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RESEARCH ARTICLE

Cognitive dissonance in L2 dissertation writing: A hidden driver of delayed graduation trends

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ABSTRACT

Second language (L2) postgraduate students often find dissertation writing to be a cognitively and emotionally taxing process. Beyond linguistic challenges, these students may experience cognitive dissonance (CD), a psychological conflict between their academic goals and their writing behaviors. According to Festinger's (1957) theory of CD, an interplay exists between cognition, emotion, and motivation, whereby students' acts of resolving their mental conflicts may influence their behaviors. While previous research has explored writing anxiety (WA) among L2 students, limited attention has been given to the role of CD in influencing dissertation writing progress and contributing to delayed graduation trends. This study aimed to investigate how CD affects L2 postgraduate students' dissertation writing behaviors and WA. Using a multiple-case study design, three Malaysian Master's students were selected as participants. Data were collected through in-depth interviews, audio journals, and document analysis. Thematic analysis revealed four key themes: unresolved CD impedes dissertation writing progress, diverts attention from writing issues, increases WA, and when managed adaptively, sustains writing efforts. The findings suggest that cognitive dissonance is a hidden but critical factor influencing dissertation completion and graduation timelines. Supervisors and writing support programs should consider early interventions to help students recognize and manage cognitive conflicts during the dissertation process, ultimately supporting both emotional resilience and timely academic completion.

Keywords: cognitive dissonance; second language writing; dissertation writing; writing anxiety; postgraduate students; delayed graduation; self-regulation in writing

1. Introduction

Postgraduate dissertation writing presents significant cognitive and emotional challenges for second language (L2) students. Beyond mastering disciplinary content, L2 postgraduate students must navigate complex academic writing demands in a second language, including organizing arguments, maintaining coherence, and demonstrating criticality[1,2]. These challenges can trigger writing anxiety (WA), particularly among students with limited linguistic proficiency or academic writing experience[3,4].

Writing anxiety has been consistently linked to reduced writing quality and academic disengagement[5,4].

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However, emotional responses alone do not fully explain dissertation writing difficulties. Recent research suggests that internal cognitive conflicts, particularly cognitive dissonance (CD), may also disrupt writing behaviors[6,7]. In dissertation contexts, unresolved dissonance between students' writing goals and their perceived performance may lead to avoidance behaviors, writing stagnation, and increased anxiety.

While delayed graduation trends among postgraduate students have been a growing concern globally[8,9], little attention has been given to the role of cognitive-emotional factors, such as CD and WA, in shaping dissertation writing outcomes. This study draws on Festinger's theory of cognitive dissonance[6] to examine how internal conflicts influence dissertation writing behaviors, writing anxiety, and potentially, graduation timelines among L2 postgraduate students.

2. Literature review

Postgraduate dissertation writing is widely recognized as a demanding cognitive and linguistic process. L2 postgraduate students face compounded challenges as they must develop sophisticated academic arguments in a second language while meeting disciplinary expectations[1,2]. Research highlights difficulties in organizing ideas coherently, maintaining cohesion across sections, demonstrating critical thinking, and integrating sources effectively[10]. For L2 writers, linguistic barriers and unfamiliarity with academic genres often intensify these challenges, leading to heightened frustration and self-doubt during the dissertation writing journey[11,12].

These academic and linguistic challenges not only affect students' writing quality but also elicit intense emotional reactions. Among these, writing anxiety has been identified as a critical affective barrier impacting dissertation writing progress[4].

2.1. Writing anxiety (WA) and dissertation writing

Writing anxiety (WA) refers to the experience of tension, apprehension, or fear associated with writing tasks[13,14]. In high-stakes academic writing such as dissertations, WA is particularly pronounced due to the importance placed on producing original and polished work. Wan Osman et al.[4] identify WA symptoms including writer's block, negative self-talk, and avoidance behaviors. Research has established a negative correlation between WA and writing performance, suggesting that students with higher anxiety levels often produce lower-quality written work[5]. Moreover, a study emphasizes that WA is not static; it can fluctuate based on students' ongoing cognitive and emotional evaluations during the writing process[16]. Despite this variability, students experiencing persistent WA often display avoidance strategies, procrastination, and limited engagement with critical feedback, all of which are detrimental to dissertation writing progress.

While writing anxiety has been extensively studied in relation to writing performance, emotional discomfort alone may not fully explain why some students disengage from dissertation writing altogether. To better understand these behaviors, it is important to consider the role of internal cognitive conflicts, particularly cognitive dissonance.

2.2. Cognitive dissonance (CD) and academic performance

Cognitive dissonance (CD), first introduced by Festinger, describes the psychological discomfort arising from inconsistencies between beliefs, attitudes, and behaviors[6]. In academic contexts, CD is particularly relevant when students' aspirations (e.g., completing a dissertation) clash with their actual writing experiences (e.g., avoidance, poor performance)[7]. Harmon-Jones et al.[6] and Wan Osman et al.[7] highlight that students may attempt to resolve dissonance by altering their beliefs (e.g., lowering the importance of writing excellence), adopting new justifications, or misattributing obstacles to external factors. Cognitive dissonance reduction strategies are often unconscious but significantly impact behavior regulation,

particularly by shifting focus away from core writing challenges[16]. In writing contexts, these strategies may misdirect attention from core writing issues, leading to superficial engagement with tasks, rationalization of procrastination, and reduced motivation to persist through difficulties[17,18]. Despite growing interest in CD's role in emotional regulation and decision-making, its specific influence on dissertation writing behaviors remains underexplored[19].

If unresolved, cognitive dissonance may not only impair immediate writing behaviors but also accumulate over time, potentially contributing to broader academic consequences such as delayed dissertation completion and extended time-to-degree[7].

2.3. Delayed graduation trends in postgraduate education

Delayed graduation among postgraduate students has become a growing concern in many educational systems worldwide. Studies by Ampadu[20] and Newsome et al.[21] highlight that delayed graduation can result from factors such as poor supervision, bureaucratic hurdles, inadequate institutional support, and personal circumstances. However, relatively few studies have investigated the cognitive-emotional dimensions that may indirectly prolong dissertation timelines. Guerin et al.[11] suggest that psychological struggles, including loss of confidence and writing avoidance, can silently derail postgraduate progress. Similarly, Maher et al.[20] emphasize that emotional and cognitive resilience are critical to dissertation completion. Yet, the specific mechanisms – such as how unresolved cognitive dissonance may stall writing behaviors and exacerbate writing anxiety – remain insufficiently addressed. Given the high emotional and cognitive demands of dissertation writing, the potential role of CD as a "hidden driver" of delayed academic progress warrants deeper investigation.

2.4. Research gap and research questions

Although writing anxiety and cognitive dissonance have been individually studied in academic writing contexts, their combined influence on dissertation writing behaviors and academic progression, particularly among L2 postgraduate students, remains underexplored. Furthermore, most studies examining delayed graduation trends focus on structural or external factors rather than internal cognitive-emotional struggles[21,24]. Addressing this gap, the present study seeks to explore how CD influences dissertation writing behaviors, affects writing anxiety, and contributes to delayed graduation trends among L2 postgraduate students. Accordingly, the study is guided by the following research questions:

a) How does cognitive dissonance influence the dissertation writing behaviors of L2 postgraduate students?

b) How does cognitive dissonance affect writing anxiety during the dissertation writing process?

c) How might cognitive dissonance contribute to delayed graduation trends among L2 postgraduate students?

To investigate these questions meaningfully, the study explored participants' lived dissertation writing experiences, focusing on how cognitive dissonance shaped their writing behaviors and emotional trajectories.

3. Research methodology

This study adopted a qualitative multiple-case study design to explore the complex, context-dependent experiences of cognitive dissonance (CD) and writing anxiety (WA) among L2 postgraduate students engaged in dissertation writing. A qualitative approach was deemed appropriate for facilitating rich, in-depth investigation of dynamic, evolving phenomena situated within participants' authentic academic environments.

3.1. Research design & researcher positionality

Specifically, a qualitative multiple-case design was selected because second language writing anxiety (SLWA) is influenced by a variety of individual- and context-specific factors[22]. SLWA fluctuates in intensity throughout the writing process as students encounter different academic, social, and cognitive challenges[5]. Moreover, students may experience SLWA in diverse ways, including heightened cognitive anxiety (e.g., fear of negative evaluation, negative self-perceptions), somatic anxiety (e.g., physiological symptoms such as heart palpitations and sweaty palms), and avoidance behaviors (e.g., procrastination, withdrawal from writing tasks)[5,23]. These variations can significantly influence students' cognitions, emotions, behaviors, and ultimately, their writing performance[5,24]. Given these complexities, the present study explored CD and SLWA "within its real-life context," where "the boundaries between phenomenon and context are not clearly evident," as noted by Yin[22], in order to reconstruct a comprehensive view of this affective phenomenon as it unfolds during dissertation writing.

The multiple-case design further allowed for comparative analysis across participants, enhancing the understanding of both shared patterns and individual differences in the manifestation of CD and WA. This design choice aligned closely with the study's objective of capturing the intricate interplay between cognitive, affective, and social elements involved in dissertation writing.

The researcher acknowledges the potential influence of personal background and preconceptions on the research process. To uphold the trustworthiness of the findings, reflexivity was systematically practiced throughout the study. The researcher maintained a reflective journal, critically examined personal assumptions, and engaged in regular peer debriefing sessions to minimize bias and enhance credibility. While the researcher's familiarity with dissertation writing challenges provided valuable sensitivity to participants' struggles, deliberate measures were taken to ensure that participants' voices and experiences remained central to the analysis. Consistent with this commitment to methodological rigor, careful attention was also given to participant selection to ensure rich, diverse, and meaningful representations of the phenomenon under study.

3.2. Participant selection

The participants for this study were selected using a two-stage purposeful sampling strategy involving an initial online survey followed by interviews. The survey was completed by 44 L2 postgraduate students engaged in dissertation writing at various stages of their programs. From this pool, nine participants were shortlisted for preliminary interviews based on the variability of their trait writing anxiety (WA) levels, perceived state WA experiences, language proficiency, academic writing background, and dissertation writing progress. Ultimately, three participants – Nayla, Adam, and Arwaa – were selected as the final cases for in-depth study. The selection process was designed to ensure diverse and meaningful representation of the phenomenon under investigation.

Each participant was chosen to reflect distinct profiles regarding their experiences with second language writing anxiety (SLWA) and dissertation writing. Nayla, a high-anxiety participant with considerable academic writing exposure, provided insights into the challenges faced by L2 writers experiencing persistent affective barriers despite moderate English proficiency. Adam, with low reported anxiety levels and professional experience as a certified translator, represented participants with practical L2 expertise but less formal training in academic research writing. Arwaa, although also reporting low trait anxiety, brought the perspective of a lower proficiency writer (MUET Band 3) early in her dissertation journey, offering important contrasts in cognitive dissonance development and self-regulation strategies.

Additional background information for the participants is summarized in **Table 1**. The participants varied notably in their English language proficiency, prior L2 learning experiences, and academic writing backgrounds. Nayla demonstrated moderate formal proficiency (MUET Band 4) and had achieved two conference proceedings despite her high anxiety levels. Adam, although lacking formal English proficiency test scores, had extensive real-world experience as a certified translator and two published research articles. Arwaa, in contrast, was at an early stage of dissertation writing with lower L2 proficiency and no prior publication experience. These diverse profiles enabled a rich, comparative exploration of how cognitive dissonance and writing anxiety interacted with individual differences in dissertation writing contexts.

Table 1. Brief summary of participants' profiles.

Pseudonym (Gender)	Age	Trait SLWA Level	English Language Proficiency	Dissertation Writing Progress	Publication Achievements
Nayla (F)	32	73 (High)	Band 4 (*MUET)	Working on proposal (in her 10th semester)	2 conference proceedings
Adam (M)	47	37 (Low)	Did not take *MUET/ IELTS/ TOEFL but is a certified translator	Working on proposal (in his 3rd semester)	2 research articles
Arwaa (F)	32	32 (Low)	Band 3 (*MUET)	Working on proposal (in her 1st semester)	None

**MUET = Malaysian University English Test*

Ethical approval for this study was obtained from the University of Malaya Research Ethics Committee (UMREC). All participants were fully informed about the study's purpose, procedures, and their rights as voluntary participants. Written informed consent was obtained prior to data collection, and participants were assured of the confidentiality and anonymity of their data. Pseudonyms were used throughout the study to protect participants' identities. Participants also retained the right to withdraw from the study at any point without penalty. Following the ethical clearance and participant consent process, the study proceeded with data collection using multiple qualitative methods to capture the participants' lived experiences comprehensively.

3.3. Data collection methods

The study employed several qualitative data collection methods, including in-depth interviews, audio journals, and personal document analysis. Data collection and preliminary analysis were conducted concurrently over a period of 24 weeks. This multi-method approach allowed for triangulation, thereby enhancing the credibility and depth of the findings.

3.3.1. In-depth interviews

Each participant underwent seven interview sessions during the data collection period, with an allotted time gap of one to two weeks between sessions to capture evolving reflections and experiences. All interviews were conducted remotely via telephone calls to minimize potential internet connectivity issues. With participants' consent, the interviews were audio-recorded and conducted primarily in English, although participants were allowed to use their first language, Malay, when necessary to express complex emotions. English remained the dominant medium, with occasional colloquial Malay expressions integrated naturally into conversations.

Each interview session lasted no longer than 60 minutes. All recordings were transcribed and translated by the researcher to ensure accuracy and consistency for analysis. The semi-structured interview protocol was developed based on an extensive review of literature on second language writing anxiety (SLWA) and cognitive dissonance (CD) in academic writing contexts. Guiding questions explored participants' emotions,

cognitive processes, behaviors, writing habits, and perceptions of dissertation writing progress. The protocol was validated through expert review prior to data collection. The interview analysis allowed the researcher to understand how participants perceived and interacted with their worlds, particularly regarding elements that were not directly observable, such as thoughts, emotions, beliefs, and goals[25].

3.3.2. Audio journals

In addition to interviews, participants were instructed to maintain audio journals to document their SLWA experiences and dissertation writing progress over time. Participants were encouraged to record their journals in English using their mobile phones, and submit the audio files directly to the researcher via Telegram or WhatsApp. While prompts were provided, suggesting they note the date, time, context (place, activity, writing progress), physical reactions, emotions, and thoughts, participants were given flexibility to express themselves freely.

The length and frequency of audio journal submissions varied among participants, with no single entry exceeding 14 minutes. These journals served to capture immediate, unfiltered emotional and cognitive responses, providing additional insight into participants' lived experiences and offering important corroborative evidence to their interview accounts.

3.3.3. Document analysis

Participants' personal documents, including research proposals, draft chapters, literature review matrices, and completed dissertation sections, were collected for analysis. All documents were written in English, consistent with the medium of academic communication in their programs.

Participants' dissertations were expected to meet institutional requirements, typically ranging from 30,000 to 40,000 words in length. Completion timelines for the dissertations spanned from three to four years depending on individual program structures and enrollment dates. Supervisory support was available through periodic consultations and written feedback, and institutional writing workshops were also offered, although engagement with these resources varied among participants.

Document analysis focused on linguistic features (e.g., language use, coherence, cohesion, vocabulary), organization, authorial voice, referencing practices, and the overall progression of writing development. Verbal data from interviews and audio journals were triangulated with textual data from documents to corroborate emerging themes and strengthen the study's credibility.

The total amount of qualitative data collected is summarized in **Table 2**. While all three data sources contributed to building comprehensive case narratives, interview excerpts appeared most prominently in this report, as they offered direct evidence of participants' conflicting thoughts, feelings, and reflections regarding dissertation writing.

Table 2. Summary of collected data.

	Research Methods	**Quantity**
1	In-depth interview	• Nayla: 7 sessions (Total duration: 276 minutes) • Adam: 7 sessions (Total duration: 438 minutes 29 seconds) • Sophia: 7 sessions (Total duration: 272 minutes 18 seconds) • Arwaa: 7 sessions (Total duration: 329 minutes 25 seconds)
2	Audio journal	• Nayla: 3 entries (Total duration: 5 minutes 36 seconds) • Adam: 1 entry (Total duration: 4 minutes 50 seconds) • Sophia: 2 entries (Total duration: 4 minutes 4 seconds) • Arwaa: 14 entries (Total duration: 73 minutes 1 second)
3	Personal document analysis	• Nayla: 2 submissions (1 draft, 1 literature review matrix) • Adam: 7 submissions (6 drafts, 1 literature review matrix)

- Sophia: 2 submissions (1 completed dissertation, 1 literature review matrix)
- Arwaa: 5 submissions (4 drafts, 1 literature review matrix)

The integration of interview, journal, and document data provided a rich foundation for analysis, which was systematically guided by the study's conceptual framework and is elaborated in the next section.

3.2. Conceptual Framework & Data Analysis

The data analysis process was guided by Hayes' Social-Cognitive Model of Writing[26], which served as the foundation of the conceptual framework for interpreting participants' experiences of cognitive dissonance (CD) and writing anxiety (WA) during dissertation writing. Hayes' model, which emphasizes the interplay between cognitive processes (e.g., working memory, planning, reviewing), long-term memory (e.g., topic knowledge, audience awareness), the social environment, and the physical environment[26], provided a structured lens through which to examine how participants navigated their dissertation writing journey. This framework enabled the researcher to trace how internal and external factors shaped participants' emotions, behaviors, and progress across different phases of their writing tasks.

This study incorporated cyclical data analysis, offering an iterative, in-depth exploration of the research topic[27]. In the first cycle, preliminary coding was conducted to identify emerging patterns and formulate initial propositions. These early insights guided subsequent, more focused rounds of data collection, allowing refinement and deeper exploration of key constructs. The data underwent a three-stage coding process: open coding, axial coding, and selective coding[25]. Open coding involved breaking down the data into discrete parts, examining them closely, and labeling emerging concepts. Axial coding entailed linking categories to subcategories, exploring causal relationships, conditions, and contexts. Selective coding focused on integrating and refining categories around core emergent themes related to the research questions.

To illustrate the coding process, two excerpts from participant interviews are presented in **Table 3**. The first excerpt reflects emotional and cognitive paralysis during writing attempts, while the second reveals how overwhelming cognitive load and diminished task valuation contributed to cognitive dissonance and writing disengagement. Together, these examples demonstrate the progressive abstraction of raw data into analytical categories and overarching themes. To ensure consistency and analytical rigor, three re-coding cycles were conducted[27]. Member checking was also employed, where participants verified the accuracy of interpreted summaries during later interview sessions[25].

Table 3. Coding process.

Data Excerpt	Open Code	Axial Category	Selective Theme
"I do get frequent writer's block. Every time I try to do my dissertation, I feel like everything is difficult and impossible for me."	Experiences of frequent writer's block; Feelings of difficulty and impossibility	Cognitive and emotional barriers during writing attempts	Interaction between cognitive dissonance and writing anxiety in dissertation progress
"But at this point, I feel like there's a lot of things over my head and that's the cause for my block. I sit down and I want to write this, but if I do this, I'll be wasting my time."	Feeling overwhelmed; Perceived futility of writing efforts; Conflict between intention and action	Cognitive overload and motivational conflict in writing engagement	Strain between cognitive overload and diminished task valuation during dissertation writing

Throughout the analysis, Hayes' model informed the categorization and interpretation processes by mapping participants' experiences onto relevant cognitive and contextual domains of the writing process. For instance, expressions of emotional struggle were linked to cognitive load issues (working memory strain), whereas environmental pressures such as supervisor feedback were analyzed in relation to the social environment component of the model.

In addition to interview and audio journal data, participants' written documents – including research proposals, chapter drafts, literature review matrices, reference lists, and dissertation sections – were systematically analyzed. Drawing on Hayes' Social-Cognitive Model of Writing[26], the document analysis focused on identifying manifestations of cognitive dissonance and writing anxiety, such as excessive revisions, writing avoidance behaviors, abrupt topic shifts, or incomplete argument development. Specific features analyzed in the participants' written outputs included language use, organization, authorial voice, referencing and citation practices, usage of academic and discipline-specific vocabulary, coherence and cohesion, and attention to readers' needs. Through this dual lens – psychological individuality and textual production – the study explored how cognitive dissonance might influence dissertation writing experiences. Patterns observed in the written outputs were compared with participants' verbal accounts to corroborate, deepen, or refine emerging interpretations. This multi-source triangulation enhanced the analytical depth and trustworthiness of the findings.

Finally, detailed within-case descriptions were developed for each participant before cross-case analyses were performed to uncover patterns, variations, and higher-level abstractions across cases.

4. Research findings

To align with the multiple-case study design, this section presents cross-case patterns and case-specific nuances related to cognitive dissonance (CD), dissertation writing behaviors, and writing anxiety (WA) among the participants. A preliminary overview of the participants' experiences and outcomes is provided in **Table 4** to facilitate pattern recognition before a more detailed thematic analysis is discussed.

Table 4. Summary of participants' cognitive dissonance experiences and outcomes.

Participant	Key CD Experience	Effect on Writing Process	Effect on WA	Outcome
Nayla	Procrastination, topic-switching, misattribution of blame	Diverted attention from writing issues, weakened structure, delayed progress	Moderate WA, feelings of guilt	Persistent delays; no major progress
Adam	Procrastination, weak conceptualization, misattribution, emotional suppression	Weakened writing structure, lack of critical reflection	Increased WA; writer's block and anxiety attacks	Stagnation; severe writing struggles
Arwaa	Pressure from grant, belief adjustments, proactive coping	Maintained writing output despite cognitive challenges; patchwriting issues	Fluctuating WA; maintained positive bias	Consistent progress; quality issues in writing

4.1. CD impedes dissertation writing progress

Based on Nayla's and Adam's case, CD seems to influence their dissertation writing progress. For instance, Nayla was in her 10th semester and had not yet completed her research proposal at the time of the study. The failure to accomplish her writing goals might have caused mental conflicts as she believed she could meet her goals. Nayla confessed to procrastinating as she initially acknowledged her actions and thoughts of not making progress: "*I choose to avoid doing it."* (Interview 1: 16-18). However, she later defended her actions, stating that "*…I'm doing this part-time…there are a lot of distractions that would refrain me from focusing…*" (Interview 2: 90-91). Then, she expressed feeling "*guilty*" for the frequent delays (Interview 7: 34-35). Altering her existing beliefs enabled her to avoid taking responsibility for not making progress and the possibility of wasted effort and resources, thus alleviating the present psychological discomfort created by her dissonance. Likewise, the alteration also led her to misattribute the cause of her lacking progress, which seemed to cause further emotional turmoil as it failed to adequately explain the resulting CD.

The second case representative, Adam, was in his third semester and working on finishing his proposal at the time of the study. He echoed Nayla's views on procrastination and felt remorseful for not progressing (Interview 4: 71-72). However, he subsequently changed his existing convictions and incorporated new perspectives to support his thoughts and behaviors. For example, he associated his lack of progress to drawing: "*It might also have something to do with how I draw*." (Interview 5: 72-73). Despite their awareness of the negative consequences of avoiding writing and their choice to prevent the adverse outcomes, they still made a deliberate decision not to write. As a result, their actions became habitual avoidance rather than goal-driven. In essence, Adam and Nayla underwent a shift in their beliefs and the change reduced their feelings of guilt but did not change their behaviors.

In dissertation writing, both seemed to overlook the significance of conceptualizing their research and neglected to reflect meaningfully on their writing, which might have influenced their writing performance. Adam's document analysis showed that his text did not exhibit a clear research direction, as the claims he made did not support his thesis. The discourse tended to diverge, despite his intention to explore the use of Tabletop Role Playing Games (TTRPG) in enhancing English speaking skills. As demonstrated below, the focus changes from speaking skills to language acquisition (**Excerpt 1**) and then to daily behaviors (**Excerpt 2**).

> **Excerpt 1:** …for an L2 speaker to acquire language effectively, the student needs to have a low affective filter, which would help to motivate them in their language acquisition…

> **Excerpt 2:** The TTRPG activity will help the student behave beyond what he knows for his age and daily behaviour.

Furthermore, his text displayed weak structural unity as the adjacent sentences often appear unrelated (**Excerpt 3**). He highlighted prior studies but failed to link them to his research. The absence of a clear topic sentence in various paragraphs rendered it challenging to determine the interpretation he intended for his readers to discover.

> **Excerpt 3:** Miskam and Saidavi (2019) discovered that Malaysian students possess a moderate level of speaking anxiety caused by communication apprehension. Abdullah and Abdul Rahman (2010) had earlier written that English language rules overwhelmed students when they needed to speak…

The analysis showed that Adam's CD might have diverted his attention from improving his written output. The text indicated that Adam's weakness was constructing plausible interpretations that logically lead to the conclusion to support his thesis development. He possibly struggled to progress due to incomplete research conceptualization and a failure to incorporate insights from his reading, thus leading to writing issues. Based on this information, it can be inferred that CD could influence students' writing progress. They tend to view the obstacles that hinder their writing as their personal weaknesses rather than as writing challenges that can be overcome.

4.2. CD diverts attention from dissertation writing issues

This theme illustrates the experiences of Nayla and Arwaa in writing their dissertations. Nayla appeared to attribute her inadequate writing performance to her research topic, causing her to switch to a new one in her 10th semester. She added new beliefs to her narrative when asked to explain her reasons. At first, she claimed that she was "*unfamiliar*" with the topic (Interview 1: 48-50). Later, she described it as "*something easy*" (Interview 2: 410-412), so much so that she would go back after a successful consultation with her

supervisor to work on her proposal (Interview 4: 309-312). However, her tone soon changed again as she claimed to have changed her research topic because she felt her supervisor is "*not an expert*" and her feedback as "*not really helpful*" (Interview 4: 329-331). In response to CD from failure to complete her dissertation, she added new beliefs and changed existing beliefs when explaining her writing journey. To resolve the mental conflict, she, to some extent, blamed the time lost for working on the wrong research topic and her supervisor led to her slow progress and that she would have achieved the goals if she had not wasted time and resources.

Arwaa, who enrolled on the program under a research grant and was working on her research proposal at the time of the study, believed that dissertation writing was an enjoyable experience (Audio Journal 11: 28-29). The positive tone seemed to take a different turn when she admitted that, "*Instead of writing skills, I would be happier to study speaking skills*." (Interview 6: 138-141). She was fixated on her research topic, grant, and the dissertation's evaluation instead of focusing on her writing approaches to minimize issues that could affect the writing process. Based on her document analysis, there were indications of potential plagiarism or patchwriting in her text. For instance, in **Excerpt 1**, she used reader pronouns that were not found in other paragraphs (e.g., **Excerpt 2**).

> **Excerpt 1:** A teacher of any foreign language can use these can-do statements to evaluate you and design lessons to address the gaps in your knowledge.

> **Excerpt 2:** Language policymakers and second language education programs worldwide have shown considerable interest in using and implementing the CEFR document in their programs (Wernicke et al., 2011) … The descriptors for each category are written as "Can Do" statements which… The CEFR is descriptive rather than prescriptive; therefore, the CEFR does not prescribe any particular teaching or testing methods (Wernicke et al., 2011).

Arwaa admitted that she combined different parts of literary sources to form content: "*I copied and pasted the whole parts that I believe would be suitable to include..."* (Audio Journal 5: 75-76). Occasionally, she was unsure which sources were extracted because she "*took too much from certain papers*", assuming that each detail of information might have a specific importance (Audio Journal 7: 4-5). Despite the significance of her topic selection, her writing struggles could have been due to her approach, as patchwriting does not substitute the process of conceptualizing research and synthesizing relevant literature to structure content. As her approach is reflected in her written output, it could potentially influence readers' evaluation of her text.

The analysis of her text revealed a lack of planning and structuring, as the research did not exhibit a clear direction. **Excerpts 3** and **4** revealed that while her research aimed to develop a written test in alignment with CEFR, the academic sources emphasized the development of curriculum design and policy-making instead. Additionally, the structural unity between paragraphs appears weak. As opposed to maintaining a flow of coherent ideas, the focus shifted from CEFR validity to implementation (**Excerpt 5**).

> **Excerpt 3:** O'Dwyer (2014) claimed that it would be sufficient to evaluate the current syllabus with necessary alignment…

> **Excerpt 4:** …most other European countries mandate that students, on average, should achieve level B2 for English... This becomes apparent in educational policy guidelines in both Switzerland…

> **Excerpt 5:** …but the validation process in different languages resulted in similar

> outcomes, which is evidence for CEFR's validity as a framework. [New paragraph] In Malaysia, the decision to adopt and implement CEFR into the education system was made in 2013…

She could not form strong interpretations and claims that logically correspond to the drawn conclusion. There is a possibility that she did not fully conceptualize her research before attempting to write, as she mentioned not having a "*clear view*" of her research (Interview 4: 193-195). As a result, the content was based on what she thought the topic entailed, as she insisted on "*writing whatever that comes to mind*" (Audio Journal 11: 13-16). The findings indicated that CD influenced both students' writing performance as it diverted their attention from dissertation writing issues. Their fixations (i.e., wasted time, research topic, and grant requirements) hindered them from producing quality dissertations and potentially drove them to plagiarise to expedite the writing process.

4.3. CD Maintains dissertation writing progress

Arwaa, a postgraduate student under a research grant, was the sole participant who had a positive effect of CD; it appeared to have helped her write consistently. At first, she was enthusiastic about being awarded the grant (Interview 6: 135). But later she felt pressured to follow the grant's expectations, meet various deadlines, and maintain a high level of performance. She lamented that the grant restricted her creativity and the opportunity to approach the research in her own way (Interview 1: 63-66). Furthermore, she kept delaying submission for review due to her tendency to continually rewrite the content, voicing that, "*I still find things to improve when I read it. I keep on improving it."* (Interview 1: 231-232). Despite the concern about producing quality writing, she later contradicted herself by claiming that the sole purpose of writing the dissertation was to satisfy the graduation requirements and that "*…it's not so much about the thesis…*" (Interview 2: 502-503). Her shift in beliefs suggested that she was experiencing CD when facing writing challenges, particularly when she began doubting her abilities to achieve her objectives. The challenges could have reached a certain point when she contemplated giving up: "*I'd say, do you think it's okay for me to stop?*" (Interview 3: 259- 260).

Despite the thoughts of leaving, she managed to maintain consistent progress and submitted 14 audio journals throughout the 24 weeks of participation. Her cognitive illusions prevented her from reflecting on failed goals, and her positive biases kept her motivated. Thus, she could sustain her writing progress by altering her beliefs, which ultimately resolves her conflicting thoughts and feelings. In contrast to other participants, Arwaa did not procrastinate when it came to writing but exhibited proactive behaviors when faced with writing challenges: "*We cannot just sit and think of this as a problem...It is a challenge that we have to overcome."* (Interview 1: 17-19). Based on this perspective, altering beliefs seems to prevent her from being overwhelmed with the academic and linguistic demands of dissertation writing.

4.4. CD increases WA

Writer's block is a commonly known symptom of WA[28]. Adam mentioned that he frequently experienced writer's block, which impeded his writing ability or pace: "*I know exactly what I want to write…suddenly, I had a block after I had written two paragraphs.*" (Interview 6: 207-209). Since his altered beliefs prevented him from reflecting actively on his writing, he felt a sense of loss. He previously considered dissertation writing as "*something which I could sit down and easily do*" (Interview 3: 9-10). He admitted that he began developing anxiety attacks and irrational fear of losing everything and having to start over. In this situation, his altered beliefs led him to believe that external distractions affected his writing performance (Audio Journal 1: 8-10).

Moreover, the misattribution could add further anxiety as it fails to adequately explain the resulting CD. He shared that he had "*to suppress a lot of the irritability and anxiety*" and he had to "*release the stress with suppression*" (Interview 1: 125-139). Adam acknowledged the impact of mental and psychological factors, leading him to believe that he could control his emotions and accomplish his goals. However, individuals who practise thought suppression usually find it challenging to react to similar events because the act could compromise the memory details that stimulate the intense emotion[29]. In a subsequent interview, Adam stated that he was still struggling to progress and had difficulties understanding his struggles, questioning "*Why am I having problems trying to write? Why do I forget words?"* (Interview 4: 62-65). Altering beliefs enabled him to resolve his conflicting thoughts and feelings by allowing him to maintain his self-beliefs. However, it prevented him from effectively reflecting on his writing and WA experience and identifying the solutions to improve his writing performance. In effect, his beliefs caused further anxiety as they failed to sufficiently explain the mental conflict the dissonance created, the constant state of WA, and the failure to improve writing performance.

5. Discussion

This study explored how cognitive dissonance (CD) influences the dissertation writing behaviors and writing anxiety (WA) of L2 postgraduate students. Using a multiple-case study design, the findings revealed that CD shapes dissertation writing progress in complex ways: it can impede progress, divert attention from writing strategies, maintain writing momentum under pressure, or exacerbate WA. These findings emphasize that the internal management of cognitive conflicts, rather than emotional fluctuations alone, is critical in understanding dissertation writing success or difficulty among L2 writers.

5.1. The Role of unresolved CD in hindering dissertation writing

The results indicate that when CD remained unresolved, it significantly impeded dissertation writing progress. Nayla and Adam, despite recognizing the importance of dissertation completion, engaged in avoidance behaviors such as procrastination and rationalization. Festinger's dissonance theory posits that individuals strive to reduce discomfort by altering cognitions rather than behaviors when immediate behavior change is perceived as difficult or threatening[6]. This was evident in Nayla's justification of distractions and Adam's shifting self-perceptions.

The findings align with previous research on academic procrastination, which identifies dissonance reduction strategies (e.g., excuse-making) as key barriers to self-regulation[30,31,35]. However, while much of the literature highlights time management failures, the findings suggest that dissertation writing procrastination is driven by cognitive protection mechanisms rather than simple lack of effort. This adds a new layer to understanding postgraduate writing struggles, especially under complex L2 academic demands.

5.2. Cognitive dissonance and the diversion of writing focus

Another important finding is that participants often redirected attention away from core writing problems to external factors. Nayla's shift in narrative about her topic and supervisor, and Arwaa's fixation on grant requirements, illustrate displacement coping mechanisms[32,36]. Instead of addressing weak research conceptualization or writing development, participants shielded themselves emotionally by externalizing blame.

This tendency differs from Jin et al.'s[5] findings, where L2 writers showed more problem-focused coping strategies when faced with writing anxiety. A possible explanation for this divergence could be the prolonged dissertation timeline and heightened expectations at the postgraduate level, which create more

significant threats to academic identity. Thus, in this study, CD led not only to avoidance but to cognitive narrowing, where students focused selectively on factors that minimized their sense of personal failure.

5.3. Adaptive management of CD to sustain writing progress

Interestingly, the study revealed that CD can sometimes sustain writing progress if managed adaptively. Arwaa's experience suggests that positive reframing of cognitive dissonance, seeing challenges as manageable hurdles rather than identity threats, helped her maintain consistent writing output. This reflects the concept of adaptive dissonance reduction described by Taylor and Brown[33], where self-enhancing biases serve protective cognitive functions[37].

Unlike Nayla and Adam, who sought emotional comfort through justification, Arwaa engaged in continued writing despite internal doubts, echoing Bandura's theory of self-efficacy and its role in academic perseverance[34,37]. While her writing exhibited technical flaws (e.g., patchwriting), her behavioral persistence contrasts with other participants who stalled. This distinction reinforces that how dissonance is cognitively framed determines its ultimate impact on dissertation writing behaviors.

5.4. The escalation of writing anxiety through unresolved CD

The findings also highlight that unresolved CD can exacerbate WA. Adam's emotional suppression and writer's block illustrate how sustained cognitive conflict without effective resolution escalates anxiety symptoms[29]. His inability to engage in active reflection led to cycles of thought suppression, self-doubt, and deteriorating writing ability. This deepens existing understanding in L2 writing anxiety literature, which often attributes WA to linguistic insecurity[14]. In contrast, the findings suggest that cognitive conflict – not merely language proficiency – plays a crucial role in anxiety maintenance during dissertation writing. Thus, interventions targeting WA must address cognitive dissonance management, not just language skill development.

5.5. Cross-case reflections: Theoretical and practical implications

Across cases, a critical pattern emerged: the resolution or mismanagement of cognitive dissonance critically shaped dissertation writing behaviors. Participants who reframed dissonance adaptively (Arwaa) maintained progress, whereas those who externalized blame or suppressed emotional distress (Nayla, Adam) experienced writing stagnation or heightened anxiety. This nuanced understanding extends previous L2 writing research by highlighting that CD is not inherently harmful – it becomes detrimental only when maladaptive coping strategies are employed. Successful dissertation writing thus requires not only technical skills but also cognitive-emotional flexibility to manage dissonance constructively.

Furthermore, the unresolved CD observed in some participants' experiences, marked by prolonged procrastination, topic shifts, and weak writing development, highlights a broader academic consequence: the potential for delayed graduation. Given that timely dissertation completion is a critical benchmark for postgraduate success, the cognitive-emotional struggles documented in this study suggest that delayed graduation trends may, in part, be fueled by insufficient support for managing internal conflicts during the dissertation writing process.

Theoretically, this study advances the field by demonstrating that CD processes intersect dynamically with dissertation writing progress and WA among L2 postgraduate students. While earlier models treat writing anxiety as a relatively stable trait[14], the findings emphasize its state-like, dynamic nature – fluctuating based on cognitive conflict resolution strategies during long-term writing projects.

Practically, these insights suggest that writing support programs should integrate cognitive-behavioral techniques aimed at helping students recognize dissonance early and develop adaptive reframing skills.

Supervisors should be trained to identify signs of maladaptive dissonance management (e.g., repeated topic-switching, external blame) and provide scaffolding to promote reflective, self-regulated writing behaviors.

This study contributes to a deeper understanding of how cognitive dissonance affects L2 postgraduate dissertation writing beyond emotional responses alone. By highlighting how dissonance can impede, divert, sustain, or intensify writing efforts depending on coping strategies, it reframes dissertation writing as both a cognitive and emotional journey. Supporting postgraduate students to recognize and adaptively resolve cognitive conflicts may be key to improving writing success and emotional resilience in advanced academic contexts.

5.6. Limitations and future research

This study is limited by its small sample size, reliance on self-reported experiences, and its context-specific nature. Moreover, all participants were engaged in English-medium dissertation writing, limiting generalizability to broader multilingual academic contexts. Future research should explore intervention strategies that explicitly train postgraduate students to manage cognitive dissonance during writing and examine their effects longitudinally across different cultural and linguistic settings.

6. Conclusion

This study explored how cognitive dissonance (CD) influences dissertation writing behaviors and writing anxiety (WA) among L2 postgraduate students, and how these internal conflicts may contribute to delayed graduation trends. Using a multiple-case study design, the findings revealed that unresolved CD can impede writing progress through procrastination, misattribution, and avoidance behaviors; divert attention away from critical writing issues; escalate writing anxiety; and, in some cases, sustain progress when managed adaptively.

The findings underscore that CD is not uniformly detrimental or beneficial – its impact depends largely on how students cognitively frame and manage their internal conflicts. Maladaptive dissonance resolution strategies were associated with writing stagnation, heightened anxiety, and potential academic delays, whereas adaptive strategies enabled sustained progress despite challenges. Importantly, the findings suggest that delayed graduation may not be solely a function of institutional or linguistic factors, but also a consequence of unaddressed cognitive and emotional struggles during dissertation writing.

Recognizing and addressing cognitive dissonance early in the dissertation process may be critical for promoting not only emotional resilience but also timely academic completion. Future postgraduate support initiatives should incorporate strategies that help students develop reflective, self-regulated approaches to managing the cognitive and emotional complexities of dissertation writing.

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Declaration statement

The authors affirm that the work reported in this paper is original and has not been published elsewhere nor is it currently under consideration for publication elsewhere. The lead author further affirms that this manuscript is an honest, accurate, and transparent account of the study being reported; that no important aspects of the study have been omitted; and that any discrepancies from the study as planned (and, if relevant, registered) have been explained.

Conflict of Interest

The authors declare that there are no conflicts of interest regarding the publication of this paper.

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