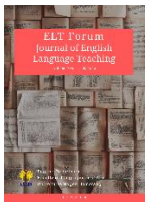
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Exploring EFL students' experiences of learner agency in English writing supported by AI-mediated metacognitive scaffolding

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Abstract

Learner agency in English as a Foreign Language (EFL) writing has become an important issue due to the increasing presence of artificial intelligence (AI) tools as mediators in the writing process. Even though previous studies have looked into the use of AI-mediated scaffolding in self-regulated learning and in improving writing performances, there is little research done on how learner agency is enacted, experienced, and negotiated by EFL students in AI-supported writing where the AI foregrounds metacognitive scaffolding through dialogic questioning instead of generating ready-made textual content. This qualitative case study aims to address this knowledge gap by investigating the experiences of ten EFL students from the fourth semester enrolled in a public university in Indonesia who engaged in SICA, an AI-mediated metacognitive scaffolding tool in the form of a Line-based chatbot, in their Factual and Critical Writing course. Thematic analysis was applied to data gathered from written reflections from all ten participants and semi-structured interviews with nine of them, following the temporal dimensions of agency proposed by Emirbayer and Mische (1998). It has been found that Socratic questions promoted the activation of students' metacognitive cycle of planning, monitoring, and evaluation. Students have negotiated AI suggestions either by accepting, modifying or rejecting them depending on relevance, authenticity, and usefulness, and therefore demonstrating learner agency through informed decision-making. While technical and cognitive tensions have appeared, they have acted as productive friction which prompted learners to reconceptualize their writer identity with greater metacognitive awareness and confidence.

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INTRODUCTION

English academic writing is a demanding process that requires learners to integrate linguistic resources with cognitive and metacognitive processes. Students need to develop grammatical, lexical, and rhetorical knowledge and skills while also planning, monitoring, and evaluating their writing to convey ideas effectively and achieve the intended purposes of their writing tasks (Feng & Mei, 2022; Teng et al., 2021). Managing these metacognitive processes is a serious issue for many English as a Foreign Language learners since they need to write in a second language which makes the process more difficult cognitively (Tsiriotakis et al., 2020; W. Xu & Zhu, 2024).

The emergence of artificial intelligence (AI) has changed how students receive support in academic writing, bringing both benefits and risks. Students now have immediate access to feedback, idea generation, structural suggestions, and language corrections that were previously more difficult to obtain outside writing centers or tutoring contexts (Urzúa et al., 2025; Zhang & Jiang, 2026). However, when AI tools tend to provide corrections or ready-made content rather than encouraging reflection, the space for students to plan, monitor, and evaluate their own thinking processes may be reduced (Chen, 2026; Fan et al., 2024). Under these circumstances, the importance of metacognition, or awareness and regulation of thinking and learning processes on the part of students, becomes apparent. Without active engagement in metacognitive processes, students may become overly reliant on AI-generated assistance, limiting opportunities to develop the skills needed to plan their writing, monitor their own ideas, and critically evaluate suggestions generated by AI (Fan et al., 2024; Teng, 2025b; Yan, 2026). As a result, students' sense of control and ownership over the writing may decrease (Moorhouse et al., 2025), which potentially undermine learner agency.

Learner agency is conceptualised as a complex, dynamic, and relational capacity through which learners exercise ownership and control over their learning (Jun & Mu, 2024; Wai & Yung, 2025). It is manifested in learners' capacity to act purposefully, make meaningful choices, adapt to affordances and constraints, and take responsibility for their learning processes across time and settings (Larsen-Freeman et al., 2021, as cited and extended in Wai & Yung, 2025). In academic writing, agency is reflected not only in the written product but also in the decisions students make throughout the writing process, including how they develop and direct their ideas, evaluate suggestions, and maintain their own voice (Jiang et al., 2026; Kim et al., 2026; Zhang & Jiang, 2026). These decisions require metacognitive processes that enable students to monitor their writing progress, evaluate the relevance and quality of feedback, and deliberately plan subsequent actions. Thus, although closely related, metacognition and learner agency are conceptually distinct: metacognition provides the reflective and regulatory processes through which learners can exercise greater control over their writing decisions (Chen, 2026; Kim et al., 2026; Yan, 2026).

Drawing on the framework by Emirbayer and Mische (1998), agency is temporal in nature and encompasses three dimensions: the iterational (past writing habits and experiences), the practical-evaluative (real-time decision-making during the writing process), and the projective (students' intentions and visions of themselves as future writers). These temporal orientations provide a useful lens for examining how learners engage in the metacognitive processes of planning, monitoring, and evaluation that characterize self-regulated learning (Flavell, 1979; Zimmerman, 2002).

This tension between the convenience offered by artificial intelligence and the preservation of learner agency provides the central motivation for the present study, which examines learner agency in English writing supported by AI-mediated metacognitive scaffolding. Existing research on AI-supported writing has addressed a range of outcomes, including self-regulated learning (Achuthan, 2025; Banihashem et al., 2025; Tomisu et al., 2025; J. Xu et al., 2026), motivation and engagement (Li, 2026; Lowry et al., 2025; Melanou & Beege, 2026), writing performance (Rogti & Ouarniki, 2026; Teng, 2025a; Truc, 2025), and metacognitive awareness (Teng, 2024, 2025a, 2025b). Recent studies have also begun to explore agentic patterns and temporal dynamics of GenAI use (Jiang et al., 2026; Kim et al., 2026; Yang et al., 2026). However, none of these previous studies has yet examined how EFL students enact, experience, and negotiate agency when an AI system intentionally withholds ready-to-use information and instead responds only through Socratic questioning—a design that removes the very affordances (text generation, validation, correction) on which prior agency research has depended. This constitutes the precise empirical gap in which existing studies have examined agency with generative AI that produces text, but not agency without text production, where the AI's non-generativity itself becomes the condition for learner agency. Such research into the phenomenon of agency demands an in-depth examination of learners' subjective experience and moment-to-moment decision-making, which presupposes the use of a case study methodology.

To address this gap, this study aims to examine learner agency in English writing supported by SICA, an AI-mediated metacognitive scaffolding tool in the form of a Line-based chatbot, built as a part of a broader research. SICA is deliberately designed to guide students through the planning, monitoring, and evaluating stages of writing while requiring them to retain final decision-making authority, including accepting, modifying, or rejecting suggestions rather than receiving ready-made text or corrections. Its three-stage design directly operationalizes the framework above: planning prompts draw on students' prior experience, monitoring prompts require real-time evaluative decisions as students revise, and evaluation prompts invite reflection on how present choices shape their trajectory as writers.

SICA was selected as an AI-mediated metacognitive scaffolding tool for this study to examine because the nature of its design actively engages learners in decision-making that tests theoretical assumptions about scaffolding and dialogic interaction. By operating within the zone of proximal development—the gap between what a learner can do independently and what they can achieve with guidance from a more knowledgeable other (Vygotsky, 1978; Wood et al., 1976)—SICA functions as a dynamic scaffold rather than an answer provider. Furthermore, its use of dialogic, Socratic questioning, rather than direct instruction, aligns with research suggesting such strategies stimulate critical thinking (Namaziandost & Teng, 2026; Xi et al., 2025). By positioning AI as a cognitive partner that challenges learners to plan, monitor, and evaluate—and to accept, modify, or reject its suggestions—SICA provides a context where students' retention of control over their writing choices can be closely observed.

Therefore, this study aims to examine how EFL learners enact, negotiate, and experience agency during AI-mediated metacognitive scaffolding in English writing. Specifically, it addresses the following research questions:

(1) How do EFL students enact and experience learner agency during English writing supported by AI-mediated metacognitive scaffolding?

(2) How do students negotiate whether to accept, modify, or reject AI-generated metacognitive suggestions during English writing, and what factors influence these decisions?

(3) What tensions, challenges, and empowering experiences do EFL students encounter as they exercise learner agency during English writing supported by AI-mediated metacognitive scaffolding?

METHODS

This study employed a qualitative case study design to explore EFL students' experiences of learner agency in English writing supported by AI-mediated metacognitive scaffolding. The scaffolding was delivered through SICA, a text-based chatbot on LINE, configured through a system prompt to act as an English-writing tutor for EFL learners using reflective questioning and supportive scaffolding. A case study design was selected because it enables an in-depth, holistic examination of a bounded system (Creswell & Poth, 2018), in this instance is one group of students who used SICA during their academic writing process over a single semester. SICA was designed to respond to students' inputs and writing needs using accessible language in English or their first language, as appropriate, and provided clarification, hints, brief explanations, language corrections, or sentence-level models. Through multi-turn text exchanges, students submitted questions, ideas, or writing excerpts and independently decided how to incorporate SICA's feedback into subsequent revisions. As illustrated in Figure 1, SICA initiated the interaction with a bilingual greeting and invited the student to select a writing topic, to which the student responded "education." Overall, the prompt guided students' thinking and revision rather than generating complete essays.

The participants involved in the present research were fourth-semester students enrolled in an English Education Study Program at a public university in Central Java, Indonesia. They were undertaking a Factual and Critical Writing course in the even semester of the 2025/2026 academic year. The participants were selected through purposive sampling based on three criteria: (1) actively using SICA throughout their writing process; (2) completing all writing assignments required in the course; and (3) being willing to participate in the study. Besides these, there were some characteristics related to the background of the participants that were also taken into consideration to interpret their agency. For example, in this stage of their education, the participants generally had an intermediate level of writing English (CEFR B1-B2), and the skills related to academic writing were still under development. They had already worked with the generative AI systems like ChatGPT to generate

ideas, translate texts, or improve the quality of the draft without engaged in any metacognitive scaffolding.

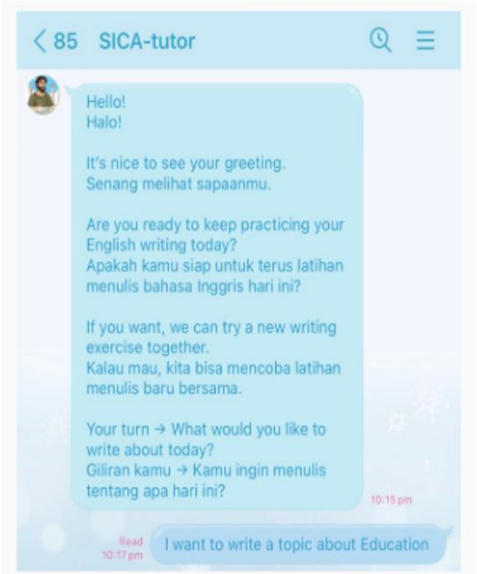


Figure 1. SICA interaction flow in the writing process

Data were collected through two primary sources: written reflections and semi-structured interviews. Written reflections were collected from all ten participants through Google Forms, where they were provided with guiding prompts to structure their reflections on their agency while writing with SICA. Semi-structured interviews were subsequently conducted with nine of these ten participants via Zoom meetings; one participant could not attend an interview due to scheduling constraints but completed the written reflection and remains part of the full sample (N = 10; interview subsample n = 9). This difference has no substantive impact on the dataset or analysis, as the reflections of all participants were fully included and the interview data served primarily to enrich and triangulate the findings. Interviews were carried out in Indonesian to allow participants to express their thoughts more freely and elaborately. Each interview lasted approximately 30–45 minutes and focused on students' experiences of agency, their decision-making processes when responding to SICA's suggestions, and the tensions or empowering moments they encountered. The written reflections produced approximately 5,500 words in total, while the interview transcripts generated roughly 30,000 words.

All the data were gathered after participants had taken the Factual and Critical Writing course, in which throughout a single semester, the participants worked on several academic writing tasks (including descriptive, discussion, and hortatory and analytical exposition texts) while using SICA as a metacognitive scaffold. For each task, SICA guided them through planning, monitoring, and evaluating stages via Socratic questioning without supplying ready-made content.

Written reflections were done first, which was followed by semi-structured interviews. Video recordings of the interviews were automatically transcribed by Zoom's automatic transcription feature, followed by the verification of the accuracy of the transcripts manually by the researcher. After verifying the Indonesian transcripts, they were then translated to English via DeepL. In order to ensure that the translations preserve the participants' accuracy and intended meaning as per the participants' actual responses, the researcher double-checked the translated transcripts against the original Indonesian transcripts referring back to the video recordings. All the data including written reflections and interviews transcription were stored securely in a Google Drive workspace and examined iteratively. The use of two distinct data sources allowing the researcher to compare and triangulate perspectives across data sources.

Thematic analysis was conducted in accordance with the methodological framework suggested by Braun and Clarke (2006) and which comprises six stages including familiarization, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the

report. In accordance with the key premises of reflexive thematic analysis, the methodology was seen as interpretative and iterative rather than focused on code reliability and theoretical saturation.

First, familiarization was performed in the process of reading and re-reading the transcripts and reflections, while forming first impressions about the nature of students' decision making and writing experiences supported by SICA. Second, initial codes were generated in the dataset using both deductive and inductive approaches. Deductive coding was based on Emirbayer and Mische's (1998) agency dimensions (iterational, practical-evaluative, and projective), as well as on the metacognitive processes of planning, monitoring, and evaluating (Flavell, 1979; Zimmerman, 2002), while inductive coding was used simultaneously to allow emerging patterns to appear spontaneously from the data. Third, codes were contrasted across individual participant's accounts and grouped into more general candidate themes. In the course of cross-case analysis, the researcher was able to find out patterned differences in the way students accepted, modified or rejected SICA's recommendations, depending on their perceived relevance, authenticity and domain-specific trust. Fourth, these themes were reviewed and redefined through comparative analysis with the entire dataset. After coding the complete set of data from the ten participants, no substantially new codes or themes continued to emerge, indicating analytic sufficiency. Because coding was conducted solely by the researcher, analytic reflexivity and credibility were maintained through prolonged engagement with the data, systematic reflexive memos that documented interpretive decisions and the researcher's positioning, and a detailed audit trail of analytic choices. Fifth, the themes were then defined and labelled in such a way that they reflected both similarities and contradictions in participants' accounts. Lastly, the analytical narrative was documented by selective quotation and interpretation of themes in relation to the research questions posed by the study.

Ethical protocols were carefully observed throughout the study. Prior to data collection, participants were informed about the purpose of the research, the voluntary nature of their participation, and their right to withdraw at any time without consequences. Written informed consent was obtained from all participants, and pseudonyms were used in all reports to protect confidentiality. All data were used solely for research purposes.

FINDINGS AND DISCUSSION

This following section presents findings on the experiences of EFL students' learner agency in English writing supported by AI-mediated metacognitive scaffolding, namely SICA. Their experiences were analysed using thematic analysis (Braun & Clarke, 2006). The identified themes are presented in the order of the research questions: three themes for RQ1, three themes for RQ2, and two themes for RQ3. The following Table 1 presents an overview of the themes identified under each research question along with one representative piece of evidence.

Table 1. Mapping of research questions to themes and representative evidence

RQ	Theme	Representative Evidence
RQ 1: How do EFL students enact and experience learner agency during English writing supported by AI-mediated metacognitive scaffolding?	Socratic Questioning as a Trigger for Reflection	"SICA makes me think about things critically on my own… it just gives you the frameworks. Then I need to come up with ideas." (P1, Interview)
	Activating the Metacognitive Cycle across Planning, Monitoring, and Evaluation	"The concept from the very beginning was that I was the one giving content because after I understood that I could not ask SICA for that one, I gave the ideas of the content myself." (P9, Interview)
	Ownership and Authorship Positioning in the Writing Process	"I felt more control over the process of writing using SICA. I felt it's my writing, because if I use other AI… it immediately gives the complete answer." (P2, Interview)
RQ 2: How do students negotiate whether to accept, modify, or reject AI-generated	Acceptance as Strategic Dependence	"I decided to follow the suggestion from SICA because I was sure that it would help me a lot in organizing my text." (P1, Written Reflection)

RQ	Theme	Representative Evidence
metacognitive suggestions during English writing, and what factors influence these decisions?	Modification as Selective Appropriation	"SICA suggested me to write a full sentence… However, I finally decided to remove 'at school' since in my opinion the movie shows a strong connection not only at school…" (P1, Written Reflection)
	Rejection as an Expression of Authenticity	"I kept my original idea so that my discussion wouldn't deviate further." (P3, Written Reflection)
RQ 3: What tensions, challenges, and empowering experiences do EFL students encounter as they exercise learner agency during English writing supported by AI-mediated metacognitive scaffolding?	Tensions and Agentic Coping Strategies	"There was once a moment when SICA's responses did not match the conversation context or in the other word it returned to the initial stage of our conversation even though the discussion was not finished" (P3, Written Reflection).
	Writer Identity Repositioning	"Before using SICA, I felt that I was good enough in writing… But after using SICA… I realized that I still need to develop my writing skills… and become more confident…" (P1, Interview)

RQ1: How do EFL students enact and experience learner agency during English writing supported by AI-mediated metacognitive scaffolding?

The following findings for RQ1 are presented through three themes: Socratic Questioning as a Trigger for Reflection, Activating the Metacognitive Cycle across Planning, Monitoring, and Evaluation, and Ownership and Authorship Positioning in the Writing Process.

Theme 1: Socratic questioning as a trigger for reflection

The type of questioning adopted in SICA interactions was an essential tool for the students' agency enactment. Through withholding the answers and posing the questions, SICA purposely triggered reflection by making students stop and think.

> *"SICA makes me think about things critically on my own… it just gives you the frameworks. Then I need to come up with ideas."* (P1, Interview)

> *"SICA did not directly provide answers, but gave questions that required me to think about ideas, paragraph order, or parts that needed improvement."* (P9, Written Reflection)

> *"The moment I remember most is when SICA did not directly give the answer, but gave questions that made me think first. From that, I learned to determine ideas, compose answers, and decide for myself how to develop my writing."* (P2, Written Reflection)

> *"While using SICA, I felt the writing process became more directed because I was not immediately asked to produce an answer, but was guided through questions that helped me think. The moment I remember most is when I had difficulty developing ideas in my writing. At that time, SICA did not directly give the answer, but posed several questions that made me think again about what I wanted to convey."* (P3, Written Reflection)

As evident from these responses, students enacted their agency through the interpretation of questions as prompts for individual reflective thought processes. This chance helped them develop the capacity to think about their own thinking, moving beyond task completion to strategic self-evaluation (Xi et al., 2025). In particular, P1 stated that the questions made her come up with her own thoughts, and that these questions prompted her critical thinking. P9 stated that she had to think about her own

writing and, specifically, about paragraphing and what needs to be improved in this aspect. Moreover, P2 and P3 described how SICA's questions made them pause, rethink, and decide for themselves how to develop their writing.

Theme 2: Activating the metacognitive cycle across planning, monitoring, and evaluation

The socratic dialogic scaffolding offered by SICA led to students' activation of the metacognitive cycle through all the stages of writing, namely planning, monitoring, and evaluation. This is shown by the students' conscious participation in each step of the writing process as they were able to make use of the scaffolding questions in order to facilitate their decision-making. The recursive movement through planning, monitoring, and evaluation enabled the students to improve their texts and writing processes continually. For instance, during the *planning* stage, the students produced their own ideas before interacting with SICA. As P9 put it:

> *"The concept from the very beginning was that I was the one giving content because after I understood that I could not ask SICA for that one, I gave the ideas of the content myself."* (P9, Interview)

By realizing that SICA would not give generative content and only give direction of the development of her writing, she made sure to come up with her own ideas beforehand, which serves as an example of proactive stance compared to the common practice of passive engagement with generative AI. Proactive planning was reported by all 10 participants, although at different levels; whereas some, such as P9, had this orientation right from the start, others, such as P2, adopted this stance gradually when they realized that SICA could not provide generative content.

In the *monitoring* stage, students assessed whether their ideas aligned with intentions. P5 reported:

> *"One question asked whether my paragraph really supported the main idea of mine. After reading the suggestion or response from SICA, I realized it needed more explanation."* (P5, Written Reflection)

The metacognitive cycle represented by P5, question, rereading, realization, revision, reveals the recursive process of metacognitive monitoring. Rather than giving her the direct correction, SICA's question gave her the situation to recognize the error or weaknesses herself. This is important for learners to learn from errors or weaknesses that they have recognized themselves, rather than from corrections given to them. In that way, the dialogic Socratic design made students take an active role in monitoring their own errors rather than being passive receivers of the correction.

In the *evaluation* stage, students reflected on their learning and identified areas for development. P4 noted:

> *"With SICA, the writing learning process really felt like having a tutor... I knew my weaknesses were mostly in vocabulary."* (P4, Interview)

The choice by P4 to frame SICA as a "tutor" instead of a "corrector" is significant because she sees SICA as a tool that makes the process transparent and not just enhances the end product. Moreover, process orientation is critical to metacognitive learning since learners cannot regulate what they do not observe. For instance, in explaining her shortcomings as "mostly in vocabulary," P4 shows the kind of metacognitive awareness that allows one to know what to improve on. Seven of the participants were able to identify their strengths and weaknesses in such a manner.

Students response above shows the agency is exercised through continuous cognitive efforts by which students initiate ideas, evaluate their suitability in terms of intentions being formed and choose actions based on that. By that, they turn a potential passive process into an active process of metacognitive regulation of oneself. Thus, the dialogic questioning approach used in SICA can be viewed as a trigger of reflection that makes cognitive processes underlying successful writing visible and regulable.

Theme 3: Ownership and authorship positioning in the writing process

At the core of this theme is the shift from regular generative AI interactions to a dialogic conversation that enables a redistribution of the burden of cognition back to the students, thus requiring the students to think about their own ideas, their process of thinking, and regulation of their writing processes. The

participants didn't perceive the guidance offered by SICA as a source of ready-made text, but as something from which they had to produce content and make independent decisions about the direction of their own writing, leading to the sense of ownership and authorship felt by the students.

> *"I felt more control over the process of writing using SICA. I felt it's my writing, because if I use other AI… it immediately gives the complete answer."* (P2, Interview)

> *"In my opinion, it was my own result... So SICA was only a tutor to help me. So for the result itself, I think it was dominantly from myself."* (P1, Interview)

> *"With SICA, I remained the person who composed the content of the writing, while SICA helped direct and guide me to correct it."* (P5, Written Reflection)

According to the excerpts above, students claimed ownership of the text and regarded themselves as the primary authors of their work. For instance, P1 viewed SICA as a tutor rather than a generator because the product was predominantly produced by her. Similarly, P5 described herself as the composer while positioning SICA as the director and guide of corrector. The students shifted cognitive responsibility back to themselves and consistently positioned themselves as the authors rather than as recipients of AI-generated text.

RQ 2: How do students negotiate whether to accept, modify, or reject AI-generated metacognitive suggestions during English writing, and what factors influence these decisions?

The research findings to answer RQ2 is presented under the following three themes: Acceptance as Strategic Dependence, Modification as Selective Appropriation, and Rejection as an Expression of Authenticity. These three themes, thus, demonstrate that the students were not passive adopters of the SICA recommendations, but evaluated them according to their own criteria of relevance, consistency, authenticity, and utility.

Theme 1: Acceptance as strategic dependence

During the process of writing supported by SICA, the acceptance of the suggestion provided was not something that automatically happened, but rather, it was an agentic decision based on students' own judgment. Acceptance of suggestions occurred only when they served the writer's rhetorical purposes or addressed a gap in their linguistic resources. In other words, students accepted AI suggestions selectively when they perceived them as relevant and useful for strengthening their intended meaning or improving the linguistic quality of their writing. As one example, P1 noted:

> *"I decided to follow the suggestion from SICA because I was sure that it would help me a lot in organizing my text."* (P1, Written Reflection)

The expression of "I was sure" made by P1 is an indication of making judgment and not of obedience. The acceptance was based on her belief that the suggestion filled a tangible organizational requirement, which is an example of utility judgment. Likewise, P4's acceptance of vocabulary modifications was no impulse; she made an effort to check their enhancement by comparing them before adopting them. The students also demonstrated domain-specific trust, whereby they conceded on grammar and vocabulary but not on content and idea. As P4 stated:

> *"I trust SICA's suggestion and I follow it because I believe SICA will guide the accurate use of grammar."* (P4, Interview)

This statement reveals a strategic division of cognitive labour: P4 positions SICA as a guidance on grammar while implicitly positioning herself as the authority on content. This selective attribution of authority is itself an expression of agency, in which students actively determined which aspects of their writing required external validation and which they could trust to their own judgment. Seven of 10 participants described such domain-specific trust, with grammar and vocabulary being the areas most frequently delegated to SICA, while all 10 retained authority over content and ideas.

Theme 2: Modification as selective appropriation

Modification, in this case, is demonstrated the use of control at its most sophisticated level. Unlike *Acceptance* or *Rejection,* in which students either took the suggestions in total or disregarded them completely, *Modification* involved students taking the suggestions as raw material and selecting which elements to incorporate along with their own pre-existing intentions. This necessitated keeping in mind several representations: the suggestion itself, one's intention, and the product that emerged from the interaction between the two, requiring a metacognitive skill on a high order. P1 explained her practice of *Modification* as follows:

> *"There was a moment when I needed to write a review text. At that time SICA suggested me to write a full sentence: 'The story has a slow pace that allows viewers to feel the closeness and everyday life of young people at school.' However, I finally decided to remove 'at school' since in my opinion the movie shows a strong connection not only at school, but at the other places as well."* (P1, Written Reflection)

The excerpt above is an example of modification whereas P1 didn't discard the whole sentence but instead deleted the phrase "at school" since she thought it was inaccurate according to her understanding of the theme in the movie. Here shows that *Modification* happens through selective suppression and constraint tightening. It realized through the way P1 does not reject the suggestions, but rather engages in small-scale modifications like keeping syntactic construction unchanged while making changes to lexicon.

> *"I once took one of the suggested vocabulary words, but still maintained my own sentence structure and ideas because I felt that was more in line with what I wanted to convey."* (P3, Written Reflection)

This further statement made by P3 also shows how modification entails the selective appropriation of ideas, in which P3 decided to take the vocabulary from SICA's suggestion while making sure that she retained her own sentence structures and thoughts. She felt the need to ensure that her final writing would align with her intended message. This is an example of how *modification* entailed the selective incorporation of ideas, showing how the students did not regard SICA's suggestions as complete packages to either accept or reject as one, but as tools that could enable them to use their elements without compromising their own voices and rhetorical purposes. In this case, P3 maintained her own sentences and ideas in order to retain the ownership of her final writing, while incorporating the vocabulary from SICA.

Theme 3: Rejection as an expression of authenticity

Here, the students demonstrated *Rejection* served as a deliberate statement of ownership. They resisted any proposals which contradicted their own rhetorical intentions, preferring focus, relevance, and authentic texts over the convenience of acceptance. As seen in these following excerpts:

> *"If I followed SICA's suggestion, my writing would be out of topic."* (P1, Interview)

> *"There was a moment when SICA suggested me to expand one idea with specific examples. However, I decided to reject it or not add more ideas just like what SICA actually wanted me to do. I followed my thoughts since I felt that my text was already clear enough and on point, no need to add more information. If I add more ideas in my paragraph, there would be so many unnecessary information."* (P1, Written Reflection)

> *"The title SICA gave wasn't suitable for my writing."* (P9, Interview)

> *"I don't want to talk about that."* (P7, Interview)

> *"I kept my original idea so that my discussion wouldn't deviate further."* (P3, Written Reflection)

> *"SICA's suggestions seemed to want to change my idea."* (P9, Interview)

From those lines above, P1 dismissed the suggested suggestion on the basis that it would have introduced unnecessary information and undermined the clarity of her text. Her rejection was grounded in her assessment that her writing had already achieved its purpose. In P9, there was also a consideration towards the maintenance of her direction in her writing when dismissing suggestions. The same went for P7, who was resistant to any changes that would alter his direction of writing. Furthermore, P3 explained that he dismissed other suggestions because he wanted to make sure his writing stayed on the intended track.

From the excerpts above, the participants were not arbitrary in their dismissal of suggestions offered by SICA. Rather, they were guided by a consideration of the integrity of their writing, such as coherence, focus of the writing, and consistency. This was demonstrated by P10's rationale behind dismissing other suggestions. Furthermore, given the reasons provided by the participants for rejecting the suggestions made, it is quite apparent that rejection was regarded as a representation of authenticity and ownership. In the data set analyzed, most of the participants rejected at least one suggestion made by SICA if they found it irrelevant to their rhetorical objectives or not authentic enough in relation to their own thoughts.

RQ 3: What tensions, challenges, and empowering experiences do EFL students encounter as they exercise learner agency during English writing supported by AI-mediated metacognitive scaffolding?

Students demonstrated agency in the course of managing the tensions that arose when using SICA in their writing practices. These tensions occurred due to several aspects, such as the mismatches between scaffolding processes, technical limitations and the need to protect the writer's voice. Agency, thus, did not occur in the absence of tension but, rather, in the way students managed to regain control. Importantly, the very act of managing these tensions was not merely about solving the emerging issues but about a transformation of the way students saw themselves as writers. The findings for RQ3, therefore, are presented through two themes: Tensions and Agentic Coping Strategies, and Writer Identity Repositioning.

Theme 1: Tensions and agentic coping strategies

The following explanations focus on different kinds of tensions that the students experienced while going through their AI-mediated metacognitive scaffolding in English writing processes and the agentic ways of negotiating those conflicts. There were three forms of tension that arose, these were: (1) the prompts put forward by SICA did not correspond with the stages of the students' writings, thus distracting their intended focus; (2) there was a discrepancy between the needs of the students and the recommendations by SICA; (3) there were too many questions in one message for the students to handle; and (4) SICA's technical limitations in maintaining conversational context.

For the first case, some participants shared examples of prompts given by SICA that distracted them from the intended focus. As said by P2:

> *"There were times when SICA's responses kind of made me think of something else, my focus was slightly diverted because my main idea wasn't formed yet."* (P2, Written Reflection)

She identified the suggestion as temporally misaligned and negotiated it by first continuing her own development, then reflecting on the suggestion, and by directing the interaction to her own needs. Seven participants had such instances, and the most common trend here was that SICA asked questions about the writing stage that came after the main idea (like about the supporting details) before students could develop their main ideas properly.

A second form of tension arose from content-structure mismatch, where the SICA recommendations were not in tune with the actual needs of students. For instance, for P7, there was such a mismatch:

> *"SICA thought to ask for ideas, but I actually needed structure guidance."* (P7, Interview)

In this regard, the very fact that the student was able to identify such a mismatch meant the presence of metacognitive awareness: she was aware of what was needed (structural guidance), and she was aware of what SICA offered (content ideas). However, the metacognitive awareness was not enough to overcome the contradiction because the limitation of the tool made it impossible for her to

receive more help. Thus, the example of P7 demonstrates that the necessity of the metacognitive awareness in AI-mediated learning is not sufficient if the tool does not correspond to learners' perceptions. Likewise, P9 also stated that she needed the structural guidance concerning text organization, but SICA kept suggesting her the directions related to content development. It was necessary for students to negotiate this interaction by ignoring the suggestions of SICA for some time in order to determine their own direction.

A third tension involved cognitive overload from SICA's questioning strategy:

> *"Sometimes SICA gave too many questions in one message bubble, and I felt overwhelmed."* (P8, Interview)

As illustrated by P8's account, the Socratic questioning strategy of SICA was at times experienced as disruptive to the natural flow of writing. While participants generally recognised that the questioning promoted reflection, some reported that certain questions interrupted their ongoing writing process. Rather than passively accepting every prompt, students exercised selective interaction: they engaged only with questions they judged relevant to their current stage of writing and disregarded those they considered less useful.

Another tension emerged is from SICA's technical limitations in maintaining and saving conversational context. As P3 noted:

> *"There was once a moment when SICA's responses did not match the conversation context or in the other word it returned to the initial stage of our conversation even though the discussion was not finished"* (P3, Written Reflection)

This issue manifested in the way that SICA often reset to the initial conversation without warning. The limitation in SICA's memory imposed extra cognitive burden on the students as they were required to figure out when SICA had lost context and whether they needed to repeat themselves, ask their questions again, or just go on without any scaffolding from the tool. Although facing these difficulties, the students showed agency in dealing with them in that they came up with strategies for coping with them, such as being able to redeliver clear prompts to SICA, or saying where they were now in what stage of the writing process. As P6 explained, "when SICA didn't save memory, I just copied my conversation history with SICA," while P9 deliberately bypassed off-topic AI questions so as not to derail her drafting process. Despite these technical limitation, the loss of context-memory did not affect the trust students had towards SICA as their instructor's aid. Rather, it just led to changing the approach to writing decisions made by participants of the study by encouraging them to maintain local text backups, ignore irrelevant AI prompts, and explicitly direct the AI's focus. Ultimately, this limitation reinforced students' agency and confidence that enables them to write effectively even during AI-prohibited examinations—and fostered a long-term commitment to using AI mindfully rather than as an irreplaceable writer.

Theme 2: Writer identity repositioning

Writer identity is defined here in terms of students' perception of themselves as writers, building on Ivanič's (1998) framework of autobiographical, discoursal, and authorial selves, as well as on Matsuda's (2015) definition of the writer's discursive and non-discursive positioning. Writer identity will be measured through three dimensions in this study: (a) perceived writing ability, (b) positioning in relation to external tools and authorship, and (c) agency in making writing decisions. Identity shift is defined as changes in any of these dimensions that are (i) described by the participants, (ii) visible in their writing practices, and (iii) visible across multiple points in the data. We differentiate between temporary confidence—an emotional reaction to tool use from situational factors—and identity shifts as redefinitions of self as writer and self in relation to the tool. The former is seen as a response to the latter and does not qualify as an identity shift.

Shifts in participants' self-perceptions as English authors as a result of their constant dealing with the tensions and agency have been captured in this sub-theme. Participants, during the analysis of the data, revealed that there were some shifts in their self-perceptions from overconfidence to a self-aware position, and from uncertainty to awareness of themselves as writers. For example, participant P1 reflected on her shifting self-perception:

> *"Before using SICA, I felt that I was good enough in writing… But after using SICA… I realized that I still need to develop my writing skills… On the other hand, I feel proud because I could develop using SICA… and become more confident, especially in developing critical thinking skills."* (P1, Interview)

Explanation of P1's experience reflects the transition from unreflective overconfidence to reflective self-evaluation together with developed writing efficacy. Such transition can be seen in the case of P4, where it was noticeable not only emotionally but also through changes in the actual process of writing, specifically using brainstorming and outlining.

> *"After using SICA, I feel more confident in writing English compared to before. I am no longer as confused about starting to write because I have become accustomed to brainstorming and creating outlines first."* (P4, Written Reflection)

P9 also repurposed her own identity as "the thinker of ideas and the sentence composer," with SICA seen as "only a tool for exploration, correction, and suggestions" (P9, Written Reflection). Such repurposing was also reported by P2, P5, and P10.

There are, however, two disconfirming cases, where P6, having experienced the most technical problems with the tool, continued being unsure of himself as an author even after discovering some new strategies, and P8, who found the SICA questions too cognitively challenging, was concerned with possible overreliance on AI. The two cases show that certain mismatches might limit the identity repurposing process. These changes occurred along with a need to be more independent from the tool, since P1, P4, and P8 expressed that their intention was to become less dependent on AI in the future.

Far from depriving students of their agency, external scaffolding worked as productive friction, encouraging learners to set goals and think about the role of external influences and repurpose their identities as more responsible writers. The shifts have been contingent upon the students' technical and cognitive abilities, as illustrated by the disconfirming cases.

These processes prove that agency is not some innate quality of individuals but a skill that can be developed via pedagogical scaffolding (Rogoff, 1990; Vygotsky, 1978). In addition, the process of learners' strategic acceptance, modification, and rejection of SICA suggestions shows that the concept of agency in the digital age means not absolute independence but strategic interdependence where learners exercise epistemic co-agency, means navigating when to trust themselves or the tool as part of a critical, hybrid decision-making process (Samuel, 2026). Above all, the most important finding is that learners use constraints and technical challenges, which can be seen as obstacles, to redefine their goals, stay in charge of their vision of writing, and finally, reconstruct their writer identity. Hence, this study proves that when AI becomes a dialogic partner and not a substitute for cognition, it can become a catalyst for developing learners' sense of agency and writer identity.

Discussion

The findings of present study essentially show that dialogic scaffolding in AI-mediated writing spaces not only encourage writing competencies but also appeared to support learners' sense of agency by reflecting, negotiating, and reconstructing their identities. As opposed to traditional generative AI that mostly promote learners' dependence on technology and potentially trigger 'metacognitive laziness (Fan et al., 2024), SICA shifts learners from the role of passive receivers of information to the role of proactive agents whose cognitive control is encouraged through metacognitive regulation and self-evaluation.

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These findings coincide with results of a recently conducted study on agency of learners in relation to GenAI. Specifically, the way learners in this study selectively accept, modify, or reject recommendations from SICA is reminiscent of the three types of agentic revisions noted by Jiang et al. (2026). Based on the analysis of Statements of Purpose that were originally written and then revised by 121 EFL English-major students, Jiang et al. (2026) identified compliance-oriented acceptance (where learners mostly accept GenAI-generated text without major modifications), form-oriented modification (where learners mostly modify the superficial aspects like language and style), and content-oriented innovation (where learners modify meaning and personal aspects of the text). These types were found to be influenced by two main factors– authentic voice versus GenAI-constructed textual voice and enthusiasm to present intentions.

Whereas Jiang et al. (2026) explored the role of agency in revising fully GenAI-generated texts in a one-shot revision activity, the current study noted the continuous enactment of agency in planning, monitoring, and evaluation during the process of writing within a dialogic scaffolding environment. In both situations, agency was enacted through evaluative judgement as opposed to receptive judgment. However, the continual interaction in SICA seems to have promoted movement towards content-related decisions and text ownership among the participants more than Jiang et al.'s participants who were diverse in their enactment of the three patterns based on their ratings of the GenAI draft.

In addition to the demonstration that non-generative AI can support agency, the findings extend Emirbayer and Mische's (1998) temporal framework by revealing how its three dimensions interact recursively within SICA episodes. Students' previously formed habits of passive utilization of GenAI (iterational) were disrupted through the implementation of Socratic prompts, thus resulting in their real-time evaluation of the suggestions in terms of their relevance, validity, and usefulness (practical-evaluative). At the same time, those in-the-moment evaluations altered the students' self-perception and enabled them to project themselves as independent writers (projective).

The current study, on the other hand, differs significantly from existing studies in three respects: activation (as opposed to displacement) of monitoring, retention (as opposed to delegation) of cognitive responsibility, and a process (as opposed to product) orientation. Firstly, unlike the study by Chen (2026), which found monitoring displacement in EFL writing where learners would prefer delegating the monitoring of real-time to AI validation, the pure dialogic and non-generative characteristics of SICA activate the monitoring since students find themselves in a situation where they can monitor their ability to align their ideas with their rhetoric. Secondly, although Teng (2025b) studied the metacognitive awareness of EFL writers in ChatGPT-assisted writing and found out various levels of engagement, ranging from copying of the AI-generated text to a strategic use of feedback, warning against the over-reliance on GenAI technology as a substitute for hard work, the non-generative characteristic of SICA makes any kind of copying of text impossible since it does not produce any text for the students, thus retaining the cognitive responsibility of the writer. Thirdly, whereas Liu and Zhang (2025) observed that past research in the area of GenAI writing had largely focused on the product side of writing and had recognized separate self-efficacy patterns associated with self-regulated learning approaches, this study takes a different approach and focuses on the students' agency on the actual process of writing by SICA through its Socratic questions.

Several implications may be drawn for pedagogical practice and the development of AI tools to support learner agency in EFL writing instruction. Instructional practice in academic English writing process should shift from using AI as a text-generating shortcut toward integrating non-generative, Socratic scaffolding that fosters metacognitive monitoring and strategic decision-making. Writing pedagogy must actively cultivate students' critical AI literacy, training them to evaluate AI suggestions. Beyond classroom practices, these observations offer tentative insights for AI tool design. For instance, instead of presenting ready-to-use answers, AI may be more efficient if its tool allows dialogic scaffolding, which helps learners reflect on their ideas and, therefore, regulate their metacognition and support the agency of the writer. This is supported by recent research of Kim, So, and Park (2026) demonstrating how the use of interface features facilitating planning (Argument Outline) and monitoring of the degree of AI use (Similarity Viewer) enabled students to compose texts independently and write final texts that had relatively low semantic similarity to the AI recommendations. Furthermore, encouraging learners to develop their AI strategic literacy, i.e., their ability to critically assess AI advice and make decisions about accepting or rejecting it depending on their rhetorical purposes, may help change their passive role into that of an active decision-maker.

CONCLUSION

The purpose of this study was to explore how AI-based metacognitive scaffolding by means of the Socratic questioning approach supports EFL learners' agency in the process of English academic writing. In answer to the research question raised, the results suggest that the non-generative approach keeps the writer in charge of their cognitive process by requiring them to evaluate, modify, or negotiate AI suggestions for their own rhetorical purposes. Not only does this study shows that AI could be helpful for students' writing process, but also that it illustrates how agency becomes an ongoing dynamic process fostered by dialogic or reflective approach and metacognitive scaffolding. Concisely, this study indicates that AI-supported English academic writing instruction should privilege reflective, non-generative interaction over automated text generation to encourage genuine writer agency.

While giving numerous contributions, this study has various limitations which point to possible avenues for future research. First, the reliance on self-reported interviews and written reflections introduces subjective recall bias. To address this, future research should triangulate self-reported qualitative data with process-tracing measures, such as AI interaction logs, sequential draft versions, tracked revisions, and screen recordings. Second, the relatively small sample of only ten EFL students at one educational institution, in addition to the predominantly subjective nature of the data, limit the validity of the results obtained. Future research should make use of larger and more diverse samples along with observational measures to gain more insight into the agentic behavior of students. Furthermore, comparative studies of different types of scaffolding would help determine which design features work best to support learner agency, and long-term research is required in order to explore whether agentive abilities endure over time. Finally, individual differences in terms of digital literacy, writing anxiety, and experience with AI should be taken into account in future research on dialogic scaffolding.

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