

Running Order



Helena Ledermann: *Understanding Learner Agency in the context of AI*
(10 mins)

Richard Harte: *Using Design Sprint to rapidly design a tool to support learner agency*
(10 mins)

What is a Research/Design Sprint?

A 5-day endeavour following an intensive, structured process to fast-track innovation, tackle complex challenges, and test new concepts. It is a distilled and concentrated methodology based on Design Thinking, innovation activities and Agile principles.

Monday

Tuesday

Wednesday

Thursday

Friday

**Understand
the Focus**

**Understand
the Users**

**Gather the
Data**

**Build and
Test**

**Summary
and Reflect**

*Clear Research
Question*

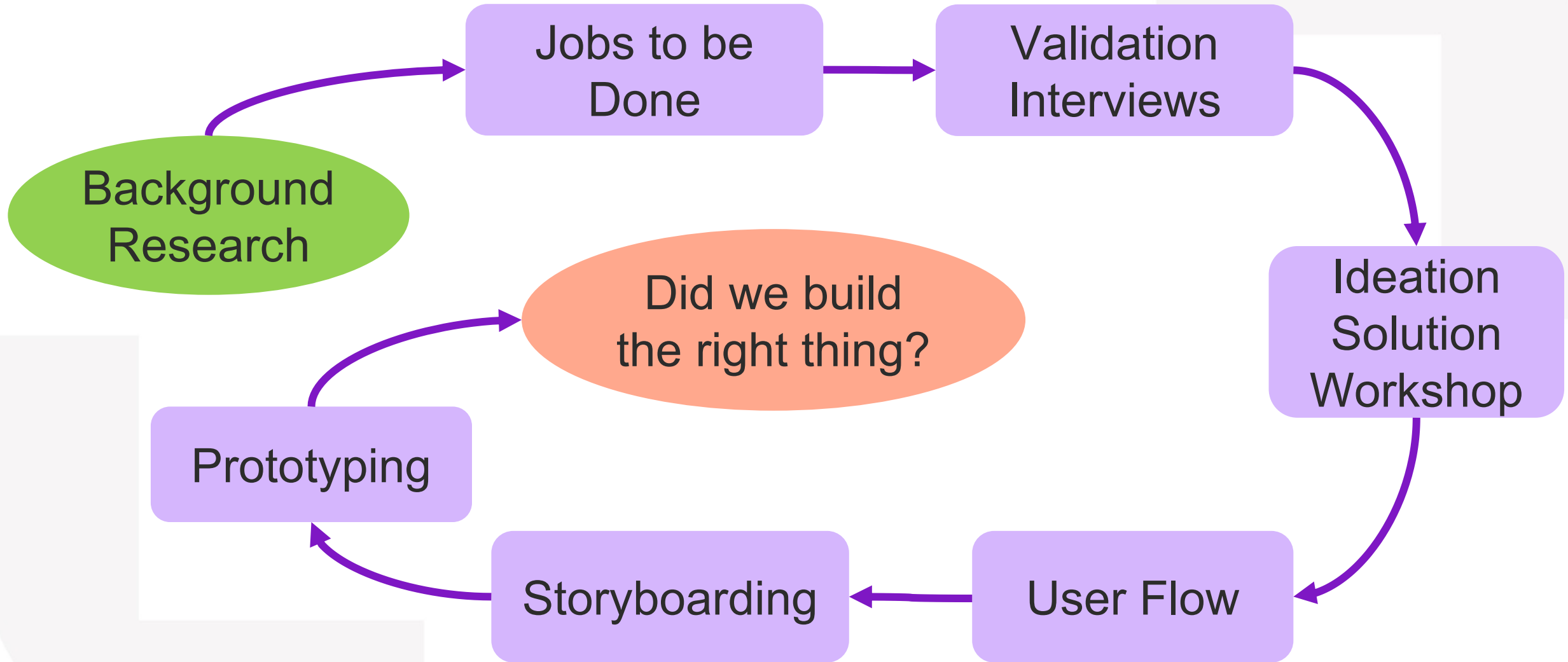
*Clear User
Personas*

*User Problem
Validation*

*Conversational
Prototype*

*Conversational
Prototype*

Innovation Approach



Research Sprint Question

*Is agentic AI fostering the emergence of the agentic learner...
or reshaping what learner agency means in practice?*

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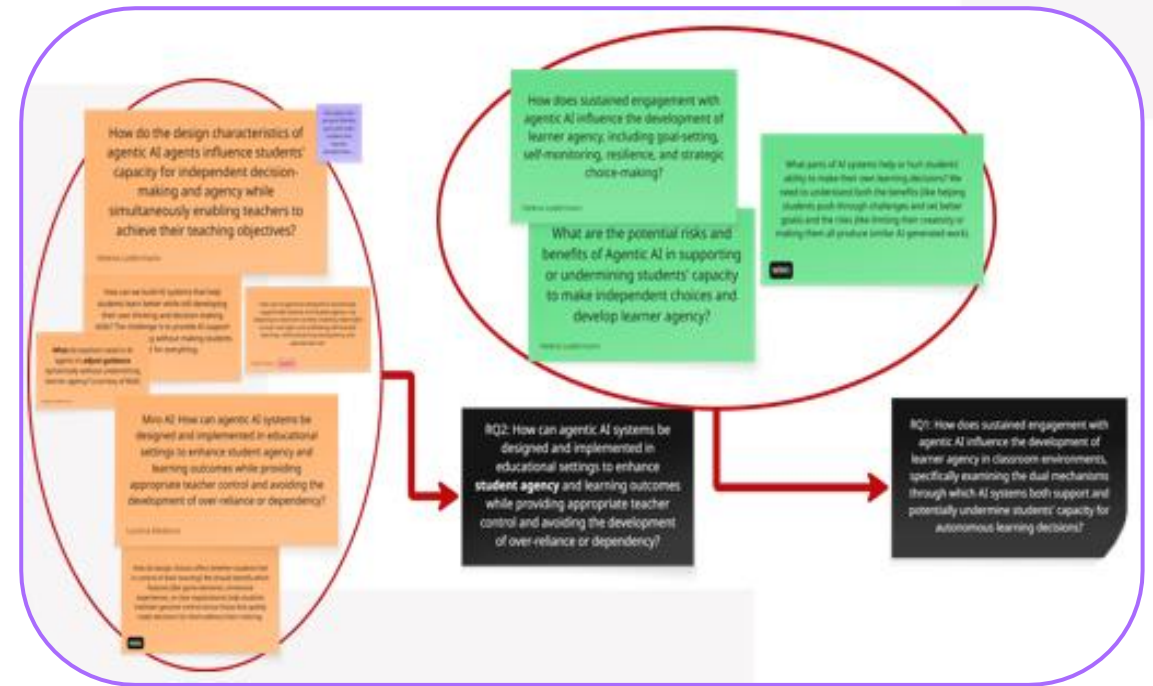
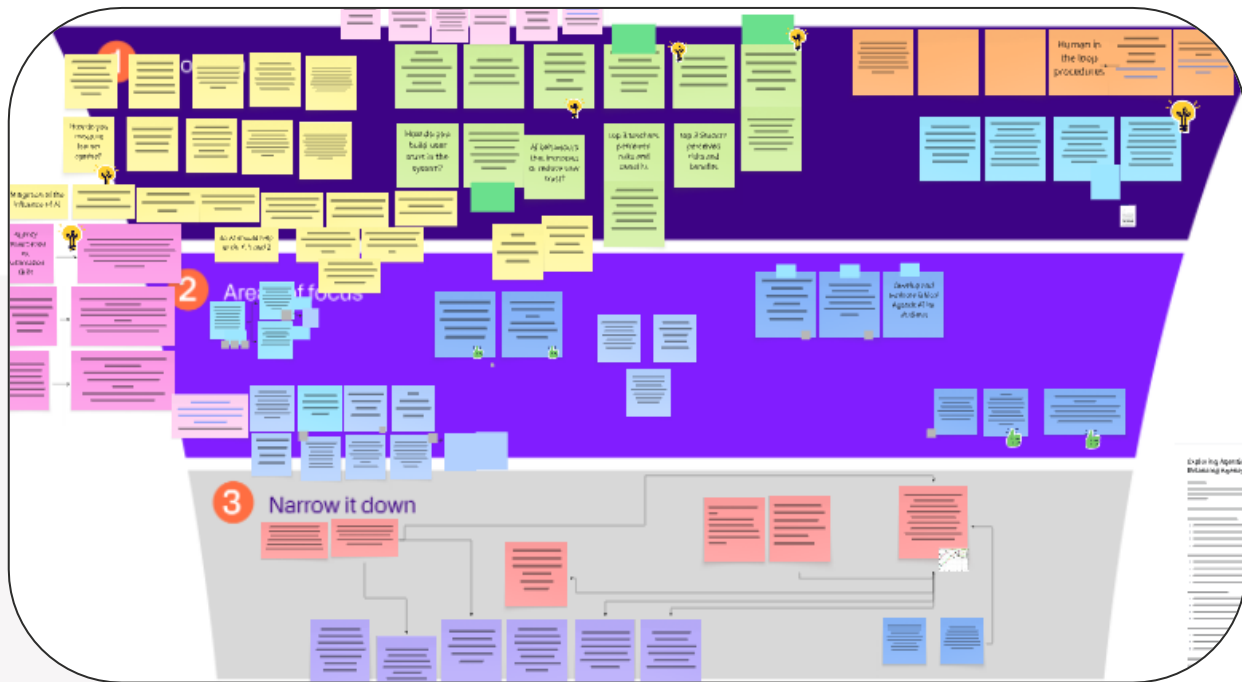
An AI system that can accomplish a specific goal with limited supervision. Agents can specialize in specific tasks. Some agents are simple, performing a single repetitive task reliably. Others can use perception and draw on memory to solve more complex problems, like guiding a student through a project.

a learner's ability to set goals, make choices, monitor progress and reflect on outcomes

Students who have learned how to learn and developed habits of mind that support active engagement and autonomy in their learning relations and strategies.

Understand the Focus

*Is agentic AI fostering the emergence of the agentic learner...
or reshaping what learner agency means in practice?*



Monday

Tuesday

Wednesday

Thursday

Friday

Understand the Focus

What is the current classroom context?

How do teachers speak about and identify learner agency?

How do we design agentic AI that can measure or support learner agency?

Are their current design
GUIDELINES - FROM UX & UI LENS

What is Learner Agency and How do you Measure it?

What are scenarios where Agentic AI could support project-based learning?

What are recommendations for developing pedagogical AI agents

What are current State of the Art Tools in this space and what are their features?

Understand the Landscape (SotM)

Khanmigo



Khanmigo (Khan Academy) product
AI tutor + teaching assistant integrated with Khan Academy. It's explicitly not an answer-giver: "Khanmigo doesn't just give answers. Instead, it guides learners to find the answer themselves." [khanmigo.ai-1](#)

- **Agentic behaviour**
 - Proactively suggests questions, next steps, and practice activities, not just replies. [DeJault-1](#)
- **Teacher control**
 - Teacher dashboard with conversation history, flags for concerning usage, and progress insights; teachers can create activities and see how students interact with the AI. [khanmigo.ai-1](#)

Key UX elements for agency / non-dependency

- Socratic prompts ("What do you think?" "How did you get that?") instead of solutions. [Forbes+2trilogyal.substack.com-2](#)
- Clear separation of **teacher mode** vs **student mode**: teachers get orchestration tools, students get coaching. [khanmigo.ai-1](#)
- Guardrails against giving full answers to graded questions.

SocratiQ



SocratiQ research prototype now running as a product
A generative AI learning companion that systematically implements the Socratic method to create adaptive learning paths and conversational tutoring. University of Warwick-4/ACM [Digital Library-4/ResearchGate-4](#)

- **Agentic behaviour**
 - Builds dynamic question sequences based on the learner's responses.
 - Uses generative quizzes and follow-up questions to adapt difficulty.
- **Contexts**
 - Used in ML / systems courses (via [mistsbook.ai](#)) and evaluated as a classroom companion and student response system. [emergentmind.com](#)

Key UX elements

- Dialogue is structured around **probing questions** and "why" prompts - it rarely gives direct answers.
- Learners can request alternative explanations or new examples, emphasising choice and exploration. [ResearchGate-1](#)
- Fits nicely with a "cognitive forcing function" approach: students must commit to an idea before the agent responds.

Along



Along (Gradient Learning / CZI) product
A digital reflection tool for teacher-student check-ins: short prompts, video/audio/text responses, and SEL-focused reflection.
Not an LLM agent originally, but increasingly framed in AI/SEL ecosystems.

Key UX elements

- **Teacher-defined prompts** focusing on identity, feelings, and learning goals.
- Students respond asynchronously; teachers review and respond → strong relational loop and student voice.
- Reflection is **student-generated, not AI-generated**, which is an important design stance: AI may help structure prompts or analytics, but not replace student voice.

If AI is added on top, this becomes a natural host for a gentle agentic AI that nudges self-reflection without taking it over.

Understand the User (Jobs to be Done)

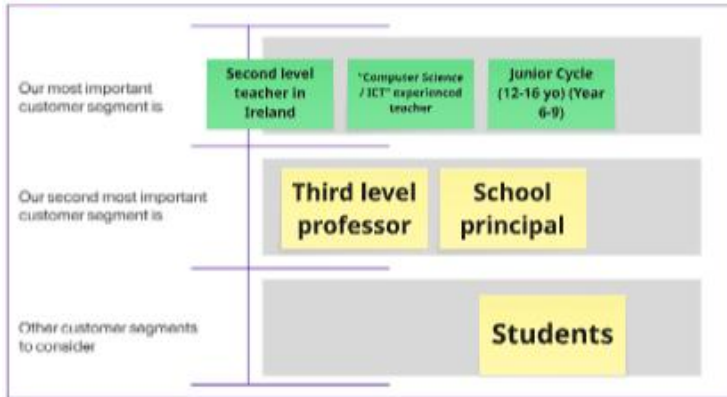
Jobs to be done

Our big idea is

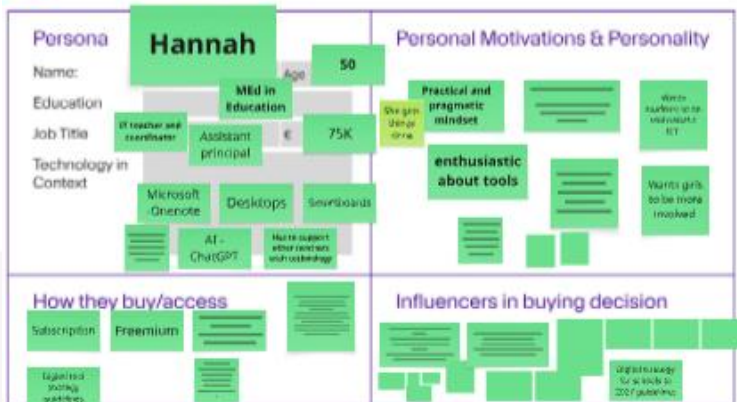
Build a tool that enhances **student agency** and learning outcomes while providing appropriate teacher control and avoiding the development of over-reliance or dependency?



1 Customer Segments



2 Proto Persona



Sketch pad

Sketch pad

Sketch pad

Sketch pad

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Sketch pad

3 Jobs to be done



4 Jobs to be done ranked



Understand the User (Develop Personas)



Aoife – “Innovator” Teacher (benefits from agentic AI)

Age & Occupation

38, Maths & Leaving Cert Computer Science teacher, digital learning co-ordinator in a large suburban DEIS post-primary.

Key Influencers

Oide Technology in Education AI resources and national Guidance on AI in Schools
AI4T training and Irish CPD networks on AI for and by teachers
School senior leadership keen to align with Digital Strategy for Schools to 2027

Technology Use & Experience

Heavy user of adaptive digital maths platform and data dashboards to personalise learning.
Actively experiments with a bespoke ChatGPT instance for creating formative questions, success criteria and model answers, drawing on Irish work showing potential of generative AI for lesson planning in ITE.

Relevant Personality Traits

Curious, confident with tech, reflective, comfortable with experimentation and data.

Common Classroom/School Challenges

Balancing innovation with gaps in school AI policies/AUPs



Liam – “Pragmatic Experimenter” Teacher

Age & Occupation

45, Science & Transition Year co-ordinator in a mixed community school in a regional town.

Key Influencers

ASTI/TUI briefings, school principal, local Education Centre webinars on AI.
Irish media debates about “homework apocalypse” and unregulated AI use in schools, leaving teachers to figure things out locally.

Technology Use & Experience

Regular user of Scoilnet resources for simulations and inquiry tasks; familiar with VLEs but not a “tech guru”.
Tentatively trialling an agentic AI chatbot for TY science projects (helping students plan investigations and track progress), but restricts AI use for high-stakes homework.

Relevant Personality Traits

Practical, open-minded but cautious, values evidence and clear guidelines, strong pastoral focus.

Common Classroom/School Challenges

Mixed device access and patchy Wi-Fi in a non-1:1 environment.
Concern about over-reliance on AI for written work vs genuine understanding, especially for Junior Cycle science CPAs



Mary – “Sceptical Traditionalist” Teacher

Age & Occupation

57, English & SPHE teacher in a small rural voluntary secondary school.

Key Influencers

Union communications, school board, local parish/community views.
News about cheating, integrity and student wellbeing in the context of AI and smartphones.

Technology Use & Experience

Uses the school’s VLE mainly for posting notes and homework; relies on printed materials.
Has heard of ChatGPT from colleagues and students but sees it mainly as a plagiarism risk and a threat to “real writing”.
Feels overwhelmed by new mandatory AI literacy requirements and evolving guidelines.

Relevant Personality Traits

Conscientious, protective of students, risk-averse, values face-to-face discussion and handwritten work.

Common Classroom/School Challenges

Large mixed-ability classes; limited SEN support; pressure to maintain exam standards.
Implementing mobile phone restrictions while students are

Monday

Tuesday

Wednesday

Thursday

Friday

Collect the Data (Validate our Assumptions)

Students need help planning their work on their own

“Independent project work is “extremely challenging”; biggest problem is “working independently”. Need explicit scaffolding around *project language*, steps, and expectations (guidebooks, simplified briefs, clear “what good looks like”).

Planning support must include *decoding language* and *clarifying goals*, not just task lists



Students need simple guidance to make better learning choices

Risk of “brain-off” copying from AI/search; need tools that prompt critique and justification. Teachers want AI to guide, not answer: “a guide/partner at the table”.

Guidance must explicitly build critical evaluation (sources, bias, prompts) and growth mindset.



Teachers need quick ways to see who needs support

Concern about “middle” students and “quiet strugglers” being overlooked. Desire to see when students misuse AI or skip thinking steps.

Dashboards should foreground agency signals (reflection, effort, source use), not just marks.



Monday

Tuesday

Wednesday

Thursday

Friday

Build and Test



How Might We ...design a teacher *facilitated* classroom-based **project support tool** which enables students to set and revisit their own goals, refine their own timelines, make meaningful decisions about processes and products, and use ongoing reflection (with or without AI support as needed) to progressively deepen their **learner agency** over time?

Monday

Tuesday

Wednesday

Thursday

Friday

Build and Test (User Flows)

	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	Step 8
Bilal	Teacher visits (signup/signin) Empowera to empower herself and students.	Teacher chat/discusses with Empowera to provide a outline for 3 week personalised project (adds all relevant info).	Empowera uses learning science theory and trusted resources to create a journey plan that has the potential to enhance learner agency and creates a preview.	Teacher reviews, updates (if required) and assign the developed journeys to related students (individually or as groups?).	Student views the project and exports learner agency by breaking down each component of journey into manageable chunks with the help of Empowera Socratic chat. Teacher intervenes, reviews and gives the final go ahead. Student hits start.	Each day student completes the sub tasks, reflects and also discusses any confusions or problem with the teachers. Learner agency aspects are exerted by support of the Empowera e.g. option to reflect, set today's goals or event teacher nudges.	Right from start to end, teacher has real time Glasses/Dashboard for overall and individual students scores on different aspects including learner agency. This helps teacher bring intervention strategies.	:)
Birva	Student has access to Empowera on all their learning devices and the AI learns from internally linked devices and learns on the go.	Teacher has configured the behaviour parameters of Empowera to suit the class need and make it safe to use	Empowera helps student to insert their classroom or personal projects and helps them create a journey, track milestone, stay motivated, achieve results and reflect	Student get to choose his/her favourite guiding light (AI persona) and tone of interaction	The guiding light (avatar) helps student to create a journey for the project that is rooted in learner agency.	Student get daily reflection and motivation nudges based on where they are in the journey.	Students avatar receives new powers as they achieve milestones because the journey is going to become though as they progress.	The teacher and student both gets to see the progress and insight over the time. share their reflection with each other.
Helena Identify an agency assist at each point it is visible...Each step should require one.	Teacher inputs the Destination/Project objective in Empowera. The student signs in	To create the success criteria. The Student Goal setting allows them time to digest the Project objective and to consider the wording. This helps clarify the learning objective and the Learning Intention of each stage. Every stage ends with a springboard exit pass...encourages reflective capacity	Student reflects on the overall objectives and decides how many checkpoints to have in order to get there, but a linear process and may need reiterations and edits as they travel. This is all within their control. This process shows that multiple adaptable decisions can be made...agency is not their...this is needed. Accounting and confidence building. Do they know what they are doing and what they need? NOT receive, reflect, rubricize the reflection points.	Empowera prompts student before going to start the right and leave to something that reflects the students interests. How the focus like on what have they done? what are they doing? where are they going? what does the journey of a program, empowera add check-in regularly to encourage, monitor & encourage progress. Check the students to check the students can be empowered and better able to focus on the work. (by having of their own priority to learn?)	Allow students to personalise their work with their journey. Everytime they log in, a recap appears...add layers to capture thinking and learning??	Empowera highlights the decisions the student has made so they can first empowered by these decisions and perhaps encourage them to have increasing confidence to use decision making skills. based on highlights the power of the process during the process so the reflection has somehow been guided step by step. like an explicit map of where the agency been shown. Model	Empowera allows the checkpoint a stage to escalate to a 1:1 where needed - a layer that can be removed as needed	Reflect and celebrate success - end the project with a showcase to promote the importance of process over product. Share how the AI tool was used to support.
Luciana	Project Setup & Teacher Activation The teacher introduces the project and activates Empowera for the class. Students receive a brief understanding explaining how Empowera will support their activities - check learning journey. Main focus: Teacher activation, framing, understanding	Student Goal Setting with Empowera Students define their initial project goals (big goals + smaller milestones), Empowera prompts them with scaffolded questions to help clarify intentions and make goals concrete. Main focus: Learner agency through self-determined goals	Timeline Creation & Planning Students outline their timeline, tasks, deadlines, dependencies, and deliverables. Empowera provides thoughtful suggestions or prompts, but students make all final decisions. Main focus: Student autonomy in planning and decision-making	Project Work & Ongoing Support As students work, Empowera offers lightweight nudges, progress reminders, resource suggestions, or clarifying questions - only when requested or needed. Students direct the workflow. Main focus: Adaptive, student-led project support	Continuous Reflection (With or Without AI) Students complete periodic reflection prompts, describing what they learned, what changed, and what still needs work. Empowera can help generate reflections but does not evaluate them. Main focus: Metacognition and building reflective habits	Goal Revisions & Timeline Adjustments Based on reflection, students revise their goals, adjust scopes, or update timelines. Empowera guides them with prompts but ensures students decide the direction themselves. Main focus: Iterative agency - students refine their own path	Teacher Monitoring & Targeted Facilitation Teachers view an overview dashboard summarizing student goals, progress, and reflection points. Teachers can drill down to provide targeted guidance during class time. Main focus: Teacher insight and meaningful intervention	Final Output & Student Self-Evaluation Students submit their final project work along with a short self-evaluation. Empowera helps them articulate their learning journey over time and highlight growth in agency. Main focus: Ownership, self-assessment, showcasing learner agency
Pablo	Hannah is at home designing her 3-week project plan for Applied Tech students. She logs in to Empowera	Empowera asks Hannah to fill in a simple project profile and opens a recommended journey for the 3 weeks	Hannah makes some edits and configure checkpoints	Hannah comes into her class on Monday morning, explains the 3-week project plan to students and ask them to go into Empowera	Jonny, a student, gets welcomed by Auri, the Empowera guide that will help Jonny to work through the journey, with short tasks, nudges, and checkpoints	Hannah gets to see an Empowera dashboard how students are progressing through the journey. She gets learner agency overall scoring and learning outcomes achievement scores and suggested alterations on different journeys to improve journeys if necessary	During 1 check point, Jonny gets to meet her peer Marianne, who can help with one specific task he is struggling with (Empowera is able to track everything, noticing bad use of it knows who is good/bad use)	Hannah is happy with checkpoint results, looking at improving outcomes from Jonny, also seeing that Marianne helped, and all are heading to a successful end of the project
Richie	Richie's class are starting a project on cyber security (CS), this is a three week project. The agency framework and begins to map the project parameters... (revision of initial learning outcomes) Related checkpoints: Introduction to cyber security, penetration testing, ethical hacking, digital forensics, network security, incident response, cyber law, and digital privacy. Personal AI support tools act as AI-powered mentors for understanding the project, providing real-time feedback on project progress and offering personalized recommendations.	Students again Empowera and see the visual journey map of the cybersecurity project. The AI comparison prompts them to set a personal project goal choose a preferred working style (visual, text, audio, structured, open-ended). Application what success looks like for them. They add their first milestones to the journey Tracker.	Based on Hannah's parameters - each student's goals, Empowera generates a short personalised timeline using the Timeline Tracker, students adjust deadlines and milestones. When (milestones are changed), the agent asks "What's the reason for this change? What's the impact on the rest of the plan?" Students quickly receive supporting agency. Hannah uses her connection to the Teacher Control Hub.	As students reflect, Empowera identifies themes or skill outcomes. Empowera offers targeted prompts when fully responsive (What's a tip or try the more deep?) Students can adjust their goals and milestones. The AI automatically gives an overview summary, compares, and highlights key areas for improvement. The AI automatically gives a summary of their progress, highlights their strengths and areas for improvement, and offers suggestions for next steps.	At the end of the week, 1:1 check, Empowera automatically creates a week project reflection cycle Students receive their goals, progress, and reflection points. Reflect on the week's progress: What went well? What challenges did you face? How did you overcome them? Add evidence to the journey track on milestones, tasks, skills, and reflections. Hannah can see reflection quality and agency growth. This cycle deepens metacognitive awareness and self-reflection.	At the end of the week, 1:1 check, Empowera automatically creates a week project reflection cycle Students receive their goals, progress, and reflection points. Reflect on the week's progress: What went well? What challenges did you face? How did you overcome them? Add evidence to the journey track on milestones, tasks, skills, and reflections. Hannah can see reflection quality and agency growth. This cycle deepens metacognitive awareness and self-reflection.	Hannah reviews student journey through a visual progress summary (achievement, learning goals, and outcomes). Recommended next steps for each student. The final a milestone review where students share their experiences and their progress. Empowera's insights help Hannah adjust future teaching and support strategies to agency development.	

How do students onboard on to this

Monday

Tuesday

Wednesday

Thursday

Friday

Build and Test (Consolidation)

STEP 1 — Hannah Creates the Empowera Project Checklist Group
Hannah opens Empowera in her class. She chooses a general topic to work on. She asks the class to brainstorm ideas. She creates a checklist of tasks to complete. She asks the class to agree on a checklist of tasks to complete. She asks the class to agree on a checklist of tasks to complete.

STEP 2 — Class Co-Creates Success Criteria & Learns the Journey Structure (Teacher + Students)
Hannah projects the Empowera journey map. Together, the class reviews the project brief and creates a shared success criteria. Hannah reviews the learning outcomes and success criteria. She asks the class to agree on a checklist of tasks to complete. She asks the class to agree on a checklist of tasks to complete.

STEP 3 — Students Personalise Their Goals, Working Style, and Checkpoints (Students Self)
Each student logs into Empowera and sets their personal success criteria, working style, and checkpoints. Hannah reviews the learning outcomes and success criteria. She asks the class to agree on a checklist of tasks to complete. She asks the class to agree on a checklist of tasks to complete.

STEP 4 — Students Break Down Tasks with the Teacher Agent (Thinking - agency in being)
Students enter the project details, including duration, learning goals, and success criteria. Hannah reviews the learning outcomes and success criteria. She asks the class to agree on a checklist of tasks to complete. She asks the class to agree on a checklist of tasks to complete.

STEP 5 — Students Work Through the Project via an Empowera Guide
Students work through the project via an Empowera guide. Hannah reviews the learning outcomes and success criteria. She asks the class to agree on a checklist of tasks to complete. She asks the class to agree on a checklist of tasks to complete.

STEP 6 — Hannah Monitors Progress & Intervenes When Needed (Teacher Support)
Hannah monitors progress and intervenes when needed. She asks the class to agree on a checklist of tasks to complete. She asks the class to agree on a checklist of tasks to complete.

STEP 7 — Class Reviews and Reflects on Progress (Teacher + Students)
The class reviews and reflects on progress. Hannah reviews the learning outcomes and success criteria. She asks the class to agree on a checklist of tasks to complete. She asks the class to agree on a checklist of tasks to complete.

STEP 8 — Final Review, Evaluation & Reflection (Teacher + Students)
Final review, evaluation, and reflection. Hannah reviews the learning outcomes and success criteria. She asks the class to agree on a checklist of tasks to complete. She asks the class to agree on a checklist of tasks to complete.



Empowera – Simplified 12-Step User Flow A teacher-facilitated learner-agency project journey

- 1. Teacher Starts a New Project**
Hannah opens Empowera and selects Create New Project.
- 2. Teacher Enters Project Basics**
She inputs the duration, learning outcomes, checkpoints, rubrics, collaboration rules, and reference materials.
- 3. Empowera Generates the Project Map**
Empowera builds a visual journey outline with key photos, checkpoints, and reflection cycles.
- 4. Class Reviews the Project Together**
The class reviews the project overview and success criteria together.
- 5. Class Co-Creates Success Criteria**
Students and Hannah build shared success criteria and agree on what good work looks like.
- 6. Students Set Personal Goals & Their Own Success Definition**
Students write their personal goal and describe "what success means for me".
- 7. Students Choose or Adjust Their Checkpoints**
Students design their number of checkpoints, set their first milestone, and add it to the journey track.
- 8. Students Plan Their Tasks with Empowera's Working Agent**
Empowera guides them to break the project into steps, complete the plan, and add it to the plan as a personal agent.
- 9. Class Reviews and Reflects on Progress**
The class reviews and reflects on progress together.
- 10. Students Submit Their Final Project**
Students submit their final project and receive feedback.
- 11. Hannah Reviews Class Insights**
Hannah reviews class insights and provides feedback.
- 12. Students Request Support Only When Needed**
If stuck, students can ask their AI personal reflective agent (check a reflection). Empowera encourages "try first, ask second" and encourages reflection.
- 13. Students Complete a Final Reflection**
They describe what decisions they made, when they needed help, how their thinking changed, what they will do next time. This forms part of their agency portfolio.
- 14. Students Submit Their Final Project**
Work is uploaded alongside a short self-evaluation connecting actions to outcomes.
- 15. Hannah Reviews the Class and Individual Feedback**
Empowera generates a class summary showing each student's progress in agency. Hannah reviews the class summary and provides feedback to students. She asks the class to agree on a checklist of tasks to complete. She asks the class to agree on a checklist of tasks to complete.

Monday

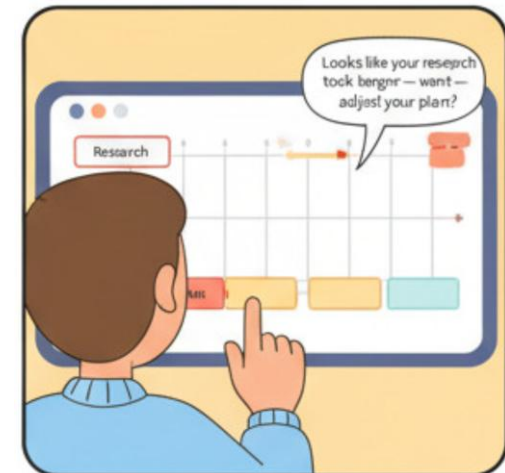
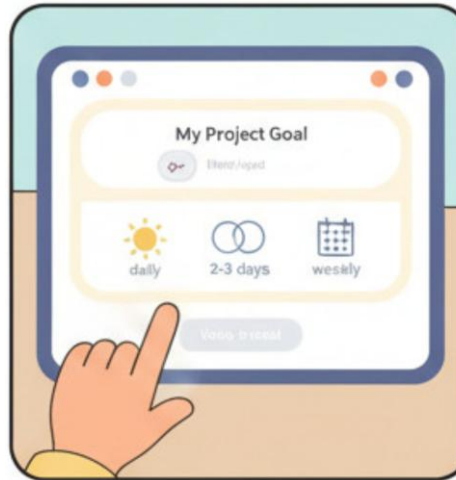
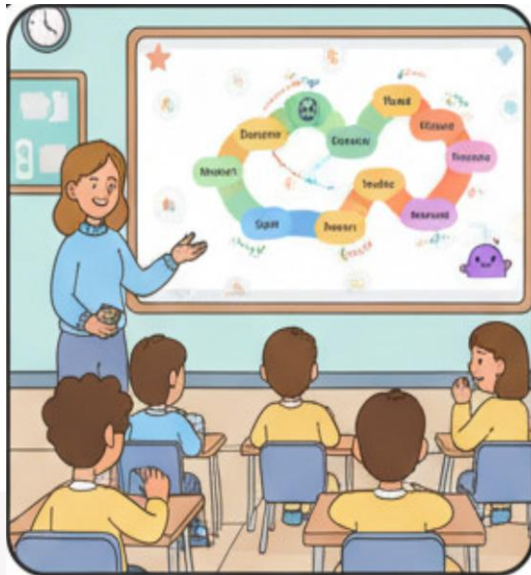
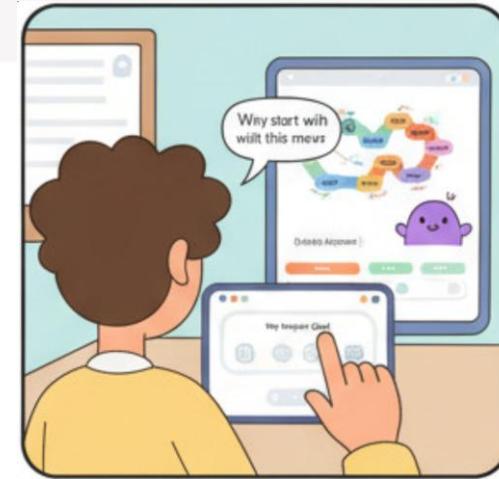
Tuesday

Wednesday

Thursday

Friday

Build and Test (Storyboarding)



Build and Test (UX Considerations)



- UX patterns that frame AI as coach or thinking partner, avoiding authority and preserving student ownership.
- Specify interaction and scaffolding lever, Socratic prompts, fading hints, transparency, to prevent dependency and support productive struggle.
- Emphasise teacher oversight, feedback literacy, and data autonomy as essential safeguards for ethical, agency-preserving AI use.

Bandura (2001); OECD Education 2030 (2018); Dweck & Yeager (2019); human-in-the-loop and explainable AI literature synthesised in Kostopoulos et al. (2025)

Monday

Tuesday

Wednesday

Thursday

Friday

Build and Test (Ensuring Context Mapping)

Content Specific Cases: JC Science CBA Eg.

Some Use Cases:

- perplexity
- perplexity

Junior Cycle Science Learning Outcomes

Strands	Nature of Science	Earth and Space	Chemical World	Physical World	Biological World
Understanding About Science	1. Students should be able to appreciate how scientific knowledge is developed and how scientific ideas are modified over time.	1. Students should be able to describe the relationships between various celestial objects and study their characteristics, orbits, phases, tides, solar systems, galaxies and stars.	1. Students should be able to describe the relationships between various chemical reactions and use models to describe the atomic nature of matter, demonstrating how they give rise to a range of properties for the conservation of mass, changes of state, physical changes, chemical changes, reactions, and their separation.	2. Students should be able to predict and use appropriate scientific apparatus.	1. Students should be able to investigate the functions of mineral and plastic cells and relate them to their functions.
Investigating in Science	2. Students should be able to generate the questions that are appropriate for scientific investigation, pose testable hypotheses, and identify and describe the steps in the investigating hypothesis.	2. Students should be able to explore a variety of phenomena that occur in the universe.	2. Students should be able to describe and model the structure of the atom in terms of the nucleus, protons, neutrons and electrons, comparing mass and charge of protons, neutrons and electrons.	2. Students should be able to identify and measure/define length, mass, time, temperature and volume. Apply, compare, and contrast, buoyancy, density, pressure, current, resistance, electrical power.	2. Students should be able to describe sexual and asexual reproduction, and the patterns of inheritance and variation of genetically controlled characteristics.
Communicating in Science	3. Students should be able to design and conduct investigations, explain how to use appropriate apparatus, safety, ethics, and selection of a suitable range of raw data.	3. Students should be able to interpret and to compare the Earth with other planets and moons in the solar system, and to compare the properties of air, mass, gravity, air, and temperature.	3. Students should be able to classify various substances as compounds, mixtures, metals, non-metals, solids, liquids, gases and solutions.	3. Students should be able to describe and model the structure of the atom in terms of the nucleus, protons, neutrons and electrons.	3. Students should be able to describe the structure, function, and interactions of the systems of the human organism, including and its major systems.
Science in Society	4. Students should be able to evaluate or conduct research relevant to a scientific issue, discuss different perspectives, investigate a topic, and evaluate the quality of the evidence that a source may not deal or show bias.	4. Students should be able to describe and apply the role of the Earth in our solar system, including the atmosphere, inner planets, and all stars and their life cycle.	4. Students should be able to describe the properties of the various states of matter, and their phase, and all stars and their life cycle.	4. Students should be able to describe the properties of the various states of matter, and their phase, and all stars and their life cycle.	4. Students should be able to describe the structure, function, and interactions of the systems of the human organism, including and its major systems.
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Monday

Tuesday

Wednesday

Thursday

Friday

Build and Test (UI Wireframes)



Project Setup Wizard



Project Goals

Learning Objectives
What should students learn from this project?

Success Criteria
How will you measure success?
 Create a detailed habitat diagram



Insights Dashboard: Habitat Study Project

View learner agency metrics and AI-powered recommendations for your class



Socrates Insights

Students Needing Support

- Alex Chen: Struggling with research phase, Schedule check-in
- Maya Johnson: High AI usage but low independent, View details
- Jamal Williams: Inconsistent engagement pattern, View details

Extension Opportunities

- Sophia Garcia: Ready for advanced habitat analysis, Assign extension
- Tyler Robinson: Showing leadership in group discussion, Assign extension

Recommended Next Steps

- Schedule mini-lesson: Research skills for 5 students
- Adjust checkpoint time: Extend research phase by...
- Create peer mentoring: Based on complementary...

Apply Recommendations

Initial Project Planning

Arrange your tasks on the timeline to create your project

Task Tiles

Drag these tasks to the timeline

- Research**
Gather information about habitats
- Draft**
Create initial project outline
- Prototype**
Build a model of your habitat
- Test**
Validate your habitat model

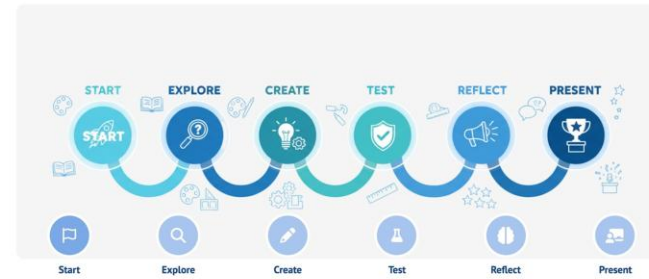


Habitat Study: Project Journey

Presenting to students: Class 8B - Science

Project Success Criteria

Follow this journey map to complete your habitat study project. Each phase builds on the previous one and develops your scientific inquiry skills.



- Scientific Inquiry**
 - Formulate testable questions
 - Collect reliable data
 - Analyze patterns and relationships
 - Draw evidence-based conclusions
- Habitat Knowledge**
 - Identify ecosystem components
 - Explain environmental adaptations
 - Describe energy flow
 - Evaluate human impact
- Learner Agency**
 - Set meaningful goals
 - Make independent decisions
 - Reflect on learning process
 - Adapt strategies as needed

Back to Setup

Continue to Student Join

Why start with this task? Think about which task makes the most logical sense to begin with.

What might you save for later? Consider which tasks depend on others being completed first.

Back to Goals

Continue to Tasks



Habitat Study Project

Your Progress

Research: Completed | Draft: In Progress | Prototype: Not Started | Test: Not Started | Complete: Not Started

Research Habitat Types

Identify and categorize 3 different habitat types in your local area.
Completed on May 12 | Review

Create Habitat Map

Draw a detailed map showing the relationships between habitats.
Not Started | Start Task

Document Observations

Record 5 key observations about each habitat using scientific method.
Due May 18 | Continue

Analyze Ecosystem Relationships

Identify 3 key relationships between species in each habitat.
Due June 1 | Start Task

My Work Area

Pond Habitat Observations

- Water temperature: 18°C, slightly cooler than air temperature
- pH level: 7.2, neutral to slightly alkaline
- Observed 5 different aquatic plant species around edges
- Counted 3 different insect species on water surface
- Spotted tadpoles in shallow areas (need to count and document)

Habitat Comparison

Voice input | 0/200 characters

Empowera AI

I'm documenting my observations for the pond habitat now.

That's great progress! What's your next move after you finish the pond observations?

I'll compare the species diversity between the pond and forest habitats.

Great thinking! Comparing habitats will help you identify patterns. Want to pause and think ahead about what connections you might find?

Type your response...

My Learning Insights

- Strengths: Detailed observation skills
- Growth Areas: Drawing scientific conclusions
- Recent Achievement

How often should I check in?

- Daily**
Perfect for short, intense projects
- 2-3 Days**
Balanced pace for most projects
- Weekly**
For longer, more independent work

Continue

Great choice! You can change this anytime.

Build and Test (Chatbots and Simulations)

Project Collaboration: Habitat Study

A simulated conversation between Empowera, Student, and Teacher.

per quadrat, compared with 3 in shaded areas. This suggests daisies depend strongly on light for photosynthesis. Their flat leaves maximise light capture, and their low height helps them survive trampling. I observed bees visiting clover flowers, showing interdependence: bees obtain nectar, while clover gains pollination. There was also competition between grass and daisies for space. These findings show how sunlight and species interactions shape the habitat."

💡 Empowera

You've shown strong independence, especially in improving your explanations over time. Your next step is to include more species interactions to push your ecological thinking even further.

Simulation in progress...

Send

Empowera Guide > i need help with a project

Today

i need help with a project

Empowera Guide

Great! I'd love to help you with your project. Over the next few weeks, we'll work together step by step so you can take full ownership of it.

First, let's set the foundation:

1. What module are you working on? Here are some common Junior Cycle subjects in Ireland:
 - Science
 - Business Studies
 - Geography
 - History
 - English
 - Maths

(If you're unsure, we can use the example: *Science*.)

2. Once you pick the module, we'll choose the strand. For example, if you pick Science, the strands could be:
 - Biological World
 - Chemical World

Let's go with Science I'm working on Geography Not sure, use the example

Message Copilot

+

Monday

Tuesday

Wednesday

Thursday

Friday

Summary and Reflect



Classroom Scenarios to Develop Learner Agency: Integrating Agentic AI Tools

Market Scan and Best Practice

Developing Learner Agency Through Agentic AI in Junior Cycle CBAs

UX design levers for Agentic AI That Enhances Learner Agency



Podcast Episode: The Empowera Edge: Unlocking Learner Agency

Conversational Prototype

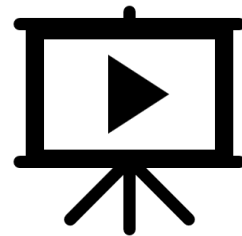


Visual Simulation



Chatbot Prototype

Video: The Empowera Edge: Unlocking Learner Agency



Summary and Reflect



- ***Sustained engagement with agentic AI can support learner agency development*** when systems are designed, implemented, and governed with explicit commitment to transparency, teacher oversight, democratic participation, and cultural sensitivity
- Educators want agency-supporting learning companions, that guide students through the learning process utilising Socratic prompts and fading hints within an assist-as-needed paradigm, to prevent dependency and support productive struggle
- Impact depends not on the technology itself but on design choices, pedagogical intentionality, institutional commitment to equity, and robust governance frameworks.

What can we do next?



- Deeper validation of prototypes with teachers and iterate a classroom-ready prototype (measure interest)
- Disseminate research outputs to the wider community to gain further expert perspectives
- Extend the research to other contexts, such as the workplace of third level.

Thank you!



Direct your questions into the chat, or email me here at Learnovate, and we will do our best to answer them!

