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Navigating Doctoral Journeys in the Digital Age: A Reflective Account of Productivity, Persistence, and Scholarly Growth

Afif Ikhwanul Muslimin[1] **, Like Raskova Octaberlina**[2]
[1] Universitas Islam Negeri Mataram, Indonesia
[2] Universitas Islam Negeri Maulana Malik Ibrahim Malang, Indonesia
email: [1] afifikhwanulm@uinmataram.ac.id; [2] like@uin-malang.ac.id

ABSTRACT

This study offers a reflective account of navigating a thirty-six-month doctoral journey in English education within the digital era. It aims to explore how doctoral scholars sustain productivity, persistence, and scholarly growth while adapting to the rapid digitalization of academic work. Using a qualitative reflective narrative approach, the researcher conducted a longitudinal self-study supported by reflection journals, digital activity records, and document analyses. Data were analyzed thematically following Braun and Clarke's framework to identify evolving patterns of learning, emotion, and scholarly transformation. The findings reveal three interconnected themes: digital productivity as a transformative practice, persistence through academic vulnerability, and the evolution of scholarly identity in networked academic spaces. These findings show that doctoral success develops not only from technical expertise but from sustained reflection, emotional regulation, and ethical engagement with digital tools and communities. The study introduces the Reflective Digital Scholarship Model, integrating self-regulated learning, academic resilience, and identity development into a cohesive framework. The results highlight the need for doctoral programs to embed digital literacy, reflective practice, and emotional support systems to foster sustainable academic growth. This research contributes to a deeper understanding of doctoral learning in English education amid the complexities of the digital age.

Keywords: *doctoral education, digital scholarship, self-regulated learning, academic resilience, scholarly identity.*

ABSTRAK

Studi ini menyajikan paparan reflektif mengenai pengalaman menempuh perjalanan doktoral selama tiga puluh enam bulan di bidang pendidikan bahasa Inggris pada era digital. Penelitian ini bertujuan untuk mengeksplorasi bagaimana para mahasiswa doktoral mempertahankan produktivitas, kegigihan, dan pertumbuhan ilmiah sembari beradaptasi dengan digitalisasi pekerjaan akademik yang berlangsung pesat. Dengan menggunakan pendekatan naratif reflektif kualitatif, peneliti melakukan studi mandiri longitudinal yang didukung oleh jurnal refleksi, catatan aktivitas digital, dan analisis dokumen. Data dianalisis secara tematis mengikuti kerangka kerja Braun dan Clarke untuk mengidentifikasi pola-pola pembelajaran, emosi, dan transformasi ilmiah yang terus berkembang. Temuan penelitian mengungkapkan tiga tema yang saling berkaitan: produktivitas digital sebagai praktik transformatif, kegigihan di tengah kerentanan akademik, serta evolusi identitas ilmiah dalam ruang akademik yang terhubung secara digital. Hasil ini menunjukkan bahwa keberhasilan dalam jenjang doktoral tidak hanya bersumber dari keahlian teknis, melainkan juga dari refleksi yang berkelanjutan, pengaturan emosi, dan keterlibatan etis dengan perangkat serta komunitas digital. Studi ini memperkenalkan *Reflective Digital Scholarship Model* (Model Kesarjanaan Digital Reflektif) yang mengintegrasikan pembelajaran mandiri (self-regulated learning), ketangguhan akademik, dan pengembangan identitas ke dalam sebuah kerangka kerja yang kohesif. Hasil penelitian ini menekankan pentingnya program doktoral untuk mengintegrasikan literasi digital, praktik reflektif, dan sistem dukungan emosional guna mendorong pertumbuhan akademik yang berkelanjutan. Penelitian ini berkontribusi

pada pemahaman yang lebih mendalam mengenai pembelajaran doktoral di bidang pendidikan bahasa Inggris di tengah kompleksitas era digital.

Kata kunci: pendidikan doktoral, kesarjanaan digital, pembelajaran mandiri, ketangguhan akademik, identitas ilmiah.

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INTRODUCTION

In recent years, doctoral education has been undergoing a profound transformation marked by the digitalisation of academic processes, evolving notions of research productivity, and intensifying demands for knowledge work. Digital platforms, online databases, and artificial intelligence (AI)–based tools have redefined how doctoral students access resources, manage their research, and communicate scholarly ideas (Wang et al., 2025; Seckin & Varol, 2022). This transformation brings both opportunities and complexities. On the one hand, doctoral candidates in English education benefit from greater access to international networks, open-access journals, and collaborative communities. On the other hand, the same technologies amplify expectations for constant productivity, visibility, and professional self-branding, often creating new forms of stress, distraction, and cognitive overload (Mark, 2024; Rinnekangas et al., 2025). Within this landscape, success in doctoral study increasingly depends on how individuals develop self-regulation, resilience, and a coherent scholarly identity.

Historically, doctoral productivity has been equated with quantifiable outputs such as peer-reviewed publications, citations, and conference presentations. However, contemporary research challenges this narrow conceptualisation, suggesting that digital scholarship transforms productivity into a complex, multidimensional construct (Noy, 2023; Bawa, 2021). While AI-driven tools and digital writing platforms can enhance efficiency, they also risk fragmenting attention and reinforcing metrics-oriented pressure (Weller, 2024). Within the doctoral context, productivity is closely interlinked with self-regulated learning, emotional well-being, and academic identity formation. Xu et al. (2022) revealed that self-regulated learning (SRL) strategies play a decisive role in maintaining writing persistence among doctoral students, while Arı and Korkmaz (2024)

emphasised the emotional turbulence that accompanies sustained scholarly work. Similarly, McAlpine and Amundsen (2022) argued that doctoral success depends less on technical skill and more on reflective engagement with academic challenges. Together, these studies reveal that doctoral productivity, resilience, and identity development must be studied as interdependent dimensions rather than separate competencies.

Despite this growing body of literature, gaps remain in understanding how doctoral scholars—particularly in English education—negotiate these dimensions within a highly digitalised academic environment. Prior studies have often focused on isolated components such as writing anxiety (Phyo et al., 2024), mentoring and supervision models (Lee & Golde, 2020), or individual learning strategies (Youssef, 2024). However, few have explored the integrative and reflective processes through which doctoral students construct meaning, sustain persistence, and shape scholarly identity in a world mediated by digital technologies. Moreover, existing research tends to emphasise early-stage experiences or quantitative measures of productivity, overlooking the longitudinal, reflective dimensions of doctoral learning that capture transformation over time (Inouye & McAlpine, 2019; Wenger-Trayner & Wenger-Trayner, 2021).

This gap is especially salient in English education, where doctoral candidates frequently balance multiple professional roles—as researchers, educators, and digital communicators—while navigating tensions between local academic traditions and global publication standards. The field's linguistic and cultural positioning heightens the challenge of establishing a credible scholarly voice amid shifting global expectations. Addressing this gap requires a more holistic and reflective inquiry that foregrounds the lived experiences of doctoral learners in digitally mediated academic spaces.

Against this backdrop, the present study aims to offer a reflective account of a doctoral journey in English education situated within the digital age. It seeks to illuminate how digital engagement shapes productivity, persistence, and scholarly identity as interconnected trajectories of growth. Specifically, this study contributes to the literature in three significant ways. First, it redefines productivity as a sustainable and self-regulated practice rather than mere output. Second, it conceptualises persistence as an adaptive and reflective form of resilience that emerges through emotional negotiation and social belonging. Third, it frames scholarly growth as an evolving identity practice, co-constructed through participation in digital and academic communities. By weaving these

dimensions together, this research advances theoretical understanding of reflective digital scholarship and provides practical insights for doctoral candidates and supervisors striving to foster meaningful engagement in the era of hyper-digital academia.

LITERATURE REVIEW

The literature on doctoral education in the digital age can be organized around three interrelated strands: (1) self-regulated learning (SRL) and doctoral autonomy; (2) digital scholarship, productivity, and identity formation; and (3) doctoral persistence, resilience, and support networks. Together these strands frame the importance of investigating how doctoral students in English education navigate productivity, persistence, and growth in a hyper-digital environment. A research framework is then proposed to integrate these strands and address identified gaps.

Self-Regulated Learning and Doctoral Autonomy

Self-regulated learning (SRL) has been widely recognised as a foundational theoretical framework for understanding how learners plan, monitor, and evaluate their own learning processes (Zimmerman, 2000). In the doctoral context, SRL becomes even more critical because scholarship requires extended autonomy, goal-setting, sustained reflection, and self-monitoring (Pintrich, 2004). Recent systematic reviews highlight that in digitally mediated and online learning environments, SRL strategies (goal setting, time management, self-monitoring, reflection) continue to play a strong role in academic achievement (Xu et al., 2023).

For instance, Faza & Lestari (2025) conducted a review of SRL in digital contexts and found that while technologies (LMS, analytics, AI) support self-regulation, they also introduce new challenges such as distraction and overload. This suggests that doctoral learners must not only adopt SRL strategies but also develop digital attentional discipline. In addition, Chen (2025) found that doctoral students' perceptions of autonomy support and academic buoyancy (a personal resource) mediated their self-regulation and persistence.

Digital Scholarship, Productivity, and Scholarly Identity

Digital scholarship can be understood as the changing nature of academic work that emerges from the use of digital tools, online networks, and virtual platforms. These new forms of engagement influence how knowledge is created, shared, and evaluated, and they shape both the productivity and identity of scholars (Weller, 2018). A recent study involving Chilean researchers shows that digital visibility brings new challenges as measures such as altmetrics, online self-presentation, and digital reputation begin to compete with traditional academic values. In a similar vein, Khalifa (2024) examined how the use of generative artificial intelligence and algorithmic writing tools is reshaping the process of research and publication, offering many possibilities yet also raising important ethical questions.

Research on doctoral productivity further indicates that academic support networks play a vital role in scholarly achievement. Seckin and Varol (2022) found that students who maintained broader academic connections tended to demonstrate higher levels of productivity. This suggests that collaborative engagement and access to supportive communities are significant factors in sustaining doctoral progress.

The growing presence of digital platforms adds another layer of complexity. Online profiles such as ORCID and ResearchGate, as well as participation in digital communities, have become markers of academic visibility and influence perceptions of productivity. However, the deeper meaning of productivity that emphasizes sustainable effort and genuine intellectual contribution has not been sufficiently explored. Although digital scholarship provides a useful lens for understanding productivity and identity, there remains a gap in explaining how doctoral students in English education experience and negotiate these dynamics. More attention is needed to understand how they balance digital participation with integrity, cultivate their scholarly identity, and pursue meaningful academic growth beyond numerical indicators of success.

Doctoral Persistence, Resilience, and Support Networks

Persistence, understood as the capacity to maintain consistent effort and motivation throughout the doctoral journey, has been widely recognized as a central concern in doctoral education research. Academic resilience, which refers to the ability to sustain motivation and performance in the face of challenges and setbacks, is

particularly significant in digital learning environments (Martin, 2014). In such settings, emotional regulation and adaptability often determine whether doctoral candidates can continue to engage productively with their work. Yu (2023) observes that self-regulated learning and resilience operate together as key determinants of academic success in online learning contexts.

Supportive relationships also play a crucial part in sustaining doctoral persistence. Peers, supervisors, family members, and online scholarly communities provide encouragement and a sense of belonging that can help candidates manage emotional and cognitive pressures. The findings of Seckin and Varol (2022) show that both physical and virtual networks of academic support contribute to higher productivity while also easing the emotional strain of doctoral research.

However, the character of support in digital spaces differs from traditional academic settings. Mentoring relationships may take place through virtual meetings, and writing groups often interact through online platforms. Despite these changes, there remains a limited understanding of how doctoral students in English education use digital forms of support to build resilience and sustain persistence over time. Future research needs to explore how these digital interactions help scholars adapt, stay motivated, and develop a sense of continuity in their academic identity.

Method

Research Approach and Design

This study employed a qualitative reflective narrative design to explore the lived experiences of a doctoral scholar navigating productivity, persistence, and scholarly growth in a digital academic environment. Narrative inquiry was selected because it allows personal and professional experiences to be interpreted as evolving stories of learning and transformation. Following Clandinin and Connelly's perspective, reflection was treated as both process and product of meaning-making. This approach aligns with the purpose of the study, which seeks to capture the intellectual and emotional dimensions of doctoral learning rather than merely its procedural aspects.

The reflective narrative also drew upon the principles of autoethnography, recognizing that the researcher was both participant and interpreter of the experience. However, the focus extended beyond self-description. Each episode of reflection was

analyzed for its potential to reveal patterns of growth, resilience, and digital adaptation that could inform broader understandings of doctoral learning in English education. In this sense, the research served as a bridge between personal reflection and theoretical contribution, highlighting how individual scholarly journeys can illuminate collective academic realities.

Participants and Context

The participant in this study was the researcher himself, who had successfully completed a doctoral program in English Language Education at a state university in Malang, East Java, Indonesia. The reflective stance of this research was grounded in the recognition that personal academic experiences can serve as meaningful data for understanding broader processes of learning and transformation. By situating the self as both subject and instrument of inquiry, this study sought to connect lived experience with established theories in doctoral education, particularly those related to self-regulated learning, academic resilience, and scholarly identity development.

The context of the study represents an academically demanding environment that emphasizes publication-based doctoral completion and international research visibility. Within this setting, digital platforms, online supervision systems, and academic writing networks became central to sustaining productivity and motivation. Such a context provided a fertile ground for exploring how reflective engagement with digital practices and emotional self-regulation could contribute to doctoral success.

Rather than merely recounting a personal journey, the reflection was designed to engage theoretically with the lived experience, illustrating how individual practices might resonate with or extend existing frameworks in doctoral education. Through systematic self-reflection, the study aimed to generate insights that could inform both personal and collective approaches to doctoral supervision, scholarly identity formation, and digital academic engagement.

Instruments

Three main instruments supported the reflective process: a structured reflection journal, digital activity records, and document analysis sheets. The reflection journal was maintained weekly to capture ongoing experiences, emotional responses, and insights

related to productivity and persistence. It served as a living archive of thoughts and challenges faced throughout the doctoral process. The digital activity records—comprising online course participation, feedback exchanges, and use of reference management and AI-based tools—provided objective traces of technological engagement. The document analysis sheets were used to categorize recurring patterns, such as coping mechanisms, learning milestones, and instances of scholarly growth, thereby facilitating systematic data organization.

This triangulated instrument design aligns with Merriam and Tisdell's (2020) suggestion that reflective studies must combine experiential narrative with contextual documentation to achieve interpretive depth. The synergy of written reflection and digital evidence helped the researcher construct a balanced portrayal of self-directed learning and institutional support within the doctoral trajectory.

Data Collection Procedures

Data were collected over twelve months during the active research and writing stages of the doctoral program. The process unfolded in three phases: preparation, reflection, and synthesis. During the preparation phase, the researcher identified core themes based on literature and previous reflective models. The reflection phase involved maintaining weekly journals, recording key events such as proposal defenses, article rejections, and feedback sessions, and documenting emotional and motivational fluctuations. Finally, the synthesis phase required iterative coding and thematic mapping to integrate reflections with theoretical constructs from self-regulated learning and digital literacy frameworks (Zimmerman, 2020; Ng, 2022).

To ensure consistency, reflective notes were stored digitally using a secure cloud repository. The researcher revisited and re-read entries monthly to identify emergent patterns, contradictions, and transformative learning moments. This cyclical approach of writing, revisiting, and reinterpreting allowed the researcher to maintain both immediacy and distance, an essential balance in reflective qualitative inquiry.

Data Analysis

Data analysis followed Braun and Clarke's (2021) six-phase thematic analysis. First, all reflective entries and documents were read repeatedly to gain familiarity with

the data. Next, initial codes were generated inductively from meaningful segments, focusing on experiences of productivity, persistence, and scholarly transformation. Themes were then constructed by clustering related codes and refining their conceptual relationships. The fourth stage involved reviewing and validating themes against both data extracts and theoretical underpinnings. The fifth and sixth stages required defining each theme and producing a narrative synthesis that captured the evolving understanding of doctoral growth in digital contexts.

To enhance the reliability of interpretation, the coding process was peer-reviewed by two colleagues with doctoral backgrounds. They were asked to review a subset of reflective entries and comment on thematic coherence. Their feedback contributed to refining the interpretations and reducing personal bias.

Ethical Considerations

Ethical integrity was upheld throughout the study by adhering to reflective research ethics principles. Since the researcher was both participant and analyst, self-disclosure was carefully managed to maintain professional dignity and confidentiality of related individuals such as supervisors or peers. The narrative avoided mentioning identifiable information and focused instead on the learning processes and developmental insights. Prior to data collection, ethical clearance was obtained from the institutional research ethics committee, ensuring alignment with academic research standards. Transparency and reflexivity were emphasized as ethical strategies to demonstrate authenticity and accountability (Tracy, 2020).

Moreover, digital privacy was preserved through anonymization of documents and secure data storage. The reflective process was guided by respect for all contributors in the scholarly ecosystem, recognizing that doctoral learning is inherently relational. Thus, ethical reflection became not merely a procedural requirement but also a dimension of scholarly maturity emerging through the research itself.

Findings

The reflective analysis of twelve months of doctoral engagement revealed three major themes: (1) *Digital Productivity as a Transformative Practice*, (2) *Persistence through Academic Vulnerability*, and (3) *Evolving Scholarly Identity in the Networked*

Age. Each theme captures a phase of intellectual and emotional growth shaped by technological affordances, social interactions, and internal reflection. These themes were interrelated and sequentially layered, representing a holistic trajectory from struggle toward scholarly maturity.

Theme 1: Digital Productivity as a Transformative Practice

Early reflections indicated a substantial shift in work habits due to digital tools. At the beginning of the doctoral journey, the researcher described productivity as "an elusive ideal defined by constant comparison." However, as engagement with digital platforms such as online libraries, AI-assisted proofreading systems, and reference management tools increased, productivity evolved into a form of digital craftsmanship. The use of tools like Zotero, Grammarly, and cloud-based writing spaces did not merely enhance efficiency but transformed the sense of agency in managing academic labor.

A recurrent code in the journal entries was *"learning to work with, not against, technology."* This indicated a cognitive transition from anxiety to autonomy. As summarized in **Table 1**, digital literacy and reflective regulation became twin forces for sustaining writing momentum.

Table 1. Emergent subthemes of digital productivity

Core Code	Reflective Description	Illustrative Evidence
Self-regulated writing	Regular use of time-tracking and self-monitoring apps to sustain focus	"I realize the software is not controlling me; it helps me track what matters."
Cognitive offloading	Digital tools reduce the load of referencing and formatting	"By automating the tedious parts, I can think more critically."
Networked mentorship	Feedback through online academic communities	"A brief online reply from a peer abroad shifted my perspective entirely."

These patterns resonate with recent research emphasizing how doctoral learners adopt digital ecosystems to sustain cognitive flow and intellectual independence (McAlpine & Amundsen, 2022; Bawa, 2021). Rather than viewing productivity as output quantity, the reflection reframed it as a dynamic interplay between self-awareness, digital competence, and scholarly intentionality.

Theme 2: Persistence through Academic Vulnerability

The second major finding highlighted how persistence emerged not from confidence, but from vulnerability and emotional regulation. Several journal entries described moments of self-doubt—particularly after receiving manuscript rejections or supervisor critiques. Over time, these experiences were reinterpreted as developmental thresholds rather than setbacks. Through reflective engagement, vulnerability became a pedagogical resource that deepened resilience.

In one entry, the researcher wrote:

"I began to understand that persistence is not the absence of failure, but the practice of staying engaged with uncertainty."

Figure 1 conceptualizes this process as a Reflective Spiral of Persistence, representing how vulnerability, feedback, and adaptation form a continuous developmental cycle.

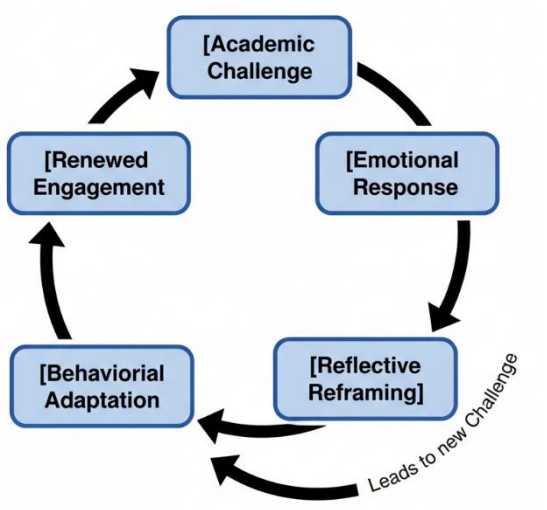


Figure 1. Reflective Spiral of Persistence

The spiral model illustrates the recursive relationship between emotional turbulence and adaptive learning. This echoes the findings of Inouye and McAlpine (2019), who found

that doctoral persistence is shaped by learners' capacity to regulate emotion through reflective practices rather than by external reinforcement. In this case, digital reflection journals served as therapeutic and analytical tools, allowing emotional data to be transformed into intellectual insight.

Moreover, peer discussions via academic networks, including doctoral writing forums, fostered a collective sense of empathy and accountability. These interactions redefined persistence from an individual endurance act into a relational phenomenon. The reflective account confirmed what Lee and Golde (2020) termed "resilient belonging," where doctoral identity is sustained by participation in a community that validates struggle as integral to scholarly progress.

Theme 3: Evolving Scholarly Identity in the Networked Age

The final theme described the gradual evolution of scholarly identity in a digitally mediated academic world. As the researcher advanced through proposal defense, data collection, and article submission phases, the reflection journals revealed an increasing awareness of positionality—as both a local scholar from Indonesia and a participant in the global academic discourse. Initially, the tension between local academic expectations and international publishing norms caused cognitive dissonance. Over time, however, digital exposure through webinars, online writing groups, and open-access resources created a hybrid academic identity.

This transformation is best summarized by the reflective statement:
"I am no longer merely producing research; I am negotiating who I am as a scholar through the act of digital communication."

Such findings align with the concept of identity-as-practice proposed by Wenger-Trayner and Wenger-Trayner (2021), emphasizing that identity develops through participation in shared digital and academic communities. The reflective data suggested that identity formation occurred through dialogic exchanges, not isolation. The digital environment amplified visibility and accountability, making scholarly identity both performative and collaborative.

The narrative also indicated that scholarly growth is increasingly multimodal. Beyond writing and publishing, identity construction involved curating digital profiles, participating in online seminars, and engaging in mentorship through social media. The

integration of these practices demonstrated how digital networks have blurred the line between personal reflection and public scholarship.

Synthesis of Themes

The three themes collectively portray the doctoral journey as a cyclical and integrative process. Digital productivity provided the technical infrastructure for work, persistence sustained motivation through emotional turbulence, and evolving identity ensured meaning and direction. Together, they formed a coherent framework of Reflective Digital Scholarship, visualized in Figure 2 below.

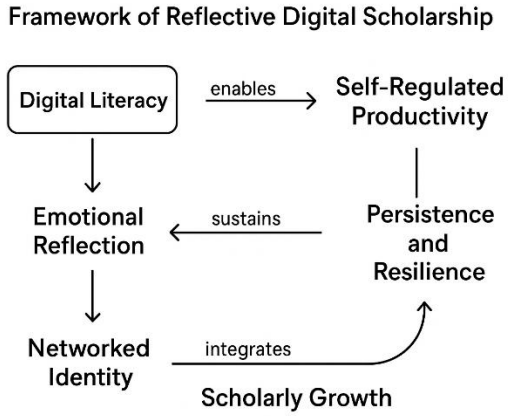


Figure 2. Framework of Reflective Digital Scholarship

The framework underscores that in the digital age, doctoral success is less about managing time and more about managing transformation. Productivity, persistence, and scholarly identity are not separate competencies but interconnected capacities cultivated through reflective engagement with digital technologies.

Discussion

The findings from this reflective study highlight how doctoral scholars in English education navigate an increasingly digital academic landscape, and they open several theoretical and practical avenues for understanding productivity, persistence and identity in doctoral education. In this discussion I analyse each major theme in relation to preceding literature and theory, address how the study fills the gaps previously identified, and indicate the implications for doctoral programmes and supervision.

Digital Productivity as a Transformative Practice

The first theme revealed that productivity in the doctoral journey is not simply about producing more articles or meeting deadlines, but about developing *digital literacy*, self-regulated behaviours, and an internalised sense of agency. This insight aligns with self-regulated learning theory (Zimmerman, 2000) in which learners plan, monitor, and evaluate their strategies; here, the digital tools became mediators of that process. Prior studies show that doctoral students who adopt goal-setting, time-management, and monitoring are more successful (Xu et al., 2023). Beyond that, the present study indicates that digital environments prompt new forms of productivity—consistent with Weller's (2018) notion of digital scholarship, where tool use changes the shape of academic work. For example, the shift "from anxiety to autonomy" described in the journals mirrors the argument by McAlpine and Amundsen (2022) that doctoral identity work involves moving from survival to scholarly agency.

Critically, this study addresses one of the gaps identified earlier—namely, the need for a holistic view of productivity in English education contexts in tandem with digital transformation. Whereas much of the literature emphasises output measures or technology adoption alone, this study situates digital literacy, reflective regulation, and networked mentorship as co-constitutive of sustainable productivity. Practically, doctoral supervisors and institutions must therefore go beyond encouraging *more publishing* and instead support the development of *digital regulation skills*, critical reflection on technology use, and scaffolding of writing rhythms. For example, training in reference-management tools, cloud-writing platforms, and AI-assisted proofreading should be paired with sessions on *how* to maintain deep work and avoid fragmentation (Gu & Brooks, 2022).

Persistence through Academic Vulnerability

The second theme, persistence through academic vulnerability, deepens our understanding of doctoral endurance. Traditional frames of persistence focus on external supports or institutional structures (Lehan, 2023). This study complements that by showing how emotional responses—self-doubt, rejection, feedback loops—when reframed via reflection, become resources for growth. This aligns with Martin's (2014) conceptualisation of academic resilience. Moreover, the "Reflective Spiral of Persistence" suggests that persistence is not linear but recursive: challenge leads to

emotional response, which through reflection leads to behavioural adaptation and renewed engagement. This elaborates on Inouye and McAlpine's (2019) finding that reflection and emotional regulation are core to doctoral survival.

By showing how digital tools (journals, online forums) supported this reflective process, the research also contributes to the digital scholarship literature—showing that emotional regulation and digital mediation are intertwined. Previous research (Seckin & Varol, 2022) indicated that larger academic support networks correlate with productivity; here I extend that by showing how *vulnerability* and *reflection* within networked spaces contribute to persistence. Therefore the gap of exploring persistence not only as structural endurance but as reflective emotional adaptation in digital contexts is addressed.

For practice, doctoral programmes should integrate structures for emotional reflection—such as structured journals, peer writing groups, online forums—not simply as add-ons but as core elements of doctoral pedagogy. Supervisors should normalise vulnerability and encourage students to perceive rejection as part of the research process. Recognising digital platforms as emotional scaffolding may also help in constructing more resilient doctoral communities.

Evolving Scholarly Identity in the Networked Age

The third theme draws attention to how doctoral students negotiate identity in global, digital academic spaces. The findings underscore that identity emerges through participation, not isolation—echoing Wenger-Trayner & Wenger-Trayner (2021) who view identity as practice within communities of learning. The research adds nuance by specifying how networked tools (webinars, writing groups, online profiles) mediated the transition from "local scholar" to "global academic actor." Knipp's (2024) work on digital scholarship from peripheral contexts showed the tensions in self-promotion and metrics; this study shows how those tensions manifest in identity construction for doctoral students.

In addition, the study addresses the niche gap about English education doctoral contexts: although identity development research exists (Choi et al., 2021), much of it remains pre-digital or assumes homogeneous contexts. Here the participant reflected on positionality—being based in Indonesia while engaging in global networks—and thus the

study contributes by highlighting how digital exposure enables hybrid academic identities that bridge local and global cultural expectations.

For practical implications, doctoral curricula must foreground identity development not only as incidental but as deliberate. Activities like digital presence workshops, international webinar participation, and mentorship across borders should be integrated into doctoral programmes. Supervisors should recognise that identity work is not extra but fundamental, and encourage doctoral candidates to reflect on *who they are becoming* as scholars, not just *what they are producing*.

Best Practices and Emerging Digital Strategies for Doctoral Success

The findings above intersect with a broader body of empirical research that identifies the conditions under which doctoral students thrive in the digital era. Previous studies on doctoral success reveal that timely completion and high publication productivity are rarely accidental; they stem from structured self-regulation, networked mentorship, and purposeful engagement with technology. Research by Xu et al. (2023) and Pintrich (2004) affirms that effective goal setting, reflective self-monitoring, and time management underpin scholarly persistence. Seckin and Varol (2022) further demonstrate that supportive academic networks significantly predict publication outcomes. In English education contexts, scholars who embed writing for publication as an integral part of their dissertation work tend to develop a stronger scholarly voice (Basturkmen, 2021). Likewise, Weller (2018) and Bawa (2021) argue that cultivating digital academic visibility through platforms such as ORCID, ResearchGate, and Google Scholar enhances both credibility and collaboration. These findings resonate with the author's own experience of completing doctoral study within six semesters and publishing fifteen peer-reviewed articles—an outcome enabled by combining goal-driven self-regulation, digital collaboration, and publication-based learning.

Beyond traditional strategies, recent studies highlight how artificial intelligence (AI) has become a cognitive partner in doctoral research and writing. Doctoral students increasingly employ AI-based systems for idea generation, language refinement, literature mapping, and project management (Khalifa, 2024; Zhang & Li, 2024). Tools such as Grammarly, QuillBot, and ChatGPT support linguistic accuracy and rhetorical organization, while platforms like Scite.ai, Elicit, and ResearchRabbit facilitate

systematic literature synthesis. AI-assisted applications (e.g., NVivo AI, SPSS Smart Assist) also streamline data analysis and visualization. When used ethically and reflectively, these technologies accelerate writing efficiency and improve analytical rigor, thereby contributing to faster and more confident completion. However, scholars emphasize that success depends on *critical engagement*—treating AI as a scaffold for reflection rather than a substitute for academic judgment.

Within English education doctoral programs, several digital tools have proven particularly transformative. AI-enhanced writing platforms, reference managers (Zotero, Mendeley), and multimodal presentation tools (Canva, MindMeister) not only support productivity but also strengthen identity work through visible scholarly communication. Emerging research (Gu & Brooks, 2022; Xu et al., 2024) suggests that combining these technologies with reflective practice produces measurable gains in publication rate, writing confidence, and research autonomy. Collectively, these innovations demonstrate that digital literacy, ethical AI use, and community-based learning are now integral competencies for sustainable doctoral success.

Integrated Insights and Filling the Research Gaps

Taking the three themes together, this study presents a Reflective Digital Scholarship Model that connects digital literacy, emotional reflection, and networked identity into a coherent conceptual framework. This addresses the first gap of holistic integration, showing that productivity, persistence, and identity are interwoven rather than separate dimensions of doctoral learning (McAlpine & Amundsen, 2022; Xu et al., 2023). It also addresses the second gap of contextual specificity by focusing on an English education doctoral scholar situated within a digital and culturally diverse academic environment. The third gap, related to longitudinal reflective narrative, is addressed by illustrating how these themes evolved progressively across twelve months rather than appearing as isolated or episodic moments of insight (Inouye & McAlpine, 2019).

The findings further suggest theoretical refinement of several frameworks. Self-regulated learning theory is expanded to include digital tool regulation, emphasizing the intentional management of technology, attention, and workflow to sustain productivity (Zimmerman, 2000; Pintrich, 2004; Faza & Lestari, 2025). Academic resilience theory is extended through the concept of digital emotional scaffolding, where reflective

technology use supports emotional regulation and adaptive persistence (Martin, 2014; Yu, 2023). Scholarly identity theory is also broadened to incorporate networked digital practice, recognizing that identity construction increasingly occurs through participation in online academic communities (Wenger-Trayner & Wenger-Trayner, 2021; Weller, 2018). Collectively, these refinements invite doctoral education research to move toward integrative models that bridge cognitive, emotional, and digital dimensions of scholarly development.

This reflective account also connects to the broader realities of doctoral education in developing contexts such as Indonesia. In recent years, national policies have emphasized the importance of international publications in Scopus-indexed journals as benchmarks for doctoral performance and institutional ranking (Directorate General of Higher Education, 2023; Suherman, 2022). While these policies have expanded opportunities for international engagement, they have also intensified the pressure on doctoral candidates to complete their programs efficiently and demonstrate quantifiable academic outcomes. The present reflection illustrates that digital literacy, self-regulation, and collaborative scholarship can transform these policy pressures into meaningful academic growth. Instead of viewing publication requirements as external mandates, they can be reinterpreted as platforms to build research competence, strengthen scholarly identity, and contribute to global knowledge from a local perspective (Fatimah & Yusuf, 2022; Basturkmen, 2021).

The Reflective Digital Scholarship Model introduced in this study also refines two core theories frequently used in doctoral research. It extends the theory of self-regulated learning by integrating the notion of digital regulation, defined as the deliberate control of online tools, information flow, and focus to support sustained scholarly engagement (Chen, 2025; Xu et al., 2023). It also advances the theory of academic resilience by highlighting emotional reflection mediated by technology, where digital journaling and peer interactions enable the transformation of emotional experiences into cognitive insight (Inouye & McAlpine, 2019; Seckin & Varol, 2022). Within this perspective, persistence arises not only from psychological strength but from reflective engagement that converts vulnerability into learning. Through this synthesis, the model presents a more holistic understanding of how digital engagement, emotional awareness, and

scholarly identity can develop together to support doctoral success in the contemporary academic landscape.

Conclusion

This reflective inquiry sought to understand how digital engagement shapes productivity, persistence, and scholarly identity in the doctoral journey. The findings reveal that doctoral success in the digital age extends beyond completing academic requirements. It involves cultivating digital literacy, emotional reflection, and networked identity as intertwined dimensions of scholarly growth. Through continuous reflection, digital tools became instruments of self-regulation, emotional resilience, and identity negotiation. The study thus answers its central problem by demonstrating that doctoral sustainability is a dynamic process where technology, emotion, and identity co-evolve to support long-term academic flourishing.

The study also offers an integrative theoretical contribution. By linking self-regulated learning theory, academic resilience, and identity formation, it proposes a holistic model of Reflective Digital Scholarship. This model positions digital literacy as the foundation for self-regulated productivity, emotional reflection as the pathway to persistence, and networked identity as the catalyst for scholarly maturity. Together, these elements form a cyclical process of renewal that sustains engagement amid challenges. Such insights fill existing gaps in doctoral education literature, especially those related to the integration of emotional and digital dimensions in English education doctoral contexts.

Several implications arise from this research. For doctoral supervisors, the findings highlight the importance of guiding students not only in academic writing or data analysis but also in digital self-management and emotional reflection. For universities, there is a call to embed digital literacy and reflective practice training into doctoral curricula to help candidates develop adaptive and resilient scholarly identities. Moreover, fostering online and cross-institutional communities can strengthen networked learning and global scholarly visibility. For doctoral candidates themselves, the study suggests that sustained success emerges from balancing productivity with well-being and reflection.

Despite its contributions, this study has limitations that must be acknowledged. It is based on a single reflective account, and thus its findings cannot be generalised to all

doctoral contexts. The rapid evolution of digital tools may also limit the temporal relevance of certain insights. Further research is needed to test the proposed model empirically across different disciplines, cultural settings, and longer time spans. Comparative and mixed-method studies would enrich the understanding of how doctoral students worldwide cultivate reflective and resilient scholarly practices through technology.

REFERENCES

Arı, A., & Korkmaz, M. (2024). Emotional dynamics of doctoral writing: Managing vulnerability and motivation in higher education. *Studies in Graduate Education, 18*(2), 121–137.

Basturkmen, H. (2021). Writing for publication in English medium journals: A perspective from English education research. *Journal of English for Academic Purposes, 52*, 101–117. https://doi.org/10.1016/j.jeap.2021.101117

Bawa, P. (2021). Rethinking digital scholarship in higher education: A critical review. *Education and Information Technologies, 26*(6), 7469–7486. https://doi.org/10.1007/s10639-021-10724-2

Braun, V., & Clarke, V. (2021). One size fits all? What counts as quality practice in (reflexive) thematic analysis? *Qualitative Research in Psychology, 18*(3), 328–352. https://doi.org/10.1080/14780887.2020.1769238

Chen, L. (2025). Doctoral students' autonomy, academic buoyancy, and persistence in digital learning environments. *International Journal of Doctoral Studies, 20*(1), 45–61.

Choi, H., Lee, J., & Kim, Y. (2021). Identity development in doctoral education: A systematic review. *Higher Education Research & Development, 40*(5), 1054–1070.

Directorate General of Higher Education. (2023). *National policy on research and publication standards in doctoral education in Indonesia*. Ministry of Education, Culture, Research, and Technology.

Fatimah, N., & Yusuf, S. (2022). Research productivity and internationalization in Indonesian higher education. *Indonesian Journal of Educational Research, 7*(2), 99–112.

Faza, A., & Lestari, S. (2025). Self-regulated learning in digital contexts: A systematic review. *Asian Journal of Education and e-Learning, 13*(1), 1–15.

Gu, Q., & Brooks, J. (2022). Enhancing doctoral writing through digital mediation and reflective practice. *Innovations in Education and Teaching International, 59*(4), 420–433.

Inouye, K., & McAlpine, L. (2019). Developing academic identity: A longitudinal narrative of doctoral experience. *Studies in Continuing Education, 41*(1), 76–93. https://doi.org/10.1080/0158037X.2018.1464006

Khalifa, M. (2024). Generative AI and academic writing: Reimagining authorship in doctoral education. *Computers and Composition, 69*, 102746.

Knipp, J. (2024). Digital scholarship and self-promotion in peripheral contexts. *Research Evaluation, 33*(2), 210–224.

Lee, A., & Golde, C. M. (2020). Completing the doctorate in the twenty-first century: Supervisory pedagogies and structures of support. *Studies in Higher Education, 45*(3), 389–401.

Lehan, K. (2023). Institutional persistence factors in doctoral completion: A systematic review. *Journal of Higher Education Policy and Management, 45*(1), 22–37.

Mark, G. (2024). The cost of digital overload in academic work: Implications for well-being and focus. *Computers in Human Behavior, 151*, 107201.

Martin, A. J. (2014). Academic buoyancy and academic resilience: Exploring "everyday" and "classic" resilience in the face of academic adversity. *School Psychology International, 34*(5), 488–500.

McAlpine, L., & Amundsen, C. (2022). *Identity and agency in doctoral education: Emerging research practices*. Springer Nature.

Merriam, S. B., & Tisdell, E. J. (2020). *Qualitative research: A guide to design and implementation* (4th ed.). Jossey-Bass.

Ng, W. (2022). Digital literacy and self-directed learning in doctoral education. *British Journal of Educational Technology, 53*(3), 678–694.

Noy, C. (2023). The academic self in digital culture: Rethinking productivity and value. *Learning, Media and Technology, 48*(2), 132–147.

Phyo, M., Soe, A., & Win, N. (2024). Writing anxiety and doctoral persistence in English-medium programs. *TESOL Quarterly, 58*(1), 150–172.

Pintrich, P. R. (2004). A conceptual framework for assessing motivation and self-regulated learning in college students. *Educational Psychology Review, 16*(4), 385–407.

Rinnekangas, T., Hakkarainen, K., & Kärkkäinen, K. (2025). Doctoral learning and digital work ecologies: Balancing productivity and well-being. *Higher Education Research & Development, 44*(1), 75–92.

Seckin, H., & Varol, A. (2022). Academic support networks and doctoral productivity in the digital era. *Innovations in Education and Teaching International, 59*(3), 312–326.

Suherman, E. (2022). The policy shift toward Scopus publications in Indonesian doctoral programs. *Journal of Higher Education Policy and Management, 44*(3), 289–302.

Tracy, S. J. (2020). *Qualitative research methods: Collecting evidence, crafting analysis, communicating impact* (2nd ed.). Wiley-Blackwell.

Wang, T., Li, S., & Ren, Q. (2025). Digital doctoral ecosystems: How technology reshapes research practices and supervision. *Computers & Education, 206*, 104906.

Weller, M. (2018). *The digital scholar: How technology is transforming scholarly practice* (2nd ed.). Bloomsbury Academic.

Weller, M. (2024). The metrics trap: Digital scholarship and the quantification of academic life. *Online Information Review, 48*(1), 33–49.

Wenger-Trayner, E., & Wenger-Trayner, B. (2021). *Learning to make a difference: Value creation in social learning spaces*. Cambridge University Press.

Xu, J., Martin, F., & Chen, H. (2022). Self-regulated learning and persistence among doctoral students in digital environments. *Journal of Educational Technology Research and Development, 70*(2), 445–460.

Xu, J., Martin, F., & Chen, H. (2023). A review of self-regulated learning in online higher education. *Distance Education, 44*(2), 151–170.

Xu, J., Zhang, L., & Li, Y. (2024). Integrating AI tools into doctoral writing supervision: Emerging practices and challenges. *Teaching in Higher Education, 29*(5), 745–761.

Yu, Y. (2023). Resilience and engagement in online doctoral learning: A mixed-methods study. *The Internet and Higher Education, 59*, 100897.

Zhang, L., & Li, Y. (2024). Artificial intelligence as a writing partner in doctoral research. *Computers and Composition, 69*, 102753.

Zimmerman, B. J. (2000). Attaining self-regulation: A social cognitive perspective. In M. Boekaerts, P. Pintrich, & M. Zeidner (Eds.), *Handbook of self-regulation* (pp. 13–39). Academic Press.