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The Implementation of Digital Support for Punctuation in Academic Writing of EFL Students

Daviq Rizal,[1] Dwi Arni Siti Margiyanti,[2*] Lauwwanaddahri Jaufanishshofa,[3] Nida Ayu Dewanti[4]

[1234]Universias Islam Negeri Walisongo, Semarang, Central Java – Indonesia

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Abstract

Punctuation contributes independently to the quality of academic writing. However, little is known about how EFL students manage it in an environment saturated with automated writing tools. This study identified the digital supports that EFL students use in relation to their punctuation knowledge and skills in academic writing. It determined the extent to which these supports are used and relied upon. A cross-sectional survey was administered via Google Forms to students at fifteen universities, yielding 145 responses, and semi-structured interviews were subsequently conducted with seven participants selected for their experience with digital writing support. Survey data were analyzed using descriptive statistics, and interview data were analyzed thematically. Results indicate extensive but weakly informed reliance. Most participants wrote academically at least weekly yet placed themselves at intermediate or basic proficiency, and a slightly larger proportion used digital tools at least weekly than wrote at that frequency. Grammarly was named roughly twice as often as any other tool, alongside smaller checkers and the built-in functions of ordinary word processors; no tool named was designed specifically for punctuation. A notable contradiction emerged: nearly four in five participants used grammar-checking software expressly to correct punctuation, yet fewer than one in thirty identified punctuation checking as a valuable feature, suggesting that students absorb punctuation feedback into their conception of grammar. Only about half had received formal instruction in using these tools, and most rated their effectiveness as moderate. Institutions should therefore treat competence with automated feedback as a teachable skill and make punctuation explicitly visible in writing instruction.

Keywords: EFL academic writing; punctuation; digital writing tools; automated written corrective feedback; Grammarly

Introduction

Academic writing places demands on EFL students that extend well beyond vocabulary and sentence construction. Among these demands, punctuation is often treated as a surface-level mechanic. However, it carries a substantial share of the rhetorical work in academic prose: it signals clause boundaries, marks the writer's stance, and controls the pace at which an argument unfolds. For students writing in a language they are still acquiring,

[*]**Corresponding Author:** Dwi Arni Siti Margiyanti (dwi.arni@walisongo.ac.id) Jalan Prof. Dr. Hamka, Ngaliyan, Semarang, Central Java, 50185

punctuation therefore represents a persistent source of difficulty, and one that is increasingly negotiated not with a grammar handbook but with digital writing tools embedded directly in the composing environment. Understanding how EFL students draw on such tools, and what they actually know about punctuation as a result, is the concern of the present study.

The case for taking punctuation seriously rests first on evidence that it contributes measurably to writing quality. Drawing on data from 819 Australian primary school students, Daffern et al. (2017) demonstrated that spelling, grammar, and punctuation, as measured by the NAPLAN Language Conventions Test, were all significant predictors of composition quality on the NAPLAN Writing Test, with spelling emerging as the strongest predictor. The implication is that conventions are not cosmetic; weaknesses in them constrain what a writer can achieve at the level of the whole text. This finding is consistent with a broader position in the second language writing literature, which holds that accuracy in written conventions is a legitimate object of instruction and feedback rather than a matter that resolves itself through exposure alone (Bitchener & Ferris, 2012).

At the same time, punctuation is not governed solely by prescriptive rules, and this is precisely where the digital environment complicates matters for student writers. Research on digitally mediated communication has shown that punctuation marks function as social and pragmatic resources. Houghton and Upadhyay (2017) found that punctuation conveys the kinds of interpersonal information that extra-linguistic cues carry in face-to-face conversation, while Evtushenko and Butuzova (2014) observed that the period in text messaging frequently serves a rhetorical rather than a grammatical function, with usage patterns that depart from codified norms. Androutsopoulos and Busch (2021) extended this line of work by showing that adolescents' metapragmatic awareness of period use is bound up with its enregisterment as an index of communicative distance and of adult, professional registers. Androutsopoulos (2023) further demonstrated that participants in public online discussions deploy punctuation and other graphic cues to animate socially recognizable voices, with such cues forming an evolving ecology that supports multi-voicedness in digital discourse. Taken together, these studies indicate that EFL students arrive at academic writing tasks with punctuation habits shaped by digital genres in which deviation from academic convention is meaningful rather than erroneous. The gap between these habits and academic expectations is one of the problems that digital writing support is called upon to bridge.

That such support is technically feasible reflects a parallel development in language technology, where punctuation has proven amenable to automatic modeling. Batista et al. (2008) demonstrated gains from enriching speech recognition output with punctuation and capitalization. Guerreiro et al. (2021) showed that a single multilingual model can perform punctuation restoration across several languages, indicating that the task generalizes beyond a single linguistic system. Stanisz et al. (2023) approached the phenomenon from a different angle, applying Detrended Fluctuation Analysis to intervals between all consecutive punctuation marks rather than sentence-final marks alone, and identifying long-range statistical regularities in written text.

Collectively, this body of work supplies the computational foundation on which contemporary writing assistants, from grammar checkers to generative AI systems, are built. It also explains why punctuation feedback has become one of the most readily automated forms of support available to student writers.

Evidence on the pedagogical value of these tools is encouraging but qualified. Ivanova et al. (2022) concluded that digital support carries considerable didactic potential and argued for its sustained integration into academic writing instruction. O'Neill and Russell (2019) reported that students receiving automated feedback from Grammarly expressed significantly greater satisfaction with the grammar advice they received, responding more positively on nine of fifteen survey items than students who did not, with no discernible difference between international and domestic cohorts or between online and on-campus delivery. Students' own perceptions point in the same direction: Nobles and Paganucci (2015) found that students believed their writing improved when composing digitally rather than with pen and paper, and Dahlström (2019) argued that the affordances of digital writing can enhance learner agency, provided that access and opportunities for practice are adequate. Subsequent research has tempered these findings. Ranalli (2018) showed that students vary considerably in their capacity to interpret and act on automated corrective feedback, and Koltovskaia (2020) found that engagement with Grammarly's feedback was frequently shallow, with students accepting suggestions without processing the underlying rule. Barrot (2022, 2023) and Godwin-Jones (2022) similarly caution that intelligent writing assistants may support textual accuracy while leaving learners' underlying knowledge largely untouched.

A tension therefore emerges from the literature. Punctuation demonstrably matters for writing quality; digital tools can identify and correct punctuation reliably; and students value the support these tools provide. What remains unclear is whether such support translates into knowledge that students can deploy independently, particularly for EFL writers whose punctuation intuitions have been formed in digital registers that operate by different conventions. Existing studies have examined either the sociolinguistics of punctuation in digital discourse or the effectiveness of writing tools in general terms. However, few have addressed punctuation specifically as the site where these two developments meet. Accordingly, the present study seeks to identify the digital supports EFL students use in relation to their punctuation knowledge and skills in academic writing, and to determine the extent to which they use and rely on these supports.

Method

Research Design

This study employed a cross-sectional survey design supplemented by semi-structured interviews, following an explanatory sequential logic in which quantitative data were collected first and qualitative data were subsequently gathered to elaborate and interpret the survey findings (Creswell & Plano Clark, 2018). The survey component aimed to establish the range and frequency of digital supports EFL students use in relation to punctuation in academic writing, while the interview component aimed to explain how and why those supports are used. A cross-sectional design was appropriate

because the study sought to characterize students' current practices at a single point in time rather than to trace change over an extended period.

Participants

Participants were EFL students recruited from fifteen selected universities. Recruitment proceeded through institutional gatekeepers: the questionnaire link was distributed to lecturers at each institution, who then circulated it among their students. This convenience sampling procedure operated through a purposively selected set of institutions, and its implications for generalisability are acknowledged in the study's limitations. A total of 145 students completed the questionnaire.

Eligibility was restricted to participants aged 18 to 54 years. The lower bound of 18 was set because it corresponds to the minimum age at which participants could provide informed consent independently and to the typical age of entry into tertiary education in the research context. The upper bound of 54 was adopted for two reasons. First, the study focuses on students currently engaged in academic writing within degree programs, and enrolment beyond the mid-fifties is sufficiently rare in the target population that the resulting subgroup would have been too small to support meaningful analysis. Second, patterns of technology access and use differ systematically across age cohorts, and including a small number of substantially older participants would have introduced cohort variation that the study was not designed to model (Helsper & Eynon, 2010). Excluding participants above 55 therefore kept the sample internally comparable with respect to digital exposure rather than implying that older learners are of no interest; their practices constitute a distinct question warranting separate investigation.

Seven of the 145 respondents were subsequently selected for interview using criterion-based purposive sampling, the criterion being demonstrated experience with digital support in academic writing. The sample size for the qualitative component was determined by the principle of information power rather than a fixed numerical target (Malterud et al., 2016). Four considerations support the adequacy of seven participants in this case. The aim of the interviews was narrow, being confined to punctuation-related uses of digital tools rather than to writing practice in general. The sample was highly specific, since participants were selected precisely because they possessed relevant experience, so each interview yielded a high density of pertinent data. The interviews were guided by an established theoretical frame drawn from research on automated written corrective feedback, which reduces the volume of data required to generate interpretable findings. Finally, the analysis was cross-case and thematic rather than idiographic, and the interviews served an explanatory function relative to the survey rather than serving as the study's sole evidential basis. This position is consistent with Guest et al. (2006), who found that most metathemes in a homogeneous purposive sample emerged within the first six interviews, and with Creswell and Poth (2018), who regard samples of between five and twenty-five as defensible for interview-based qualitative inquiry.

Research Instruments

Two instruments were used. The first was a questionnaire administered via Google Forms,

comprising both closed-ended and open-ended items. The instrument was organized into four sections. The first collected background information, including age, gender, current level of study, institution, and first language, as well as participants' history of learning English, self-reported proficiency, and any exposure to English-speaking contexts. The second addressed digital literacy, covering device ownership, familiarity with digital tools, and preferences regarding digital accessibility. The third addressed the use of digital supports in academic writing, including which tools participants used, how frequently they used them, and whether they had received any formal training in their use. The fourth elicited participants' perceptions of how these tools affected their punctuation knowledge and skills. The third and fourth sections included open-ended items to capture practices and reasons not anticipated by the closed response options.

The second instrument was a semi-structured interview guide developed to elaborate the questionnaire domains. The guide specified a common set of core questions to ensure comparability across participants, while permitting follow-up probes contingent on individual responses.

Data Collection

Questionnaire data were collected online. Lecturers at the fifteen participating universities distributed the Google Forms link to eligible students, and responses were accepted over a defined collection period. Participants were informed of the study's purpose and their right to decline participation before proceeding to the items.

Interviews were conducted subsequently, after preliminary inspection of the questionnaire responses had identified suitable participants. Each interview was conducted online via Zoom or Google Meet and followed the interview guide. Participants were asked for consent to audio and video recording before the interview, and recordings were made only where consent was given; interviews for which consent to record was withheld were documented through contemporaneous notes.

All data were stored securely and accessed only by the research team. Because the questionnaire collected participants' names and contact details in order to permit follow-up for the interview stage, the data were treated as confidential rather than anonymous. Identifying information was removed at the point of analysis, and participants are referred to by pseudonym throughout the reporting of findings.

Data Analysis

Questionnaire responses were exported and prepared for analysis in Microsoft Excel. Preparation involved screening for incomplete or inconsistent responses, removing duplicate submissions, and recoding open-ended responses into categories where appropriate. Closed-ended items were analyzed using descriptive statistics, principally frequencies and percentages, to establish which digital supports were most widely used, how often they were used, and how participants evaluated their effect on punctuation. Results were displayed in tables and figures, with the choice of display governed by the measurement level of each variable and by the research question it addressed.

Interview recordings were transcribed and analyzed thematically following the procedure set out by Braun and Clarke (2006). Transcripts were read repeatedly for familiarisation, initial codes were generated across the dataset, codes were collated into candidate themes, and themes were then reviewed against the coded extracts and the full transcripts before being defined and named. Analysis was conducted with reference to the survey findings, so the themes generated accounted for the patterns observed in the questionnaire data.

The two strands were integrated at the interpretation stage. Survey results established the distribution of practices across the sample, and interview themes explained the reasoning and conditions underlying those practices, yielding an account of digital support use that neither strand could have produced alone.

Findings and Discussion

Findings

Any account of how students use digital tools must begin with the students themselves, since the appeal of such tools depends largely on how confident writers feel without them. Table 1 sets out the participants' self-assessed proficiency in English academic writing alongside two measures of frequency: how often they write academically, and how often they turn to digital tools. What emerges is a group under steady pressure. Of the 145 participants, only 15 (10.3%) regard themselves as advanced writers. In contrast, 83 (57.2%) place themselves at an intermediate level and a further 41 (28.3%) at a basic one, with 6 (4.1%) describing themselves as novices. Taken together, then, roughly six students in seven do not consider themselves accomplished academic writers in English. This modest self-assessment might matter less if academic writing were an occasional task, but it is not. Fully 114 participants (78.6%) write academically at least once a week, and 23 of them do so every day. The essential point is that these students face a demanding, recurring task with limited confidence in their command of the language. This gap between what is required of them and what they believe themselves capable of is what digital tools are called upon to fill.

Table 1

Frequency of Academic Writing and of Digital Tool Use (N = 145)

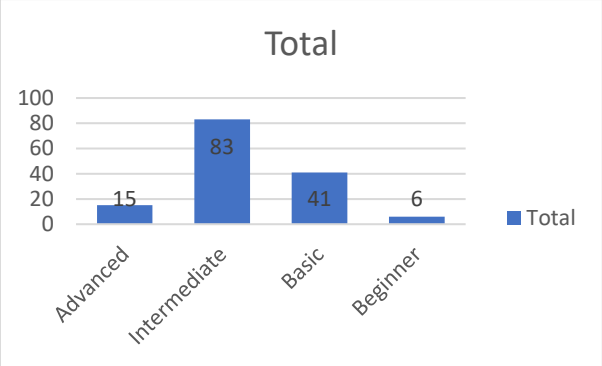
Frequency	Academic writing *n* (%)	Digital tool use *n* (%)
Daily	23 (15.9)	21 (14.5)
Several times a week	51 (35.2)	67 (46.2)
Once a week	40 (27.6)	37 (25.5)
Monthly or several times a month	18 (12.4)	13 (9.0)
Rarely	13 (9.0)	7 (4.8)
At least weekly (subtotal)	114 (78.6)	125 (86.2)

With this profile in mind, the first question the study set out to answer was which digital supports these students actually use. Figure 1 provides the answer, and it is lopsided. Grammarly stands alone at the top of the list, named by 57 participants, roughly twice as many as the next most common response. No other tool comes close, and the remaining answers

scatter across two rather different categories. The first category comprises other programs built expressly for checking language: LanguageTool, mentioned by 27 participants, followed at some distance by Hemingway Editor with 10, Ginger Software with 7, and ProWritingAid with 5. Together, these four account for 49 mentions, but the fragmentation is telling, since none of them approaches Grammarly's share. The second category is of a different order altogether. Microsoft Word was named by 25 participants and Google Docs by 10, meaning that 35 students identified their ordinary writing program as their source of digital support. Beyond these, a small number of participants mentioned QuillBot, Duolingo, and U-Dictionary, applications built for paraphrasing, general language learning, and looking up words, respectively.

Figure 1

Current Level of Proficiency in English Academic Writing



This last observation deserves to be dwelt on, because the character of the list turns out to be as revealing as the ranking within it. Setting Grammarly and the four dedicated checkers aside, most of what students named was never designed to correct writing in the first place, and—more strikingly still—not a single tool on the list was designed specifically for punctuation. No punctuation application appears in students' repertoire, nor does anyone identify a punctuation-focused feature by name. It follows that when these students speak of digital support for punctuation, they are describing an assortment of general-purpose resources that happen to touch on punctuation as one minor function among many. They are not selecting tools for the problem at hand; rather, they are using whatever is convenient and receiving punctuation help incidentally, as a by-product. This distinction may seem a fine one, but it shapes everything that follows, because a student who has not deliberately chosen a tool for punctuation is unlikely to have thought carefully about how well that tool performs on punctuation.

Having established which supports students use, the study's second concern was how far they use and rely on them—and on the measure of sheer frequency, the answer is emphatic. Returning to Table 1, 21 participants use digital tools for academic writing every day, and 67 use them several times a week, so that 88 (60.7%) reach for these tools at least several times weekly. Add the 37 who use them once a week and the figure rises to 125 participants, or 86.2%

of the sample. Only 20 students (13.8%) use them rarely or as infrequently as a few times a month. Placing this beside the writing-frequency column produces a comparison worth pausing over: 86.2% use digital tools at least weekly, whereas 78.6% write academically at least weekly. The tools, in other words, are reached for slightly more often than academic writing is actually undertaken. Whatever else this suggests, it rules out the idea that these students save such tools for major assignments or for a final tidying-up before submission. On the contrary, the tools have become woven into the ordinary act of writing itself.

Nevertheless, frequency alone tells us little about what students think they are getting, and the findings take an unexpected turn. Table 2 brings together four related measures: which features participants value most, whether they use grammar-checking tools for punctuation specifically, whether anyone ever taught them to use such tools, and how effective they judge them to be. Consider first the question of valued features. Grammar checking led the field with 55 responses (37.9%), followed by vocabulary enhancement with 40 (27.6%), spelling checking with 23 (15.9%), and style suggestions with 21 (14.5%). Punctuation checking, however, attracted just 4 responses — a mere 2.8% of the sample — placing it second from last, ahead only of plagiarism checking.

Table 2

Use of Grammar-Checking Tools for Punctuation and Receipt of Formal Training (N = 145)

Response	Uses tools for punctuation *n* (%)	Received formal training *n* (%)
Yes	115 (79.3)	74 (51.0)
No	30 (20.7)	71 (49.0)

At first glance, this result seems to contradict the very next line of the same table, which records that 115 participants (79.3%) use grammar-checking software or online tools expressly to proofread and correct punctuation errors in their academic writing. The two figures sit awkwardly together: nearly four students in five use these tools for punctuation, and yet fewer than one in thirty regards punctuation help as something worth valuing. How can both be true? The most convincing explanation is that students do not think of punctuation as a separate category of assistance. When a tool repairs a comma splice, restores a missing comma before a coordinating conjunction, or replaces a semicolon with a full stop, it typically flags the change under the broad heading of grammar — and the student, reasonably enough, remembers it as grammar correction. Punctuation support is therefore not absent from these students' experience at all; it is concealed within their conception of grammar checking. The practical consequence is significant. A student who does not recognize punctuation as a distinct form of feedback will not go looking for it deliberately, will not compare tools on that basis, and will be poorly placed to notice when a tool handles punctuation badly.

That last concern becomes more pressing in light of the training data. While 79.3% of participants use these tools for punctuation, only 74 (51.0%) report having received any

formal instruction in using digital supports, and 71 (49.0%) report none whatsoever. Almost exactly half the group, that is to say, has worked out how to use these tools unaided. The significance of this lies in what competent use actually demands. Automated feedback is not self-executing: a student must judge whether a suggestion is correct, whether it preserves the meaning intended, whether it suits the conventions of the discipline, and whether to accept it at all. These are matters of judgment rather than of button-pressing, and half of these participants have never been shown how to exercise that judgment — even though they are called upon to exercise it, in practice, several times a week.

Given all this, one might expect students to be either enthusiastic or skeptical about the results they obtain. In fact, they are neither, and their verdict is best described as favorable but guarded. As the closing rows of Table 2 show, 85 participants (58.6%) judge grammar-checking tools somewhat effective for improving their punctuation skills, 33 (22.8%) very effective, and 27 (18.6%) not very effective. Combined, 118 students (81.4%) grant these tools some measure of benefit, which appears to be a strong endorsement until one notices where the weight of opinion actually sits. Nearly three-fifths of the sample chose the middle option. Only around one student in five is firmly convinced — a proportion almost identical to the 20.7% who do not use these tools for punctuation at all and to the 18.6% who doubt their effectiveness. This points to a curious kind of habit: students continue using these tools daily without ever being fully persuaded by them.

Taken together, the findings speak to both aims of the study. As to which digital supports EFL students use for punctuation, the answer is Grammarly above all, trailed by a scattered handful of smaller checkers and supplemented by the built-in functions of ordinary word processors — with the crucial qualification that none of these is a punctuation tool as such, so that punctuation help arrives bundled inside broader grammar and writing assistance rather than sought out on its own terms. As to the extent of use and reliance, use is extensive while reliance remains qualified. These tools are used at least weekly by 86.2% of participants and, for punctuation specifically, by 79.3%, placing them squarely at the center of students' writing practice. Even so, only half the sample has been taught to use them, barely any student recognizes punctuation as a distinct form of support, and merely a fifth considers the tools genuinely effective. The portrait that emerges, then, is of a group of students who lean on digital support every week, understand it only partially, and trust it only moderately—a reliance built more on convenience and habit than on informed confidence.

Discussion

The present study set out to identify the digital supports that EFL students use for punctuation in academic writing and to determine the extent of that use and reliance. Three results stand out: automated writing assistance has become a routine condition of these students' writing practice, punctuation is almost invisible to them as a category of feedback despite being the explicit purpose for which most use such tools, and roughly half the sample has developed this reliance without any formal instruction. Each of these results

converges with existing research in some respects and departs from it in others, and their significance emerges through this comparison.

The clearest point of convergence concerns the scale and concentration of tool use. That 86.2% of participants use digital writing tools at least weekly, and that Grammarly alone accounts for roughly twice as many mentions as any other tool, aligns closely with what has been reported across a range of EFL contexts. Fitria (2021), working with Indonesian tertiary students, likewise found Grammarly to be the dominant choice among available writing assistants, while Dizon and Gayed (2021) documented its widespread adoption among Japanese L2 writers. O'Neill and Russell (2019) reported that Australian university students who received Grammarly feedback were significantly more satisfied with the grammar advice they received than those who did not, responding more positively on nine of fifteen survey items, with no discernible difference between international and domestic cohorts. Nazari et al. (2021), in a randomized controlled trial, found that an AI-powered writing assistant improved postgraduate students' writing self-efficacy and reduced writing anxiety. The present findings therefore extend a well-established pattern rather than disturbing it. Where automated writing assistance is available, EFL students adopt it readily and use it habitually. The finding that these students reach for digital tools slightly more often than they undertake academic writing itself (86.2% against 78.6% at least weekly) sharpens this picture, suggesting that such tools are no longer a supplementary resource invoked for major assignments but an ambient feature of the writing environment.

A second convergence concerns the qualified nature of students' confidence. In the present study, 81.4% of participants credited grammar-checking tools with some benefit for punctuation, yet only 22.8% judged them very effective, with the clear majority selecting the moderate option. This pattern of endorsement without conviction has been observed repeatedly. Ranalli (2021) found that L2 writers' engagement with automated feedback was mediated by questions of trust, with students often uncertain whether to accept a given suggestion. Koltovskaia (2020), in a multiple case study of student engagement with Grammarly's automated written corrective feedback, found that engagement was often shallow, with participants accepting suggestions without processing the reasoning behind them. Guo et al. (2022) similarly reported that EFL students' capacity to make productive use of automated feedback in research writing varied considerably and was constrained by their existing linguistic knowledge. The moderate ratings recorded here are thus consistent with evidence indicating that habitual use and confident use are not the same thing.

The differences between the present findings and prior work are, however, more instructive. The most substantial of these concerns the status of punctuation itself. Where punctuation checking was named as a valuable feature by only four participants (2.8%), grammar checking was named by fifty-five (37.9%) — and yet 79.3% of participants reported using grammar-checking software specifically to proofread and correct punctuation errors. This apparent contradiction has not, to the author's knowledge, been documented in the existing literature, in large

part because most studies of automated feedback treat punctuation as one error category among several rather than as an object of inquiry in its own right. Guo et al. (2022) and Koltovskaia (2020), for instance, analyze feedback uptake across grammatical, lexical, and mechanical categories without examining whether students perceive those categories as such. The present study suggests that they do not. Punctuation feedback appears to be absorbed into students' conception of grammar checking, most plausibly because the tools themselves label it that way. It matters because it bears directly on the argument made by Daffern et al. (2017), whose analysis of 819 Australian primary students established punctuation as a significant independent predictor of composition quality. If punctuation contributes independently to writing quality but is not perceived independently by student writers, then students are unlikely to monitor their own development in it, to compare tools on that basis, or to notice when a tool handles punctuation poorly.

A second and related divergence concerns the conditions under which these tools are used. Much of the existing evidence on automated writing assistance derives from instructed or experimental settings: Nazari et al. (2021) employed a controlled intervention, Guo et al. (2022) situated tool use within a research writing course, and Ivanova et al. (2022) argued on the strength of their findings that digital support carries considerable didactic potential and should be permanently integrated into academic writing training. The present study, by contrast, describes naturalistic use, and the difference is consequential. Only 51.0% of participants had received any formal instruction in using digital supports, while 79.3% used them for punctuation. The recommendation that such tools be integrated into instruction therefore describes a condition that has not yet been met for half of this sample, even though the tools themselves have already been adopted. Adoption has outpaced pedagogy. Godwin-Jones (2022) anticipated this asymmetry, arguing that intelligent writing assistance requires deliberate pedagogical framing if it is to support language learning rather than merely substitute for it, and the present findings add empirical weight to that concern.

A third divergence concerns the composition of students' tool repertoires. The literature tends to examine designated writing assistants, whether Grammarly (Barrot, 2022; Fitria, 2021) or, more recently, generative AI systems (Barrot, 2023; Escalante et al., 2023). The present study finds that students' actual repertoire is considerably more heterogeneous: alongside dedicated checkers, thirty-five participants identified ordinary word processors as their source of digital support, and others named QuillBot, Duolingo, and U-Dictionary—applications built for paraphrasing, general language learning, and lexical reference, respectively. Notably, no tool named by any participant was designed specifically for punctuation. Students are therefore not selecting instruments suited to the problem; they are using what is convenient and receiving punctuation assistance as an incidental by-product. This finding suggests that research framed around named writing assistants may capture only part of what students actually do, and that the category of "digital support" as students understand it is broader and less deliberate than the literature typically assumes.

Taken together, these comparisons point to a single interpretation. What distinguishes this sample is not the extent of its reliance on digital tools, which is consistent with findings elsewhere, but the gap between that reliance and the understanding underpinning it. These students write frequently, judge themselves unproficient, use automated support as a matter of routine, cannot name punctuation as a distinct form of the help they receive, have largely not been taught to use the tools they depend on, and evaluate those tools with reservation. The relationship is one of dependence rather than informed use—a distinction that recent work on AI-generated feedback has begun to emphasize, with Escalante et al. (2023) and Steiss et al. (2024) both finding that the value of automated feedback depends heavily on the recipient's capacity to evaluate it.

Several strengths and limitations qualify these conclusions. The study's principal strengths lie in the size and institutional breadth of the survey sample, which drew 145 respondents across fifteen universities, and in the combination of survey and interview data, which allowed distributional patterns to be interpreted in light of participants' own accounts. The focus on punctuation specifically, rather than on writing accuracy in general, also permitted the perceptual anomaly reported above to surface, which a broader framing would likely have obscured.

The limitations are equally clear. Recruitment proceeded through institutional gatekeepers and therefore produced a convenience sample, which restricts generalization beyond the participating institutions. All measures were self-reported, including proficiency and effectiveness, and no objective assessment of participants' punctuation knowledge or written output was undertaken; consequently, the study can describe what students believe about their use of these tools but cannot establish whether that use improves their punctuation. The absence of a comparison group of non-users further precludes any causal claim. Finally, the study captured tool use at a single point in time, and given the pace at which generative AI writing tools have entered student practice, the repertoire described here should be regarded as a snapshot rather than a stable pattern.

Three practical implications follow. First, given that adoption has outpaced instruction, institutions should treat competence in using automated feedback as a teachable skill rather than an assumed one, addressing in particular how to evaluate a suggestion rather than accept it. Second, because punctuation is not perceived as a distinct domain of feedback, writing instruction would benefit from making it explicitly visible—naming punctuation as a category and drawing students' attention to what their tools do and do not handle within it. Third, for educators, the heterogeneity of students' tool repertoires suggests that guidance framed around a single named application will miss much of what students actually use.

Conclusion

This study set out to identify the digital supports that EFL students use in relation to punctuation in academic writing and to establish how far they use and rely upon them. It found a group of students caught between two pressures. They write in English constantly, most

of them weekly and some of them daily, yet the great majority do not believe they write it well. Digital tools have moved into that gap and settled there. They are no longer summoned for the difficult assignment or the final check before submission; they are simply part of what writing now involves, reached for as reflexively as the keyboard itself. Grammarly presides over this landscape, named far more often than any rival. However, it shares the field with an assortment of smaller checkers, with the correction functions built into ordinary word processors, and with applications intended for paraphrasing or looking up words. What no student named was a tool designed for punctuation. Students are not choosing instruments suited to the problem; they are using whatever lies to hand and receiving punctuation help as an accidental benefit.

The most revealing finding emerged from an apparent contradiction. Asked which features they valued, participants pointed overwhelmingly to grammar checking, while punctuation checking finished near the bottom of the list, chosen by a handful of respondents. Asked separately whether they used grammar-checking software to correct punctuation, nearly four in five said yes. Both answers cannot be taken at face value, and the way to reconcile them is to conclude that students do not think of punctuation as a distinct kind of help at all. When a tool repairs a comma splice, it files the correction under grammar, and the student remembers it the same way. Punctuation is thus not missing from their experience; it is hidden inside it. Set beside two further results—that only half the sample was ever taught to use these tools, and that most participants rated them as merely somewhat effective rather than genuinely so—a coherent picture emerges: these students depend on digital support weekly, understand it partially, and trust it moderately. Their dependence rests on convenience and habit rather than on informed judgment, and it is here that the practical significance of the study lies. Because adoption has plainly outrun instruction, institutions should treat competence with automated feedback as a skill to be taught rather than assumed, paying particular attention to the judgment required to decide whether a suggestion deserves acceptance. Because punctuation remains invisible to students as a category, writing instruction should make it visible, naming it as a domain in its own right and showing students what their tools do and do not address within it. Moreover, because students' repertoires proved so improvised, guidance built around any single application will miss most of what they actually use. One question remains beyond the reach of this study, which measured what students believe about these tools rather than what the tools achieve: whether this weekly reliance is building the skill it is meant to support, or quietly standing in for it.

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