

## Transforming Learning: Pedagogy-Driven Approaches to EdTech and AI in Education

Andrew Field,

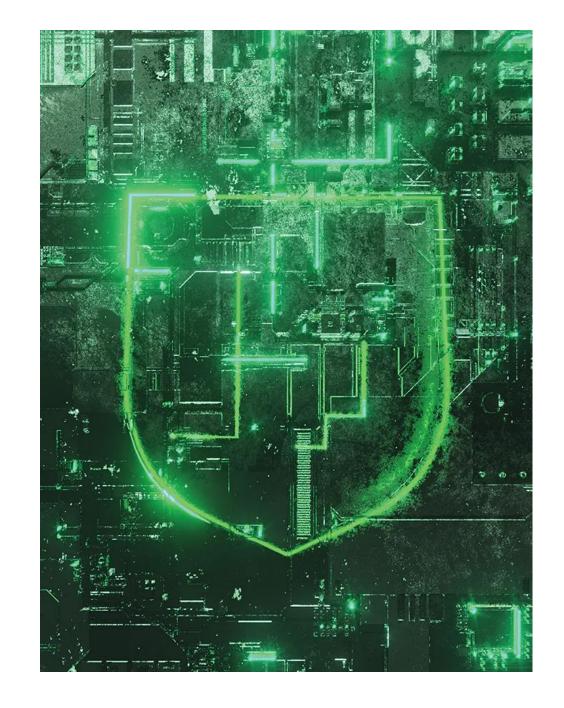
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6<sup>th</sup> October 2025 14:15 (UK)



## Outline of the session

- Introduction
- Self-evaluation
- Edtech & GenAl
- Group challenge
- What does this really mean?
- Review
- Next steps





## "Transforming Learning: Pedagogy-Driven Approaches to EdTech and AI in Education"

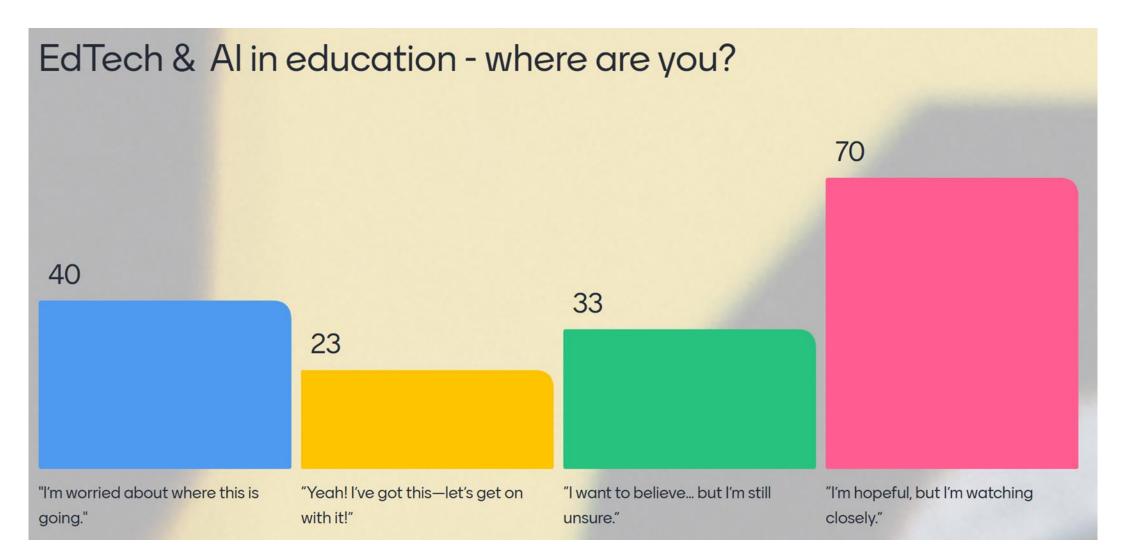




## Self-evaluation



### Your views - EdTech and AI in Education





## 3 words for your current thoughts on EdTech & AI in education





## Edtech & GenAI

We're at the cusp of using AI for probably the biggest positive transformation that education has ever seen

Sal Khan founder of Khan Academy



### Haven't we been here before?

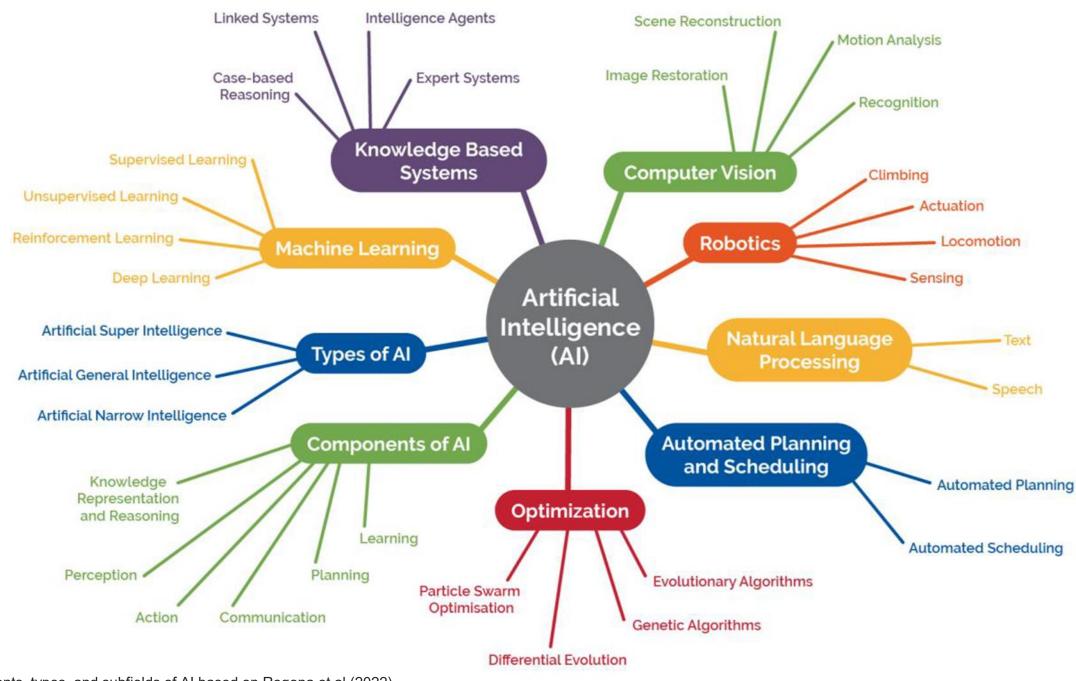








## It's not all GenAI





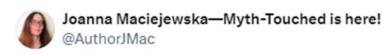
## Key dates in the development of AI



2022



## What might GenAI do for you as a teacher?



You know what the biggest problem with pushing all-things-AI is? Wrong direction.

I want AI to do my laundry and dishes so that I can do art and writing, not for AI to do my art and writing so that I can do my laundry and dishes.

11:50 AM · Mar 29, 2024 · 2.7M Views

#### Joanna Maciejewska

#Fantasy and #scifi author. Translator, gamer, reader, artist. European girl (Poland, Ireland) in the US.





## Teachers' changing perceptions

"Teachers are already using ChatGPT for content generation (lesson plans and assessment)"

**"59%** 

... using GenAl to generate lesson plans and resources" "I am looking for tools that are easy to use, allowing us to quickly integrate them into our lessons without needing a lot of technical skills."

South African school, Feb 2025

497 Cambridge teachers, Maldives, Jan 2025

Cambridge Panel, Oct 2024





## GenAI in October 2025

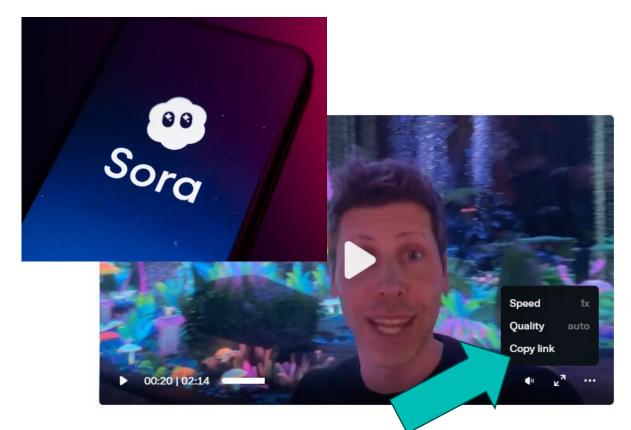




Credit to
Abdourahim
Baqouss
Generated 22/06/25



## AI in October 2025?

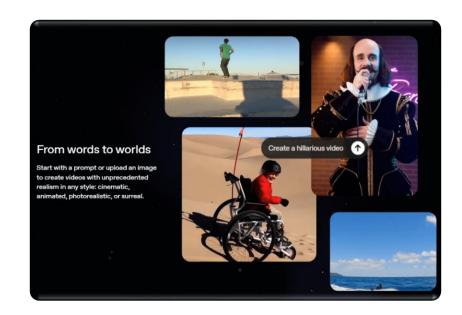


No subtitles!

Basic core accessibly requirement

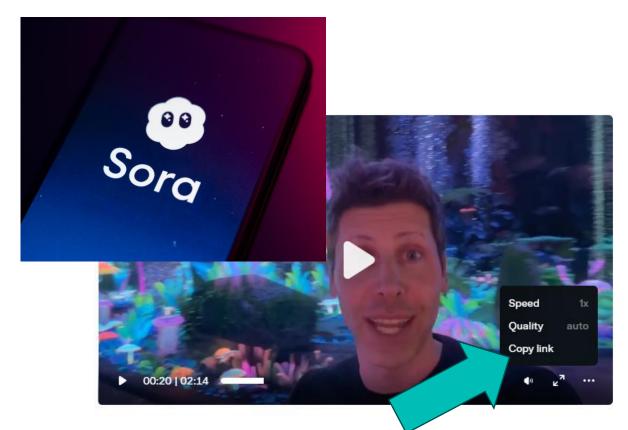
"Turn your ideas into videos with hyperreal motion and sound."

"Our latest video generation model is more physically accurate, realistic, and more controllable than prior systems. It also features synchronized dialogue and sound effects."





## AI in October 2025?



No subtitles!

Basic core accessibly requirement

"It has no fidelity to history, it has no relationship to the truth," said Joan Donovan, an assistant professor at Boston University who studies media manipulation and misinformation.

"When cruel people get their hands on tools like this, they will use them for hate, harassment and incitement."



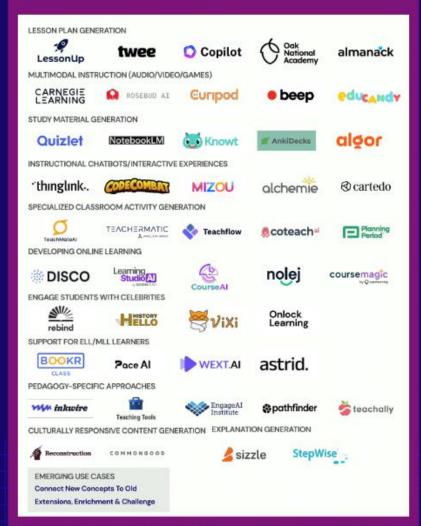


## Active use of AI in education - October 2025

• There are so many examples of *potentially* great AI tools

Student feedback	Resource generation
Automated marking	Adaptive & personalised testing
Question generation	Learning analytics & insights

#### **Instructional Materials**



#### Assessment and Feedback

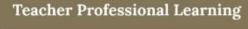


#### Market Map:

## Gen AI Use Cases in K-12 Education

Explore our market map featuring K-12 specific use cases for Generative AI in educational contexts.

#### Edtech Insiders





#### **Teacher Practice Support**



#### Social Tools



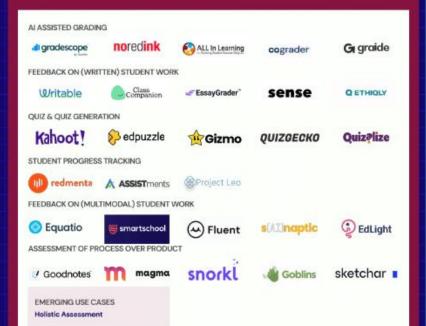
#### Student Support





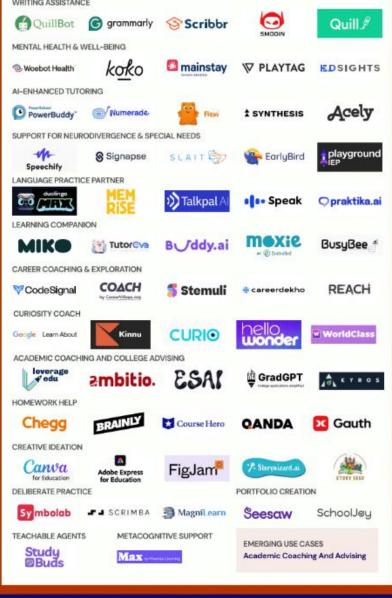
#### Assessment and Feedback

Extensions, Enrichment & Challenge









The Generative Al Use Case Database is created and maintained with the support of:



Chan Zuckerberg Initiative

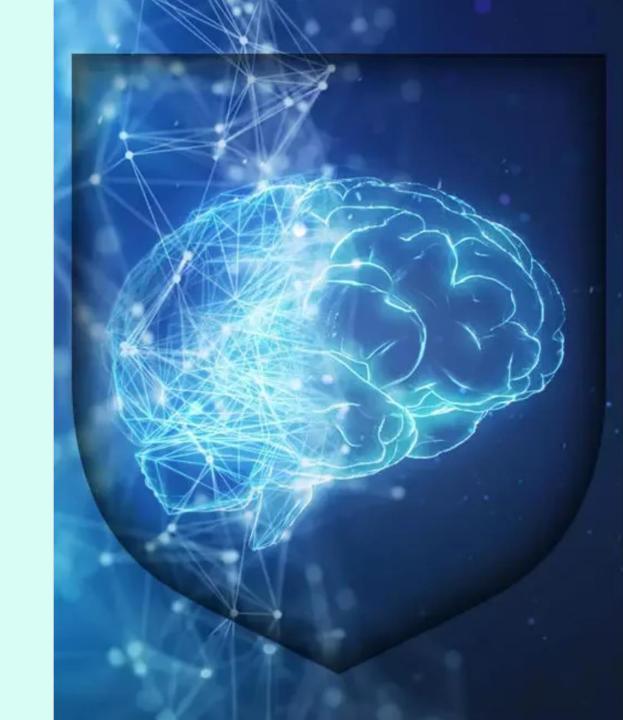


## Group challenge



## In your group

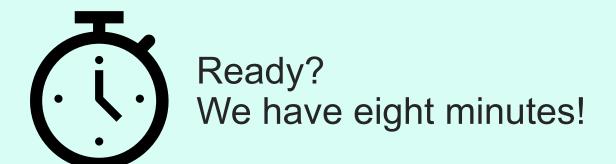
- Which group are you?
- Check and make sure





## In your group

- You are advising a fellow trainee
- They have asked you a question
- How would you respond?







## Sharing your suggestions

₹ CAMBRIDGE

"Why bother learning to teach when AI can do it all for me?"

CAMBRIDGE

"Is using AI cutting corners or adapting to the future ways of working?" \*CAMBRIDGE

"AI cannot takeover the emotional and wellbeing support that a teacher can offer. Why should we bother with it?"

3

CAMBRIDGE

"If AI can provide instant feedback 24/7, what does that mean for the role of the teacher in the classroom?"

4

\$\text{CAMBRIDGE}

5

"I am overwhelmed with AI – there's something new every day. What should I do?" \$\text{CAMBRIDGE}
6

"Is it true that AI will remove the need for any teachers in the future?" 1

## "Why bother learning to teach when AI can do it all for me?"

"Is using AI cutting corners or adapting to the future ways of working?" "AI cannot takeover the emotional and wellbeing support that a teacher can offer. Why should we bother with it?"

"If AI can provide instant feedback 24/7, what does that mean for the role of the teacher in the classroom?"

# "I am overwhelmed with AI — there's something new every day. What should I do?"

# "Is it true that AI will remove the need for any teachers in the future?"



What does this really mean?



## Fundamental importance of the teacher

- You as trainee teachers are more important than ever
- Enhanced, not replaced
- Co-intelligence model
- Human intelligence
- Workload, wellbeing & impact
- EdTech & Al can transform but only by enhancing teaching and learning



## Active use of AI in education - October 2025

Remember there are so many examples of potentially great AI tools

Student feedback	Resource generation
Automated marking	Adaptive & personalised testing
Question generation	Learning analytics & insights



## Ask not how I can use AI and tech, but how I can enable joyful, purposeful, and impactful learning.



# Getting started with AI in the classroom

- Introduces and develops key areas of teaching practice
- Links research to what happens in the classroom
- Includes practical ideas to help you get started
- Co-created with teachers across 3-19 pathway











# Preparing learners to thrive in a changing world





cambridge.org/future-ready-learners



# Review



# Your views

Menti activity that produced extensive results and commentary – all shown on the following slides



# Your views

"How do you think EdTech & Al will shape your training and early career as a teacher?"

Help workload and alleviate stress

Help with lesson plans

Use for tasks to support teaching.

It will helpful in avoiding teacher burnout

I think it will help us to plan lessons and find reasourses Will guide with lesson plans and resources

Through helping me to plan lessons and create resources quicker

It will help to enhance my lesson plans. Support me with my professionalism.

It will help guide us

Help enhance teaching

Challenge of thinking for yourself when you don't have to

I think it will be really useful, but still need to be mindful!

It will make some aspects easier such as marking and lesson templates Support with fun and purposeful lesson plan ideas

Aid in thinking of lesson plans/structures

Help generate ideas for lesson plans and resources

Give new ideas and help us understand difficult topics more

I think it will be helpful in certain aspects in my career such as generating paragraphs for an activity but I do not want it to take over my job.

It can be a useful tool to lighten the load however should not be relied upon.

Help and benefit with some aspects such as lesson plans however not the emotional side of teaching

It helps me with work load by helping to summarise and paraphrase a long text It will help me be more efficient with my time but not actually replace what I can bring to my placements and assignments

Improve effiency and time management

it will help me with lesson ideas

Not necessarily shape my training and early career but definitely guide me in the right direction.

Will help me to create lesson plans and make teaching efficient

It will help lesson plans and lesson objectives

Help with planning and writing although may interfere

A helpful tool

I think Ed Tech and Ai can help me a lot as a teacher by giving me inspiration and ideas about resources

it will take over and we will die

It will be a good way to reduce workload but I don't believe I will ever become dependent on it.

They have guided me to see how so can help with teaching and it's definitely not a disadvantage It can impact how we choose to design and plan lessons effective time management, use of resources will become wider and more accessible. Help me work more efficiently

It will aid me in basic things with facts and setting up things but won't replace the human touch To do short, non-child focused jobs or to find resources

I think it will help enhance the lessons and help with the resourcing and engagement within the class I think it will be really useful for time consuming tasks such as lesson planning

It will be a useful tool, especially when it comes to things like lesson plannning, or generating ideas Supporting with creating lesson plans and finding relevant resources.

Make me dependent on it

Using ai to help me where needed and make sure to use it resourcefully and ethically

It could helpnim various ways, but shouldn't take over

It can help to support when making lesson plans etc, but could be quite overwhelming on top of everything else I think that it will really help with teacher work load as I can use it to help with resources etc so it allows me to focus on other things in the classroom Useful for lesson planning so teachers have more time for their students development

I think it will help me plan lessons and enable me to spend more time on the nurturing side of teaching. I think it will be useful for taking some of the workload off to do more important/ creative tasks I think AI will offer ways we can enhance our preparation for our teaching career It will help with workload, it will make it more enjoyable to co-generate ideas that are meaningful

i want to utilise it to ensure i can spend more valuable time focusing on the individual needs of the children in my class Use it to help guide/ plan lessons after reflecting on limitations of past lessonshow I can improve them.

Being more time efficient and able to put more effort into the learners

I will be avoiding the use of AI, as I do not believe it will be of benefit to me or my teaching ability in its current form

I think it will make planning lessons easier

Help spend more time with children

Help with lesson planning

it can help with lesson planning but i as a teacher would check it afterwards to make sure it's hit the nations curriculum points and is teaching pupils effectively

Help with lesson plans, add some ideas to a task It will allow me to spend more time prioritising the children themselves. It will be helpful for our future teaching by helping us plan, assess and enhance and guide us to develop I think it will support me in reaching my full potential as a teacher and make planning more time efficient.

I think it will be used more and more with teachers using it for admin tasks and lesson plans. I think in my early career AI will be a useful tool to help me reach a top level of teaching. If I'm less focused on things like lesson plans I can focus more on the needs of the individual pupils. It may support in helping with planning lessons/ activities but it will be a struggle when it comes to doing other things it won't be as helpful I think it will provide some useful assistance but not something I would heavily rely on.

Lesson plans and report writing will be made easier, time cutting as teachers already have a heavy workload It will provide access to support that can aid in improving the children's learning and our teaching.

I think it will shape my training as a teacher by being able to generate new, creative ideas for teaching I think it is a good thing to have in your back pocket. To help with the more tedious parts of teaching to help with things such as burnout. Not taking away from teaching but helping us.

It will shorten my workload as a teacher allowing me more time to be present with the children, being a role model and allow me more time to manage behaviour safeguarding issues etc I think it will lower my workload and allow me more time to support children and develop activities that enhance learning. I think as it continues to develop it will improve and really help teachers.

Help with lesson ideas

I think it will help with any extra information that I need to find quickly, whilst also helping with condensing work

Help with lesson plans

Can enhance my pedagogy as I explore and implement different methods and activities within my classroom I think it will be useful for prep and planning lessons but not replacing my teaching in any way, more there for advice and support. It will enhance and strengthen the feedback, communication and delivery given out in school. I will not be using AI to produce lessons but i may use it to inform my practices.

using Al wisely to reduce cognitive and workload as an ECT and focusing on how I will shape my identity as a teacher and create creative, interactive lessons.

Al could support me sort a schedule to support me with work load it can enhance my teaching but cutting my workload, generating ideas and supporting me with tedious tasks. it will not replace the personal touch I can bring to the classroom.

It will help with lesson activity ideas

Lesson planning, teaching students how to use it effectively, challenging myself as a teacher and improving my teaching Al will encourage me to enhance my teaching, secure a positive work life balance and deliver high quality teaching to my students.

help to reduce workload, spark imagination

It will support workload and help provide ideas for teachers with regards to lesson plans and time management

Help support learning if used correctly

It will make some aspects easier to keep work load down but I worry that the constant use of it will result in laziness or reliance when doing simple things I think that it will reduce workload so that teachers can focus on making as much of a difference as possible Allow me to express my ideas when I don't know how to express them myself

It will support many teachers in terms of generating ideas and lesson plans but could also become an overeliance, hindering personal development I think it will help with resources and will save time

Enhance pedagogical and subject knowledge in the classroom but also to help reduce the overwhelming teacher workload that can occur i think it will help with the days when creativity and inspiration is running low, to ensure that the children being taught still receive an outstanding quality of education

analyse teacher strengths and weaknesses to help improvement an also make the chore jobs waste less time e.g. thinking of maths questions Will help with planning and giving feedback for numerical data e.g maths.

Help me organize lessons and data, which may be confusing if done by myself. Just overall helpful while managed Generating ideas for resources and helping with lesson plans

Reflective practice, a tool to question my delivery and whether approaches are best practise.

help with summarising data

Assist with work load

It will reduce my workload and allow me to focus more on the wellbeing of pupils

I think it will be helpful in planning lessons and enhancing the teaching experience It will allow me to work smarter not harder. I will be able to use it for useful tools such as resources, ideas, generate questions, automated marking. I think I will feel more confident with knowing how to handle Al when teaching and use it to help with the topics that aren't as creative based (like lesson plans) Professional development staying up to date with latest methods and areas for improvement with assessments

I think the use of AI will definitely have more of a role within planning and assessment in schools to support management of workload it will benefit me in regards to planning and making resources . but i wouldn't use it for feedback etc due to pupils needing personalised feedback. also isnt relevant for formative feedback Inspire ideas for lesson planning as well as activities that are fun and interesting relating to different subjects I think AI will become very useful in maintaining a positive workload, help with lesson plans and will provide support

It will lessen the work load so we can be more present with the children and more of a support network rather than being constantly bombarded with marking.

I feel disturbed at the use of ai in anything that will come into contact with my students I believe EdTech and AI will profoundly enrich my training and early career by enabling more personalised, efficient, and innovative approaches to teaching. Will be used to plan my lessons and provide creative ideas for class activities.

It will help with workload

I think that it will reduce my workload so that i am able to spend more time with the children and able to give them better resources. I think that EdTech will shape my career as it will be almost like a leaning post that I may choose to lean on. It will be there and develop and therefore I can use it as I begin to develop I believe it will enable me to have the most amount of knowledge possible that i can use when finding my path as a teacher

Help with lesson planning and creating useful resources it will hopefully reduce workload to an extent and help me generate ideas for the classroom I think that AI and Edtech will shape my training as I can use it effectively by making resources and presentations. This will save time. I'm going to ensure Al positively shapes my training and early career. It will be good assisting with lesson plans, resource making etc.

I think EdTech and AI will shape my training by helping to decide how to plan and deliver lessons will be useful when trying to distribute yourself between the different jobs that comes with being a teacher however ensuring children's safety is key and not letting it take over or remove emotion

It can help me intake new knowledge about what and maybe how to teach, but wont change the emotion related to teaching style It was very useful! It had helpful information about how AI and EdTeach could be used to enhance the learning of children and not to replace teachers as there is always a need of a teacher in the clas

i think ai should be used extremely sparingly due to its detrimental effect on the environment, on our brains and thinking skills



# Your views

"What kind of support or tools would help you thrive at the front of class?"

Quizzes, interactive tools, feedback

Sentence structures

interactive resources.

Marking, admin, reports, basic research

a guide

Ai

Generation of questions to enhance understanding and comprehension lesson planning tools

Lesson plans

a guide

Help with ideas for lessons

Interactive games and resources

lessons ideas to stimulate creativity and maybe exciting colourful display resources Technology to use the screen

Some aspects of AI but also support from staff around me

Technology

ai

lesson plans that are inclusive and adaptive. tools to create report data for you

A strong lesson plan so I know what I'm doing and how I'm engaging my class Training on existing tools

lesson planning

Definitely Kahoot

Adaptive resources

Lesson plans

PowerPoint creation Engagement tools Help with lesson planning Resources Being able to successfully deliver the content

Ai to find resources

Lesson planning

Al

Quizzes making questions

Ai could aid me in lesson planning or planning tasks however, advice, support and experience from teacher will be able to help me thrive at the front of the classroom.

Interactive resources

Marking platforms, vocabulary banks

Lesson plans

Lesson planning tools, marking help.

Generate photos or images to help break down topics and help visual learners

lesson guides

easy access resources

Lesson plans

**PowerPoints** 

lesson plans, resources being prepared A guide book

Adaptive teaching

Let me stay energised by helping me with the long and difficult work. Lessen the work hours

lesson planning tools

Lesson plans

67

Lesson planning

A question maker Te

Teaching techniques

Creative lessons

Previous lesson guides

Lessons plans

Generation of ideas, summarising knowledge, strategies lesson plans

Suggestions of what to do so i can build upon

Being taught how to use ai effectively for lesson planning

Time management, maybe timers

Tips and experience!

Ai

Lesson activity ideas.

Direct guidance for how to use in a school - what is best apps Mentoring. Someone to look over lesson plans with you before you deliver them lesson plans, visual ideas, creativity

Training presentation ideas Lesson plans, AI, adaptive resources national curriculum

h

the ability to save time in some aspects of my career by Al planning lessons and marking means i can focus on the children

Strong community

teacher support

ai is so sigma



types of questions i could ask to enhance learning Supporting generating ideas for lessons

Guidance towards higher ability and more effective classroom Al Resources, detailed lesson plans, TA role

Helping during placement

A digital/working timetable that can allow me to know what is need to be done for all different areas-knowing behind the scene of the front of the scene Physical resources

Physical resources would be very valuable for children to learn as wit would allow them with physical experience.



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Empowering teachers
Pedagogy first

✓ Impact in the classroom ✓ Consequential validity



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So what?



