

Just Ask Chat



An investigation into the generational impact AI has on student learning.

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Introduction

The rise of Artificial Intelligence (AI) has become one of the largest shifts in technology for the 21st century, reshaping how individuals think, learn, and interact with new information, not only in the classroom but in life. For the current generation of school students, AI is not a distant tool. It is a technology that is regularly used in everyday life; its presence in search engines, writing assistants, learning platforms and the algorithms shaping what we see online is transforming education and society in significant ways. The use of physical textbooks and handwritten homework were defining features of education, but today many aspects of learning have shifted to digital resources.

This topic emerged from my own experience with AI as a Year 9 student. Now, as a current Year 12 student, I'm navigating school where AI tools have become normalised in classrooms for both students and teachers. I observe both the benefits and challenges of this shift, and have seen concerns around over-reliance, reduced critical thinking and academic integrity.

Conversations with family, friends, and teachers highlighted the differences in our schooling experiences and raised questions about how AI has reshaped learning and influenced what it means to be a 'good student'. These intergenerational differences inspired me to investigate the impact of AI and online learning on education.

My PIP will explore generational change through the Society and Culture concepts of technology, continuity and change, generational differences, and the impact of knowledge systems. It will examine how the increased use of AI influences study habits, perceptions of learning and the motivation of Gen Z (1995-2009) and Gen Alpha (2010-2024) students since the introduction of online learning, compared to students from earlier generations; Baby Boomers (1946-1964), Gen X (1965-1979) and late Gen Y (1980-1994). By analysing micro experiences (student's personal experiences and learning practices) and macro (institutional responses), I aim to provide a deeper understanding of AI's role in shaping contemporary learning experiences.

In this PIP, I will use both primary and secondary research to develop qualitative and quantitative conclusions. Questionnaires and interviews will be conducted as part of my primary research, to compare perspectives of students across generations, and gain an understanding of how institutions and professionals use AI and view its increased use. My secondary research will provide an insight

on the debates surrounding digital use and AI in school from parents, professionals, teachers and students.

In this PIP, I will explore how AI is changing the way students approach learning and what this shows about changing values, school expectations and the role technology now play in education.

Log

In early Year 9 the use of AI became a normal part of my school life. Throughout the year I found myself relying heavily on it to complete tasks that should have been easy. I would use it to research topics, structure essays and check my work. After a conversation with my grandparents about how different their schooling was, I realised that technology had changed the way students learn over time. I also began noticing how common AI had become in the classroom for both students and teachers. I became aware that it had become a social and cultural issue. This led me to focus my PIP on comparing the learning experiences of Gen Z and Gen Alpha to earlier generations like Baby Boomers, Gen X and early Gen Y. Once I had completed my initial research, I found that although AI in education is widely talked about, there was less information on how its impact differed across generations. This motivated me to investigate how learning has changed over time and what these changes mean for future generations and education.

My first primary research method was a questionnaire to provide qualitative and quantitative data. It helped me shape how I wanted my three chapters to look and what they'd be focused on. While it gave me a broad understanding of students' opinions, many responses lacked enough information and detail needed for some of my chapters. I then decided an interview would be able to provide me with a deeper insight into the topic. I organised my interviews with a high school principal and a Technology and AI specialist to gain both educational and professional perspectives. Once both interviews had been conducted, I was able to expand my knowledge on my topic and was able to represent the views accurately in my PIP.

Once I had collected all my primary and secondary research, I found the amount of information overwhelming. To make it more manageable I organised each piece of information into the chapters they would be used in and then formed paragraphs. By doing this I was able to compare my primary and secondary research, allowing for a more developed argument throughout my PIP.

Completing this PIP has changed the way I think about my own AI use, even as I have come a long way from Year 9. I've questioned how often I still rely on AI to help create scaffolding for my work. Learning about both the benefits and risks of AI has encouraged me to be more thoughtful before using it and ensuring I see it as a tool to support my learning rather than replace it. Overall, this project has shown that while AI is continuing to reshape education, genuine

learning still depends on how students decide to use the technology available to them. It has also highlighted how technological change can influence not only individual learning but also the experience of entire generations.

CHAPTER ONE: Positives and Negatives of AI

Help or Hindrance

The introduction of Artificial Intelligence (AI) to education is impacting the way students approach learning, assessment tasks, and homework. For students in the current schooling generations (Gen Y, Gen Z, and Gen Alpha), AI has become integrated into everyday life at a rapid pace. ChatGPT, Grammarly, and AI search engines are now commonly used in work that once came from physical textbooks and libraries. Many students believe AI has improved things such as efficiency and accessibility in education, using AI to complete simple or time-consuming tasks and allowing them to focus on more important things such as studying for tests¹. Other students have argued that it is creating dependency while weakening important learning skills, such as critical thinking, creativity and independent problem solving².

100% of the participants believe that the introduction of AI and technology is drastically changing how students in the current generations are learning³. Many respondents in the Questionnaire stated that AI is a tool they regularly use to support their education, commonly relying on it to explain complex information, summarise content, create practice questions and provide feedback on their work. One participant explained that AI “helps me understand things that I would not otherwise be able to”⁴, while another stated that it “allows me to do tasks more effectively and with less time and effort”⁵. These responses demonstrate how AI can be used as an educational assistant to help personalise learning and provide support for students.

For many students, AI is a positive support tool that has changed the speed and convenience of learning. Instead of spending long periods searching through textbooks or websites, students can now receive instant explanations and summaries within seconds. This is contributing to a shift in the way information is accessed and processed. According to the College of Education, University

¹ Primary Research: Questionnaire Q10

² Primary Research: Questionnaire Q11

³ Primary Research: Questionnaire Q2

⁴ Primary Research: Questionnaire Q10

⁵ Primary Research: Questionnaire Q10

of Illinois, AI in schools is a good way to improve accessibility and increase productivity for students⁶.

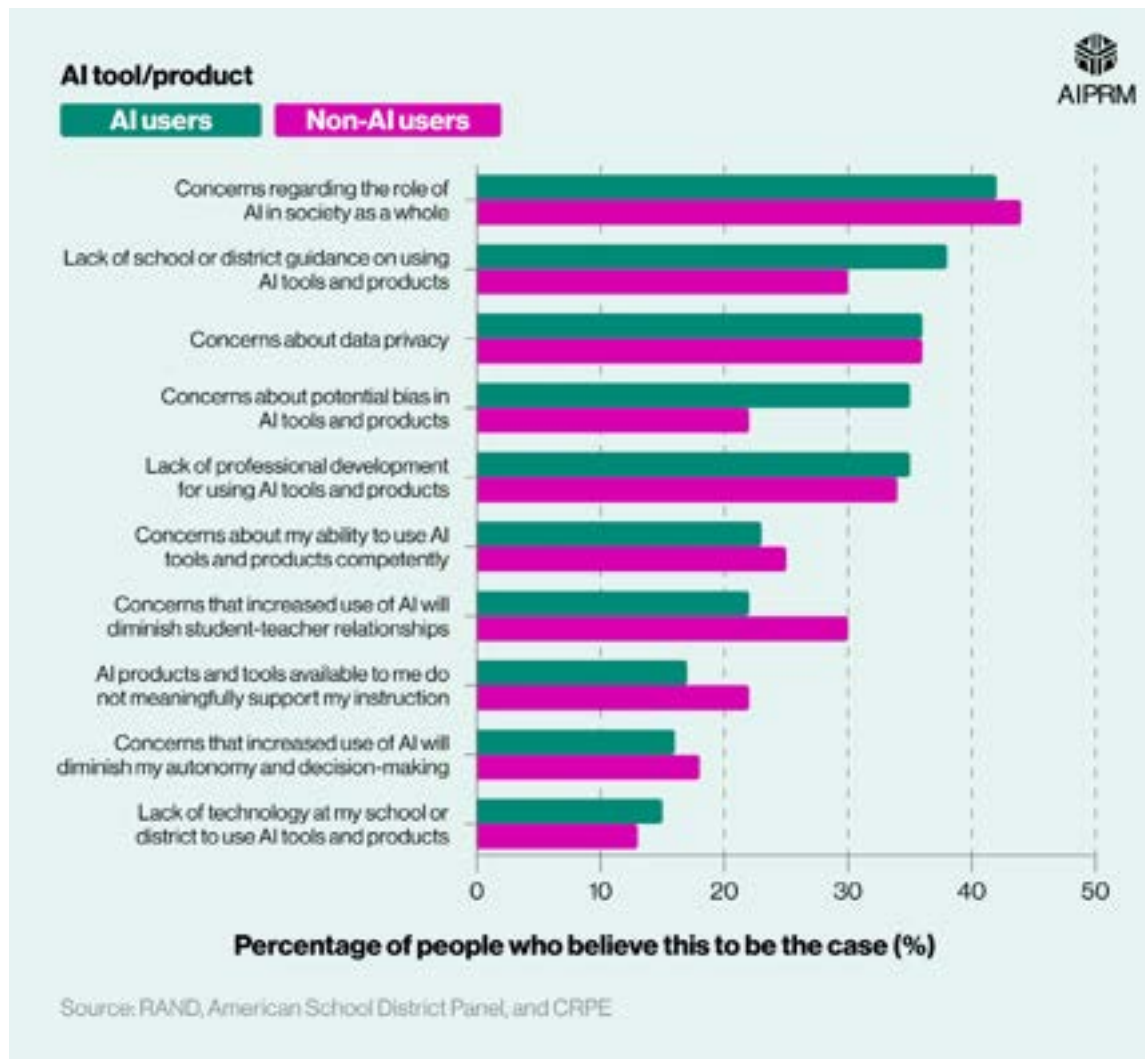


Figure 1: Percentage of AI users VS Non-AI users who believe this to be the case (%)⁷

The mixed attitude students have been showing towards AI has been demonstrated clearly. Statistics published by AIPRM⁸ show that while AI has positively impacted students' learning and education, significant concerns remain regarding dependency, and the effect AI has on critical

⁶ Office of Communications AI in Schools: Pros and Cons <https://education.illinois.edu/about/news-events/news/article/2024/10/24/ai-in-schools--pros-and-cons> 'AI in Schools: Pros and Cons' (College of Education2023) <<https://education.illinois.edu/about/news-events/news/article/2024/10/24/ai-in-schools--pros-and-cons>> accessed 4 November 2025

⁷ AI in Education Statistics <https://www.aiprm.com/en-au/ai-in-education-statistics/> AIPRM, "Aiprm" (Aiprm.com July 11, 2024) <<https://www.aiprm.com/en-au/ai-in-education-statistics/>>

⁸ AI Prompt Manager

thinking⁹. According to the data seen in Figure 1 above, the largest concern among both AI and non-AI users was the growing role of AI in society overall, with approximately 42-44% of respondents expressing concern¹⁰. The graph in Figure 1 also reveals that AI users are more concerned about bias within AI and the lack of guidance surrounding its use in schools¹¹. Similar concerns were identified in the Questionnaire, where some students expressed uncertainty about the appropriate use of AI in education¹².

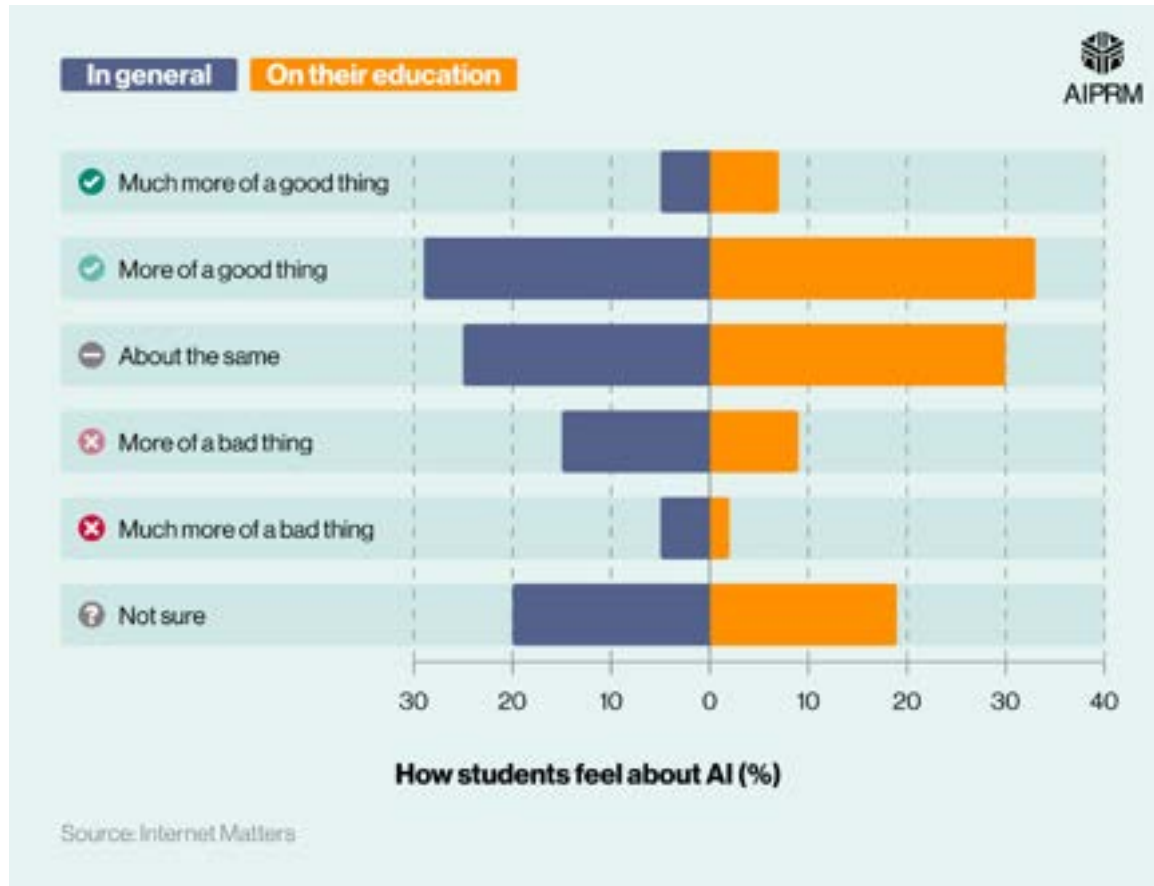


Figure 2: How students feel about AI (%)¹³

⁹ AI in Education Statistics <https://www.aiprm.com/en-au/ai-in-education-statistics/> AIPRM, “Aiprm” (Aiprm.com July 11, 2024) <<https://www.aiprm.com/en-au/ai-in-education-statistics/>>

¹⁰ AI in Education Statistics <https://www.aiprm.com/en-au/ai-in-education-statistics/> AIPRM, “Aiprm” (Aiprm.com July 11, 2024) <<https://www.aiprm.com/en-au/ai-in-education-statistics/>>

¹¹ AI in Education Statistics <https://www.aiprm.com/en-au/ai-in-education-statistics/> AIPRM, “Aiprm” (Aiprm.com July 11, 2024) <<https://www.aiprm.com/en-au/ai-in-education-statistics/>>

¹² Primary Research: Questionnaire Q10

¹³ AI in Education Statistics <https://www.aiprm.com/en-au/ai-in-education-statistics/> AIPRM, “Aiprm” (Aiprm.com July 11, 2024) <<https://www.aiprm.com/en-au/ai-in-education-statistics/>>

Research also highlights that students' opinions towards AI are largely balanced rather than skewed to positive or negative. Figure 2 above is a second graph from AIPRM¹⁴, sourcing data from Internet Matters¹⁵, found that most students viewed AI in their education as either “more of a good thing” or “about the same”¹⁶. Only a small percentage believe AI was “much more of a bad thing”¹⁷. This reveals how the current generation generally accepts AI as a part of our modern education, despite having acknowledged its risks. This secondary research aligns closely with my primary research, where many respondents described AI as useful when used responsibly but harmful when students become overly dependent on it¹⁸.

Despite the convenience AI provides, many students express concerns about overreliance on it. Several respondents from primary research reveal feelings of guilt, dependency and reduced confidence in their own abilities. One participant stated that using AI had “made me less confident in my own thinking”, while another explained that it had “lowered my critical thinking skills”¹⁹. Others described becoming reliant on AI for completing simple tasks, making it more difficult to think creatively or independently. Robert Pondiscio's²⁰ ideas strongly align with the responses from the primary research. He states “Type a question and it produces a fluent answer. The prose is confident, the reasoning plausible, the sources (usually) credible. But the user's mind remains largely idle”²¹.

Many participants discussed the impact AI was having on their ability to retain the information being taught by their teachers. Several students admitted that relying on AI to complete homework and explain concepts has instead resulted in a weaker understanding and memory recall. One

¹⁴ AI Prompt Manager

¹⁵ Bissoondath A, ‘Generative AI in Education’ (Internet Matters 26 February 2024)

<<https://www.internetmatters.org/hub/research/generative-ai-in-education-report/>>

¹⁶ AI in Education Statistics <https://www.aiprm.com/en-au/ai-in-education-statistics/> AIPRM, “Aiprm” (Aiprm.com July 11, 2024) <<https://www.aiprm.com/en-au/ai-in-education-statistics/>>

¹⁷ AI in Education Statistics <https://www.aiprm.com/en-au/ai-in-education-statistics/> AIPRM, “Aiprm” (Aiprm.com July 11, 2024) <<https://www.aiprm.com/en-au/ai-in-education-statistics/>>

¹⁸ Primary research: Questionnaire Q9 and Q10

¹⁹ Primary Research: Questionnaire Q9

²⁰ The Illusion of Learning: The Danger of Artificial Intelligence to Education

<https://thenext30years.substack.com/p/the-illusion-of-learning-the-danger> Pondiscio R, ‘The Illusion of Learning: The Danger of Artificial Intelligence to Education’ (Substack.com 30 October 2025)

<<https://thenext30years.substack.com/p/the-illusion-of-learning-the-danger>>

²¹ The Illusion of Learning: The Danger of Artificial Intelligence to Education

<https://thenext30years.substack.com/p/the-illusion-of-learning-the-danger> Pondiscio R, ‘The Illusion of Learning: The Danger of Artificial Intelligence to Education’ (Substack.com 30 October 2025)

<<https://thenext30years.substack.com/p/the-illusion-of-learning-the-danger>>

responder mentioned that after using AI heavily for study preparation they ended up “performing worse in the test as a result of it”²². Another participant explained that they used ChatGPT instead of asking for help from the teacher, resulting in the incorrect information being learnt. These responses highlighted concerns that AI is encouraging passive learning behaviour where students consume answers rather than actively engaging in the educational process.

Secondary research further supports these concerns. An article published by TIME magazine discussed a study conducted by researchers at the Massachusetts Institute of Technology (MIT), which suggested that excessive use of AI tools, such as ChatGPT, may reduce brain engagement and critical thinking during writing tasks²³. The study found that students relying heavily on AI-generated responses often produced less thoughtful and original work, demonstrating lower levels of independent thought. Through primary research, many students expressed similar views regarding AI-generated work lacking creativity or personal expression.

Despite concerns, not all students view it negatively. Some respondents described AI as a supplementary tool that is useful when used in moderation and not to complete whole pieces of work. One participant explained that they use AI “to understand the work, not just to do it for me,” while another stated that AI helps them “structure responses” so they can later apply those skills independently during exams²⁴. These responses show the positives of AI and how, if used properly, it can be a helpful learning tool, and students who use AI critically and responsibly may still benefit from the technology without becoming fully dependent on it.

Additionally, AI has created accessibility for students who may struggle with the current schooling system and traditional teaching methods. AI, when used as a tool, can explain information in multiple ways, adapting responses to suit different learning styles and providing instant clarification. One questionnaire participant noted that AI explains content “however you want it to be presented to you”²⁵, demonstrating the personalized nature AI can provide to support learning.

²² Primary Research: Questionnaire Q10

²³ Andrew R. Chow ChatGPT May Be Eroding Critical Thinking Skills, according to a New MIT Study <https://time.com/7295195/ai-chatgpt-google-learning-school/> Chow AR, ‘ChatGPT May Be Eroding Critical Thinking Skills, according to a New MIT Study’ (TIME 17 June 2025) <<https://time.com/7295195/ai-chatgpt-google-learning-school/>>

²⁴ Primary research: Questionnaire Q10

²⁵ Primary Research: Questionnaire Q10

When used as a tool, AI can adapt to individual educational needs that traditional classrooms may not be able to provide.

Ethical and environmental concerns were also raised through primary research. Respondents raised concerns about the environmental impact, particularly water use when cooling data centres. Others are worried that AI is becoming unavoidable, especially due to AI-generated responses that are increasingly being integrated into search engines and online platforms. One respondent stated, “The fact it uses water to cool down the machines, not only that there is almost no way to avoid it as, if you search something up on google it automatically has the AI”²⁶. These concerns suggest that students are not only considering how AI affects learning outcomes, but also its broader social and environmental consequences.

Overall, the impacts AI has had on students in the current schooling generations (Gen Y, Gen Z, Gen Alpha) show that they have much faster access to information and academic assistance than previous generations. However, this access is creating concerns surrounding dependency, reduced critical thinking, creativity and genuine engagement with learning. Research itself suggests that AI is not inherently harmful, but the way students decide to use it can determine whether it becomes problematic or a valuable learning tool.

²⁶ Primary Research: Questionnaire Q9

CHAPTER 2: Loss of critical thinking skills

Thinking or Depending

Before the introduction of AI, smartphones and widespread technology, students approached learning very differently. For Baby Boomers (born 1946-1964), Generation X (born 1965-1979), and much of Generation Y (born 1980-1994), school and education relied heavily on physical resources, independent research and face to face learning. Unlike Generation Z (born 1995-2009) and Generation Alpha (born 2010-2024), who are growing up with instant access to information, older generations often spent a significant amount of time finding information and developing skills of synthesis.

Primary research through Questionnaires showed that many participants believed students in previous generations developed important skills due to information not being not as easily available. Respondents often referred to skills such as critical thinking, patience, memory retention, research abilities and independent problem solving. One participant stated that students in the past had to develop "research skills and objective thinking,"²⁷ while another explained that they needed "the ability to frame a question and research the answers from scratch"²⁸. These responses suggest that learning involved more than finding an answer as students were required to actively engage with information to construct their own understanding of the topic.

For Baby Boomers and Generation X in particular, libraries played a major role in education. Before the internet, research tasks required students to go to libraries, locate books and journals and spend time reading through large amounts of information. Many questionnaire participants connected to this experience, explaining that answers were not available "at the click of a button" and that research required both time and patience²⁹. One participant explained that they often spent hours searching through resources in libraries with missing information to learn "Hours spent trawling a library, finding books stolen or hidden or lost was an absolute pain in the neck"³⁰.

The process meant that students were exposed to a wide range of information before reaching their conclusion. Unlike modern internet tools, like AI, that provide summaries and direct responses, students in older generations had to read, compare and evaluate information for themselves. This would create stronger research habits and a deeper engagement with content. Several respondents believed that because information was harder to access, they developed stronger analytical skills and would

²⁷Primary Research: Questionnaire Q13

²⁸ Primary Research: Questionnaire Q13

²⁹ Primary Research: Questionnaire Q13

³⁰ Primary Research: Questionnaire Q13

question what they were learning³¹. It has become more obvious in the classrooms who is doing the work and who isn't.

Secondary research supports the finding of primary research. According to Chen J in 'The Evolution of Education', education in the past was largely based around limited access to information, meaning the students had to actively seek knowledge rather than having it delivered instantly³². Similarly, Mergler explains that traditional classrooms relied heavily on textbooks, note-taking and direct instruction from teachers, causing students to hold more responsibility while managing their own learning³³.

Another significant difference between older generations and students today is the amount of effort required throughout the learning process. Many questionnaire respondents argued that previous generations had to work harder to complete their tasks as they did not have technology to simplify research or organise information. One participant stated that students had to put more effort into their work as they often wrote assignments by hand and did not have the ability to instantly edit or correct mistakes³⁴. Handwriting, spelling and grammar were also identified as important skills that were heavily emphasised in schools before computers could automatically correct mistakes³⁵. Perfection was also identified as an important skill that was heavily emphasised in schools before computers could automatically correct mistakes. Perfection was required, often meaning students had to write work out again and master the spelling of every word.

Several respondents suggested that the effort contributed positively to learning. They believed that spending longer periods researching, writing and revising work helped students retain information and develop a deeper understanding of content³⁶. This idea is supported by Ferraro, who argues that although technology has increased efficiency in education, it may reduce the amount of time students spend working through information for themselves³⁷.

Critical thinking emerged as one of the most frequently discussed skills throughout the primary research. Many respondents from the Baby Boomer Generation, Generation X and early Generation Y were required

³¹ Primary Research: Questionnaire Q13

³² Chen J, "The Evolution of Education: Past, Present and the Future | Cainz" (Cainz | Education, Network, Experience May 6, 2022) <<https://cainz.org/11210/>> accessed May 10, 2026

³³ Mergler J, "Schools Then and Now – 10 Ways Schools Have Changed" (www.familiesmagazine.com.au June 17, 2019) <<https://www.familiesmagazine.com.au/10-ways-schools-have-changed/>> accessed May 10, 2026

³⁴ Primary Research: Questionnaire Q13

³⁵ Primary Research: Questionnaire Q13

³⁶ Primary Research: Questionnaire Q13

³⁷ Ferraro W, "The Evolution of Education: From Apprenticeships to AI" (Medium June 12, 2025) <<https://medium.com/@wrferraro/the-evolution-of-education-from-apprenticeships-to-ai-6a3f56daace7>> accessed May 5, 2026

to think more independently because information was not readily available³⁸. Rather than asking AI for an answer students had to gather information from multiple sources and identify what was relevant to form their own conclusions. This required them to analyse information rather than simply consume it.

Interestingly, concerns about critical thinking also appear within discussions surrounding AI today. Research by Andrew Chow discussing an MIT study found that students who relied heavily on AI tools during writing tasks demonstrated lower levels of cognitive engagement than those who completed the work independently³⁹. Education writer Robert Pondiscio similarly argues that AI can create an ‘illusion of learning’ where students receive answers without fully engaging in the thinking process required to develop an understanding of the content⁴⁰. These concerns were reflected throughout the primary research with a current educator. The respondent suggested that AI makes it easier to avoid difficult parts of learning, reducing opportunities to solve problems independently⁴¹. Many participants associated the skill of patience as a skill acquired from past generations as students spent significant time searching for resources before instant internet access and AI-generated responses⁴². One Questionnaire respondent referred to this as developing ‘search perseverance’⁴³. Chen also explains that education in the past was shaped by limited access to information, requiring students to actively seek knowledge rather than having it instantly available⁴⁴.

Memory retention was also highlighted as a major difference between older and younger generations⁴⁵. Several questionnaire respondents explained that Baby Boomer, Gen X and early Gen Y students relied more heavily on memorisation because information was not always accessible⁴⁶. Participants frequently

³⁸ Primary Research: Questionnaire Q13

³⁹ Andrew R. Chow ChatGPT May Be Eroding Critical Thinking Skills, according to a New MIT Study <https://time.com/7295195/ai-chatgpt-google-learning-school/> Chow AR, ‘ChatGPT May Be Eroding Critical Thinking Skills, according to a New MIT Study’ (TIME 17 June 2025) <<https://time.com/7295195/ai-chatgpt-google-learning-school/>> accessed 6 November 2025

⁴⁰ Robert Pondiscio, The Illusion of Learning: The Danger of Artificial Intelligence to Education <https://thenext30years.substack.com/p/the-illusion-of-learning-the-danger> Pondiscio R, ‘The Illusion of Learning: The Danger of Artificial Intelligence to Education’ (Substack.com 30 October 2025) <<https://thenext30years.substack.com/p/the-illusion-of-learning-the-danger>> accessed 3 November 2025

⁴¹ Primary research Interview 1: Highschool Principal

⁴² Primary research Interview 1: Highschool Principal

⁴³ Primary research: Questionnaire Q13

⁴⁴ Chen J, “The Evolution of Education: Past, Present and the Future | Cainz” (Cainz | Education, Network, Experience May 6, 2022) <<https://cainz.org/11210/>> accessed May 10, 2026 Chen J, “The Evolution of Education: Past, Present and the Future | Cainz” (Cainz | Education, Network, Experience May 6, 2022) <<https://cainz.org/11210/>> accessed May 10, 2026

⁴⁵ Primary research: Questionnaire Q13

⁴⁶ Primary research: Questionnaire Q13

identified memory and recall as skills that are less emphasised due to technology⁴⁷. Mergler supported this, explaining that traditional classrooms placed a stronger focus on notetaking and memorisation⁴⁸.

Overall, the findings suggest that technology has changed the way students access information and the way their skills are developed through learning. Older generations would often develop research, memory and critical thinking through necessity, whereas students today are able to access information instantly. Differences such as these highlight how technology is reshaping learning and raise the important questions, like how schools are responding to AI in education.

⁴⁷ Primary research: Questionnaire Q13

⁴⁸ Mergler J, "Schools Then and Now – 10 Ways Schools Have Changed" (www.familiesmagazine.com.au June 17, 2019) <<https://www.familiesmagazine.com.au/10-ways-schools-have-changed/>> accessed May 10, 2026

CHAPTER 3: SCHOOLS & AI

Teaching or Cheating?

The introduction of AI into schools has significantly changed the way students and teachers approach learning. Unlike previous technological developments, such as calculators or the internet, AI can generate complete essays, solve complex questions and provide personalised explanations almost instantly and with very little effort from the student. Through primary research it was revealed that many students view AI as a valuable learning tool, yet worry that it makes it harder for teachers to assess genuine understanding of students⁴⁹. These concerns were also reflected in an interview with a high school principal, who said, “I think schools should be willing to use it. I think schools should be willing to teach it. I think as long as we realise that it's a tool, not the whole toolkit”⁵⁰. Similarly, Robert Pondiscio argues that teachers who rely on AI for marking risk “losing the ability to see through their students' eyes”⁵¹. He suggests that while AI can be a valuable tool in education, its impact ultimately depends on how teachers and students choose to use it.

The balance between opportunity and concern was evident throughout primary research where questionnaire respondents frequently described AI as a valuable tool that can give feedback when their teachers are unable to, “Because it helps me do better and can give quality feedback and reflections on my work instead of having to wait for teachers”⁵². Research from the University of Illinois argues that AI simultaneously increases accessibility and productivity while creating significant challenges surrounding academic integrity and authenticity⁵³. Likewise, CIS university suggests that AI has the capacity to personalise learning by adapting explanations to individual students in a short amount of time, causing them to turn to AI for feedback instead of their teachers⁵⁴. Both primary and secondary research demonstrate that AI is not inherently educational

⁴⁹ Primary Research: Questionnaire Q9

⁵⁰ Primary Research: Interview High school Principal

⁵¹ Robert Pondiscio, *The Illusion of Learning: The Danger of Artificial Intelligence to Education* <https://thenext30years.substack.com/p/the-illusion-of-learning-the-danger> Pondiscio R, ‘The Illusion of Learning: The Danger of Artificial Intelligence to Education’ (Substack.com 30 October 2025) <<https://thenext30years.substack.com/p/the-illusion-of-learning-the-danger>> accessed 3 November 2025

⁵² Primary research: Questionnaire Q10

⁵³ Office of Communications AI in Schools: Pros and Cons <https://education.illinois.edu/about/news-events/news/article/2024/10/24/ai-in-schools--pros-and-cons> ‘AI in Schools: Pros and Cons’ (College of Education 2023) <<https://education.illinois.edu/about/news-events/news/article/2024/10/24/ai-in-schools--pros-and-cons>> accessed 4 November 2025

University’ (C⁵⁴ The collage for international studies The Benefits of AI in Education <https://www.cis-spain.com/en/blog/the-benefits-of-ai-in-education/> rmontalvo, ‘The Benefits of AI in Education - CIS IS University

or dishonest, instead that the educational outcomes depend upon whether students are using AI to support their learning or to circumvent the learning process altogether.

Interviews with a Technology and AI specialist and a high school principal provided different perspectives on the role of schools and teachers in managing the use of AI. The Technology and AI specialist argues that schools are “still catching up” with AI and remain uncertain about how it should be embedded into curriculum, assessments and classroom practices⁵⁵. They explained that many teachers are still developing the confidence to identify AI-generated work and guide students towards responsible use, making AI adoption inconsistent between schools⁵⁶. The high school principal similarly acknowledged the challenges AI presents within education but argued that schools should avoid viewing it as either a threat or a replacement for teachers. Instead, he described AI as “another tool” that students must learn to use critically⁵⁷. These perspectives closely reflect Robert Pondiscio's argument that AI can create an “illusion of learning”, where students appear knowledgeable because AI produces convincing responses despite little intellectual effort from the learner⁵⁸. Rather than contradicting one another, both interviews and Pondiscio's research suggest that the greatest challenge facing schools is ensuring AI supports thinking rather than replacing it.

As AI continues to become embedded within education, schools and universities are also being forced to reconsider the way students are assessed. Traditional assessment tasks, particularly take-home essays and research assignments are becoming increasingly difficult to authenticate as AI can produce sophisticated responses in a matter of seconds. Both primary and secondary research suggest that this has shifted the focus of schools away from simply detecting AI use and towards redesigning assessment methods that better demonstrate genuine understanding. Questionnaire respondents frequently believed schools should provide clearer guidelines surrounding AI rather than banning it altogether⁵⁹. Many argued that responsible use is more realistic than attempting to

- EN3 October 2023) <<https://www.cis-spain.com/en/blog/the-benefits-of-ai-in-education/>> accessed 6 November 2025

⁵⁵ Primary research: Technology and AI specialist interview

⁵⁶ Primary Research: Technology and AI specialist interview

⁵⁷ Primary research: Highschool principal

⁵⁸ Robert Pondiscio, The Illusion of Learning: The Danger of Artificial Intelligence to Education <https://thenext30years.substack.com/p/the-illusion-of-learning-the-danger> Pondiscio R, ‘The Illusion of Learning: The Danger of Artificial Intelligence to Education’ (Substack.com 30 October 2025)

<<https://thenext30years.substack.com/p/the-illusion-of-learning-the-danger>> accessed 3 November 2025

⁵⁹ Primary research: Questionnaire

eliminate AI completely. This closely aligns with the perspective shared by the Technology and AI specialist, who argued that schools should move away from asking students, “Did you use AI?” and instead ask, “How did you use AI?”. She explained that transparency allows teachers to better understand a student’s learning process while encouraging ethical AI use rather than secrecy⁶⁰. Similarly, the University of Illinois argues that schools should establish clear policies that promote responsible AI use while maintaining academic integrity⁶¹. Together, these findings suggest that the future of assessment will rely less on preventing AI and more on ensuring students can demonstrate authentic understanding alongside its use.

Together, these findings suggest that the future of assessment will rely less on preventing AI and more on ensuring students can demonstrate authentic understanding alongside its use. This shift can already be seen in some educational institutions. For example, the University of New England (UNE) has developed its own AI tool, “Madgwick”, to help students with research, planning and other study tasks⁶². Rather than banning AI completely, initiatives like this suggest that some institutions are focusing on teaching students how to use AI responsibly and effectively.

The role of teachers has also changed significantly across generations. For Baby Boomers, Generation X and much of Generation Y, teachers were often the primary source of knowledge⁶³. Today, students can access educational websites, online tutorials and AI tools within seconds. According to the University of Illinois, AI is increasingly being used to personalise learning and provide immediate support for students⁶⁴. This means teachers are no longer the only source of information for students. Instead, they play an important role in helping students understand information, think critically and use AI responsibly. The high school principal interviewed

⁶⁰ Primary research: Technology and AI specialist Interview

⁶¹ Office of Communications AI in Schools: Pros and Cons <https://education.illinois.edu/about/news-events/news/article/2024/10/24/ai-in-schools--pros-and-cons> ‘AI in Schools: Pros and Cons’ (College of Education2023) <<https://education.illinois.edu/about/news-events/news/article/2024/10/24/ai-in-schools--pros-and-cons>> accessed 4 November 2025

⁶² University of New England, “UNE Leading with Access to Secure AI Workspace for All Students” (Une.edu.au2026) <<https://www.une.edu.au/about-une/news-and-events/news/2025/10/une-leading-with-access-to-secure-ai-workspace-for-all-students>> accessed August 2, 2026

⁶³ Primary research: Questionnaire Q13

⁶⁴ Office of Communications AI in Schools: Pros and Cons <https://education.illinois.edu/about/news-events/news/article/2024/10/24/ai-in-schools--pros-and-cons> ‘AI in Schools: Pros and Cons’ (College of Education2023) <<https://education.illinois.edu/about/news-events/news/article/2024/10/24/ai-in-schools--pros-and-cons>> accessed 4 November 2025

supported this view, arguing that although technology has transformed access to information, learning still requires knowledge, understanding and effort.

Rather than recommending that AI be removed from schools, both interviewees suggested that education itself must evolve alongside technological change. Both interviewees highlighted that assessment methods will need to evolve to reflect this new educational environment. The Technology and AI specialist argued that schools should increasingly assess students through discussions, presentations, collaborative projects and process-based learning, allowing teachers to observe students' reasoning rather than simply evaluating the final product⁶⁵. The high school principal expressed a similar view, explaining that education should continue to prioritise students' ability to apply knowledge, solve unfamiliar problems and justify their thinking rather than reproducing information that AI can easily generate⁶⁶. His perspective reflects Ferraro's discussion of educational evolution, which argues that schooling has continually adapted to technological changes throughout history⁶⁷. Rather than viewing AI as the end of authentic assessments, these findings suggest that it represents another stage in the continual evolution of teaching and learning, requiring schools to measure understanding in new and more meaningful ways.

Overall, findings from both primary and secondary research demonstrate that AI is fundamentally changing the way schools approach teaching, assessments and learning. Although concerns surrounding AI use in schools remained evident, it is suggested that banning AI is neither practical nor beneficial. Instead, schools are increasingly recognising the importance of teaching students how to use AI ethically while continuing to develop critical thinking and creativity. This reflects on Ferraro's view of schools adapting alongside technological changes⁶⁸, while Pondiscio argues that schools should use AI to support learning rather than replace genuine thinking⁶⁹. Ultimately,

⁶⁵ Primary Research: Technology and AI specialist Interview

⁶⁶ Primary Research: Highschool Principal Interview

⁶⁷ Ferraro W, "The Evolution of Education: From Apprenticeships to AI" (Medium June 12, 2025) <<https://medium.com/@wrferraro/the-evolution-of-education-from-apprenticeships-to-ai-6a3f56daace7>> accessed may 5, 2026

⁶⁸ Ferraro W, "The Evolution of Education: From Apprenticeships to AI" (Medium June 12, 2025) <<https://medium.com/@wrferraro/the-evolution-of-education-from-apprenticeships-to-ai-6a3f56daace7>> accessed may 5, 2026

⁶⁹ Robert Pondiscio, The Illusion of Learning: The Danger of Artificial Intelligence to Education <https://thenext30years.substack.com/p/the-illusion-of-learning-the-danger> Pondiscio R, 'The Illusion of Learning: The Danger of Artificial Intelligence to Education' (Substack.com 30 October 2025) <<https://thenext30years.substack.com/p/the-illusion-of-learning-the-danger>> accessed 3 November 2025

the debate is no longer simply whether AI represents teaching or cheating, but how schools can adapt to AI in education while ensuring students continue to engage meaningfully with learning.

Conclusion

This investigation into the generational impact of AI on student learning examines how the rise of AI has reshaped students' learning across generations and what these changes reveal about broader shifts in social values and knowledge systems. Drawing on primary and secondary research, it is clear that AI's impact on education cannot be reduced to a simple question of benefit versus harm. Instead, the findings reveal a pattern of continuity and change across generations. The core goals of education, critical thinking, understanding and independent reasoning, have remained largely unchanged, while the tools and knowledge systems used to achieve them have changed significantly across generations.

Chapter One outlined that AI is neither positive nor negative for students in the current generation. Gen Y, Gen Z and Gen Alpha are able to gain real benefits in accessibility and personalised support but are paired with concerns of dependency and academic integrity. Chapter Two extends this idea through a direct comparison of the generations, showing that Baby Boomers, Gen X and early Gen Y were able to develop skills like patience, research ability and memory retention through limited access to information and sole reliance on libraries, textbooks and teachers. Whereas late Gen Y, Gen Z and Gen Alpha face the opposite conditions through having an abundance of information accessible through the internet, risking reduced engagement with the learning process. This generational contrast highlights how each cohort's relationship with learning has been shaped by the technology available to them, rather than individual ability or effort alone. Chapter Three showed how schools are responding to this generational shift as they work to integrate AI without compromising assessments or the role of teachers across a widening generational gap between educators and students.

The findings suggest AI represents less a rupture in education and more a continuation of a long pattern of generational and technological change, echoing Ferraro's view that schooling has adapted alongside new tools. What distinguishes this shift is the rapid pace and scale at which AI use has grown. Pondiscio's concept of the 'illusion of learning' captures this precisely; AI can produce the appearance of learning and knowledge without the cognitive effort required to build it.

At a micro level, individual students are navigating the generational shift themselves, intuitively distinguishing between using AI to assist in education rather than using it to complete work without putting in any effort. At a macro level, institutions are still learning how to build guidelines and train teachers on AI literacy and support responsible use.

Ultimately, this PIP concludes that AI's generational impact is not a decline in learning but an adaptation. Just as Baby Boomers, Gen X, and Gen Y developed distinct skills in response to their own technological advances, Gen Z and Gen Alpha are being shaped by a learning environment defined by speed, accessibility and constant connectivity. This investigation has shown that the real challenge across every generation is ensuring that the new environment continues to demand genuine thinking, rather than making it easier to avoid the effort required for learning.

Annotated References

Primary references

1. Questionnaire (Qualitative and Quantitative), published 5th of January 2025

This questionnaire was the foundation of my primary research and is what shaped the direction of all three chapters. It was distributed online to multiple generations, including Gen Z (1995-2009), Gen Alpha (2010-2024), Baby Boomers (1946-1964), Gen X (1965-1979) and Gen Y (1980-1994), ultimately gathering 104 responses to the initial demographic questions, before it branched into two separate question sets. 60 respondents who confirmed they had used AI and digital technology during their own education (predominantly Gen Z and Gen Alpha with some late Gen Y) answered a section on current AI use in learning, while 44 respondents completed their education before AI became widely available (Largely Baby Boomers, Gen X and early Gen Y) answered a separate section on how they learned in the past. This branching structure was deliberate, allowing me to directly compare the lived experience of AI-native students against the study habits and skills earlier generations developed without it, which speaks directly to my PIP's focus on generational continuity and change.

As a self-conducted survey rather than a published academic study, the source cannot be evaluated using the same institutional credibility markers as my secondary sources, instead it must be evaluated based on sample size, question design and respondent honesty. This questionnaire combined quantitative multiple-choice questions to produce clear data, with open response questions to generate qualitative to gain direct quotes that were used throughout Chapters One and Two. Because the survey was shared largely throughout my own school and social networks the samples are a somewhat skewed towards younger respondents and people willing to engage with a survey about AI, Whereas the survey was shared through my parents and grandparents' social networks the 'past education' responses came from a smaller and less representative pool of older respondents. Anonymity likely encouraged more candid answers, particularly regarding guilt or overreliance but there is no way of verifying respondents' statements which was a limitation that was acknowledged while using this data.

This source is the foundation of my PIP's micro level analysis, providing direct student and cross-generational voices that secondary journalism and websites could not offer. It confirmed patterns found in early secondary research while also surfacing more personal, specific concerns, including environmental impact and the emotional language of "guilt" and "addiction" to the ease of learning that AI provides that pushed me to look more closely at the ethical dimensions of AI use in Chapter One and prompted the interview with a Technology and AI specialist and a high school principal to better understand the institutional response to these concerns.

2. High school Principal Interview, conducted on the 29th of April 2026:

This interview was conducted to gain a meso level institutional perspective to balance the individual student voices collected through the questionnaire. The principal interviewed is a serving high school principal with a background as a history teacher, giving him both a leadership view of how AI is affecting schoolwide policy, assessment design and staff practices, and a subject specific view of how it plays out in the classroom. As a semi-structured interview conducted face to face and later transcribed, the source offers a first-hand context specific insight rather than data drawn from a wider population, and his answers are necessarily shaped by the experience of one school rather than the sector as a whole.

The interview's main value lies in its institutional depth. The principal repeatedly framed AI as a tool rather than a replacement for learning, drawing an extended comparison to the introduction of cars, calculators and the internet to argue that AI represents a continuation of technological change rather than a rupture, a framing that closely supports the evolution of education argument found in secondary research. He also gave concrete detail on how schools have adapted assessments, describing a shift towards in class, supervised and time controlled tasks to preserve the ability to observe genuine student understanding, which gave practical, real-world evidence for Chapter Three that secondary sources, in a more general scope, could not provide. His distinction between AI "augmenting" versus "replacing" work. He offered a historical framing that I had not encountered elsewhere, situating AI within a much longer timeline of human knowledge systems by noting that formal written education itself is only around 5,500 years old, reinforcing my PIP's broader argument about continuity and change across generations.

As with any single interview, the source carries the bias of one professional's position and experience, the principal's answers are consistently measured and tool-focused, and as the school leader he may be inclined to present his school's response to AI in a considered, competent light rather than reveal deeper institutional uncertainty. This is a limitation I have kept in mind, which is part of why I conducted a second, independent expert interview. Overall, this interview was essential in developing Chapter Three, providing the institutional counterpart to the student experiences gathered in my questionnaire and directly informing my argument that schools are adapting to AI rather than being replaced by it.

3. Technology and AI specialist Interview, conducted on the 18th of May 2026:

This interview was arranged to provide a professional, industry informed perspective on AI to complement the institutional (school-based) view given by the high school principal and the personal accounts collected through my questionnaire. The interviewee's professional role as the general manager of technology performance and governance sits at the intersection of technology oversight and organisational accountability, giving her a governance-focused lens that neither of my other primary sources could offer. Her interview addressed not only education but also AI's

economic, ethical and regulatory implications, which helped me connect my PIP's classroom-level findings to wider society and culture concepts such as knowledge systems and social values. The interview was conducted via video call and transcribed afterwards, giving an accurate, direct record of responses rather than a summarised account.

Answers were consistently balanced but cautious, acknowledging clear benefits of AI, particularly in healthcare and accessibility, while warning that its current use in education is immature and, in her words "biased towards the negative" at this stage of adoption. Her framing of AI as "an amplifier of the good things, but also the bad and the poor learning behaviours" captured a theme running through both my questionnaire responses and my secondary research, that AI's impact depends less on the technology itself and more on how individuals choose to use it. Given her background, her emphasis on regulation was particularly authoritative, she argues that society has a responsibility to regulate AI, stating that it's essential to minimise harm to individuals. Her perspective is grounded by her professional opinion alone. She also raised concerns not present in any of my other sources, including the risk of AI models being trained predominantly on western data and producing culturally biased or poorly contextualised results, illustrated through her examples of students struggling with a supermarket-based math problem but understanding the same concept when reframed around fishing. This gave me a new angle for discussing knowledge systems and cultural bias that neither my questionnaire nor my secondary sources.

Her observations around schools, inequality and job displacement are drawn from professional experiences and general industry awareness rather than cited research or education-sector data specifically, meaning they carry less weight than my journal article sources and needed to be read alongside secondary evidence rather than taken as a standalone fact. There is also a risk of confirmation bias in how I have used this source as many of her points aligned closely with arguments I had already encountered in secondary research.

This interview substantially shaped Chapter Three, particularly the discussion of assessment redesign and ethical use of AI, her recommendation to shift assessment focus from "did you use AI" to "How did you use AI" directly paralleled the principals own framing and allowed me to draw a stronger argument between school-level and expert-level thinking on the issue. It also strengthened the ethical and regulatory dimension of my PIP, an angle my other primary sources touched on only briefly and confirmed my decision to treat AI's impact on education as a matter of implementation and responsible governance rather than the technology being harmful or beneficial.

Secondary

Journal Articles

1. Bissoondath A, '**Generative AI in Education**' (*Internet Matters* 26 February 2024) <https://www.internetmatters.org/hub/research/generative-ai-in-education-report/>

This report was useful for grounding my research in the perspectives of children and parents themselves, rather than only commentators or journalists. Internet matters is not Australian but instead a UK-based not for profit organisation which allows for a western perspective on these matters as we share the same values, it was founded in 2014 by major internet service providers, including BT, Sky, TalkTalk and Virgin Media, To support parents, carers and professionals with online safety: It sits on bodies such as the UK Council for Internet Safety and works alongside organisations like the NSPCC and Ofcom, which gives it strong institutional credibility, although specific biographical detail on Bissoondath as an individual author is not published. The report examines how children and parents are using and reacting to Generative AI in education, presenting survey-based, quantitative findings rather than opinion, including data on how positively or negatively students feel about AI both generally and in relation to their education. Its intended audience is parents, carers, educators and policy makers seeking evidence-based guidance rather than an academic readership. As a well-resourced, research-based organisation with no obvious commercial stake in AI itself, the source is reliable, it has a bias by focusing on online safety means it may frame AI primarily through a risk lens rather than a purely educational one. Its main strength is its inclusion of survey data and graphs, such as a chart showing how students feel about AI in general versus in their education, which gives me quantitative evidence to support my written analysis. This source related directly to my PIP by providing real, data backed insight into how the current generation of students (Gen Z and Gen Alpha) feel about AI.

2. Chow AR, '**ChatGPT May Be Eroding Critical Thinking Skills, according to a New MIT Study**' (*TIME* 17 June 2025) <https://time.com/7295195/ai-chatgpt-google-learning-school/> accessed 6 November 2025

Chow's article has been one of the most reliable sources in my research, largely because of both the author's standing and his method of reporting. Chow is a technology correspondent for TIME who covers AI, crypto and tech regulation, had written several Time cover stories, and previously reported for the New York Times, Pitchfork and NBC News, giving him established credentials in technology journalism. Rather than offering his own opinion, the article reports on academic studies, most notably MIT research, finding that people who use AI show less brain engagement than those who do not, alongside a separate study describing AI-assisted essays as unoriginal and near-identical. This journalistic method, built on direct quotations from the

researchers who conducted the studies and links to further reading beneath each section, makes the article far more evidence-based than most of the other sources that have been used, as its intended audience appears to be general readers seeking an accessible summary of recent AI research rather than academics. Its main weakness is a degree of overgeneralisation, referring broadly to ‘ChatGPT users’ when the underlying study specifically tested American SAT essay writing, which itself was a limitation of the original experiments rather than Chow’s reporting. This source relates strongly to the PIP’s focus on AI’s cognitive effects on the current generation of students and was the first article to give experimental, rather than opinion-based, evidence of AI’s negative effects, prompting me to the next search for sources exploring AI’s positives.

3. Ferraro W, *“The Evolution of Education: From Apprenticeships to AI”* (Medium June 12, 2025) <https://medium.com/@wrferraro/the-evolution-of-education-from-apprenticeships-to-ai-6a3f56daace7> accessed June 19, 2026

This article broadened my understanding of AI’s place within the longer history of education. It is self-published on medium, meaning it has not been through a traditional editorial or peer review, and no professional background or credentials for the author W. Ferraro, are given in the piece itself, so its authority rests on the strengths of its argument and historical examples rather than on established expertise. This article traces education’s progression from apprentices to modern AI-assisted learning, arguing that technology has continually reshaped education and suggesting that AI represents another step in that evolution rather than reporting new research, and appears aimed at a general audience interested in the history and future of education rather than specialists. Because of its medium publication and lack of stated credentials it is less academically reliable than my university or institutional sources, and it does contain some personal opinion, but it remains useful for gaining perspective and encouraging critical thinking about AI’s significance. This source connects to my PIP by framing AI as part of a continuum of educational change and it’s prompted an investigation into whether today’s AI driven changes are genuinely more significant than other technological shifts in schooling.

4. Jess Tredgold, *“From Traditional to Tech-Driven: The Evolution of Education”* (Gordon Tredgold February 14, 2024) <https://gordontredgold.com/from-traditional-to-tech-driven-the-evolution-of-education/> accessed June 19, 2026,

This article was useful as an additional, more general perspective on education’s shift towards technology. It is published on the website of Gordon Tredgold, a leadership consultant, author and keynote speaker known for his corporate leadership training and his fast framework, however this specific piece is credited to Jess Tredgold, a general staff contributor to the site who writes across a range of business and lifestyle topics rather than a named education specialist. The article carries less specialist authority than sources written by education

researchers or journalists. The article discusses education's move from traditional, teacher-centred methods towards technology-driven approaches, situating this shift within a broader narrative of workplace and societal change, and appears to be aimed at a general business-related readership rather than educators or academics. As the site's core focus is corporate leadership rather than education, and no studies are cited within the piece. It should be treated as general commentary rather than a rigorously researched source, and I have weighted it accordingly. It is still useful for my PIP as a further example how the shift towards tech-driven learning is being discussed outside of specialist education circles, and it reinforces the comparisons I was already drawing between historical and AI driven educational change from my other sources on this theme.

5. *Pondiscio R, 'The Illusion of Learning: The Danger of Artificial Intelligence to Education' (Substack.com 30 October 2025) <<https://thenext30years.substack.com/p/the-illusion-of-learning-the-danger>> accessed 3 November 2025*

Pondiscio's article "The illusion of learning: The danger of artificial intelligence to education" was useful in the early development of the PIP. Pondiscio is a senior fellow in education at the American Enterprise Institute and a former senior fellow at the Thomas B. Fordham Institute, both American education-policy "think tanks", before he moved into education policy he spent twenty years in journalism and then taught fifth grade at a public school, giving his commentary both an analytical and classroom informed perspective. This article argues that AI, while capable of saving time and clarifying tasks for teachers and students, poses a danger to the relationship between the teachers and students and the ability to learn and apply knowledge when it is misused. As an opinion style piece rather than an empirical study it does not follow a formal research method, instead drawing on Pondiscio's professional experience and observation of AI's growing use in classrooms. Its intended audience appears to be educators' parents and readers already engaged with education policy debates, which fits with my own use of it as background reading rather than raw data. Although reliable given the authors professional standing, the article carries an underlying bias towards AI being more damaging than helpful, even while trying to acknowledge its positives, which I have kept in mind while weighing its conclusions. This relates directly to a central theme of my PIP, the impact of AI on the connection between students, teachers and independent learning, and it was this article that first prompted me towards researching how AI affects critical thinking and the student-teacher relationship. It also shaped my later research plan, leading me to seek out sources focus specifically on the positive use of AI in teacher to balance this initial, more negative perspective.

6. *'The Hidden Dangers of AI Tools in Your Child's Education' (Psychology Today 2025) <<https://www.psychologytoday.com/au/blog/parenting-beyond-power/202508/the-hidden-dangers-of-ai-tools-in-your-childs-education#:~:text=Research%20reveals%20how%20AI%20may%20weaken%20creativit>>*

y%20and%20learning.&text=Students%20can%20create%20AI%2Dgenerated,on%20digital%20resources%2C%20not%20merit.> accessed 5 November 2025

Lumanlan's article was useful for understanding how AI's effects on children's critical thinking are being communicated to a parenting audience. Lumanlan holds a master's degree in psychology, Child development, and in Education, she is a trained Co-Active coach and hosts the research-based podcast Your Parenting Mojo, where she reviews and critiques academic literature on parenting and child development. While she is not an academic researcher herself, her background gives her a research-literate rather than purely anecdotal voice. The article argues that AI can stunt children's critical thinking and creativity, stating that the purpose of education is to develop 'thoughtful, creative, empathetic human beings who can think for themselves, and warning that letting AI take over risks producing children who are competent with technology but unable to think independently. Rather than reporting a study of her own, Lumanlan draws on and interprets existing research to make her case to an audience of parents, and she states her intentions is to inform rather than alarm. This source is noticeably biased towards the view that AI is harmful with little discussion of how it might be used well, which has been considered for when using this information. Its usefulness lies less in balanced analysis and more in representing how AI's risks are framed for an older-generation, parent-focused audience which connects to my PIP's interest in comparing attitudes towards AI across generations and helped in finalising the wording of my research question.

Websites

7. **'AI in Schools: Pros and Cons'** (College of Education2023)
<<https://education.illinois.edu/about/news-events/news/article/2024/10/24/ai-in-schools-pros-and-cons>> accessed 4 November 2025

This website, published through the Office of Communications at the University of Illinois College of Education was useful for building a broad and balanced foundation for my research. No individual authors are credited, so there is little insight for a personal background or bias, but the institutional backing of a large public research university with an established education faculty lends the piece credibility. Even though the absence of a named author limits how expertise can be verified. The article works through the advantages and disadvantages of AI in schools point by point, giving reasoned detail for why each factor is a benefit or a drawback, rather than presenting original research or data of its own, it functions mainly as an information overview intended for a general readership of teachers, parents or students who are researching AI in education, rather than an academic or specialist audience. Because it covers each point without any obvious bias towards either pros or cons of AI, it is a reliable and unbiased source I can use to support both my questionnaire for primary research and PIP writing. Its main

weakness is that many of its points are not backed up by any data or classroom studies meaning it is stronger as a starting overview than as detailed evidence. This source relates to my PIP by providing an unbiased anchor for the way AI affects current and future generations of students, connecting directly to my central question and it directed my next stage of research towards discussing AI's effects on schooling more in depth.

8. AIPRM, *“Aiprm”* (Aiprm.com July 11, 2024) <<https://www.aiprm.com/en-au/ai-in-education-statistics/>> accessed May 13, 2026

This page was useful for quickly gathering a range of statistics on AI adoption in education to support my written arguments with numbers. AIPRM is a commercial AI prompt-management company that sells a curated library of ChatGPT prompts to marketers, CEO professionals and businesses, it is not an education research organisation, and this page functions as a statistics roundup rather than an original study. The page compiles various statistics on how AI is being adopted and used in education, drawing together figures likely sourced from other reports rather than presenting AIPRM's own primary research, and appears to be aimed at readers, including businesses, educators and students, searching for a quick statistical overview of AI in education. Because AIPRM is a commercial AI tools company with a business interest in promoting AI adoptions, its statistics should be treated as secondary research rather than an independent unbiased source. Its main strength is concise, gathering many relevant statistics in one place but this is also its main weakness, since the reliability of any individual figure depends entirely on the original source it was drawn from. This source relates to my PIP by providing a quick-reference statistic I can use to support my broader claims of AI adoption in education.

9. Huls A, *“The Evolution of Technology in K–12 Classrooms: 1659 To Today”* (Technology Solutions That Drive Education 2022) <<https://edtechmagazine.com/k12/article/2022/01/evolution-technology-k-12-classrooms-1659-today-perfcon>> accessed June 19, 2026

This article gave me the longest historical timeline of every other source found this was very helpful for situating AI within the full history of classroom technology. It is published by EdTech Magazine, a business-to-business publication produced by CDW LLC that reports on K-12 and higher education technology trends for school IT leaders and educators. The piece traces the evolution of technology from 1659 through to today, situating recent developments such as AI within a much longer history of educational tools and innovations. It reads as a historically framed overview rather than a data study, and its intended audience shows to be school IT leaders, educators and other professionals interested in educational technology trends rather than an academic readership. As a trade publication with an editorial history, it is reasonably reliable although as an industry facing outlet there is a slight bias towards presenting new classroom

technology positively, This source is able to relate to the PIP by extending the historical perspectives I had already begun building with the other ‘evolution of education’ sources. It reinforces the idea that AI is latest development in a long pattern of technological change in schools.

10. *rmontalvo, ‘The Benefits of AI in Education - CIS University’ (CIS University - EN3 October 2023) <<https://www.cis-spain.com/en/blog/the-benefits-of-ai-in-education/>> accessed 6 November 2025*

This article was rather short but was very useful as a counterbalance to the more negative sources that had been gathered. It was published by CIS University (the College for International Studies) a private American style university in Madrid authorised by the Community of Madrid and academically partnered with Endicott College in Massachusetts, which lends the site institutional credibility, however the post itself is attributed only to the username ‘rmontalvo’ with no individual credentials given, which limits how much can be said about the specific authors’ background. The article briefly outlines the advantages and disadvantages of AI before focusing on ‘how to use AI in education wisely’ which teaches readers to use AI correctly when learning. It reads as an advisory belong post rather than a research piece, with no primary data or cited studies, and appears aimed at students and educators seeking practical guidance rather than an academic audience. It is a credible, largely unbiased source, though it does not offer much new information beyond the pros and cons format that I already had. The source relates to my PIP by providing a positive perspective after several more critical articles.

11. *University of New England, “UNE Leading with Access to Secure AI Workspace for All Students” (Une.edu.au2026) <<https://www.une.edu.au/about-une/news-and-events/news/2025/10/une-leading-with-access-to-secure-ai-workspace-for-all-students>> accessed August 2, 2026*

This press release was useful for showing how universities are responding to AI at an institutional level rather than just in individual classrooms. As an official UNE publication, it's reliable for basic facts like the partnership timeline and platform features, but it is promotional, with quotes only from UNE and Simtheory staff and no student or independent perspective included. The article announces UNE's partnership with startup Simtheory to give students free access to a secure AI workspace called "Madgwick", allowing access to multiple AI models while still upholding academic integrity policies. Its strength is providing a real, current, Australian example of a university embracing rather than banning AI, which I used to show that institutions are shifting focus towards teaching responsible AI use rather than prevention.

Podcasts

12. Roose K and others, *“Is A.I. Eating the Labor Market? + The Latest on the Pentagon, OpenClaw and Alpha School”* (nytimesFebruary 27, 2026)
<https://www.nytimes.com/2026/02/27/podcasts/is-ai-eating-the-labor-market-the-latest-on-the-pentagon-openclaw-and-alpha-school.html?searchResultPosition=1> accessed June 7, 2026

This episode centres on an interview with economist Anton Korinek (University of Virginia, Anthropic Economic Advisory Council) about AI’s impact on labour markets. Korinek argues that hard economic data on AI driven job displacement remains sparse and contested, largely because there is still a wide gap between frontier AI capabilities and actual workplace adoption. He discusses the “Ghost GDP” concept, the idea that AI driven output may not translate into worker income or even show up cleanly in GDP figures. He tells his own graduate students he can’t guarantee there will be jobs for economists by the time they graduate. This podcasts relies heavily on the thought of AI taking jobs away from people and is biased towards AI being overall negative. This podcast was good to listen to for background information but wasn’t used as it didn’t directly relate to my PIP.

13. *“Teaching in the AI World”* (Apple PodcastsMay 26, 2026)
<https://podcasts.apple.com/us/podcast/teaching-in-the-ai-world/id802996636?i=1000769700118> accessed June 7, 2026

Positives A podcast hosted by Shona McCallum. This episode centres on an interview with Ben Gomes, Chief Technologist for Learning and Sustainability at Google, about AI’s role in classroom teaching. Gomes argues that human connection remains fundamental to learning motivation and frames AI as a complement to teachers rather than a replacement. He points to Google’s “guided learning” tool as evidence. A study in Northern Ireland found it saved teachers an average of 10 hours a week while a 12-week study in Sierra Leone showed students improved on maths scores by 0.3 standard deviation, roughly equivalent to 1.7-2.5 years of additional schooling. This podcast episode was biased towards AI being an overall positive learning tool as Gomes proceeds to argue that the tool frees teachers from lectures, so they can spend more time on individual students. This helped me deepen my understanding and keep in mind as background knowledge when writing my PIP.

