

Using AI And Research Methods To Prepare The Next Generation

Martin Rich and Amit Rawal

Bayes Business School, City St Georges, University of London, UK

M.G.Rich@citystgeorges.ac.uk

Amit.Rawal@citystgeorges.ac.uk

Abstract: Generative Artificial Intelligence has had a profound and continuing impact on both research and on higher education in recent years. There are a number of issues arising from this which are particularly relevant to teaching research methods at undergraduate level. Generative AI has considerable potential to facilitate research, notably in reviewing literature, and as such its use should arguably be part of the syllabus for students on a taught degree course. However much of the dialogue, so far, about generative AI in the context of university teaching, particularly at the undergraduate level, has focused on concerns that its use by students weakens established forms of assessment and could inhibit learning through being used as a short cut to obtaining a degree. To complicate the picture further, undergraduates are preparing to enter an uncertain environment for employment, with a concern that generative AI will directly affect many graduate-level jobs and that during their careers it will change the landscape within which they work in ways that cannot possibly be predicted. This paper builds on earlier conceptual work presented at ECRM in 2025 and uses data gathered in a focus group of recent Business Management graduates who took a research methods in their final year. It uses their experience to identify pointers for how use of generative AI can be incorporated into the teaching of research methods and how this can prepare a forthcoming generation of students for the workplace. The recent graduates participated in a focus group in which they reported varying experiences of use of AI whilst they were studying and following university. There were considerable differences between individuals in their propensity to engage with AI and in the resources that they used to support this engagement. However, a common theme highlighted by participants was the scope for universities to provide more thorough guidance about the practicalities of students' use of AI.

Keywords: AI, Students, Research

1. Introduction

The extent of students using AI for learning and assessments within Higher Education has grown immensely in the last few years (Sabsalieva and Valentini, 2023). Recent literature on generative AI and its connection to work by Mollick (2024) and others has shown the prevalence of growth and opportunities for AI and also highlighted the extent to which it fundamentally changes some of the knowledge and skills that students need to learn. This literature includes a string of works that have examined Chat GPT usage, perceptions of AI tools and the impact they have on performance (Abbas et al, 2024; Blahopoulou and Ortiz-Bonnin, 2025, Wang and Fan, 2025). Other work, such as Mumtaz et al., (2025) has highlighted that cultural values can shape how students across the globe interact with AI tools.

In the Higher Education context AI is highly relevant to both teaching and research and there is an emerging understanding of how it can contribute to each of these areas of a university's activity (Sabsalieva and Valentini, 2023). The two overlap in the teaching of research methods, which creates some interesting challenges for both students and educators. For teaching there is additionally a demand for graduates who could be considered career-ready in a fast-changing environment where AI is increasingly part of the landscape in which employers operate.

This paper takes contemporary literature about AI in university teaching as a base and uses the experience of a number of recent graduates in a focus group to examine student perceptions and what this means in practice.

2. Literature Review

The literature review is comprised of two key domains that focus the implications of AI usage within Business schools and the risks associated with these implications.

2.1 Domain 1: Impact of AI on Business Schools

2.1.1 Part i:

Pisica et al (2025) researched employers' views on what they expected from graduates and determined a need for business schools in particular to integrate AI into their teaching. They distinguish the need for graduates to understand AI in itself and to be aware of its potential applications. Biagini (2025) contributes a systematic

literature review, tracing AI back to its origins in the twentieth century while at the same time noting its current pervasiveness with the consequent imperative to develop AI literacy. This analysis supports the need for educators at every level, including those in business schools, to integrate AI into their activities.

Chatfield (2025), whose work on critical thinking underpins a significant element of the first year curriculum for Business Management students at the authors' institution, takes existing understanding of what works in education as a starting point and stresses that AI should not 'hollow out' the skills that humans need to navigate it. He analyses student learning in terms of three dimensions – cognitive, instructional, and social – and examines the impact of each of these. The strand linking these is that students need more than merely content delivery, and he highlights the importance of preparing them to adapt to changes.

2.1.2 Part ii:

Recent literature published in 2024 and 2025 covers the evolution of pedagogic techniques in the light of developments in AI. This includes work such as case studies like that by Blommerde et al (2024) who have offered innovative approaches to teaching research methods as an example of integrating generative AI closely into design of a module. They included tasks such as creating a literature review using AI within the module and therefore provided the students with practice in prompt engineering in particular, taking as a starting point that active use of AI as part of students' learning was more constructive and valuable than the situation that existed earlier when students tended to conceal their use of AI. In doing this they establish a clear link between AI and teaching and learning research methods. This recognises avenues of growth of AI with benefits for students and the potential of AI to contribute to analysis and coding of data.

2.2 Domain 2: Opportunities and Risks of AI in Higher Education

Specific studies identify particular issues and concerns about the use of AI. Notably widespread use of generative AI can increase students' moral disengagement and more likelihood of academic misconduct (Theoharakis, 2025), unless there is institutional support, leading to the argument that this is critical issue within HE that requires intervention. Suchanek (2025) highlights how AI usage in the form of chat GPT and other generative AI tools can be valuable tool within course satisfaction. Paradoxically, this can lead to wider concerns around learning dependency – such work requires further exploration

2.3 Interpretation

There remain contradictions among views of the value of AI: notably de fine Licht (2024) expresses scepticism about its value and makes the case for banning student use in some circumstances. By comparison Newell et al (2024) see AI as a disruptor to higher education and maintain that institutions are still at an early stage in the process of adapting to innovation. Arguably recent literature unpacks a nuance between the two camps of thoughts through identifying with more clarity the potential for AI to bring tangible benefits.

Csaszar et al (2025) position AI as a potential driver for what they term a third epoch of management education. By way of caution, they note that some innovations have generated a lot of interest but not typically resulted in major change. At the same time they set out to synthesise their analysis of the impact of AI on business schools by examining how educators can influence this. In respect to teaching, they highlight the need to teach what they term the higher-order skills most relevant to a world which includes AI.

2.4 Overall and Reasoning to Explore Topic:

Taken as a whole, there is a clear need for universities, and business schools to pay particular attention on how they embed AI practices to enhance student experiences and overall employability. Moreover, examining how to support students on research methods with the use of AI is vital given that it is a key module taught across several UK degree programs. To support practitioners in this domain, deep, exploratory work on connecting AI in teaching research methods to prepare students for employment would be useful. This stream of work has been overlooked and given the value of research methods modules across disciplines this would be beneficial.

3. Methods

This study adopts a qualitative lens to examine the experiences of business and management recent alumni (graduated in summer 2025) use of AI in their careers. All participants undertook a research methods module in their final year of their course. A focus group was run with five students to gather rich and diverse data on the

topic (Carey and Asbury, 2016). Given the emerging nature of the topic of AI usage within Higher Education, which calls for deep exploration, it was imperative to collect data from suitable participants (Carey and Asbury, 2016). This required careful sampling, and consequently one focus group with five appropriately selected participants was considered sufficient to provide the detailed insights into the research topic. As the sample consisted of those who commenced their post undergraduate roles recently, the students could aptly recall their recent year of study alongside their postgraduate career. Moreover, the use of one focus group is similar to other studies in the field and is deemed as a fitting research method (Huo and Siau, 2023, Takács, Tolner, and Pogátsnik, 2023; Angelis, 2025). To ensure reliability and minimise the possibility of errors and biases for researchers and participants, the two authors collaborated to determine a set of questions before the focus group, which took place in a room at the business school booked for the purpose. The research had ethics approval from the university and participation information sheets and consent forms were used in line with the university's policy.

Following the data collection, a thematic analysis was used to analysis the data and map out key themes in line with Braun and Clarke (2013) thematic analysis approach. In line with the Braun and Clarke (2013) methodology, the focus group transcript was first read several times over, before iteratively coding relevant phrases. Subsequently, the initial codes were grouped into appropriate sub-themes. The sub-themes were then reviewed, grouped into overall themes and all themes were then named. Where direct quotes from the focus group are included, the students are identified by pseudonyms to protect their identity.

4. Findings

Across the focus group the participants discussed the range of perceptions of AI, how it shaped their academic journeys, including to how it influenced their research methods module.

4.1 Theme 1: General Perception of AI

A common theme that emerged from the focus group centred around how the students *generally perceived AI tools*. Comments were made about how some viewed it with caution. For instance, Jay claimed the following about AI tools:

“but you have to take it with a pinch of salt to say the least, you know, the accuracy that I think it can, you know, sort the miss accuracy and some of the errors” [Jay]

Similarly, others recognised the benefits but also the dangers of it:

“don't let artificial intelligence completely substitute and replace the skills that you have as a human. Of course, use it for efficiency reasons to help with brainstorming ideas... I'm really scared that AI will replace so many jobs, humans, humanistic skills” [Andra]

The above sentiments showcase the nature of the dangerous nature of AI usage and how students see the potential risks associated with such tools. This comprises from issues with inaccuracies to other wider consequences. Other participants, such as Alex on the other hand spoke about the value of AI:

“when I didn't have a lot of time to read everything from, let's say, a certain article, I could always generate an AI podcast. I could always generate an AI video. That would go over it. And I can get the general gist of the article...also with ChatGPT, there is the option to create custom GPTs” [Alex]

Alex's response depicts how some participants view AI tools as a useful resource to support their academic work. He also goes further about how the level of *effort required for desired outcomes from AI tools in work and studies*. He highlighted how he has used AI in a manner that is more sophisticated.

“if you place the framework into charge with you when you start the chat...How can you prompt it so you can give me the best output? It sounds like a black magic but it works. It actually tells you how to efficiently prompt it and once you put that in the chat it actually gives you a perfect answer” [Alex]

The reference “black magic” indicates how powerful the tools can be. Emma shared similar sentiments to Alex and delved into the *level of effort required for desired outcomes*. For example, she stated:

“ We've actually done something similar to this at work and it only took about four hours like me and someone else working on it, and we're not experts. And it was our first time doing it.” [Emma]

Evidently, from these participants' responses they can perceive that the AI tools to generate useful findings. There are differences to the approaches and Angela like the other shared comparable responses:

"I do use AI, but it's more for like kind of structuring my thinking rather than producing actual content. I would go and research and find the source of myself." [Angela]

The account from Angela illustrates that not all participants trust AI tools and use it as a supplementary resource. Overall, it can be deemed that the participants have a differing level of approach to such tools and this could be linked to how they generally perceive them.

Related to this, within this theme, participants also discussed the *ethical and legal nature of AI tools*. For example, there were a few remarks that alluded to how AI utilises data sources incorrectly and does not critically challenge inputted data:

"the work is basically wrapped, but there's no new thought or idea" [Jay]

"I'm going to go back on the comment of Chat GPT agrees with you for everything. I found this annoying. I hate when people agree with me in general, especially artificial intelligence in that case" [Agne]

"Actually, I don't trust ChatGPT that much because it always when it evaluates your work it it always says something like, yeah, you're thinking like a master students" [Angela]

The above comments showcase the distrust in the AI tools in terms of originality and validity. They highlight how they do not offer novel ideas and are aware of the ethical nature of the tools as well as how the tools can be frustrating to a degree.

Overall, this theme has displayed that students varying perceptions of the use of AI tools. The participants comments showcase the medley of views which can be linked to the level of effort they want to put into the usage of the tools. With that being said, there is a common theme that they do see the risks of the tools and question their ethical nature.

4.2 Theme 2: Academic "use" of AI

The second theme was linked to how participants differed in their AI usage approach in an academic context. Within this theme, there was a discussion about the *effective use of AI integration*. Some were highly organised for example in using AI tools to summarise the material for a particular module or assessment. Others saw it as something distinct from their academic activities. Alex, explaining his own expertise and confidence in using AI tools, noted that:

"[ChatGPT] can produce quite a good output, but if you don't read what it actually uses as sources you are going to end up with some mistakes" [Alex]

The point about the value and accuracy of data could also be related to source academic papers and supporting academic argument developing. For example, the participants offered interesting observations about how ChatGPT was in particular useful as a study support tool:

"The main way that Chat Gpt helped me... [was to] spot logical gaps in my arguments, so I did like a lot of the discussions with. So obviously I had my own ideas and my own research. But I think when you put out your arguments, it does spot some, like inconsistencies or maybe questions you want or something" [Angela]

"ChatGPT summaries are not bad for sure, like double check absolutely everything, but it does save a lot of time in reading research papers because some of them are"

"I use it quite a lot to brainstorm ideas to generate when the skeleton to help me figure out what sources are actually incredible" [Alex]

The above points highlight how the students take ownership of their learning and that AI provided ways to support this. For instance, Angela's quote in particular showcases how using AI to support her research project whilst owning the learning and analysis process that was taking place.

Beyond this, was some discussion of the importance of AI in the context of the research methods module which the students had taken in their final year of study. During this discussion, the participants made comments about the relevance of AI and the module, which is further highlighted in the third theme. Related to this, within

this theme there was a sub-theme that focused on *student ownership of learning and using AI as a complementor with limits*:

“I think especially in the legal field, everyone is very reluctant to adapt any kind of form of AI, because we like my also my students alongside me, like we tried to use it to help us with the course and finding certain cases and stuff and it the amount of errors it produced was just unacceptable, and our professors, we have a very strict guidance on the use of AI and what's allowed, what's not allowed. (Andra)”

“evaluate mistakes in the output I use two additional large language models like Gemini and Drop AI who can cross check each other” (Alex)

“definitely errors within citations or like a data set, especially when it comes down to the really specific pieces of data. And I think the way that it can sort of output certain or tell the story and can make you understand it in a certain way which actually is not correct” (Jay)”

The above excerpts indicate how in an academic context there is some resistance to fully embrace AI tools and in fact that through experimentation there are issues with the limits to their capabilities.

There is a general sense that students want to take ownership of their work and as part of this process they detect confines of usage of these tools. Jay further declared:

“I do think like, you know, I think maybe university should be more lenient towards using it because eventually you get to a point where students do realise actually it's not this great quick tool, but actually they think you know that perception.” [Jay]

His above quote indicates that there is a slight difference between the student perspective and academic perspective on the use of AI. This is a common sub-theme and showcases how students do recognise that they cannot do everything through AI tools like Chat GPT, which is a view that academics may not recognise.

Overall, in the classification suggested by Sabsalieva and Valentini (2023), the participants' experience was closest to that of a *study buddy* providing assistance to students to reflect on their own learning and understanding, more so than that of a *guide on the side* which depends on teachers providing content to point students in an appropriate direction.

4.3 Theme 3: University Adoption of AI That Drives Student use of AI

During the discussion about the use of AI and the research methods module, the participants remained optimistic about how universities can adopt AI. They did question *AI's application to research methods*:

“I don't really see how you can fit AI into research methods. Maybe there is a way I can't see, but yeah, I'm not sure because you don't. The main bit of it is sort of like getting those journals and finding the data and you don't want them to use AI for that because the AI is really not specific and accurate with it” [Emma]

Dissertations are the principal form of research within undergraduate studies, and Alex raised that questioning students about their dissertation work in person, would “make the lives of students quite miserable”. Therefore when focusing on the research methods module and on the individual projects for which that module set out to prepare them, the students recognised issues around integrity stemming from the use of AI but did not see AI as a potential research tool.

Going further then the integration of AI and research methods, the participants did not refer to any great extent to *university policies and AI*. When the question of guidance was raised within the discussion, the only participant who referred to overall university policies was Andra, who did so in connection with a postgraduate law course that they were taking, not the undergraduate business course that they had recently completed:

“We tried to use it to help us with the course and... the amount of errors it produced was just unacceptable, and our professors, we have very strict guidance on the use of AI and what's allowed, what's not allowed” [Andra]

Nor was there much discussion of tools provided by the university: if anything there was a sense that any use of AI, even to support their studies, was part of their personal activity and not in any way integrated into how they worked with the university.

There was no explicit mention of issues around Higher Education governance in the discussion but there was a sub-theme within this theme which was linked to the *student perspective of AI and how it should be used*. Specifically, there was talk about how Turnitin as a tool to detect indications of academic misconduct and how it prompted consideration of what would be permissible in terms of university policies and guidelines. This was one university-provided tool which students were interested in, particularly because its use by staff could influence the outcome of their studies. Some discussion focused on policies imposed by the tool rather than those set up by the university:

“Turnitin actually has a very interesting policy, and it is that in the beginning they said that they can percent guarantee that they can detect AI, but try. Right now they say this is just, you know, like an information guys who check their policy. They cannot guarantee it picks it up” [Alex]

This led to a discussion of a news story where Turnitin, an established plagiarism checker, had falsely identified the US Declaration of Independence as AI generated because the declaration had formed part of the data that AI models have been trained on. Alex and Andra were acutely aware of the way that information is processed and consequent implications for recognising when material could have been created using AI.

In line with this discussion, participants made comments about how universities should be lenient with their approach to Turnitin.

“Maybe university should be more lenient towards using it because eventually you get to a point where students do realise actually it's not this great quick tool, but actually they think you know that perception” [Jay]

The above quote showcases how universities should support students better by recognising students genuine view on AI tools. The quote depicts that this should be a part of the university's role and students recognise that may not always see the student's perspective on this matter.

5. Discussion

Overall, we identified three key findings from our research. First, participants recognise the benefits of AI tools like Chat GPT and Gemini that generally support them with idea generation. Participants did also highlight the constraints of the tools. Interestingly, the participants took different approaches to the usage and experimentation of such tools in terms of the effort they put into using them. This was generally linked to their views on the risks associated with the AI tools as well as the ethical and legal nature of them.

Second, we find that the participants' approach to AI tools was demonstrated in their academic and current working life. They highlight how AI tools are supplementary resources and are useful to summarise and organise content as well as form connections between ideas. In essence, AI enabled them to continue to take ownership of their learning but that this was outside of the university area of responsibility. Yet the participants did voice that the AI tools were not error proof and there was general mix of approaches to utilising the AI tools. Generally, the participants highlighted that universities should be lenient in their approach to AI usage and let students recognise the limits of these tools, as generally students want to take ownership of their work. Academics may not always recognise that students are aware of the AI tool drawbacks.

Third, we find that the participants discussed the wider implications about AI usage in conjunction with their employment and university curriculum. Specifically, there was a common theme that AI should not directly applied in research methods module as it was not a direct research tool, but more generally across programmes given that it can support students in multiple ways. Going further, the participants highlighted how there was limited use of AI integration by the university and their utilisation of AI was more of a personal activity. Lastly, participants questioned Turnitin's ability to recognise what was genuinely written by the students as opposed to AI. They again flagged the differences in perspectives that students and the university hold regarding Turnitin as a plagiarism checker.

We advance scholarship on AI by specifically showcasing the diversity in AI usage and a blanket policy does not exist but the relevance of AI integration into Business School curriculums (Pisica et al; 2025, Biagini, 2025). In fact, students can be averse to such AI tools and conscious of the drawbacks. An indication of the complexity of the issue is that students who are expert and well-disposed towards the use of AI can also be very aware of the limitations of AI tools.

In terms of practical recommendations, we suggest that academics and practitioners use our findings in three ways. First, our findings showcase that students should be made further aware of the benefits and limitations

of AI tools across their curriculum and not solely in research method modules. In doing so universities can play an active role in how students utilise AI tools. Second, there should be a general leniency to reviewing students work that have been flagged to have used AI tools. Lastly, university practitioners should continue to push that students should take ownership of their own learning, and this can include how they utilise AI in their work.

Taken as a whole, our paper advances the literature on AI usage. It examines the practical responses of a set of participants who were final year students at the time that generative AI came into the mainstream of discussion in Higher Education and elsewhere, and who have some experience since graduation to place their ideas in context. While this is a small sample and any results should be generalised only with considerable caution, the participants are in a particularly strong position to observe the emergence of AI and its relevance both to studies at university and to the world of work. Since generative AI tools are still in their infancy and because of the potential that they offer to transform how education is delivered, any analysis of student experience contributes to understanding AI's impact. The themes which we identified, and the considerable variation in the level of expertise and familiarity with AI tools amongst participants, would be relevant to other cohorts and could contribute to a broader understanding of AI in universities.

AI Declaration

None of the paper was written using AI tools.

Ethics Declaration

The focus group was carried out with approval from the university's ethics committee and in line with the committee's policies.

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