https://studentsuccessjournal.org/
Vol **17** (3) 2026 https://doi.org/10.63608/ssj.4067

Enhancing Student Success Through AI-Assisted Reflective Learning in Entrepreneurship Education: An Empirical Study

Kim Loc Tran, Luan Trong Nguyen and Minh Khanh Pham
FPT University, Vietnam

Abstract

Reflective learning is widely recognised as a key contributor to student success in higher education, particularly in experiential disciplines such as entrepreneurship education. This single-case study explored Vietnamese undergraduate students' experiences with generative AI-assisted reflective prompts based on Gibbs' Reflective Cycle (1988) in an entrepreneurship course at a private university in Vietnam (n = 25). Data were collected through 112 reflection journal entries, pre- and post-intervention surveys, and eight semi-structured interviews. Findings revealed that structured prompts using accessible generative AI tools helped students achieve deeper critical reflection, reduced psychological barriers to reflective writing, and increased engagement and self-efficacy. Challenges including generic AI feedback and concerns about authenticity and over-reliance were also identified. The study suggests that thoughtfully integrated generative AI can serve as a scalable, low-cost scaffold to enhance reflective practice in large-class, resource-constrained environments, with transferable implications for educators in entrepreneurship and other project-based courses.

***Keywords**:* Student success; generative AI; reflective learning; entrepreneurship education; higher education.

Introduction

Student success in higher education is widely understood as a complex interplay of academic achievement, engagement, self-efficacy, belonging, and capabilities that support long-term personal and professional growth (Kahu & Nelson, 2018; York et al., 2015). These dimensions are particularly salient in entrepreneurship education, where students engage in experiential, uncertain, and iterative learning that mirrors real-world entrepreneurial practice. Reflective learning has long been recognised as a critical mechanism enabling students to process experiences, challenge assumptions, regulate emotions, and transform practical activity into deeper self-awareness and entrepreneurial competencies (Gibbs, 1988; Kolb, 1984).

However, many undergraduate students, especially those in technical programs, struggle to move beyond descriptive reporting toward critical analysis of their assumptions and decision-making. This limitation is exacerbated in large-class Vietnamese universities, where heavy teaching loads restrict individualised instructor feedback, leaving students without the scaffolding needed to develop the metacognitive skills essential for both academic achievement and future entrepreneurial success.

The emergence of generative artificial intelligence (GenAI) offers a promising, low-cost approach to scaffolding student reflection. Recent studies suggest structured GenAI prompts can help students overcome initial barriers to reflective writing, deepen reflection, and enhance engagement (Pallant et al., 2025; Winkler et al., 2023). In entrepreneurship education, GenAI has also shown potential to strengthen self-efficacy and entrepreneurial intention (Dwivedi, 2025; Xie & Wang, 2025).

has also shown potential to strengthen self-efficacy and entrepreneurial intention (Dwivedi, 2025; Xie & Wang, 2025). Nevertheless, limited empirical research explores students' lived experiences of using GenAI for structured reflection, particularly in non-Western, resource-constrained contexts.

This single-case study investigates Vietnamese undergraduate students' experiences with generative AI-assisted reflective prompts grounded in Gibbs' Reflective Cycle (1988) within an entrepreneurship course at a university in Vietnam. By centring student voices through reflection journals, surveys, and interviews, the study addresses the following research questions:

How do students experience the integration of generative AI-assisted prompts in their reflective learning during entrepreneurship projects?

In what ways do these AI-supported reflective practices influence students' perceived depth of learning, engagement, and self-efficacy?

What benefits and challenges do students identify when using GenAI for reflection, and how might these insights contribute to broader student success in tertiary education?

By examining these questions in a Vietnamese technical education context, this study aims to provide transferable insights for educators seeking innovative yet accessible ways to enhance reflective practice and student success in similar large-class, resource-limited settings.

Literature Review

Student Success in Higher Education

Student success is a multifaceted construct extending well beyond grades to encompass engagement, self-efficacy, belonging, emotional wellbeing, and lifelong capabilities for personal and professional growth (Kahu & Nelson, 2018; York et al., 2015). Internationally, researchers and institutions have moved from narrow, grade-centric definitions toward holistic frameworks recognising diverse dimensions of achievement and flourishing (Tinto, 1993; Thomas, 2012).

Within this broader understanding, reflective learning plays a pivotal role as a metacognitive process enabling students to examine experiences, challenge assumptions, regulate emotions, and translate activity into meaningful insight and behavioural change (Gibbs, 1988; Kolb, 1984). Reflection has been consistently linked to deeper learning, higher achievement, greater self-efficacy, and stronger professional identity across disciplines from healthcare and teacher education to business and engineering (Boud et al., 1985; Moon, 2004). Recent scholarship refines this connection: Cranfield, Boud, and Costley (2025) recast reflection as a situated, dialogic practice rather than a fixed procedure, while iterative, feedback-driven designs in which students revise work after structured prompts particularly benefit lower-performing students (Bjælde, Boud, & Lindberg, 2025)—paralleling the two-stage, draft-and-revise process examined here. Yet research consistently shows that many undergraduates—especially those from non-Western traditions or technical backgrounds—struggle to move beyond surface-level description to critical reflection (Kheng & June, 2015; Pham et al., 2020). This is especially pronounced in large classes, where individualised feedback is constrained by high student-to-staff ratios across rapidly expanding systems in Southeast Asia, Sub-Saharan Africa, and South Asia (UNESCO IESALC, 2020).

Entrepreneurship Education: Definitions, Global Prevalence, and Pedagogical Context

Entrepreneurship education (EE) refers to courses, programs, and processes designed to develop students' entrepreneurial knowledge, attitudes, skills, and intentions (Fayolle & Gailly, 2008; Lackeus, 2015). Contemporary scholarship has moved beyond equating EE with start-up training: it is now understood as cultivating initiative, opportunity recognition, creative problem-solving, and resilience under uncertainty—transferable capabilities relevant far beyond venture creation (Lackeus, 2015; Winkler et al., 2023). EE is therefore increasingly relevant not only to business students but to learners across technology, health, social work, and the arts.

Globally, EE has expanded significantly since the 1990s, with universities across the United States, Europe, and Asia-Pacific embedding entrepreneurship courses, incubators, and innovation hubs into curricula (Guerrero et al., 2015; Pittaway & Cope, 2007). Systematic reviews of studies from 2004 to 2016 documented its growing footprint and measurable effects on entrepreneurial intentions, mindsets, and skills (Nabi et al., 2017), while subsequent scholarship charted a shift toward learner-

centred, constructivist, practice-oriented approaches (Hägg & Gabrielsson, 2020). A bibliometric analysis of 5,502 publications from 2014 to 2024 (Deng et al., 2026) found continued growth, with rises in cross-disciplinary integration, experiential learning, entrepreneurial ecosystems, and AI in entrepreneurship pedagogy, alongside increasing institutionalisation across Asia through initiatives such as the ASEAN Common Curriculum for Entrepreneurship and the UNESCO Entrepreneurship Education Network in the Asia-Pacific. In Vietnam specifically, entrepreneurship education has gained significant policy momentum over the past decade.

Despite this expansion, EE pedagogy faces persistent challenges. The experiential tasks at its heart—opportunity recognition, customer validation, business model iteration—involve substantial ambiguity and setback, making reflective practice essential for developing entrepreneurial competencies and self-efficacy (Kassean et al., 2015; Knox, 2022). Yet many undergraduates, particularly in technical programs, remain at surface-level description rather than deeper critical reflection (Kheng & June, 2015; Nybye & Wraae, 2023).

Technology and AI in Higher Education: Impact on Student Success

Technology has long supported student success in higher education, from computer-assisted instruction and learning management systems to adaptive platforms and intelligent tutoring systems (Chen et al., 2020; Zawacki-Richter et al., 2019). Systematic reviews show technology-enabled interventions can meaningfully enhance engagement, motivation, self-regulated learning, and performance across contexts (Hwang et al., 2020; Zawacki-Richter et al., 2019), through mechanisms such as personalised feedback, immediate scaffolding, reduced cognitive load, and democratised access to expert guidance, especially in large, resource-constrained classes (Holmes et al., 2019). Until late 2022, these mechanisms remained constrained by available tools. ChatGPT's public release marked a turning point: contemporary large language models are conversational, multi-purpose, and accessible at scale, with emergent reasoning and dialogue capabilities that surprised even their developers (Bubeck et al., 2023; Wei et al., 2022). For higher education, these capabilities amplify the mechanisms above, enabling personalised, on-demand support infeasible only a few years ago (Kasneci et al., 2023).

Adoption of GenAI since ChatGPT's late-2022 release has accelerated dramatically. By 2024–2025, roughly 86 per cent of university students worldwide used AI in their studies, 54 per cent weekly (Digital Education Council, 2024), and a 2025 UK survey found 92 per cent using some form of AI academically (Freeman, 2025). Research has surged accordingly: systematic reviews and meta-analyses from 2023–2025 report broadly positive effects of GenAI on learning outcomes, engagement, and motivation, while flagging concerns about academic integrity, over-reliance, and equity of access (Hon, 2026; Tlili et al., 2023; Xia et al., 2025).

Research on GenAI's effects on learning behaviours highlights mechanisms relevant to reflective practice. Xia et al.'s (2025) systematic review and meta-analysis found significant positive impacts on both cognitive and emotional engagement, with scaffolded, reflective approaches as key moderators, and reported that GenAI fosters metacognitive awareness and self-management. Pallant et al. (2025) found structured GenAI integration associated with deeper knowledge mastery and more critical engagement, consistent with evidence that well-designed AI feedback can guide higher-order thinking (Yuan & Hu, 2024).

The literature also identifies limitations. Hon's (2026) review found mixed evidence on academic performance, noting over-reliance on AI was associated with reduced independent thinking, while concerns about generic feedback and eroded metacognition recur across studies (Cotton et al., 2023; Winkler et al., 2023). These findings underscore the importance of purposeful pedagogical design, especially in reflective learning, where the authenticity of student thinking is central.

Generative AI and Reflective Learning in Entrepreneurship Education

The intersection of GenAI and reflective learning is promising but underexplored. Structured prompts built on established frameworks such as Gibbs' Reflective Cycle (1988) can provide immediate, personalised guidance that helps students overcome psychological and cognitive barriers to reflective writing (Winkler et al., 2023; Yuan & Hu, 2024). Recent research indicates GenAI can facilitate higher-order reflective processes—critical analysis of assumptions, emotional regulation, and action planning—and adapt to individual proficiency, supporting cross-domain thinking and critical reasoning (Lee et al., 2024; Pallant et al., 2025; Yuan & Hu, 2024).

Within entrepreneurship education, GenAI has attracted attention across several dimensions. Winkler et al. (2023) argued GenAI represents a transformative moment for EE pedagogy, enabling personalised learning, idea iteration, and feedback at scale. Dwivedi (2025) proposed the Guiding AI Integration for Nurturing Entrepreneurship (GAIN) Framework, organising emerging insights around technology adoption, education and skill development, innovation, and performance. Xie and Wang (2025) found GenAI integration associated with enhanced entrepreneurial intention, mediated by self-efficacy and perceived university support—connecting to broader student-success research given the established link between self-efficacy and engagement, persistence, and achievement (Bandura, 1997; Kahu & Nelson, 2018). Taken together, however, this evidence base remains nascent: much consists of conceptual frameworks, small-scale studies, or quantitative work on entrepreneurial intention rather than how students engage with GenAI during reflection, and most derives from well-resourced Western settings. These are best read as promising early signals rather than settled conclusions; substantial work remains to establish how, for whom, and under what conditions GenAI deepens reflective learning, particularly in non-Western, resource-constrained contexts.

Identifying the Gap: The Need for Context-Sensitive, Empirical Research

Despite growing evidence of GenAI's potential, significant gaps remain. First, most studies come from well-resourced Western contexts—primarily the US, UK, Australia, and Western Europe—with limited evidence from non-Western, resource-constrained settings (Hon, 2026; Tlili et al., 2023). This matters because large classes and limited individualised feedback define higher education across much of Asia, Africa, and Latin America, where most of the world's students are enrolled (UNESCO IESALC, 2020). Research from these contexts is essential to learn whether GenAI tools—largely designed and trained on English-language, Western content—can support learning across diverse linguistic, cultural, and institutional environments. An emerging body addresses this directly: comparative analyses document performance and access disparities for non-English and lower-resource languages with direct equity implications (Kwak & Pardos, 2024), while studies of reflective writing and GenAI use in non-Western universities offer early evidence of uptake in culturally distinct settings (Trimasse, 2024).

Second, within the intersection of GenAI, reflective learning, and entrepreneurship education, empirical studies centring student lived experiences are notably absent. Most work focuses on quantitative outcomes such as entrepreneurial intention or self-efficacy, or on integration frameworks, rather than in-depth qualitative exploration of how students experience and make meaning of AI-assisted reflection (Winkler et al., 2023; Yuan & Hu, 2024).

Third, the transferability of GenAI-assisted pedagogical innovations across disciplines and institutional types remains underexamined. While entrepreneurship education offers a timely context for studying AI-assisted reflection, the underlying scaffolding principles are likely applicable to other experiential, project-based disciplines (Boud et al., 1985; Lee et al., 2024). This single-case study addresses these intersecting gaps by providing empirical, student-centred evidence from a Vietnamese university context, with explicit attention to the transferable dimensions of the findings for educators in resource-constrained settings globally.

Methodology

This study adopted a qualitative-dominant single-case design to explore Vietnamese undergraduates' lived experiences with GenAI-assisted reflective learning in an entrepreneurship course. A qualitative-dominant approach suited research questions concerning the nature and quality of student experiences—subjective phenomena not reducible to scores (Creswell & Poth, 2018). A single-case design is well-suited to in-depth understanding of complex educational phenomena in real-life context (Yin, 2018) and was appropriate as the first implementation of such an intervention in this setting. A limited quantitative component (survey data via descriptive statistics) triangulated and contextualised the qualitative findings (Creswell & Plano Clark, 2018).

Research Context and Participants

The study was conducted in an undergraduate entrepreneurship course at FPT University, a large private Vietnamese university with a strong technology and innovation focus. FPT was selected because it represents a nationally prominent example of entrepreneurship education embedded within a technology-oriented curriculum—a growing model in Vietnam and across Southeast Asia. The course develops entrepreneurial competencies through project-based learning, including opportunity identification, customer interviews, business model development, and pitching. Participants were 25 third-year students (aged 20–22) majoring mainly in information technology, business, and related fields, recruited by purposive sampling based on

course enrolment—a sample size consistent with qualitative case study practice, where depth is prioritised over representativeness (Patton, 2002). Most had basic familiarity with GenAI but limited experience with systematic reflective practice, making them appropriate for examining its scaffolding effects. The intervention ran in the second semester of 2025–2026 as regular coursework. The medium of instruction was English, consistent with FPT's English-medium model; students interacted with the AI tools and wrote their journals in English, and all excerpts below appear in their original English.

Intervention Design and Rationale

The intervention integrated structured GenAI prompts based on Gibbs' Reflective Cycle (1988) into students' weekly reflection activities. Gibbs' Cycle was selected because its six-stage structure (Description, Feelings, Evaluation, Analysis, Conclusion, Action Plan) is widely applied across higher education (Boud et al., 1985; Moon, 2004; Trimasse, 2024) and each stage maps to a distinct prompt guiding students from description toward deeper analysis and action planning (Yuan & Hu, 2024). Rather than prescribing one platform, students used freely accessible tools (Grok, Claude, Gemini, ChatGPT)—reflecting real student AI use in resource-constrained contexts and increasing ecological validity.

After each major project milestone (e.g., customer discovery, problem-solution validation, or pivot decision), students were required to write a reflection journal using AI support. A sample prompt provided to students was:

> Using Gibbs' Reflective Cycle, describe what happened during your customer interviews, explore your feelings, evaluate the outcomes, analyse what you learned about customer needs and your own assumptions, draw conclusions, and propose an action plan for the next steps.

Students could interact with the AI, revise its output, and submit both the AI-assisted draft and their final reflection. Critically, they did not generate a finished reflection in a single step. The sample prompt above opened a structured, multi-turn dialogue in which the AI was deliberately positioned as a Socratic questioning partner rather than an answer generator. Following the prompting protocol they were given, students directed the tool to respond to each Gibbs stage not by writing the reflection but by posing probing questions that interrogated their own experience—for example, what they had assumed entering a customer interview, what evidence supported an interpretation, or how an emotion shaped a decision. Students answered in their own words, and the model used those answers to generate increasingly specific probes, deepening the reflection across turns. Because large language models are conversational and context-sensitive, they adapted this questioning to each student's situation—what participants experienced as being "guided" through the cycle. The analytical substance thus originated with the student; the AI scaffolded the depth and sequencing of self-questioning rather than supplying conclusions. This was operationalised through the two-stage submission: students submitted both the dialogue-based draft and a self-revised final reflection, making their critical engagement visible and distinguishing genuine reflective work from passive reliance on AI text, with earlier free-writing reflections as a baseline.

Data Collection

Data were collected from three complementary sources to enable methodological triangulation (Denzin, 2017). First, reflection journals provided the primary naturalistic data source: all 25 participants submitted 4–5 entries throughout the semester as part of regular coursework (both the AI-assisted dialogue drafts and their self-revised final versions), yielding a total of 112 journal entries that offered longitudinal evidence of how students' reflective thinking developed over time (Boud et al., 1985).

Second, pre- and post-intervention surveys—consisting of 5-point Likert items and open-ended questions adapted from validated scales (Kahu & Nelson, 2018; Nybye & Wraae, 2023)—measured perceived changes in reflection depth, engagement, self-efficacy, and attitudes toward using AI.

Third, semi-structured interviews (15–20 minutes each) were conducted with a purposively selected subsample of eight students out of the 25 participants. These eight students were chosen to reflect diversity in major, gender, and prior AI experience, allowing participants to raise unanticipated themes while ensuring consistency across interviews (Kvale & Brinkmann, 2009). All data collection activities were embedded within the normal teaching and assessment processes of the course.

Data Analysis

Qualitative data from reflection journals and interviews were analysed using Braun and Clarke's (2006) six-phase thematic analysis framework. Both inductive and deductive coding approaches were employed: initial coding was inductive, while Gibbs' Reflective Cycle (1988) served as a sensitising deductive framework to organise patterns across participants. Survey

data were analysed using descriptive statistics (frequencies, means, percentages) to triangulate the qualitative findings. To enhance trustworthiness, four established strategies were employed: data source triangulation across journals, surveys, and interviews; peer debriefing with a colleague not involved in teaching the course; researcher reflexivity through a journal maintained throughout the study; and member checking with three interview participants (Lincoln & Guba, 1985).

Ethical Considerations

This study followed the ethical principles of the Declaration of Helsinki (World Medical Association, 2013), with approval from the Institutional Research Ethics Committee of a private university prior to data collection. All participants gave written informed consent and were assured that participation was voluntary and would not affect their grades. To protect anonymity, identifying information was removed before analysis and participants are referred to by codes (e.g., Student 12); data were stored in password-protected files. A key sensitivity was the lead researcher's dual role as instructor and researcher. This was mitigated by collecting consent through a research assistant rather than the instructor, reminding students in writing that non-participation would not affect assessment, and maintaining a reflexivity journal.

A further consideration concerns data privacy in students' use of public GenAI tools. Because participants composed personal reflections—often disclosing emotions, self-doubt, and detailed accounts of their entrepreneurial experiences—by entering text into third-party, cloud-based models, this content left the institution's control and may have been transmitted to, stored by, or used to train commercial systems whose data practices are opaque and outside the university's governance. This raises confidentiality questions absent from traditional private journaling: reflective disclosures could, in principle, be retained or repurposed by external providers. The study did not require a single institutionally controlled platform, an ethical limitation of the design. Future implementations should consider privacy-preserving or institutionally governed AI, give explicit guidance against entering identifying or sensitive information, and make tools' data-retention practices transparent to students beforehand.

Findings

The analysis of 112 reflection journal entries, pre- and post-intervention survey responses, and eight semi-structured interviews revealed four interconnected themes that illuminate how Vietnamese undergraduate students experienced generative AI-assisted reflective learning in their entrepreneurship course. To establish the prevalence of each theme, the number of participants whose data clearly evidenced the theme was counted across the reflection journals and interviews and cross-checked against the relevant survey items. The figures below indicate how many of the 25 participants expressed each theme.

Theme 1: Moving from Surface-Level Description to Deeper Critical Reflection

The most prominent change reported by participants was a noticeable shift in the depth and quality of their reflections. This theme was evident in the reflection journals of 19 out of 25 participants and raised by 7 out of 8 interviewees. Prior to the intervention, many students described their reflections as "just summarising what happened." After using structured AI prompts based on Gibbs' Reflective Cycle, they began engaging in more critical analysis of their assumptions, emotions, and learning processes. For instance, Student 12 wrote:

> Previously, I only wrote 'we interviewed 5 customers and they said our idea is good.' But when I asked Grok to guide me through Gibbs' cycle, I realised I was actually disappointed and defensive when customers pointed out problems. I had assumed our solution was perfect. This made me understand that I was too attached to my own idea and not really listening to users. (Reflection Journal 3)

Similarly, Student 5 reflected: "Claude helped me see the gap between what I thought customers wanted and what they actually said. I felt embarrassed at first, but then I felt excited because I could fix it" (Reflection Journal 2). This progression from descriptive to analytical and critical reflection was consistently observed across the majority of participants.

Theme 2: Reduced Emotional and Cognitive Barriers to Reflection

A recurring theme was that generative AI significantly lowered the psychological barriers many students experienced when faced with reflection tasks. This theme was the most widespread, appearing in the reflection journals of 21 out of 25 participants and mentioned by all 8 interviewees. Several students explicitly mentioned feeling "blank," "lazy," or "scared of writing wrong things" before the intervention. One student explained during the interview:

> I always hated reflection assignments because I didn't know where to start. My mind went empty. But when I used Gemini or ChatGPT with the prompt, it gave me clear steps. It felt like someone was holding my hand and guiding me. After a few times, I became less afraid of writing my real thoughts. (Student 19, interview)

This reduction in anxiety resulted in higher engagement, with nearly all students completing every required reflection entry—a notable improvement compared to previous cohorts.

Theme 3: Increased Engagement, Self-Efficacy, and Sense of Learning Ownership

Students frequently described the AI-assisted reflection process as more engaging and personally meaningful. This theme was strongly supported, appearing in the reflection journals of 21 out of 25 participants and in 7 out of 8 interviews. Many reported feeling a stronger sense of control over their own learning. One student stated: "After revising what Claude suggested, I felt the reflection was truly mine. It wasn't just copying AI. I understood my project better and felt more confident to continue developing it" (Student 8, interview). Quantitative data from the post-intervention survey reinforced this theme: 84 per cent of students agreed or strongly agreed that AI-assisted reflection increased their motivation to learn from the entrepreneurship project, and 76 per cent reported improved confidence in their ability to learn from experience.

Theme 4: Challenges: Authenticity, Generic Feedback, and Risk of Over-Reliance

Participants also candidly discussed limitations. This theme was reported by 15 out of 25 participants and discussed by 6 out of 8 interviewees, indicating it was experienced by a substantial portion of the group. The most common concern was that AI sometimes provided generic or overly positive feedback, which could reduce the critical depth of reflection if not carefully evaluated. One student noted: "Grok and ChatGPT sometimes said 'great job' too easily. It made me feel good at first, but then I realised it wasn't helping me improve. I still needed the teacher to point out what I missed" (Student 23, interview). Some students also worried about becoming too dependent on AI, fearing it might weaken their independent reflective thinking over time. In summary, while generative AI tools offered substantial support for reflective learning and contributed positively to multiple dimensions of student success, their value was maximised when students actively critiqued and revised AI outputs and combined them with instructor guidance.

Discussion

The findings of this single-case study provide rich insights into how Vietnamese undergraduate students experienced generative AI-assisted reflective learning in an entrepreneurship course. Four key themes emerged: deeper critical reflection, reduced psychological barriers, increased engagement and self-efficacy, and notable challenges related to authenticity and over-reliance. Considered collectively, these themes align with, extend, and in some respects nuance the growing international body of evidence on GenAI's impact on student success in higher education.

The shift from surface-level to deeper critical reflection aligns with emerging research on structured GenAI prompting as a scaffold for higher-order thinking (Pallant et al., 2025; Yuan & Hu, 2024). This study adds non-Western empirical evidence that the progression is not limited to well-resourced Western universities but is achievable with accessible, low-cost tools in large Vietnamese classes. The mechanism appears to be Gibbs' scaffolding itself: breaking reflection into sequential stages gave students a cognitive roadmap from description to genuine self-analysis. This matters for student success, as deeper reflection is consistently linked to higher self-efficacy and better outcomes (Boud et al., 1985; Kahu & Nelson, 2018).

The reduction of psychological barriers is particularly significant for large-class, resource-constrained settings. A consistent theme internationally is that many students—especially from systems emphasising rote learning and hierarchical relationships—find reflective writing intimidating and culturally unfamiliar (Pham et al., 2020; Tlili et al., 2023). That GenAI offered a non-judgmental, patient guide lowering this barrier aligns with Xia et al.'s (2025) meta-analysis identifying reduced anxiety as a positive outcome, and with studies where AI-assisted journaling reduced writing anxiety (Lee et al., 2024). This democratising function—quality reflective scaffolding regardless of class size—is a meaningful contribution to equity.

The increase in engagement and self-efficacy reinforces the link between reflective practice and student success (Kahu & Nelson, 2018). Supported by AI, students reported greater ownership and confidence—consistent with Bandura's (1997) self-efficacy theory, in which mastery experiences and guided feedback drive self-belief. This extends Xie and Wang's (2025) quantitative evidence with qualitative depth: confidence came not from positive AI reinforcement but because structured reflection let students understand their experiences and identify next steps. The contrast with concerns about generic positive

feedback, as discussed in Theme 4 is instructive: the quality of AI scaffolding and students' critical engagement are crucial moderators of whether GenAI enhances or undermines genuine self-efficacy.

The challenges students identified—generic feedback, surface-level positivity, and over-reliance—echo concerns across the literature and counterbalance uncritical enthusiasm for GenAI (Cotton et al., 2023; Hon, 2026). This study adds that these risks are felt even by students broadly positive about GenAI, and are most pronounced when AI feedback is accepted uncritically rather than as a starting point. This underscores pedagogical framing: GenAI should be positioned as a thinking partner, not an answer provider, with explicit guidance on critically evaluating and revising its output.

Contribution to Knowledge and Transferability

This study makes three contributions. First, it offers one of the first empirically grounded, student-centred qualitative accounts of GenAI-assisted reflective learning in a non-Western, resource-constrained context, addressing a gap in recent systematic reviews (Hon, 2026; Xia et al., 2025). Second, it shows the mechanisms reported in international literature—deeper reflection, reduced anxiety, engagement, and self-efficacy—are not confined to Western settings but operate in culturally distinct contexts when GenAI is designed around established reflective frameworks. Third, by documenting both benefits and risks from student perspectives, it adds nuanced, practice-relevant evidence to a debate often marked by either enthusiasm or blanket concern.

In terms of transferability, the core intervention model—structured GenAI prompts anchored to Gibbs' Reflective Cycle, implemented within project-based coursework using freely available AI tools—is inherently low-cost, low-infrastructure, and discipline-agnostic, making it readily applicable to other experiential and practice-oriented courses in resource-constrained settings.

Implications for Practice

The findings offer several transferable implications. First, integrating simple, structured GenAI prompts based on Gibbs' Reflective Cycle requires minimal preparation and suits large, low-resource classes, applying beyond entrepreneurship to any project-based or experiential course, including clinical and health-professional training such as nursing and medicine, where structured reflection is already a core competency. Second, combining AI support with instructor feedback and class discussion is essential to maximise benefits and minimise generic or inauthentic reflection: AI scaffolding works best within a broader pedagogical ecosystem, not as a replacement for human mentorship. Third, explicit instruction on critically evaluating, challenging, and revising AI output should be embedded from the outset to build reflective autonomy. Fourth, allowing students to choose among accessible tools rather than requiring a single paid platform supports equity of access.

Limitations

Several limitations should be acknowledged. As a single-case study of 25 students at one private Vietnamese university, the findings are context-specific and not statistically generalisable. The one-semester intervention limits insight into long-term effects on reflective habits and entrepreneurial outcomes. The researcher's dual role introduced a potential power imbalance; though mitigated, social desirability bias cannot be excluded. The quantitative component relied on self-report, which may not fully capture actual changes in reflection depth. The diversity of AI tools introduced uncontrolled variability in feedback, treated here as a feature of ecological validity. Finally, although the two-stage submission was designed to surface students' own thinking, the study did not systematically quantify the extent to which final reflections were AI-generated rather than student-authored; the prevalence of inauthentic or AI-dependent reflection thus remains an open question, and dedicated future work—combining authorship or AI-use analyses with interviews—would be needed to estimate it directly.

Future Research

This study opens several directions for future research. First, multiple-case or cross-national designs could test whether the findings transfer across cultural, linguistic, and institutional contexts, while quasi-experimental designs with comparison groups would strengthen causal inference about structured GenAI prompting on reflection depth and student success. Second, longitudinal research is needed on the long-term impact of AI-assisted reflection on reflective habits, metacognitive development, retention, and post-graduation entrepreneurial activity. Third, extending the model to disciplines such as nursing, teacher education, or social work would test transferability and build a cross-disciplinary evidence base. Fourth, because this study used only free tools, it remains open whether paid or premium models—with stronger reasoning and dialogue—provide materially better scaffolding; if so, this raises an equity concern, since students who can afford premium tools may benefit disproportionately, which future research could examine by comparing reflection quality across free and paid models.

Conclusion

This single-case study explored Vietnamese undergraduates' experiences with GenAI-assisted reflective learning in an entrepreneurship course, contributing empirical, student-centred evidence to a fast-growing international literature. The findings show that structured prompts using accessible GenAI grounded in Gibbs' Reflective Cycle (1988) can meaningfully deepen reflection, reduce psychological barriers to reflective writing, and increase engagement and self-efficacy. By shifting students from surface description to more critical, analytical reflection, AI-supported practices helped them process entrepreneurial experiences, challenge assumptions, and take greater ownership of their learning—dimensions of student success consistently linked to achievement, retention, and long-term professional capability (Kahu & Nelson, 2018; York et al., 2015).

The study also highlights caveats that resonate with global concerns. GenAI's effectiveness as a reflective scaffold depends on the quality of pedagogical design, students' critical engagement with AI outputs, and meaningful instructor guidance. Generic feedback and passive over-reliance are genuine challenges educators must address proactively through course design and student preparation—challenges documented across diverse contexts, not unique to Vietnam, and relevant to any plan to scale GenAI-assisted reflection.

Crucially, the model tested here is simple, low-cost, and transferable: it needs no specialist infrastructure, expensive licences, or major additional instructor workload, making it realistic across diverse institutional and disciplinary contexts. The study thus adds to international evidence that thoughtful, purposefully designed GenAI integration can be a meaningful lever for enhancing reflective practice and supporting student success, especially where individualised feedback is constrained by scale and resources. Future multi-site and longitudinal research will be essential to understand its full potential across the global higher education landscape.

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Please cite this article as:

Tran, K. L., Nguyen, L. T., & Pham, M. K. (2026). Enhancing student success through AI-assisted reflective learning in entrepreneurship education: An empirical study. *Student Success, 17*(3), 120-130. https://doi.org/10.63608/ssj.4067

This article has been peer reviewed and accepted for publication in *Student Success.* Please see the Editorial Policies under the 'About' section of the Journal website for further information.

Student Success: ***A journal exploring the experiences of students in tertiary education.***