

Thesis Outline



Challenges in Academic Writing: A Mixed-Methods Study of Indonesian Graduate Students in a Non-native English-Speaking Environment

Dedy Subandowo

Approval for Submission

Supervisor: Csilla Sárdi, Ph. D

English Applied Linguistics PhD Program

Doctoral School of Linguistics

Pázmány Péter Catholic University

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Abstract

This research investigates the experiences of Indonesian graduate students (IGSs) in English academic writing (EAW) during their master's studies at Hungarian universities. The study focuses on students enrolled in seven degree programs in the fields of business and economics within the broader area of social sciences and economics across six Hungarian universities. The investigation addresses key aspects, including the challenges students face, the support they receive, their attitudes toward academic writing, and the strategies they employ when writing academic essays. The study also examines information density (ID) in the students' texts, a formal feature of academic writing that reflects their ability to express complex ideas effectively. ID conveys maximum meaning with minimal wordiness and serves as an indicator of writing proficiency.

A mixed methods design was employed, drawing on Creswell's (2009) basic convergent design. 11 MA and MSc students participated in the study. Data collection included semi-structured interviews and an interview checklist. The participants also submitted 32 graded academic essays. Data were analyzed using tools such as the Web Speech API, ATLAS.ti, CohMetrix, and Microsoft Excel Analysis ToolPak.

The findings suggest that IGSs face challenges in four main areas: the writing process, subject course, institutional policies, and external factors. In terms of academic writing support, students benefited from institutional resources, subject course guidance, and prior experience with EAW. Regarding attitudes, participants expressed positive views toward both EAW classes and academic essay assignments in a non-native English-speaking environment.

The students employed 82 writing strategies across three stages of the writing process: 29 during prewriting, 49 during the writing stage, and 4 during postwriting. Cognitive strategies were utilized most frequently, with C1-level students employing a broader range of strategies than their B2-level counterparts.

The analysis also revealed that the characteristic features of ID components, including lexical density (LD), expanded noun phrases (NPs), and nominalization, were more stable and consistent in essays written by C1-level students over three semesters. These texts tended to be more lexically dense and reflected a shift from concrete to abstract language, indicating well-written academic texts.

Finally, the study offers several pedagogical recommendations for the participating universities. These include expanding EAW courses within faculties, placing greater emphasis on the manifestation of information density improvement, developing access to academic resources, enhancing subject teachers' English proficiency, clarifying assignment requirements, and supporting students' writing enhancement through increased teacher engagement and collaborative research opportunities.

1. Introduction

English academic writing (EAW) poses a considerable challenge for university students, particularly non-native English speakers (NNESs) in English-medium higher education (Li, 2024). This challenge is evident for NNESs studying in non-native English-speaking environments, such as Indonesian graduate students (IGSs) enrolled in Hungarian higher education institutions (HEIs). These students may encounter stressful processes and must navigate academic conventions influenced by unfamiliar cultural norms. Consequently, students must employ effective writing strategies to enhance their writing quality and achieve academic success. Torrance et al. (2000) emphasize that these writing strategies play a pivotal role in the development of L2 academic writing skills. Developing academic writing skills means having the ability of both understanding and analyzing academic texts, as well as producing various forms of academic writing such as essays, laboratory reports, summaries, theses, and dissertations (Sárdi, 2023, p. 309).

In line with the trend of internationalization, an increasing number of international students have travelled abroad for education over the past decade. These students originate from diverse countries, particularly those where English is not the native language (see OECD, 2015, p. 322), indicating that English often serves as a primary medium of communication during their studies. Indonesian students, for example, have participated in this global mobility for several years, with many studying in Hungary since 2016. A growing number of Indonesian students now enroll in Hungarian higher education institutions (HEIs), supported by the Hungarian government's Stipendium Hungaricum (SH) scholarship program (PPI Hongaria, 2022). Most of these students pursue master's degrees across various studies, including social sciences and economics. While studying in a non-native English-speaking environment is a rewarding and fruitful experience, this situation can pose a variety of linguistic, cultural, and institutional barriers, such as understanding task requirements and producing well-structured academic texts. Swales and Feak (2012) contend that producing academic writing demands active engagement, critical thinking, and a deep understanding of disciplinary conventions.

Existing literature asserts that writing is a significant indicator that contributes to students' academic success in higher education (Braine, 2002; Li, 2024). This is exemplified by Craswell and Poore (2012), who indicate that students' writing assignments and theses are considered high-stakes assessments in supporting their academic success. Irvin (2010) observes that academic writing is challenging, as it requires the ability to construct grammatically correct sentences,

organize paragraphs with topic sentences, use a high level of critical literacy, read complex texts, understand key disciplinary concepts, and employ strategies for synthesizing, analyzing, and critically responding to new information. Furthermore, Phyo et al. (2024b) denote that producing an English academic text imposes more constraints for non-native English students, who frequently have limited experience in English academic writing and encounter difficulties in understanding complex academic conventions due to their sociocultural literacy backgrounds.

Existing studies have investigated the challenges in writing academic texts and the writing strategies utilized by NNEs, including IGSs, in the context of higher education. However, further research on IGSs studying abroad in non-native English-speaking environments, particularly within Central European educational systems, is limited. This dissertation addresses this gap by examining their experiences with EAW in Hungarian higher education.

1.1 Aims and Research Questions

This dissertation explores the experiences of Indonesian graduate students (IGSs) in English academic essay writing at Hungarian universities (HUs) across three semesters. The research focuses on three key issues: challenges, strategies, and information density (ID). To achieve the aims of this study, six research questions have been established concerning IGSs' experiences with EAW in Hungarian higher education (HE):

- 1. What challenges do Indonesian graduate students face when writing academic essays in English?*
- 2. What types of support do the students receive to address the challenges in EAW?*
- 3. What attitudes do the students hold toward EAW in a non-native English-speaking environment?*
- 4. What writing strategies do the students employ in EAW?*
- 5. What are the characteristic features of ID components in the students' essays across three semesters?*
- 6. What are the characteristic features of ID components in the essays based on the students' initial proficiency levels?*

2. Literature Review

2.1 *English as an Academic Lingua Franca*

The growth of English as a Medium of Instruction (EMI) in HE has led to the use of English as a lingua franca for teacher-student communication, facilitating diverse linguistic backgrounds (Lasagabaster, 2022). This phenomenon is referred to by Mauranen et al. (2010) as *English as an Academic Lingua Franca* (hereafter EALF).

EALF is discussed and defined by various experts in the field. Applied linguists have proposed multiple definitions, which are explored before addressing the construct definition for this current study. Mauranen et al. (2010, p. 183) identify EALF as the use of English by speakers of various native languages when engaged in research and education. Their research includes two major projects: the ELFA (English as a Lingua Franca in Academia) corpus project, which created a spoken academic discourse corpus of 1 million words (e.g., the ELFA corpus), and also the WrELFA (Written English as a Lingua Franca in Academia) database. The other project, SELF (Studying in English as a Lingua Franca), adopts a micro-analytic perspective, wherein participants' experiences of English as a Lingua Franca (ELF) are captured in deputy enclave settings. Clouet (2017) characterizes EALF as the application of English across various specialized fields, including medicine, engineering, science, and business, serving as a catalyst for intercultural communication within the global academic community (p. 314).

EALF in this regard serves as the medium for instruction, education, research, academic publication, and communication between faculty and students, particularly in higher education environments (Jenkins, 2015, p. 158). It explores ELF practices, trends, and features in natural settings employed by proficient users within academic settings. Mauranen (2012) further highlights EALF's fluidity and adaptability, emphasizing that users actively negotiate and adjust their language practices to meet the communicative needs of their academic communities. This integrative viewpoint captures a dynamic understanding of EALF language, necessitating its evolution alongside the shifting linguistic and cultural landscape of higher education.

Given the presence of two closely related acronyms, ELFA (English as a Lingua Franca in Academia) and EALF (English as an Academic Lingua Franca), it is important to clarify their application. While both concepts share similar goals, this dissertation will use EALF to represent the underlying concept of English as a universal medium of communication in academic environments, encompassing the various aspects and implications of using English as a lingua

franca in HEIs. This approach ensures consistency and coherence in the discussion of English as a lingua franca throughout the present study.

2.2 Academic Writing

It is indisputable that the production of academic texts is challenging, as it entails complex ideas, providing salient points, transferring ideas to coherent text, and revising until the draft is well-produced (Paltridge, 2004).

It is worth noting that academic writers must navigate disciplinary norms by employing genre-specific features (Biber & Conrad, 2019; Hyland, 2015). This necessitates metacognitive awareness, as academic writers must monitor and control their writing processes. Moreover, effective writing strategies are critical, because they enable writers to manage both the composition and learning trajectories (see e.g., Díaz Larenas et al., 2017). Academic writing mastery not only develops intellectual growth but also underpins scholarly success (Haffa et al., 2021). Consequently, it is imperative for students to acknowledge the necessity of adopting academic writing strategies for university assignments and other academic contexts. Staples et al. (2016) and Zhang (2018) emphasize that adherence to genre conventions enables writers to convey ideas effectively and contribute meaningfully to their fields.

University students are regularly assigned academic writing tasks. Irvin (2010) notes that the nature of the writing task, whether it is an essay, thesis, or dissertation, greatly influences student performance. Similarly, Al-Zubaidi (2012) posits that academic writing at the university level plays a crucial role in determining a student's success. Wilson and Glazier (2011) further assert that those who excel in English writing as language learners will enjoy increased opportunities and advantages throughout their careers.

Among the various genres of academic writing, essay writing stands out as the most popular skill that many EFL learners strive to develop, as highlighted by Coffin et al. (2005). University students are often required to write essays as part of their assignments. Given the prominence of essays in the EFL context, this study focuses on this specific genre.

2.3 Linguistic Features and Information Density in Academic Writing

Writing is an essential component of higher education (HE), facilitating effective communication of ideas and promoting academic achievement. However, writing an academic text can be challenging for English learners, particularly when they must utilize discipline-specific language features in a second language (e.g., Lin & Morrison, 2021). Research in social sciences

has highlighted the use of specific linguistic features in academic writing. For example, studies (see e.g., Crossley, 2020; Fang, 2005; Staples et al., 2016) indicate that writers often use clausal features (such as clausal coordinate conjunctions and *WH* complement clauses), phrasal features (such as nouns, premodifying nouns, and expanded noun phrases,) and technical vocabulary.

The appropriate use of linguistic features in academic writing is closely linked to a high level of Information Density (ID), which conveys complex, substantial information by enhancing meaning while limiting wordiness. Elgobshawi and Aldawsari (2022) underscore the significance of ID in academic writing performance in their research. They observed that a greater amount of information in a text can improve the clarity and depth of the content.

Additionally, Kalinauskaitė (2018) argues that ID ensures clarity and conciseness through syntactical features (i.e., expanded noun phrases and nominalization), as well as lexical features (i.e., lexical density). To examine this more closely, ID emphasizes patterns of both lexical and syntactic features, while Lexical Density (LD) focuses specifically on the proportion of content words (e.g., nouns) to function words (e.g., prepositions) in running texts (Laufer & Nation, 1995). For instance, Elgobshawi and Aldawsari (2022) underscore the importance of LD in academic writing. They found that when a text carries more information through a higher ratio of content words, it becomes clearer and more detailed.

Apart from LD, syntactic features also play an important role in academic writing. Relevant studies have shown that significant key syntactic features include the use of expanded noun phrases and nominalization (Biber & Gray, 2010; Staples et al., 2016; Wu et al., 2020). Wu et al. (2020) conducted a corpus-based analysis of research articles, discovering that EFL writers tend to produce longer sentences and employ expanded nominal phrases to convey additional information and enhance efficient communication. Moreover, the frequent use of expanded noun phrases may signal a writer's English proficiency. According to Ai and Lu (2013), students with higher proficiency levels tend to produce more expanded noun phrases than those with lower English proficiency.

In terms of nominalization, Biber and Gray (2010) demonstrated that this feature is a key indicator of academic writing, especially in social science texts. In the same way, Staples et al. (2016) revealed that nominalization frequently appears in social science essays, as it enables writers to express disciplinary content knowledge and present information in a more compact, academic manner for their audience.

2.4 Studies of Academic Writing in Higher Education

A number of studies in academic writing have focused on various issues, including critical thinking, writing tools, plagiarism, writing instruction during the covid-19 pandemic, and challenges and strategies in English Academic Writing (EAW).

Research, including Canagarajah (2002) and Pennycook (1996), has cited critical thinking as a relevant factor in academic writing at the higher education level. They contend that literature often presents critical thinking as a universally applicable concept, rooted in a culture-specific Western ideology. Nonetheless, critical thinking can present challenges for L2 students from different cultures and educational backgrounds, such as Asian students (e.g., Harb et al., 2022; Nguyen & Nguyen, 2020; Scott, 2000). Students might face challenges due to disparities in educational system structures, pedagogical approaches, and cultural expectations around classroom behaviors and cognitive processes.

The development of Artificial Intelligence (AI)-assisted writing has advanced significantly over the last few decades. Studies (e.g., Marzuki et al., 2023; Wang & Wang, 2025) have demonstrated that AI writing tools can improve writing quality in English for Academic Purposes (EAP) concerning sentence structure, content development, and text organization. For instance, Grammarly offers real-time feedback on grammar, spelling, punctuation, clarity, and engagement. Tambunan et al. (2022) assert that higher education students can refine their essays by revising linguistic errors identified by this tool. According to Bailey and Lee (2020), Grammarly is recognized as the most widely used writing application for detecting linguistic errors in student writing. Besides, Marzuki et al. (2023) evaluated tools such as QuillBot, Essay Writer, and Copy.ai, emphasizing their effectiveness in assisting students with content creation and structural coherence.

As for EAW challenges, students studying in a native-English environment may benefit from the advantageous opportunity to learn the language naturally and to access literature in English easily. Meanwhile, students who enroll at the university in a non-native English-speaking environment tend to encounter challenges in writing academic texts (Hyland, 2016; Langum & Sullivan, 2017). Research studies indicate that NNESs believe that they write slower than NESs (see, e.g., Hwang, 2005; Tardy, 2004). Also, NNESs need more time to write at a high level of English. Qasem and Zayid (2019) identified multiple challenges faced by EFL students, including difficulties in topic and methodology selection, insufficient motivation and specialized

knowledge, and time constraints. Similarly, Phyo et al. (2024b) indicated that NNES students at Hungarian universities faced challenges in academic writing, notably due to limited access to academic resources such as books and journals through institutional login accounts. They also lacked experience in writing academic texts in English and advocated for explicit academic writing instruction. Further challenges in academic writing included translating research into academic English and coping with writer's block (Phyo et al., 2024a). Furthermore, Yang (2024) discovered that NNES students at English universities struggled with vague expectations regarding academic writing tasks. The research suggested that institutional support for academic writing was minimal and guidance from the faculty was often unclear.

Apart from the challenges in EAW, studies also highlight writing strategies to address these difficulties. These strategies are intended to help writers produce effective and high-quality academic texts that meet the standards and expectations of their respective disciplines. Raoofi et al. (2017) and Mu and Carrington (2007) classify writing strategy taxonomy into four categories: cognitive, metacognitive, social, and affective strategies. They further explain that metacognitive strategies help students manage planning, organizing, and focusing on their own writing. Similarly, Fajaryani et al. (2021) found that EFL students employ all four types of strategies. Cognitive strategies encompass notetaking, summarizing, and repetition, whereas metacognitive strategies comprise preparatory activities prior to writing, such as reading some relevant materials. Social and affective strategies focus on developing feelings and awareness, such as interacting with their colleagues as well as sharing and discussing with peers and supervisors. Moreover, Negretti and Mežek (2019) emphasize that social interaction, particularly communication with lecturers and supervisors, aids students in overcoming the challenges of academic writing.

Research has identified academic writing strategies utilized by ESL/EFL students in higher education contexts, pertaining to the stages of the writing process: pre-writing, writing, and post-writing. Mazgutova and Hanks (2021) studied the writing strategies of 14 Chinese English-L2 learners at a British university. They found that students employed various strategies, including extensive reading, studying exemplary student work, targeted revision, and valuing teacher feedback. The researchers suggested that enrollment in an EAP course could improve essay writing and reduce reliance on less effective grammar revision strategies.

It is important to highlight that while previous studies have investigated the strategies in academic writing from both taxonomy (e.g., cognitive, metacognitive) and process (i.e., pre-

writing, writing, post-writing) perspectives, the integration of technological tools plays a critical role in the production of academic writing as well. For instance, recent studies by Bouzar et al. (2024) and Rahayu et al. (2024) have demonstrated the significance of assistive technology in enhancing students' academic writing performance. Alua et al. (2023) found that the use of plagiarism checkers, such as Turnitin, can enhance the quality of students' academic writing. This is supported by Sárdi (2023), who suggests that the use of writing tools can enhance students' writing quality and support self-regulatory practices such as evaluation, revision, and proofreading.

3. Research Design

This study employed Creswell's (2009) convergent mixed methods approach to investigate the experiences of IGSs in producing English academic essays during their studies at Hungarian universities. The participants consisted of 11 students from the fields of social sciences and economics, including six students at the B2 English proficiency level and five students at the C1 level.

The study was conducted in three phases. Phase 1 used semi-structured interviews to explore students' experiences with EAW, focusing on challenges, strategies, and attitudes. Phase 2 investigated students' use of writing strategies across the three writing stages, namely prewriting, writing, and postwriting, and analyzed their frequency using a writing strategy taxonomy. Phase 3 investigated the characteristic features of information density (ID) components in students' academic essays and the relationship between ID use and initial English proficiency levels over three semesters.

In Phases 1 and 2, an interview guide and checklist were employed to facilitate in-depth investigation. In Phase 3, the primary data source was students' graded essay assignments.

Data collection procedures were organized according to the data type. Semi-structured interviews were conducted to gather detailed insights for qualitative data. An interview checklist and written documents, such as academic essays, were utilized for quantitative data.

The data analysis was divided into three components: qualitative analysis, quantitative analysis, and text analysis. Qualitative data analysis began with listening to the auditory or visual examination of interview recordings, subsequently followed by transcription using the Web Speech API, a speech recognition tool for converting speech to text (Adorf, 2013). Quantitative analysis involved enumerating the occurrences of strategy application from the interview checklist

in an Excel dataset and categorizing the students' essays by proficiency levels (B2 and C1). The essays were then processed through Graesser et al.'s (2004) Coh-Metrix to extract quantitative data on pertinent ID features. Descriptive statistics, using the Excel Toolpak, were applied to identify the frequency and patterns of writing strategies as well as ID over three semesters.

4. Results

4.1 Challenges Indonesian Graduate Students Face in Writing English Academic Essays

The analysis of codification data has resulted in 47 *themes*, which were classified into four big categories relating to challenges IGSs face in writing academic essays: *the writing process* (e.g., students' language proficiency, time allocation, cognition), *subject courses* (e.g., sources, essay topics), *institutional policies* (e.g., issues in relevance to English academic writing-related courses), and *external factors* (e.g., technical challenges)

4.2 Support IGSs Receive in English Academic Writing (EAW)

Apart from the challenges IGSs face in EAW while studying at HUs, the students receive support to effectively complete their writing tasks. The support is classified based on three categories: *institutional policies* (e.g., availability of academic writing-related courses and obtainable academic engagement), *subject courses* (e.g., students' perceived improvement in English academic writing), and *graduate student prior experiences* (e.g., educational background and achievements and English language proficiency development).

4.3 Attitudes the Students Hold toward EAW in a Non-Native English-Speaking Environment

The subsequent topic of the study addresses students' attitudes regarding English academic essay writing in Hungarian HE. The attitudes are divided into two groups: *positive attitudes toward the class of EAW in a non-native English-speaking environment* (e.g., perceived importance and desired integration of the academic writing class within the curriculum) and *positive attitudes toward English academic essay assignments in a non-native English-speaking environment* (e.g., supported practical academic writing assignments with a specific topic).

4.4 Students' Academic Writing Strategies in Writing English Academic Essays

This study identified 82 academic writing strategies used by IGSs, categorized into three stages of the writing process: prewriting, writing, and postwriting. The prewriting stage includes 29 strategies aimed at generating and organizing ideas, conducting research, and planning structure. These strategies are distributed across five key phases: planning, refining the topic,

managing sources, academic reading and note taking, and content organization. This stage plays a foundational role in helping students build a coherent framework for their writing.

The writing stage comprises 49 strategies across nine phases, covering tasks such as content development, citation use, language improvement, revision, and mindset management. These strategies support the drafting process and the development of clear, well-structured texts.

The postwriting stage includes 4 strategies in two phases: revision and post-submission reflection, aimed at refining clarity, accuracy, and overall quality. As a whole, these strategies reflect a comprehensive approach to academic writing, supporting students from idea generation through to final submission.

Based on transcription data analysis, the study identified 1,665 instances of writing strategies used by IGSs, classified into four categories: cognitive (871), metacognitive (579), social (118), and affective (97). Cognitive strategies were the most frequently used, accounting for 52 percent of all strategies, and involved direct mental processes such as idea generation, outlining, and the use of lexical and syntactic structures. These are considered essential for developing academic writing skills. Metacognitive strategies, representing 35 percent, were the second most common and involved planning, monitoring, evaluating, and editing, indicating that students engaged in self-regulated learning, although this remained secondary to task-focused cognitive processes.

In contrast, social and affective strategies appeared less frequently, likely due to the individual nature of academic writing at the graduate level, which offers limited opportunities for collaboration or emotional support. The low use of affective strategies may also reflect limited awareness or support in managing emotions such as anxiety or motivation during the writing process. Additionally, the data revealed that C1-level students used a significantly higher number of strategies across all categories compared to B2-level students, influenced by their greater English proficiency and academic writing experience. Their familiarity with academic discourse facilitated a more varied and effective application of strategies, as evidenced by their higher mean scores.

4.5 The Characteristic Features of Information Density (ID) Components in IGSS' Academic Essays according to Semesters

The overall results indicate that the occurrence of content words in the students' academic essays exceeded that of function words, with content words comprising nearly 60% of the total, while function words accounted for less than 42%. These findings demonstrate that the students' texts qualify as academic writing based on lexical density (LD), aligning with relevant studies by Biber (1996), Fang (2004), and Ure (1971), which suggest that content words in academic texts typically exceed 40%.

Other relevant ID features include the frequency of expanded noun phrases and nominalization. The results show that the occurrence of expanded noun phrases approached 1.00, indicating that nearly every noun phrase was accompanied by modifiers, including either pre- or post-modifiers. This result points to a moderate use of complex noun constructions to pack more information into fewer words. Furthermore, the texts demonstrated a frequent use of nominalization, which was examined from the point of view of concreteness occurrences. A further analysis regarding the frequency of concreteness in the students' essays will be presented in the following paragraphs, as lower concreteness scores typically signal higher levels of nominalization, reflecting characteristics of academic writing.

4.6 The Characteristic Features of ID Components in the Students' Essays according to Their Initial Proficiency Levels

The statistical analysis indicates that the C1-level texts consistently exhibit a higher frequency of ID features in their academic essays compared to the B2-level texts across three semesters. The C1 level texts showed greater lexical density with more content words and fewer function words, more frequent and controlled use of expanded noun phrases, and more abstract nominalizations, all of which reflect advanced academic writing. While the B2-level texts remained relatively stable in semesters 1 and 2, their performance declined sharply in semester 3, marked by lower lexical density, reduced noun phrase complexity, and high variability in concreteness. Overall, the C1 students exhibited steady and cohesive development in ID components, whereas the B2 students' writing became increasingly unstable over time.

All in all, the results demonstrate that both groups displayed high frequencies of lexical density features, consistently favoring content words over function words. The occurrences of

expanded NPs and nominalization also show progressive changes, particularly in the essays written by C1-level students, that seem to indicate a higher consistency of ID across their studies at HUs compared to the texts written by B2-level students.

5. Discussion

This dissertation investigates the academic writing experiences of Indonesian graduate students (IGSs) in Hungarian higher education. To achieve this aim, six questions were formulated, focusing on key aspects including challenges, support, attitudes, writing strategies, and information density (ID). Each research question (RQ) is addressed through the presentation and interpretation of relevant findings.

RQ1: What challenges do IGSs face when writing academic essays in English?

This study examined the challenges IGSs encounter in EAW at Hungarian universities through semi-structured interviews and thematic analysis. The findings identified four main categories of challenges: the writing process, subject course, institutional policies, and external factors.

During the writing process, the students faced challenges such as difficulties in comprehending reading materials due to complex vocabulary, developing their ideas due to a large amount of text, and managing their time. These findings align with AlMarwani (2020), who highlighted challenges in reading and idea development, and with Qasem and Zayid (2019) and Phyo et al. (2025b), who emphasized time constraints as a common issue for international students. To overcome these challenges, the participants utilized various writing strategies, such as consulting social media platforms such as YouTube to gain preliminary understanding before delving deeper into their topics. Another common strategy reported was reading only the abstract of academic articles to evaluate their relevance. These strategies helped students manage their time more efficiently, particularly when dealing with extensive reading materials. In addition, some students adopted time management techniques, such as creating a timetable to monitor assignment deadlines and ensure timely submission of their final essay assignments. Moreover, plagiarism issues, attributed to a lack of awareness regarding citation standards, reflect findings by Alua et al. (2023) and Yang (2020), particularly among students from Southeast Asia, who may inadvertently engage in unethical practices due to differing academic conventions. To mitigate the risk of

plagiarism, students relied on paraphrasing tools such as QuillBot. These tools helped them rephrase content without using direct quotations.

Challenges related to the subject course included limited access to English academic sources in the university library. Hyland (2003) points out source quality is fundamental in academic writing, particularly for those who are inexperienced in assessing credibility. To address this issue, IGSs accessed an alternative university library provided by Central European University (CEU) in Budapest, where they successfully found the necessary references. This situation is in line with the findings of Phyo et al. (2024b), suggesting that access to scholarly databases is fundamental for content development. When institutions fail to provide equitable access to English sources, it can widen the achievement gap in EMI environments (Dearden and Macaro, 2016). Moreover, the students face challenges with tight deadlines, unrealistic expectations regarding writing quality, rigid adherence to word count, and the expectation for deep critical analysis set by the course or lecturer. Yang (2024) argues that high expectations may disadvantage students who are unknowledgeable, especially when the expectations are only implicitly explained, and challenge them to meet the task requirements. In response to this challenge, the students consulted or scheduled appointments with their lecturers. This institutional support provision facilitated the clarification of assignment expectations and the navigation of students' writing processes.

As for the institutional policies, the students reported restricted access to English-language academic databases and a lack of EAW courses. The students must undertake extra steps, including the installation of a VPN, to access necessary academic sources online, which may potentially put their computers at risk with the security system. These issues are echoed in Yang (2024), Phyo et al. (2024b), and Dearden and Macaro (2016), who noted that insufficient academic support and access widen achievement gaps in EMI settings. Moreover, the absence of a dedicated EAW course can significantly impact students' success. Even when an English for academic writing course was available, the students often perceived it as overlapping with research methods classes, thus limiting its effectiveness. Without structured instruction in academic writing, students may lack essential skills such as writing literature reviews or argumentative essays. The students who do not have access to this institutional support often seek alternative opportunities to enhance their academic engagement, such as participating in research communities as well as academic conferences.

The fourth category of EAW challenges relates to *external factors*. This includes environmental distractions (e.g., *interruptions during writing*). Rina, a C1-level student, stated, “*I cannot keep my phone away from me, and that makes it hard to finish my writing on time.*” This statement highlights a common issue faced by many students in the digital age, where mobile devices disrupt focus and reduce writing efficiency. The constant urge to check update information on social media encourages multitasking behavior, which negatively affects concentration and overall productivity. This issue may impact not only the writing process but also the quality of the final text.

RQ2: *What types of support do the students receive to address the challenges in EAW*

This study employed thematic analysis of interview transcripts using Atlas.ti to explore the types of support students received for EAW at Hungarian universities. The findings revealed 24 themes organized into three main categories: *institutional policies*, *subject course support*, and *students' prior experiences*. At the institutional level, the presence of EAW-focused classes such as thesis workshops played a vital role in helping students develop genre-specific conventions and critical thinking, aligning with Hyland (2004) and Phyo et al. (2024b), who emphasize the need for discipline-based writing instruction. This corresponds with the positive attitudes IGSs hold toward EAW classes. Furthermore, offering an English for academic writing course may assist students in overcoming the challenges associated with EAW, particularly aiding those who are not knowledgeable in producing academic texts.

Institutional platforms such as Moodle and Neptun provide access to academic materials and tools (e.g., Urkund) that promote academic integrity. This is a significant issue for international students, particularly those from Asian educational backgrounds, who may struggle with establishing credibility and integrity in citation practices, resulting in plagiarism, as examined by Yang (2024). What is more, academic engagement opportunities, such as research forums and conferences, further supported students' immersion into academic discourse communities. These experiences allow IGSs to enhance their academic writing and engage with authentic discipline discourse communities. These findings are consistent with Swales's (1990) theory of genre and participation in academic communities, which emphasizes the importance of interaction with real-world academic contexts in developing genre awareness and scholarly identity.

The second category deals with the subject course support. It encompasses the integration of essay tasks with students' thesis topics, improved access to relevant sources, and guidance from lecturers. These supports facilitated students to better meet assignment expectations and engage critically with academic materials, supporting findings of Paltridge et al. (2007) regarding the significance of structured guidance in independent learning. This assistance is beneficial for students encountering challenges in accessing limited sources, as the recommended reading lists facilitate research and strengthen their academic essay assignments. This underscores a positive attitude among IGSs toward academic writing assignments, particularly when sufficient institutional support is available. This practice not only improves students' overall writing quality but also supports the avoidance of plagiarism by emphasizing the importance of properly cited content.

The third category highlights students' prior experiences with EAW, such as attending English-medium institutions, IELTS training, producing academic papers in English, and participating in international mobility programs. For example, a C1-level participant reported that his academic experience in Malaysia, where English was used as a medium of instruction during his undergraduate studies, supported him in accomplishing academic essays. As a result, he did not encounter significant challenges when completing assignments during his master's studies. One of the texts produced by this C1-level student was well-constructed and exhibited a high information density. This aligns with the current findings that English proficiency and prior academic writing experiences are fundamental factors in producing high-quality academic texts. These are often demonstrated through the characteristic features of ID components in C1-level students discussed in Section 6.2, addressing the characteristic features of ID components. This also demonstrates that sustained exposure to academic English at an earlier stage of education can enhance students' preparedness for advanced academic writing tasks in graduate programs.

The participants also reported that external feedback played a valuable role in supporting their academic writing. As IGSs often encounter challenges in EAW, they actively seek evaluation from lecturers and peers to enhance their work and better meet academic expectations. This aligns with Hernandez et al. (2017), who emphasize the value of feedback in developing academic writing. Collectively, these supports contributed significantly to the academic success of IGS in adapting to English academic writing contexts.

Other prior experiences, such as language proficiency development (e.g., IELTS preparation), academic writing practices (e.g., producing research papers in English), and cultural adaptation through mobility programs (e.g., student exchange), also played a significant role. These experiences helped IGSs improve their academic writing skills and contributed to their overall academic success.

RQ3: What attitudes do they hold toward EAW in a non-native English-speaking environment?

The findings indicate that IGSs generally hold positive attitudes toward EAW courses and academic essay assignments during their studies at Hungarian universities. They reported that these courses improved both their theoretical knowledge and practical writing skills, helping them meet academic expectations and produce well-written texts. The presence of an academic writing class represents institutional support for students pursuing a master's degree in Hungary.

EAW classes were also regarded as inclusive platforms that foster a shared understanding among students from diverse cultural backgrounds, reflecting the role of EALF. This supports Phyto et al. (2024b), who found that EAW courses benefit international students by enhancing both writing competence and clarity in academic texts. Moreover, the integration of EAW assignments with master's theses allowed students to develop relevant writing strategies and content. Integrating assigned topics with students' research interests can help address challenges that arise when students are unfamiliar with a given topic or lack sufficient background knowledge. Allowing students to select their topics aligned with their research interests may ease the writing process and support successful completion of their assignments.

It is a fact that international students studying at Hungarian HEIs come from around the globe with diverse academic backgrounds and cultures. Some students entered the program with limited experience in academic writing. Hence, it is critical to develop a common understanding of academic writing conventions. This can be achieved by offering targeted support to students with no prior experience in EAW. Furthermore, EAW classes provide students with opportunities to express their ideas on topics related to their essay assignments and promote the development of self-regulation strategies, which enhance both engagement and confidence in academic writing.

RQ4: *What writing strategies do the students employ in EAW?*

This study used both qualitative and quantitative approaches to investigate the writing strategies employed by the students at Hungarian universities. Thematic analysis identified 82 strategies across three writing stages: prewriting, writing, and postwriting. During the prewriting stage, students applied various strategies. This stage is crucial, as it includes activities such as collecting background information and organizing ideas for the foundation of the actual writing process. It also addresses the challenges the students face during the writing process, including poor time management and difficulties in understanding complex information due to the extensive amount of readings. Through these initial strategies, students were able to engage in the writing process and produce more coherent and well-structured texts, leading to more effective and well-prepared academic essays. These results are relevant to Mallia's (2017) and Dari et al.'s (2022) findings, suggesting that pre-writing preparation plays a vital role in helping students to structure and control their academic writing process effectively.

During the writing stages, IGSs reported employing a wide range of metacognitive strategies (i.e., planning, monitoring, and revising). This stage is central to academic writing, underlining activities from content structuring, language refinement, and revision. Mu and Carrington (2007) and Xia (2017) support the view that metacognitive strategies are essential for producing high-quality academic texts. These strategies are particularly useful in addressing students' challenges with clarity and conciseness, such as by deleting redundant content.

In the postwriting stage, students engaged in final revisions, including plagiarism checks and feedback-seeking. Before submission, students expressed a strong concern about plagiarism. IGSs are expected to meet the minimum standard of originality required by the course. Failure to meet the requirements can result in a mark reduction.

In addition, Hyland and Hyland (2019) highlight the essential role of feedback in developing academic writing skills. These results align with the students' positive attitudes regarding academic feedback and its role in improving their writing quality. IGSs applied these strategies not only to ensure the assignments met the task descriptions, particularly in dealing with content analysis and English proofreading, but also to improve their ability to write academic texts for broader audiences, such as public academic forums.

After submitting their essays, IGSs celebrated the completion of the task by taking time to rest and recharge. This finding is supported by Fajaryani et al. (2021), who argue that taking breaks

and engaging in relaxation activities help students maintain a healthy work-life balance. Writing academic essays in English can be exhausting, and stress-relief activities at this stage could help students recharge and recover from the mental and emotional demands of the task. Therefore, post-submission plays a key role in sustaining motivation and long-term engagement with academic writing. In addition, writing strategies employed by IGSs do not follow a strictly linear process. It means that they often return to previous stages to evaluate and refine their work, ensuring the quality of the final text.

To classify the writing strategies and analyze their frequency, both qualitative and quantitative methods were employed. An interview checklist was also used to assist the researcher in categorizing the strategies according to a writing strategy taxonomy comprising cognitive, metacognitive, social, and affective strategies.

Statistical analysis revealed that IGSs relied most heavily on cognitive strategies, particularly for organizing, generating, and structuring ideas. This preference may be due to the central role of cognitive activities in coping with writing challenges, emphasizing mental processes such as low reading comprehension, difficulties in summarizing previous relevant studies, transferring thoughts into writing, and students' limited topic knowledge. These mental processes were identified as a crucial aspect in preparing and producing well-written texts. The frequent use of cognitive strategies is supported by Mu and Carrington (2007), Bui et al. (2023), and Idris et al. (2022), who found similar patterns among L2 learners. These findings contrast with earlier studies such as Putri et al. (2023) and Teng (2022), which reported a greater reliance on metacognitive strategies among non-native English-speaking students in higher education.

This study also found that C1-level students appeared to apply a greater variety of strategies than B2-level students. These findings are related to Raoofi et al.'s (2017) research, suggesting that higher proficiency students tend to apply more strategies due to their stronger academic backgrounds and prior writing experience. The current findings further reveal that self-regulation in academic writing, as demonstrated by C1-level students, influences the characteristic features of ID components in their texts. The use of specific strategies such as incorporating technical vocabulary appears to enhance both the density and clarity of the text, particularly in defining key concepts.

RQ5: What are the characteristic features of ID components in the students' essays across three semesters?

To address Research Questions 5 and 6, the study employed both qualitative and quantitative methods to examine the characteristic features of ID components in the students' academic essays across three semesters. Qualitative analysis involved text analysis of IGSs' academic essays, supported by interview excerpts to provide context. As for quantitative analysis, Coh-Metrix was used to calculate and compare the frequency of ID features involving lexical density (LD), expanded noun phrases (NPs), and nominalization through concreteness. Descriptive statistics showed that both B2 and C1 students used more content words than function words and gradually increased their use of expanded noun phrases and nominalizations. C1-level students, in particular, showed more consistent changes in applying ID features throughout their academic studies at HUs.

Several factors appeared to influence the frequency and quality of ID in students' writing. These included their experience with EAW, subject knowledge, the relevance of assigned topics, and the use of discipline-specific vocabulary, particularly in social sciences and economics. Some students also demonstrated metacognitive awareness by planning, monitoring, and evaluating their writing from a linguistic perspective, often using technical terms linked to nominalization. This suggests an emerging understanding of how such features contribute to the precision and formality of academic texts. However, the study found limited evidence that the students fully acknowledge how nominalization functions to condense information and enhance overall writing efficiency.

RQ6: What are the characteristic features of ID components in the essays based on the students' initial proficiency levels?

The findings of this study reveal that, while both B2 and C1 level students demonstrate the presence of relevant ID features in their academic writing, the C1 level students tend to produce notably denser texts. This is reflected in their higher frequency of content words, more frequent use of expanded noun phrases, and lower concreteness scores, indicating more abstract language use. These linguistic features are crucial for conveying complex ideas about the fields of students' subject knowledge. The findings on the EAW challenges mentioned that students often struggle with the subject course due to a lack of content knowledge (e.g., topic familiarity), which makes it difficult for them to develop their ideas and ultimately affects the quality of their writing. This

finding is supported by Biber and Conrad (2019) and Staples et al. (2016), who argue that such features enhance the sophistication and clarity of academic writing. Furthermore, McNamara et al. (2014) emphasize the importance of relevant ID features in strengthening arguments and enabling clear and concise communication of information. For example, the use of expanded NPs in the C1 level texts tends to include more varied modifiers, resulting in more complex structures. This allows students to pack more information into a limited space, enhancing the density of their writing.

Texts produced by C1-level students display more varied modifiers within expanded noun phrases, facilitating compact and information-rich structures. Finch (2015) views that these features contribute to higher-level ID. Nominalization further characterizes these texts as more abstract and formal, consistent with Fang's (2004) view that it serves as a formal linguistic feature of academic writing, allowing for information compression and the transformation of everyday language into complex, abstract, and academic orientations. Prior exposure to academic writing, particularly before pursuing master's studies in Hungary, appears to shape the characteristic features of ID components. On the other hand, several B2-level students reported difficulties distinguishing between everyday and academic English. This challenge reflects an issue related to language proficiency. The present findings show that C1-level students employ a wider range of writing strategies, including the use of advanced academic vocabulary, to condense information and draw on extensive familiarity with academic genres. This background knowledge appears to support students' ability to produce well-structured essays that reflect higher ID components, resulting in greater ID compared with B2-level students' writing.

Research conducted by Gregori-Signes and Clavel-Arroitia (2015) and To and Le (2013) confirms that initial language proficiency influences ID, supporting the conclusion that higher English proficiency enables students to manage more complex and dense academic texts.

6. Conclusion

The study identified three principal challenges IGSs face in English academic essay writing, related to the writing process, subject courses, and institutional policies. Moreover, several factors were found to support students in their English academic writing, including institutional policies, subject course support, and students' prior experiences in EAW. Regarding attitudes, the participants expressed positive views toward two aspects of EAW in a non-native English-

speaking environment. First, students in Hungarian HEIs viewed EAW classes favorably. Second, they demonstrated positive attitudes toward academic essay assignments in English.

Concerning writing strategies, it is important to note that IGSs employed a variety of approaches throughout the writing process. In the prewriting stage, strategies included planning and investigating assigned essay topics. During the writing stage, strategies involved draft preparation and information organization. In the postwriting stage, the students engaged in task fulfillment checks and relaxation activities. The study also found that IGSs tended to rely primarily on cognitive strategies, followed by metacognitive strategies. In addition, C1-level students were found to employ a greater number of writing strategies compared to their B2-level peers.

Regarding the characteristic features of ID components, the findings suggest that patterns of ID in students' texts varied and shifted throughout their master's studies in Hungary. These variations were influenced by factors such as academic writing activities and topic selection. Although both student groups demonstrated ID features in their writing, essays produced by the C1-level students were denser than those of the B2-level students. This conclusion was based on the frequency of relevant ID features identified over three semesters.

In terms of pedagogical implications, the research provides several practical suggestions for improving academic writing instruction. These include the establishment of a dedicated EAW course, encouraging the use of digital library resources, enhancing subject teachers' English proficiency, and raising the overall quality of academic writing instruction.

While this dissertation offers a comprehensive examination of the topic, it is subject to several limitations. These include the limited number of participants from specific academic disciplines, a lack of diversity in data sources, and limited exploration of students' cultural backgrounds. Future research can address these limitations by incorporating a broader range of participants and data types.

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