

Students' Use of AI and Digital Tools for APA Referencing: Patterns and Perceived Understanding

Nurhafizah Ali., Nor Jawanees Ahmad Hanafiah*, Nurul Akmal Awang., Mazni Muslim., Ayuni
Madarina Abdul Rahman

Academy of Language Studies, Universiti Teknologi MARA, Malaysia

*Corresponding Author

DOI: <https://doi.org/10.47772/IJRISS.2026.100800995>

Received: 09 September 2026; Accepted: 14 September 2026; Published: 22 September 2026

ABSTRACT

The fast development of electronic instruments such as generative artificial intelligence (AI), online citation generators, and reference management software has led to a growing automation of academic referencing. This quantitative, cross-sectional study examined the use of AI and digital tools for APA referencing among undergraduates at a Malaysian public university and the association between frequency of use and the self-reported understanding of APA referencing. A structured questionnaire was administered to 134 undergraduates from different academic disciplines. Descriptive statistics were used to develop an overall tool usage profile and a Spearman's rank-order correlation was used to examine the relationship between tool usage frequency and self-reported APA understanding. Results revealed that digitally assisted referencing was widespread with 97.8% (n=131) of respondents using AI or digital applications to generate APA references or in-text citations. AI tools and AI writing assistants (67.9%) were the most commonly used category followed by online citation generators (56.7%) and reference management software (26.1%). Over half of the participants (55.3%) used these technologies "often" or "always". Although they relied heavily on these tools, students reported relatively high levels of perceived APA understanding (M= 3.81, SD=0.74). A Spearman's correlation indicated a weak but statistically significant positive association between the frequency of tool use and self-reported understanding of APA ($r_s = .209$, $p = .015$). These findings indicate that frequent tool use does not necessarily stem from a lack of APA competence but rather coexists with perceived academic capability. Higher education institutions need to develop critical digital referencing literacy to equip students to evaluate and verify automated outputs.

Keywords: Artificial Intelligence, APA Referencing, Citation Generators, Digital Literacy, Academic Writing

INTRODUCTION

Proper citation is an essential component of academic writing in higher education. It enables students to recognize earlier research, emphasize their contribution and adhere to academic integrity (APA, 2020). The American Psychological Association (APA) style is used in university settings. It demands strict adherence to specific rules in in-text citations and reference-list entry formatting. When dealing with a variety of source types, APA referencing can be a challenging process. However, digital tools have changed the way the referencing task is done. Students can generate, format, check and explain APA citations using simple prompts, making citation work part of larger digital workflows with generative AI. However, less is known about how students actually integrate these tools into their daily study habits. It is not just availability that determines what tools students prefer, how often they use them or whether they stick with one application or combine several. These habits are becoming important to understand as generative AI becomes a standard option alongside traditional citation software.

Traditionally, citations required students to extract bibliographic details manually and follow specific formatting rules. In APA style, students must ensure that authors' names, dates of publication, source titles, publisher information, digital object identifiers (DOIs), and in-text citations match the reference list correctly. Even with

detailed instructions in official style guides, applying the citation style is a manual process that can be tedious and unreliable especially for complex online sources (Pears & Shields, 2022).

To lessen this manual burden, digital reference tools have been developed. Reference managers such as EndNote enable users to collect, store and format bibliographic metadata systematically while web-based citation generators produce formatted entries quickly (Sarafe, 2020). Generative AI adds an interactive component to these tools. With generative AI, students can ask AI models to write citations in APA format, scan existing references for mistakes or explain specific rules on demand, instead of relying on fixed data fields (Cotton et al., 2023).

Today, students are working in a mixed technology environment where generative AI, auto-citation builders, and dedicated reference managers all coexist. Students choose and mix these tools based on familiarity, task needs, or convenience, using different applications within a single task. Therefore, to understand how automated and interactive assistance is currently shaping APA referencing practices, it is important to look at the frequency and patterns of these tool-use behaviours.

Problem statement

The rapid rise of generative AI has generated significant interest across higher education. The existing literature broadly covers AI in writing, teaching, assessment and technology adoption. However, referencing itself is treated as a small sub-task of writing, rather than an independent digital practice (Bearman et al., 2023; Cotton et al., 2023). Therefore, there is a lack of empirical studies on the use of AI and other digital resources in APA referencing by university students.

The gap is significant because access to tools does not mean students use them in predictable ways. Students use a wide range of referencing support, including reference managers, online citation generators, and general AI platforms (Perkins, 2023). However, we still do not know which applications students prefer and how often they use them. Furthermore, considering these tools in isolation does not reflect real-life practice, as students often combine several applications depending on the immediate needs of a task.

Thus, the primary problem that this study seeks to address is the lack of empirical data on the use of digital applications and AI for APA referencing among university students. It investigates the extent and patterns of use of AI tools and other digital applications by university students for APA referencing. The study provides an evidence-based account of the integration of electronic tools into academic referencing practices through the analysis of tool preferences, frequency of use, and patterns of tool use.

Research questions

The research questions in this study include:

RQ1: What are the patterns of AI and digital tool use for APA referencing among university students?

RQ2: What is the level of students' self-reported understanding of APA referencing?

RQ3: Is there a significant relationship between frequency of AI and digital tool use and students' self-reported understanding of APA referencing?

LITERATURE REVIEW

Academic referencing in the digital era

Academic referencing is a fundamental component of scholarly communication because it enables students to acknowledge sources, support academic claims and position their work within existing knowledge. Referencing competence, however, extends beyond the mechanical production of in-text citations and reference lists. Students need to understand when sources should be cited, how sources function in academic discourse and how citations should be presented according to established referencing conventions. Referencing should therefore be

viewed as an academic literacy practice involving both technical knowledge and the strategic use of sources.

Recent research supports this broader view of referencing. Gardner et al. (2025) assert that citation involves acknowledging sources, engaging with existing knowledge and developing an appropriate scholarly voice. Mu (2024), who compared 100 L2 master's thesis literature reviews with 100 published research article literature reviews, found that student writers relied more heavily on single-source direct quotations and author-focused reporting, whereas expert writers used citations more strategically to establish relationships among sources and support their own claims. Longitudinal evidence also suggests that citation practices develop with academic experience. Liu and Qi (2024) analyzed 39 linguistics papers produced by 13 L2 undergraduate students across three semesters and reported increases in citation density and diversity as well as greater use of reporting verbs and citation structures. These findings indicate that academic referencing develops as students gain academic experience and requires both procedural knowledge and an understanding of how sources function in scholarly communication.

The development of referencing competence is particularly relevant in higher education where students are increasingly required to manage substantial amounts of digital information while adhering to formal citation conventions. The emergence of digital technologies has consequently transformed the way referencing tasks are performed. Reference management software, online citation generators and more recently, generative artificial intelligence (GenAI) tools provide students with functions for storing bibliographic information, organizing sources, generating citations and constructing reference lists. Instead of performing every referencing procedure manually, students can now use digital systems to assist with these referencing tasks. This technological shift has consequently transformed academic referencing practices, particularly in relation to the types of digital tools students select, the frequency with which they use them and the purposes for which they employ them.

Digital tools for APA referencing

The increasing availability of digital technologies has expanded the range of tools available for managing and producing academic references. Three main categories that are particularly relevant to contemporary APA referencing practices include automated citation generators, reference management software such as Mendeley, Zotero and EndNote, and generative artificial intelligence (GenAI) and AI-assisted applications such as ChatGPT. Although these technologies differ in their functions, they share the potential to streamline routine referencing tasks by supporting citation formatting, source organization and bibliographic information management (Williams & Woods, 2024). In this context, the availability of such technologies does not necessarily indicate that students lack knowledge of APA conventions. Rather, digital tools may serve as practical resources that reduce the procedural burden associated with academic referencing.

Automated citation generators

Automated citation generators represent one of the most established forms of digital assistance for academic referencing. These tools can convert bibliographic information into a selected citation style rapidly and are consequently attractive to users seeking efficient ways of preparing citations and reference lists. However, automation does not guarantee accuracy. Scheinfeld and Chung (2024), who examined 60 citations generated through two MEDLINE-based citation platforms, found that none of the citations was completely error-free. Their findings demonstrate that automated citation tools may produce inaccurate outputs and should therefore be regarded as assistive technologies rather than authoritative sources of bibliographic information. Nevertheless, their speed and convenience may remain attractive for routine citation-formatting tasks. Effective use of such tools consequently requires users to evaluate and, where necessary, correct the references generated by the system.

Reference management software

Reference management software offers broader support by helping users collect, organise, retrieve, and format bibliographic information throughout the research process. Recent evidence suggests that efficiency and time saving are among the reasons these tools are valued. Majumdar (2026) found that digital reference management tools were used for citation generation and the organisation of research materials, with Mendeley and Zotero

among the applications used by participants. Participants also identified efficiency and time saving as important benefits, although insufficient training, technical difficulties, and errors in imported citation information were reported as challenges.

In a survey of 263 undergraduate students, postgraduate students, postgraduate researchers, and academic staff, Williams and Woods (2024) found that most respondents had used at least one reference management application. However, use was more common among postgraduate researchers and academic staff. The respondents also reported using both digital and non-digital approaches to reference management. This suggests that the adoption of reference management software may depend on users' academic contexts and needs. These tools therefore serve a wider purpose than simply formatting citations, as they can also support the organisation and management of scholarly information.

Generative artificial intelligence (GenAI) for referencing

GenAI has introduced another dimension to digital referencing. Tools such as ChatGPT can respond to natural-language prompts and generate apparently complete citations and reference lists within seconds. This may be particularly appealing to students who want convenient assistance with academic tasks. Malaysian evidence shows that students are already aware of citation generation as one of the functions of GenAI. Pallivathukal et al. (2024) found that 49.4% of the 443 undergraduate healthcare students at a Malaysian tertiary institution knew that ChatGPT could generate references in different citation styles. At the same time, the participants raised concerns about accuracy, plagiarism, ethical issues, and dependency. Thus, students may see practical value in GenAI while also being aware of some of its limitations. In addition, Moghavvemi and Jam (2025) similarly reported that perceived usefulness, ease of use, problem-solving, idea generation, information quality, and effective learning influenced Malaysian university students' continued use of ChatGPT. The findings point to the importance of practical benefits in students' continued engagement with AI technologies.

Despite these perceived benefits, the reliability of GenAI-generated references remains a significant concern. Franzoni Velázquez et al. (2024) identified incomplete and hallucinated references when examining academic references generated by different versions of ChatGPT. Mugaanyi et al. (2024) evaluated 102 ChatGPT-generated citations across the natural sciences and humanities and found that, although many of the citations corresponded to existing sources, problems remained with citation and DOI accuracy. Chelli et al. (2024) also found substantial hallucination and low precision in their comparison of references generated by GPT-3.5, GPT-4, and Bard. These studies show that an apparently complete AI-generated reference is not necessarily a reliable one. References produced by GenAI therefore need to be checked against reliable bibliographic sources before they are used in academic work.

Nevertheless, GenAI should not be viewed as completely unsuitable for referencing. Rogayan (2024) examined ChatGPT as a citation-formatting tool and found that it could generate citations for journal articles and books in several referencing styles, including APA 7, MLA 9, IEEE, and Harvard. The study also showed that ChatGPT could organise in-text citations involving multiple sources. This indicates some potential for routine citation-formatting tasks. Nevertheless, formatting a citation correctly is not the same as providing accurate bibliographic information. GenAI can be useful for formatting and organising references, but it cannot necessarily be treated as an authoritative source of bibliographic information. Users still need to evaluate, verify, and correct its outputs when required.

Overall, digital referencing tools offer practical benefits, particularly in terms of efficiency, convenience, source organisation, and citation formatting. At the same time, evidence of inaccurate, incomplete, and hallucinated references shows that automation does not remove the need for students to understand referencing conventions. More importantly, using these tools does not necessarily indicate that students have poor knowledge of APA referencing. Students who already understand APA may still use digital tools to check formatting, organise sources, save time on routine tasks, or manage a large number of references. For this reason, digital-tool use needs to be considered not only in terms of whether students use these technologies, but also in terms of how often and why they use them.

Students' understanding of APA referencing

The use of digital referencing tools does not reduce the importance of understanding APA conventions. In fact, students need some knowledge of referencing principles in order to evaluate what automated tools produce. Although digital tools can handle many aspects of referencing, accurate referencing still requires judgement. Students need to identify different source types, select the appropriate citation format, apply in-text citation conventions, and prepare complete reference entries. They also need sufficient knowledge of the referencing style to recognise and correct errors in automatically generated references.

Recent research has shown that students may have difficulties with particular aspects of APA referencing. Neubauer and Hernaiz-Sánchez (2025), who examined APA 7 knowledge among 70 university students, reported difficulties across several aspects of APA application. Students performed relatively better on indirect citations and tables and figures but had greater difficulty with literal citations and bibliographic references. This suggests that APA knowledge is not a single, uniform ability. Students may be comfortable with some conventions while struggling with others. Fitrianiingsih and Wadison (2023) similarly examined APA-style citations in the introduction sections of 25 undergraduate theses and identified difficulties involving author names, publication years, punctuation, page numbers, ampersands, et al., and direct-quotation conventions. Such difficulties may therefore involve particular rules and procedures rather than a general lack of awareness of APA referencing.

Another issue is students' self-reported understanding of APA referencing. Self-reported understanding refers to students' perceptions of their ability to understand and apply APA conventions, whereas objectively measured APA knowledge is based on demonstrated performance on specific referencing tasks. The two should therefore be regarded as related but distinct constructs. A student may feel confident about APA referencing but still have difficulty with particular formatting or citation requirements (Neubauer & Hernaiz-Sánchez, 2025). Examining self-reported understanding separately is therefore useful, especially when considering students' use of digital referencing technologies.

Hence, students' frequency of use of digital reference tools should not be automatically interpreted as evidence of limited APA understanding. Students may actively use AI technologies for academic reasons while being aware of their possible drawbacks, particularly regarding accuracy and dependency (Pallivathukal et al., 2024). Furthermore, Madiha and Abu Samah (2025) discovered that high-performing students actively used ChatGPT because they perceived it as helpful for completing academic tasks. Cheah and Wong (2025) also reported that ChatGPT and Google Gemini were used by Malaysian undergraduates to support their learning, with usability, accessibility and interactive support identified as important factors influencing their engagement with these tools. These findings suggest that students with adequate APA knowledge may use digital tools to check formatting, organize sources or save time on routine referencing tasks. In such cases, the use of these tools may be driven more by efficiency and convenience than by a lack of understanding.

Although research on students' use of AI and digital technologies has grown rapidly, limited research has specifically examined the relationship between the frequency of using AI and other digital tools for APA referencing and students' self-reported understanding of APA referencing. Existing studies have mainly focused on students' adoption and perceptions of digital technologies or on difficulties associated with APA conventions. The relationship between digital tool use and perceived APA understanding therefore remains underexplored and less clearly established.

The present study examines three interconnected dimensions of university students' digital referencing practices. First, it investigates patterns of AI and digital-tool use for APA referencing, focusing on the types of tools used, students' preferred tools and frequency of use. Second, it examines students' self-reported understanding of APA referencing. Third, it investigates whether the frequency of digital-tool use is significantly related to students' self-reported understanding of APA referencing. By examining these dimensions together, the study contributes to the emerging literature on AI-assisted referencing and digital reference practices, particularly by considering how students' engagement with digital tools relates to their perceived understanding of APA referencing.

METHODOLOGY

Research design and participants

This study used a quantitative cross-sectional survey to investigate students' use of AI and other digital tools for APA referencing. The study examined the tools, the frequency of use, together with their self-reported understanding of APA referencing. It also explored the relationship between the frequency of tool use and students' perceived APA understanding.

The respondents of this study were 134 university students from various academic programmes, with the majority being bachelor's degree students (96.3%). The respondents were from various fields of study, including Accountancy, Business and Management, Engineering, Hotel and Tourism Management, Mathematics and Computer Science, and the Academy of Contemporary Islamic Studies, as well as several other programmes. The questionnaire also collected information on the respondents' gender, level of study, faculty or programme, and English proficiency.

Research instrument and data collection

For data collection, a questionnaire was administered using Google Forms that consisted of demographic information, the digital tools used when preparing APA references and in-text citations. The choices covered AI tools such as ChatGPT and other AI writing assistants, online citation generators, and reference-management software such as Mendeley, EndNote, and Zotero. Students could choose more than one option, since they might use different tools for different referencing tasks.

Students were also asked how often they relied on AI or digital tools to generate APA references. The response options were Always, Often, Sometimes, Rarely, and Never. For tool preference, they rated the available options from 1 (most preferred) to 5 (least preferred). Their self-reported understanding of APA referencing was measured using two items concerning respondents' perceived understanding of APA reference writing and in-text citation. Both items were rated on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). A composite self-reported APA understanding score was calculated by averaging the two items for each respondent.

Data analysis

Descriptive statistics were first used to present the students' patterns of AI and digital-tool use. Frequencies and percentages were reported for the types of tools used, frequency of use, and tool preferences. Students' self-reported APA understanding was summarised using means and standard deviations.

For the third research question, Spearman's rank-order correlation was used to examine the relationship between frequency of AI and digital-tool use and self-reported APA understanding. The test provided an indication of both the strength and direction of the relationship. Statistical significance was set at $p < .05$.

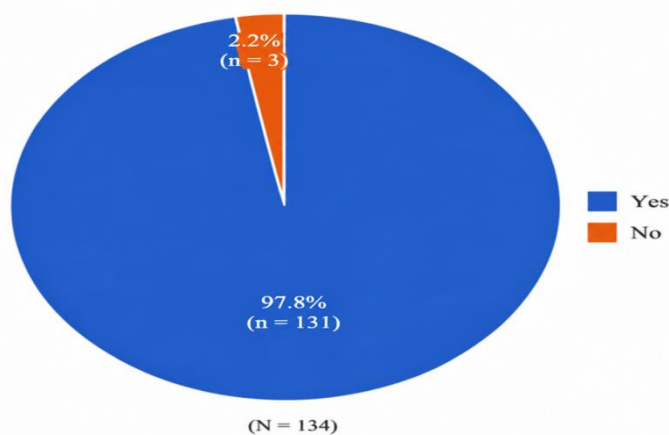
RESULTS

Patterns of AI and digital tool use for APA referencing

The first research question examined students' patterns of AI and digital tool use, including prevalence, types of tools, and preference.

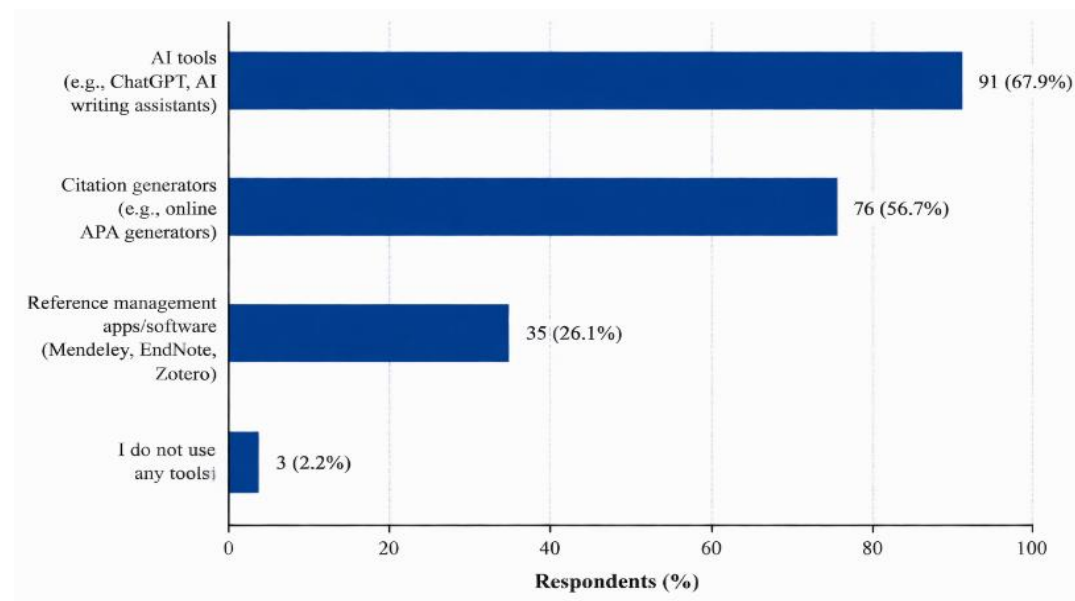
The results revealed that 131 of the respondents (97.8%) have employed AI tools or applications for generating APA references or in-text citations. Only 3 respondents (2.2%) indicated that they did not. This suggests that the participants have integrated digital reference tools into work, indicating a general trend toward technology-assisted citation management.

Figure 1. Use of AI tools or digital tools for APA referencing



Respondents were also asked about the types of tools they utilized to prepare citations and references for their academic assignments. As respondents were allowed to select more than one option, the responses provide an overview of the different digital tools commonly used to support their referencing practices. Commonly cited tools included AI-based writing assistants such as ChatGPT, dedicated online citation generators, and reference-management software.

Figure 2. Types of tools used for APA referencing

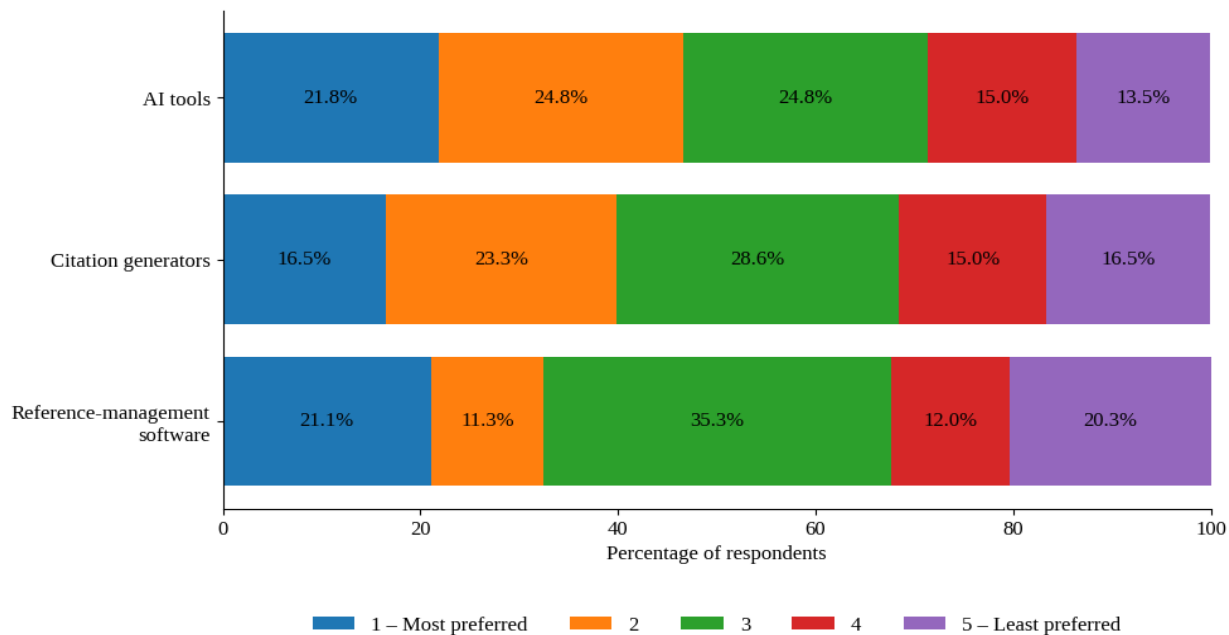


AI tools such as ChatGPT and AI writing assistants were the most commonly reported category, selected by 67.9% of respondents. Online citation generators were also widely used, with 56.7% of respondents indicating their use. In comparison, reference-management applications such as Mendeley, EndNote, and Zotero were used by 26.1% of respondents. Only 2.2% reported that they did not use any tools for citation and referencing purposes.

The findings suggest that students used a range of technologies to support their academic referencing rather than relying exclusively on one category of tool. In contrast, the lower use of reference-management applications suggests that students may be less inclined to use specialised software designed specifically for organising sources and managing citations. This difference may reflect varying levels of familiarity, accessibility, or ease of use across the different types of tools, although these factors were not examined in the present study.

Figure 3 presents respondents' preference ratings for the three types of digital tools used for APA referencing.

Figure 3. Students' preference ratings for digital APA referencing tools



Overall, AI tools received the most favourable ratings, with 46.6% of respondents assigning a rating of 1 or 2. This was followed by citation generators (39.8%) and reference-management software (32.3%). Consistent with this pattern, AI tools recorded the lowest mean preference score ($M = 2.74$), followed by citation generators ($M = 2.92$) and reference-management software ($M = 2.99$). As lower scores represent greater preference, the findings indicate that AI tools were the most preferred overall.

Figure 4. Frequency of AI or digital tool use

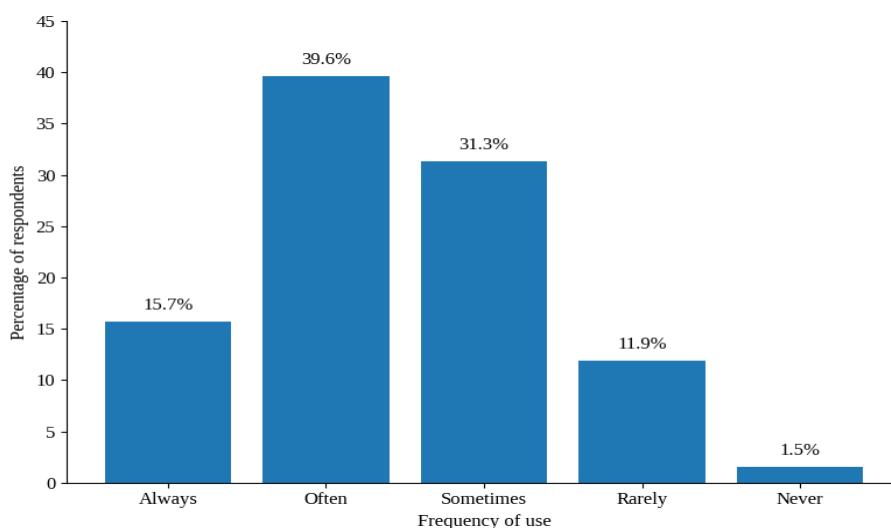


Figure 4 shows the frequency with which respondents rely on AI or digital tools to generate APA references. The largest share of respondents reported using these tools often (39.6%), followed by sometimes (31.3%) and always (15.7%). A smaller proportion used them rarely (11.9%), while a mere 1.5% indicated they never did so. Overall, more than half of the respondents (55.3%) reported using AI or digital tools often or always, indicating that these tools were regularly incorporated into their APA referencing practices.

Students' self-reported understanding of APA referencing

The second research question examined students' perceived understanding of APA referencing.

Table 1. Students' self-reported APA understanding

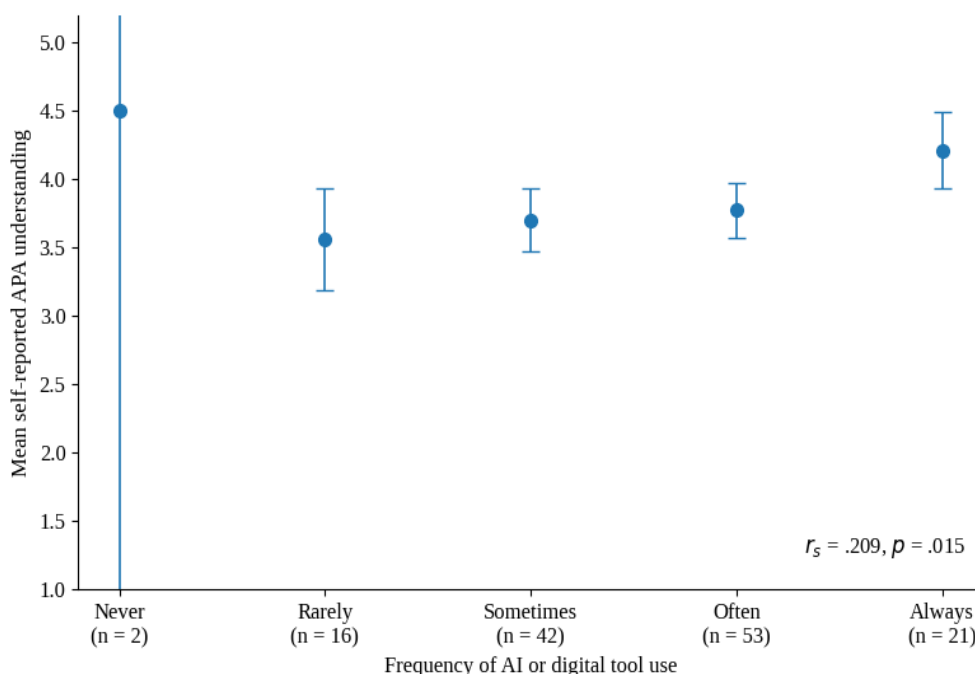
Statement	Mean	SD
I understand how to write references in APA format	3.84	0.79
I understand how to write APA in-text citations correctly	3.78	0.80

As shown in Table 1, respondents reported relatively high levels of understanding in both aspects of APA referencing. Self-reported understanding of writing APA references recorded a slightly higher mean ($M = 3.84$, $SD = 0.79$) than understanding of writing APA in-text citations ($M = 3.78$, $SD = 0.80$). Overall, the findings indicate that respondents perceived themselves as having a generally good understanding of both reference writing and in-text citation.

Relationship between frequency of tool use and APA understanding

The third research question explored the relationship between students' frequency of AI and digital tool use for APA referencing and their self-reported understanding of APA conventions. Particular attention was given to whether more frequent tool use corresponded with lower levels of self-reported understanding. If frequent reliance on AI and digital tools was primarily associated with difficulty in understanding APA conventions, a negative relationship between the two variables might be expected.

Figure 5. Relationship between frequency of AI or digital tool use and self-reported APA understanding



Spearman's rank-order correlation was conducted to examine the relationship between frequency of tool use and self-reported APA understanding. The analysis revealed a weak but statistically significant positive correlation, $r_s = .209$, $p = .015$. Thus, greater frequency of AI and digital tool use was associated with slightly higher, rather than lower, levels of self-reported APA understanding.

Students who used these tools more frequently did not report lower levels of understanding. Rather, there was a slight tendency for frequent users to report somewhat greater perceived understanding. However, given the weak magnitude of the correlation, the association between the two variables was limited. This finding does not support the expectation that more frequent use of artificial intelligence and digital referencing tools is associated with a poorer understanding of APA referencing.

DISCUSSION

Integration of AI and digital tools into APA Referencing

The findings show that students have incorporated AI and other digital tools into their APA referencing practices. Rather than using these technologies only when they encounter difficulties, students appear to use them as part of their regular academic work. This is in line with studies in Malaysia showing that university students use AI for various academic and learning purposes, with usefulness, accessibility, and ease of use influencing their adoption of such tools (Cheah & Wong, 2025; Moghavvemi & Jam, 2025). Pallivathukal et al. (2024) also found that Malaysian university students were aware that ChatGPT could generate references in different citation styles. The present study adds to this evidence by showing that AI is not only recognised as a possible referencing aid but is also being used in students' actual APA referencing practices.

Students' preferences and frequency of digital tool use for APA referencing

The results also indicate that students do not depend on only one type of referencing technology. Their use of AI tools together with online citation generators suggests that they may choose different tools depending on what they need at a particular time. The popularity of these tools may partly be explained by their accessibility and convenience, particularly when students want to generate or format references quickly.

Reference-management software, however, was used less frequently. One possible reason is that specialised reference-management systems usually require more familiarity and some degree of training before they can be used effectively. Majumdar (2026), for instance, identified insufficient training and technical difficulties as challenges associated with the use of reference-management tools. Williams and Woods (2024) also reported that reference-management applications were more commonly used by postgraduate researchers and academic staff than by other user groups. This may indicate that the use of such software is partly influenced by academic experience and the complexity of users' research needs. Therefore, the lower use of reference-management software in the present study does not necessarily mean that students consider these tools less useful. AI tools and online citation generators may simply be more suitable for students who need a quick and accessible way to prepare citations and references.

The frequency of use is also noteworthy. Students' responses indicate that digital assistance has become a regular part of their referencing process rather than something they use only occasionally. In completing assignments, students may move between their own knowledge of APA conventions and technological support depending on the task. Williams and Woods (2024), for example, found that users combined digital and non-digital approaches to reference management. This suggests that the use of technology does not necessarily replace users' own knowledge or involvement in the referencing process. Moghavvemi and Jam (2025) similarly identified usefulness and ease of use as factors influencing students' continued use of ChatGPT. Convenience and efficiency may therefore help explain why students continue to use digital tools for referencing.

Frequency of AI and digital tool use and students' APA understanding

Despite the widespread use of AI and digital referencing tools, students generally reported having relatively good understanding of APA referencing. This is an important finding because frequent use of technological assistance did not appear to coincide with poor self-reported knowledge of APA conventions. Students may know how references and in-text citations should be constructed while still choosing to use digital tools because these tools make the process faster and more convenient.

The weak positive relationship between frequency of tool use and self-reported APA understanding provides further support for this interpretation. Students who reported using AI and digital tools more frequently also tended to report slightly higher levels of APA understanding. The relationship was weak, however, and should therefore be interpreted cautiously. Nevertheless, the direction of the relationship does not support the assumption that more frequent use of referencing technologies is necessarily associated with poorer APA knowledge. Previous studies likewise suggest that students may use AI alongside their existing academic abilities, with their use influenced by factors including accessibility, usability, and perceived usefulness (Cheah

& Wong, 2025; Madiah & Abu Samah, 2025; Moghavvemi & Jam, 2025).

One possible explanation is that students who are already familiar with APA conventions use digital tools to reduce the time and effort involved in repetitive referencing tasks. From this perspective, technology functions as practical support rather than a replacement for knowledge. However, students' perception of their own understanding may not always correspond with the ability to apply specific APA conventions accurately. Neubauer and Hernaiz-Sánchez (2025), for example, found that students may still experience difficulty with particular aspects of APA style despite having a broader familiarity with the referencing conventions. The present findings should therefore be understood as reflecting students' perceived understanding rather than providing direct evidence of their actual APA competence.

Overall, the findings suggest that digital referencing technologies may complement students' APA knowledge rather than replace it entirely. Students appear to use technological assistance alongside their own understanding of referencing conventions, particularly when speed and convenience are important. However, the availability of these tools does not remove the need to understand the principles of APA referencing. Automated systems can produce inaccurate information or fabricated references (Chelli et al., 2024; Mugaanyi et al., 2024; Scheinfeld & Chung, 2024). Students therefore still need sufficient knowledge to check the accuracy of generated citations and assess whether the references produced are appropriate and reliable.

CONCLUSION

Summary of results and discussion

This study investigated patterns of AI and digital tool use for APA referencing by university students and their self-reported understanding of APA referencing, as well as the correlation between the frequency of tool use and self-reported APA understanding. The findings indicated that the use of AI and digital tools was commonly observed among the respondents. AI tools were documented as the most widely adopted form of digital assistance with online citation generators ranking second. Most respondents reported "often" or "always" employing these tools suggesting that digital assistants may be regarded as a significant APA referencing practice. In addition, the study revealed that respondents reported a relatively good understanding of APA reference writing and in-text citations. However, a weak positive relationship was identified between the frequency of AI and digital tool use and students' self-reported APA understanding. Overall, the findings demonstrate that using digital referencing technologies frequently does not suggest poor understanding of APA. Rather, the tools may complement students' established knowledge by assisting them in referencing tasks efficiently.

Implications and suggestions for future research

The findings of this study contribute to several implications for the teaching and learning of APA referencing, especially in higher education.

First, the common use of AI and digital tools indicates that these technologies are now becoming part of students' academic practices. Therefore, the perspective of viewing AI and digital tools as alternatives to traditional writing should be shifted, and educators should recognise them as complementary in academic writing by guiding students to employ them appropriately. An important observation from the study is that the frequent use of these tools was not associated with lower self-reported APA understanding. This implies that the use of technology and knowledge of APA conventions do not automatically indicate opposing behaviours.

Second, the findings underscore the importance of continuing APA instruction despite the widespread availability of AI and automated citation tools. When students use these technologies throughout the referencing process, it remains necessary for students to have foundational knowledge to verify the appropriate use of references and citations. This is where APA instruction takes place to ensure students not only master themselves in constructing references manually but also acquire the skills to evaluate and use AI-generated outputs critically and appropriately. Therefore, AI and digital tools may complement academic support rather than be a replacement for students' knowledge and skills.

Building on these findings, future studies could also focus on other aspects of students' use of AI and digital tools for APA referencing. In particular, research could explore students' level of trust in the accuracy and reliability of AI-generated references as well as how they verify the citations and references produced by these tools. Further attention could also be given to the extent to which students depend on digital assistance and how they respond when references generated contain errors or inaccurate information. Examining these areas may provide a more detailed understanding of how students engage with AI and digital tools beyond the frequency of their use.

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