AI.

Where the model stops them:

AI cannot produce:

- a genuine anchor without prior thought
- comparisons that reference a personal anchor it never saw
- a Transfer Task answer based on unpredictable new context
- a reflection grounded in real cognitive movement

Even if the student tries, the inconsistencies are immediately visible.

Outcome:

The attempt fails at multiple points. The teacher can clearly see the lack of personal thinking.

Stress Test 10: The Highly Motivated Cheater

Profile:

This student devotes significant effort to circumventing the system. They take photos of their anchor. They feed every detail into the AI. They try to pre train the AI to mimic every part of the lesson.

Attempted shortcut:

Use determination and strategic thinking to break the model.

Where the model stops them:

The bottleneck is always Phase 3.

The Transfer Task is grounded in:

- live context
- new material
- unpredictable variation
- absence of AI access

No matter how well trained their AI prompt log is, they cannot outsource immediate reasoning.

Outcome:

Their performance depends on genuine understanding, not strategic manipulation.

What the Stress Tests Reveal

After running each stress test, a clear pattern emerges. The U AILM is secure for three reasons.

1. It requires evidence from multiple phases

Cheating one phase does not bypass the others.

2. It grounds learning in personal context

AI cannot fabricate personalised experiences without explicit data that the structure prevents students from providing.

3. It removes AI at the critical moment

The Transfer Task breaks all attempts to outsource learning.

This is not a system that bans AI. It is a system that makes AI safe.

Why Stress Testing Increases Trust

Educators, leaders and parents need confidence that learning remains authentic. Stress testing demonstrates:

- transparency
- intellectual honesty
- structural robustness
- adaptability across subjects
- resilience against evolving AI capabilities

It positions the U AILM as a credible and future ready framework rather than a temporary fix.

Moving Forward

With the stress testing complete, the next chapter turns toward implementation. The model is not intended for isolated lessons. It is intended to become a whole school approach that transforms how learning is designed, delivered and assessed.

The next chapter explains how schools can adopt the U AILM at scale.

Moving Forward

Chapter 11: Whole School Implementation Strategy

A framework only becomes transformative when it is adopted consistently. Individual teachers can successfully implement the Untamed AI Learning Model in their own rooms, but the true power of the model emerges when it becomes a whole school approach. This requires leadership clarity, coordinated training and a phased roll out that supports staff rather than overwhelms them.

This chapter outlines a practical, sustainable implementation strategy that schools can use to embed the U AILM across departments. The aim is not rapid change, but lasting change. The structure of the model makes implementation both achievable and scalable.

The strategy is built around four pillars:

1. Leadership clarity
2. Teacher training
3. Department level adoption
4. Monitoring, refinement and cultural embedding

Each pillar includes specific actions for senior leaders, middle leaders and teachers.

Pillar 1: Leadership Clarity

A school cannot implement a new learning model unless leaders provide a clear rationale and set the direction. The purpose must be understood by staff, parents and students.

1.1 Establish the pedagogical purpose

Senior leaders should clearly articulate:

- why the school is adopting the model
- how AI has changed the learning landscape
- why traditional assessment is no longer reliable
- how the U AILM protects authentic thinking
- how it aligns with the school's values and mission

This communication should be repeated across multiple channels: staff meetings, newsletters, induction materials and CPD sessions.

1.2 Define expectations

Leaders must identify:

- which subjects will begin implementation first
- the timeline for gradual expansion
- expectations for each phase of the model
- what success looks like in practice
- how departments will adapt their curricula

Clarity prevents confusion and builds confidence.

1.3 Provide time and space for adoption

Teachers cannot redesign learning sequences under pressure. Implementation requires leadership to:

- adjust meeting schedules
- provide planning time
- review homework policies
- reconsider assessment practices
- reduce competing initiatives

A school that supports staff logistically will see stronger, faster adoption.

Pillar 2: Teacher Training

Teachers must feel confident with each phase of the model. Confidence grows through training that is practical, scenario based and directly connected to classroom realities.

2.1 Introduce the model through demonstration, not theory

Training should focus on:

- modelling the anchor
- modelling guided AI interaction
- modelling the transfer task
- modelling real time reflection
- showing examples of thinking from actual lessons

Demonstration builds understanding far more effectively than abstract explanation.

2.2 Provide high quality exemplars

Teachers need to see:

- real anchors created by students
- annotated AI interaction sheets
- authentic transfer task responses
- meaningful reflections
- transformation based feedback examples

These should come from multiple subjects to show versatility.

2.3 Build staff understanding of AI capabilities and limitations

Teachers must understand:

- what AI can do well
- what it does poorly
- how to prompt safely
- how to teach students to question AI
- the risks of unstructured AI use

There is no need for advanced technical knowledge. Practical literacy is enough.

2.4 Create opportunities for rehearsal

Departments should:

- rehearse anchors together
- test transfer tasks
- compare reflections
- trial small sequences in low stakes contexts

Practice builds confidence before full adoption.

Pillar 3: Department Level Adoption

Whole school change must move through departments. Each subject has unique demands and must adapt the model to its discipline while keeping the five phases intact.

3.1 Map subject specific anchor types

English, science, maths, humanities, modern languages, PE and arts will all use anchors differently. Departments must:

- identify 3 to 5 anchor types that work best
- align these to key topics
- ensure variety is maintained

3.2 Develop subject appropriate guided AI tasks

AI interaction looks different in each subject. Departments should:

- design prompt banks
- identify common misconceptions AI may introduce
- agree on standard comparison tasks
- create discipline friendly AI challenge questions

This ensures consistency and protects authenticity.

3.3 Construct a bank of transfer tasks

Transfer tasks require careful thought. Departments must prepare:

- unseen extract banks for English
- modified problem sets for maths
- unfamiliar case studies for humanities
- new data sets for science
- novel design constraints for arts and DT

A shared bank reduces workload and promotes consistency.

3.4 Adjust internal assessments

Departments gradually shift towards:

- multi phase evidence collections
- portfolios of thinking
- reduced emphasis on written polish
- more emphasis on independent application

This aligns internal assessment with the model.

Pillar 4: Monitoring, Refinement and Cultural Embedding

Once the model is implemented, the school must monitor its impact and refine practice without reducing teacher autonomy.

4.1 Use light touch, supportive monitoring

Senior and middle leaders should:

- drop into lessons briefly
- look for anchor evidence
- observe AI comparison work
- check transfer task responses
- listen to reflection conversations

Monitoring is developmental, not punitive.

4.2 Review impact in departments

Every half term, departments should discuss:

- what is working well
- which transfer tasks generate the best insight
- common misconceptions revealed
- adaptations needed for particular cohorts
- support required from leadership

This is a collaborative improvement cycle.

4.3 Communicate with parents

Parents must understand:

- why the model is different
- why essays alone are no longer reliable
- how AI is used responsibly
- how students are being protected from over reliance

Clear communication builds community trust.

4.4 Embed the model into new staff induction

New teachers should receive:

- an explanation of the U AILM
- exemplar sequences
- training in each phase
- departmental support materials

This ensures the model outlasts staff turnover.

4.5 Celebrate transformation, not output

School culture shifts when:

- anchor thinking is valued
- mistakes are treated as learning
- transfer tasks are celebrated
- reflections are shared
- students articulate their learning journey confidently

When transformation becomes the measure of success, the model becomes embedded.

A Sustainable, Scalable Framework

The U-AILM works because it does not require complex technology or additional teacher workload. It relies on clarity of sequencing rather than quantity of materials. Once teachers internalise the logic of the five phases, they adapt it naturally to their subjects.

Schools that adopt the model gain:

- authentic assessment
- reduced plagiarism concerns
- improved student independence
- stronger AI literacy
- consistent pedagogy across departments
- clarity for teachers
- trust for leaders

The model is designed to be practical, flexible and durable. It is not a trend or a quick fix. It is a long-term redefinition of what learning looks like in the age of AI.

Chapter 12: The U-AILM Lesson Generator -A Practical Tool for AI Integrated Lesson Design

Note for Readers

This chapter introduces the Untamed Lesson Designer a structured, research-aligned prompt that generates U-AILM learning experiences. The tool is delivered as a copy-and-paste prompt that can be used with any major AI model (ChatGPT, Claude, Gemini, Copilot, or school-approved alternatives).

A QR code at the end of this chapter will take you to the official prompt hosted on the Untamed Education website, where you can copy, paste, and begin using it immediately.

The Untamed AI Learning Model is designed for classroom reality. Teachers need more than a conceptual framework. They need a simple and efficient way to plan lessons that follow the model's structure without adding to their workload. This chapter introduces the U-AILM Lesson Generator, a tool that converts teacher inputs into a fully planned, U-AILM aligned learning experience.

The purpose of this chapter is not to reveal the internal workings of the generator. Instead, it provides an overview of how teachers use it, what they should prepare before using it and how it fits into whole-school implementation. The full interactive version of the tool is available through the Untamed Education website.

Why a Lesson Generator?

Teachers today work in increasingly complex classrooms. They must integrate new technologies, manage diverse learning needs and ensure that lessons remain academically rigorous and intellectually honest despite the presence of generative AI. The U-AILM offers structure, but teachers often need support converting the structure into daily practice.

The Lesson Generator:

- reduces planning time
- ensures fidelity to the five phases
- promotes consistency across departments
- supports new and experienced teachers equally
- strengthens school-wide adoption
- prevents accidental erosion of the model's principles

It also ensures that every lesson designed through U-AILM prioritises cognitive depth, independent thinking and visible learning.

How the Lesson Generator Works

The generator takes a small set of teacher inputs and produces a complete, classroom-ready lesson plan that fits the U-AILM sequence. The process is simple. The teacher provides information such as:

- subject
- year group
- learning intention
- topic or curriculum focus
- lesson duration
- classroom context
- access to devices
- subject type: academic, practical or mixed
-

The Lesson Generator then creates:

1. An AI Free Anchor Thinking task
2. A structured Guided AI Interaction task
3. A Human Only Transfer Task
4. A Real Time Reflection sequence
5. Transformation Based Assessment notes
6. Subject-appropriate differentiation guidance
7. Optional digital enhancements

Because these phases are embedded automatically, teachers do not have to remember the order or manually apply the model. The generator ensures consistency and quality.

Why the Full Generator Is Not Included in This Book

The U-AILM Lesson Generator is a professional tool. Its internal logic is extensive and continually updated. Including the entire mechanism in print would:

- restrict future updates
- allow unauthorised replication
- risk losing consistency across schools
- compromise the integrity of the model
- weaken the associated digital tools
- remove the ability to refine the system over time

For these reasons, only the conceptual overview appears in the book. The complete tool is provided exclusively through the Untamed Education platform, where it can be improved, maintained and supported.

A Safe, Teacher-Facing Planning Template

To support teachers who prefer to plan manually or who want to understand the thought process before using the generator, this section provides a simple planning template. Unlike the generator, this template does not automate or guide each step. It is a neutral structure that mirrors the U-AILM phases and allows teachers to experiment with the framework.

Teachers can use the following template to hand-plan a U-AILM lesson.

U-AILM Lesson Planning Template (Manual Version)

Subject:

Year Group:

Learning Intention:

Topic / Focus:

Lesson Duration:

Classroom Context (EAL, SEND, mixed ability):

Device Access:

Subject Type (Academic / Practical / Mixed):

Phase 1: AI Free Anchor Thinking

What prior understanding do you want to reveal?

Design a short task (2 to 5 minutes) that captures authentic thinking without technology.

Phase 2: Guided AI Interaction

What prompt will students send to the AI?

What tasks will require comparison, correction, challenge and personalisation?

How will students use their anchor to evaluate the AI output?

Phase 3: Human Only Transfer Task

What new or altered context will students apply their learning to?

What independent task can they complete with devices closed?

What evidence will they produce?

Phase 4: Real Time Reflection

Which specific prompts will help students articulate their cognitive movement?

How will they reference the anchor, the AI interaction and the transfer task?

Phase 5: Transformation Based Assessment Notes

What would high quality performance look like in each phase?

What indicators of misunderstanding will you look for?

Differentiation and Inclusion

What specific adaptations will support:

- EAL learners
- SEND learners
- Higher prior attainers

Ensure each adaptation links directly to the tasks above, not general teaching habits.

Optional Digital or AI Enhancements

List any optional tools or digital techniques that could enhance the lesson without reducing cognitive challenge.

This manual template allows teachers to understand the structure before automating it. Schools may wish to adopt this as an internal planning format during training.

Using the Full Untamed Lesson Designer

The full interactive version of the U-AILM Lesson Generator is available at:

www.untamededucation.com/u-ailm

UntamED: The AI Learning Model

The online tool:

- generates full lesson plans automatically
- supports all subjects and year groups
- adapts to academic and practical disciplines
- includes contextual branching for EAL, SEND and mixed ability classes
- follows the U-AILM structure without variation
- supports long term whole school consistency
- reduces planning time significantly
- protects the integrity of the model

This is the tool recommended for daily classroom use, departmental planning and whole school adoption.

A Micro Example (For Illustration Only)

To help teachers visualise how the generator transforms inputs into a structured lesson, here is a short example. This is not a full lesson plan.

Subject: Year 8 History

Learning Intention: Understand why the Roman Empire expanded.

Subject Type: Academic

Device Access: Full class

Anchor:

List everything you currently believe about why empires expand.

Guided AI Interaction:

Students ask the AI to explain reasons for imperial expansion, then compare, correct and challenge the response.

Transfer Task:

Without devices, students apply their understanding to explain why a fictional empire might expand under new constraints.

Reflection:

Students reflect on how their initial ideas changed and what the AI helped clarify.

This example shows the structure without revealing the underlying generator logic.

Conclusion

The U-AILM Lesson Generator bridges the gap between theory and classroom practice. It gives teachers a reliable tool for planning learning experiences that protect authentic thinking while embracing the benefits of AI. This chapter provides the conceptual foundation and a manual planning structure. The full version, available online, offers the complete automated experience for schools and teachers who want to implement the model with consistency and confidence.

Chapter 13: The Future of Learning with AI

Education stands at a crossroads. For more than a century, schools have been structured around predictable routines of instruction, written output and standardised assessment. These routines were designed for an industrial era that valued conformity and productivity. The world that students now enter is dramatically different. It demands creativity, adaptability, ethical reasoning, collaboration, independence and critical engagement with technology.

Generative AI accelerates this shift. It also exposes the limitations of traditional schooling. When a machine can produce polished work in seconds, the value of learning cannot be measured through written output alone. Schools must redesign what they teach, how they teach and how they measure understanding.

The Untamed AI Learning Model is not a response to the threat of AI. It is an evolution of what meaningful education has always been meant to achieve: the development of human thinking.

This chapter explores the wider implications of the model for the future of learning, curriculum design and the role of teachers. It also considers the skills students will need to thrive in a world where AI is ever present.

1. A Shift from Knowledge Production to Knowledge Transformation

In the past, schools rewarded the production of knowledge. Students wrote essays, created summaries, produced reports and completed worksheets. Generative AI now produces knowledge more quickly and more fluently than most humans. The educational value lies not in producing information, but in transforming it.

Transformation requires:

- interpreting
- critiquing
- applying
- reframing
- adapting
- contextualising

These are the capabilities that the U AILM foregrounds. The future of learning belongs to those who can move beyond consumption and production and into transformation.

2. Reimagining the Purpose of Assessment

Assessment has long been tied to products that can be externally verified. This is the foundation of standardised examinations. AI challenges this model at its core. When writing can be automated, assessment must shift from external products to internal processes.

The future of assessment will prioritise:

- visible thinking
- live reasoning
- oral explanation
- transfer
- reflection
- collaborative problem solving
- creative synthesis

Transformation Based Assessment anticipates this shift. It protects authenticity, strengthens teacher judgement and promotes skills that are difficult to automate.

3. The Teacher as Designer, Curator and Coach

AI does not replace teachers. It changes what teachers do.

The teacher of the future becomes:

- a designer of learning experiences
- a curator of resources
- a coach for thinking
- a facilitator of reflection
- an interpreter of student understanding
- a guide for AI literacy

In this model, teachers spend less time delivering content and more time supporting cognitive growth. AI handles routine explanations. Teachers handle the nuance, judgement, relationships and humanity of learning.

4. AI Literacy as a Core Competency

Just as reading and numeracy have been essential for navigating previous eras, AI literacy becomes essential for the next.

AI literacy means:

- questioning AI output
- challenging assumptions
- recognising bias
- using AI to test ideas

- refining AI responses
- understanding limitations
- integrating AI into workflows
- maintaining ethical boundaries

Students who lack AI literacy risk becoming passive consumers. Students who develop AI literacy become confident thinkers in a world shaped by algorithms.

The U-AILM teaches AI literacy explicitly. It shows students how to interact critically with technology rather than rely on it blindly.

5. Human Skills Become More Valuable, Not Less

As AI becomes more capable, human thinking becomes more distinctive. Characteristics such as empathy, judgment, imagination and ethical awareness cannot be automated. They become the differentiators that define human contribution.

Skills that increase in importance include:

- problem framing
- collaborative reasoning
- emotional intelligence
- creativity and design thinking
- ethical decision making
- leadership and communication
- resilience and adaptability

These skills are not developed through memorisation or reproduction. They come from active engagement, cognitive struggle and reflective practice. The U AILM naturally cultivates these qualities.

6. A Curriculum Designed for Complexity

The world students enter is complex, interconnected and dynamic. Future ready curricula must:

- blend disciplines
- integrate real world problems
- emphasise inquiry
- adapt quickly to new tools
- value diverse perspectives
- encourage experimentation

The U-AILM sits comfortably within this emerging landscape. It can be applied in any subject, across any curriculum model and alongside existing or future reforms. It provides a flexible structure for ensuring that learning remains authentic, even as content and tools evolve.

7. Preparing Students for Workplaces Powered by AI

Future workplaces will combine human decision making with AI driven automation. Success will depend on the ability to:

- evaluate information
- collaborate with technology
- justify decisions
- adapt ideas to new contexts
- learn continuously
- think independently under pressure

These are precisely the capabilities developed through:

- anchor thinking
- guided AI interaction
- independent transfer tasks
- real time reflection
- transformation based reasoning

Students prepared through this model will not fear AI. They will understand how to harness it while retaining human agency.

8. A More Ethical Relationship with Technology

The widespread use of AI raises ethical questions about truth, authenticity, trust and intellectual honesty. Students must learn:

- when AI is appropriate
- when AI should be questioned
- when AI should be avoided
- how AI influences thinking
- how to protect personal data
- how to maintain integrity

By embedding AI within structured learning rather than banning or ignoring it, schools promote ethical awareness and responsible decision making.

The future of learning requires not only technical competence but moral clarity.

9. A Model that Evolves with Technology

Generative AI will not remain static. It will become faster, more capable and more integrated. Some tasks that seem safe today may become automatable in the near future.

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The U AILM is designed for adaptability. Its strength does not rely on the specific limitations of current AI. It relies on:

- unpredictable context
- visible thinking
- independent application
- personal reflection
- teacher professional judgement

As AI evolves, these principles remain secure.

Closing Perspective

Education has never been about protecting old practices. It has always been about preparing young people for the world they will shape. Generative AI offers profound opportunities and significant risks. Schools must not choose between resistance and surrender. They must choose thoughtful integration.

The Untamed AI Learning Model provides a way forward. It protects what matters most: authentic thinking. It empowers teachers, supports students and aligns learning with the realities of the world beyond school.

The future of learning is not a contest between human intelligence and artificial intelligence. It is a partnership in which human thinking remains central. With structure, clarity and purpose, AI becomes a force for deeper understanding rather than a shortcut to superficial outcomes.

Schools that adopt this approach will not only preserve academic integrity. They will prepare students for a future where thinking is still the most valuable skill of all.

Epilogue: Stepping Into the Next Chapter of Learning

Education is at a crossroads. Not because technology has taken something away, but because it has revealed what we must now build. Every major shift in human history has required teachers to reconsider what it means to help young people grow. The age of generative AI is no different. What we face is not a threat to learning, but an invitation to redesign it with greater clarity, purpose and authenticity.

The Untamed AI Learning Model is one attempt to meet that invitation. It offers a way to protect thinking, not by resisting the tools students have access to, but by creating structures that make their understanding impossible to hide. It positions teachers not as gatekeepers of information, but as guides who help students navigate complexity, evaluate sources and articulate ideas that cannot be generated on demand.

As you finish this book, the next step does not belong to the model. It belongs to you. The U-AILM becomes valuable only through practice. It comes to life when a teacher designs an anchor task that reveals a misconception. When a student uses AI to challenge their own assumptions. When a transfer task exposes the depth of their understanding. When a class reflects not on what they produced, but on how their thinking changed.

These moments are the real substance of education. They are where learning takes root.

The future of AI in education will not be written in policy statements or conference keynotes. It will be shaped in classrooms. It will be shaped by teachers who are willing to experiment with purpose. By students who learn to question the tools they use. By leaders who refuse to settle for outdated structures. By schools that recognise that innovation is not a trend but a responsibility.

You now have a framework that allows you to move confidently into this new landscape. It is practical enough to use tomorrow, yet flexible enough to grow as your understanding deepens. It is grounded in the reality of classroom life and open to the unknowns that lie ahead.

If you choose to use it, you are not simply implementing a model. You are contributing to a body of practice the profession urgently needs. You are helping to build evidence for what works. You are stepping into the role of explorer, not spectator. And with each lesson, you will be shaping a version of schooling that future generations will depend on.

The question is no longer whether AI will influence education. It already has. The question is how we shape learning so that it remains human, meaningful and transformational in the years to come.

This model is one answer. Your practice will write the next.

APPENDICES

The following appendices provide practical tools, structures and examples that support the implementation of the Untamed AI Learning Model (U-AILM). They are designed to be used flexibly by teachers, departments and school leaders. None of the materials replace the need for professional judgment or contextual adaptation, and they do not reveal the internal logic of the Untamed Lesson Designer tool.

Appendix Index

Appendix A - U-AILM at a Glance: A One-Page Summary

The Untamed AI Learning Model consists of five sequential phases designed to protect authentic student thinking while allowing responsible, structured use of AI. Each phase has a specific purpose, evidence type and constraint.

Phase 1: AI Free Anchor Thinking

Purpose: Reveal authentic prior understanding without technology.

Evidence: Quick writes, sketches, maps, predictions.

Constraint: No AI or devices.

Phase 2: Guided AI Interaction

Purpose: Deepen understanding by critiquing and refining AI responses.

Evidence: Comparisons, corrections, challenges, personalised insights.

Constraint: AI must not generate the final answer.

Phase 3: Human Only Transfer Task

Purpose: Apply learning independently in a new or altered context.

Evidence: Written explanations, labelled diagrams, adapted sketches, demonstrations.

Constraint: Devices closed; task must be unpredictable to AI.

Phase 4: Real Time Reflection

Purpose: Consolidate learning by articulating cognitive movement.

Evidence: Short written or oral reflections referencing all previous phases.

Phase 5: Transformation Based Assessment Notes

Purpose: Evaluate visible thinking, not written polish.

Evidence: Patterns across all four phases.

Together, these phases ensure learning remains authentic, accountable and AI-resilient.

Appendix B - Examples of Anchor Tasks Across Subjects

Anchor tasks must be simple, quick and free from AI influence. Below are examples for different disciplines.

English

- Write three ideas you already associate with today's theme.
- Predict how a character might respond in a new situation.
- Annotate a short quote with initial impressions.

Mathematics

- Sketch a graph shape you expect to see.
- Write what you remember about a method before revisiting it.
- Sort example and non-example problems.

Science

- Predict the outcome of a reaction or experiment.
- Draw a quick diagram of a system and label only what you recall.
- State three assumptions you currently hold.

Humanities

- List causes you believe influenced an event.
- Write a short explanation of a concept before learning it fully.
- Rank historical actors by influence.

Practical Subjects (Art, DT, Drama, PE)

- Produce a thumbnail sketch of an idea.
- Create a movement plan or formation diagram.
- Select appropriate tools and justify your choice.
- Predict how a material will behave.

Technology / Computing

- Sketch a flowchart from memory.
- Write what you believe an algorithm currently does.
- Predict likely errors in a piece of unfamiliar code.

Anchors do not need to be correct. They need to be authentic.

Appendix C - Guided AI Interaction Patterns

These patterns structure how students interact with AI so they engage critically rather than passively.

1. Compare

Identify three differences between the AI explanation and your anchor.

2. Correct

Find and correct at least one inaccurate or incomplete point in the AI's output.

3. Challenge

Write a question that forces the AI to justify its reasoning or rethink a claim.

4. Personalise

Connect one AI idea to something discussed previously or something from your own experience.

5. Reverse

Ask the AI to argue the opposite of its first explanation, then evaluate which is stronger.

6. Refine

Ask the AI to simplify, expand or reframe an explanation, then judge whether the change is useful.

7. Prioritise

Identify the most important idea from the AI response and justify your choice.

These patterns ensure students compare, critique and personalise AI output, not copy it.

Appendix D - Transfer Task Structures for Academic and Practical Subjects

Students to apply learning independently in a new context, unpredictable and device-free.

Academic Subjects

Apply to a new context

Explain the concept using a new extract, case study or data set.

Justify a decision

Use one idea from your anchor and one from the AI interaction to support a claim.

Reframe

Explain the same concept from a different stakeholder's perspective.

Evaluate

Assess whether an AI-generated explanation applies to this new scenario.

Classify

Sort examples, quotations or problems into categories using criteria developed during the lesson.

Practical Subjects

Adapt a design

Modify a sketch or plan under a new constraint.

Refine a technique

Change a movement, stroke, process or sequence to improve accuracy or safety.

Create a variation

Produce a quick redesign that meets a new brief.

Demonstrate

Show a physical technique and explain the reasoning behind the adaptation.

Plan

Draft a short process for executing a practical task using new conditions.

Transfer tasks are short but cognitively demanding.

Appendix E - Reflection Prompts and Formats

Reflections must reference the lesson's phases and produce insight.

Universal Reflection Prompts

- One idea I believed at the start that changed today is
- One thing the AI helped clarify was
- In the transfer task, I used my understanding when
- A misconception I corrected today was

Short Written Prompts

Suitable for quick exit tickets.

- Today I realised
- I am still unsure about
- My next step is

Oral Reflection Formats

Suitable for practical subjects.

- Pair-share: "What changed in your thinking?"
- Quick-fire round: each student gives one insight.
- Small group discussion on what they corrected from the AI.

Practical Subject Adaptations

- Annotate your sketch with what changed in your thinking.
- Place a dot on the part of your routine that felt most improved.
- Record a 20-second explanation of your reasoning.

Appendix F - Differentiation Guidance for U-AILM Lessons

These strategies support varied learners within the U-AILM structure.

EAL Learners

- Provide anchor sentence starters.
- Offer bilingual vocabulary lists where appropriate.
- Use visual versions of transfer tasks.
- Allow oral reflection instead of extended writing.

SEND Learners

- Offer chunked instructions during AI interaction.
- Provide reduced-choice reflection stems.
- Allow alternative evidence for transfer tasks (e.g., physical demonstration).
- Highlight essential steps in a simplified sequence.

Higher Prior Attainers

- Require deeper challenge questions for AI.
- Expect multiple transfer solutions or design iterations.
- Introduce a constraint change to increase complexity.
- Ask for comparative evaluation of two AI responses.

Differentiation must always refer to the specific lesson context.

Appendix G - Example Whole-School Rollout Timeline

A sample timeline for schools adopting the U-AILM.

Term 1: Awareness and Understanding

- Leadership briefing
- Staff-wide introduction to AI and the U-AILM model
- Department discussion sessions
- Voluntary early adopters trial single lessons

Term 2: Department Level Implementation

- Departments identify anchor types, AI patterns and transfer tasks
- Cross-department sharing of examples
- Untamed Lesson Designer introduced for early adopters
- Monitoring begins (light touch)

Term 3: Whole-School Adoption

- All departments expected to use U-AILM for key topics
- Lesson Designer used consistently where appropriate
- Review cycles within departments
- Parent communication on responsible AI use

Ongoing: Refinement and Culture Building

- CPD refresh sessions
- Identification of internal champions
- Integration into induction for new staff
- Use in assessment moderation and pupil work reviews

Appendix H - Manual Lesson Planning Template

A clean, single-page template aligned with the U-AILM phases.

U-AILM Lesson Plan Template

Section	Field	Teacher Input
Lesson Information	Subject	
Lesson Information	Year Group	
Lesson Information	Learning Intention	
Lesson Information	Topic / Focus	
Lesson Information	Lesson Duration	
Lesson Information	Class Context (EAL, SEND, mixed ability)	
Lesson Information	Device Access	
Lesson Information	Subject Type (Academic / Practical / Mixed)	
Phase 1: AI Free Anchor Thinking	Task design	
Phase 1: AI Free Anchor Thinking	Purpose	
Phase 1: AI Free Anchor Thinking	Evidence collected	
Phase 2: Guided AI Interaction	Student AI prompt	
Phase 2: Guided AI Interaction	Comparison task	
Phase 2: Guided AI Interaction	Correction task	
Phase 2: Guided AI Interaction	Challenge task	
Phase 2: Guided AI Interaction	Personalisation task	
Phase 3: Human Only Transfer Task	Independent task	
Phase 3: Human Only Transfer Task	Evidence required	
Phase 3: Human Only Transfer Task	Timing	
Phase 4: Real Time Reflection	Prompts used	
Phase 4: Real Time Reflection	Format (written or oral)	
Phase 5: Transformation Based Assessment Notes	Indicators of strong understanding	
Phase 5: Transformation Based Assessment Notes	Indicators of misconceptions	
Differentiation and Inclusion	EAL	
Differentiation and Inclusion	SEND	
Differentiation and Inclusion	High prior attainers	
Optional Digital or AI Enhancements	Tools or methods	
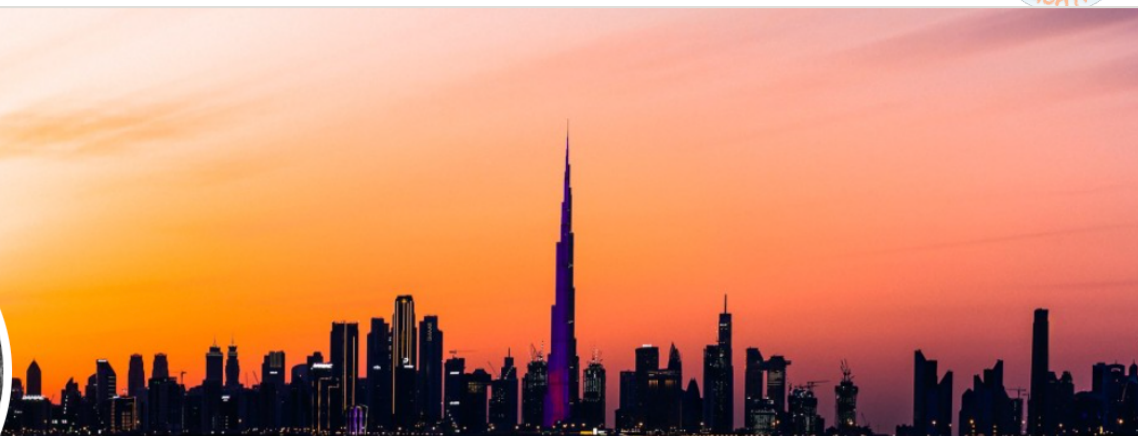
Author Bio

Darren McCormick is an educator, curriculum designer and founder of Untamed Education. Known for creating practical, future-focused learning frameworks, he specialises in designing systems that make thinking visible and learning authentic in the age of intelligent tools. He is the creator of the Untamed AI Learning Model (U-AILM) and works with schools to redesign learning for a changing world.

Q3. Label the blurb in this image…

AI did not disrupt learning. It revealed what must now be redesigned.

Redesigning Learning introduces a clear, practical system for protecting authentic student thinking in the age of generative AI. Instead of banning technology or relying on outdated methods, the Untamed AI Learning Model (U-AILM) provides a structured approach that restores visibility, independence and genuine understanding across every subject.

Created by educator and curriculum designer Darren McCormick, this framework is grounded in real classrooms and built for the realities teachers face today. It is simple to learn, adaptable to any subject and realistic for schools that want to move beyond panic and into purposeful action.

Inside this book, you will find:

• A complete, classroom-ready five-phase model

• Worked examples from academic and practical subjects

• Tools for designing lessons that stay human and thinking-heavy

• Whole-school implementation guidance

• Appendices with anchor tasks, AI interaction patterns and reflection structures

This is not a book about technology. It is a book about learning. It invites teachers and leaders to become explorers of what works, shaping the future of education with clarity, purpose and authenticity.