What support do international doctoral students claim they need to improve their academic writing in English?

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A B S T R A C T

Novice scholars from non-native English-speaking (NNES) backgrounds tend to encounter challenges in their doctoral education related to scholarly writing in English. This study investigated the support that NNES doctoral students perceive as crucial for achieving their desired proficiency in English academic writing (EAW). A survey was conducted during the 2021–2022 academic year, involving 255 NNES international doctoral students studying in 65 English medium PhD programs across Hungary. Volunteers from 49 countries, representing 48 languages, participated in the study. An analysis of their responses to an open question revealed that the majority felt a need for support in enhancing their EAW skills. Very few believed they could already produce publishable texts or that the support of their doctoral schools was sufficient. Most participants recognized specific areas where improvement was necessary and took full responsibility for their progress. Thus, findings of this study align with previous quantitative analyses involving the same participants and the conceptual metaphors they provided, emphasizing the high demand for support in developing English academic writing skills (Phyo et al, 2022a, 2022b).

1. Introduction

Studies have shown that not all doctoral students can be expected to have sufficient experience in academic writing when they apply to a PhD program and this often leads stakeholders to "frustration and despair" (Cotterall, 2011, p. 9). Academic writing at the graduate level is "an approach to language education based on identifying the specific language features, discourse practices, and communicative skills of target academic groups, and which recognizes the subject-matter needs and expertise of learners" (Hyland, 2018, p. 383–384). Ding and Bruce (2017) also emphasized the role of academic writing at universities as "a specialist, theory- and research-informed branch of English language and literacy education" (p. 53). Therefore, a good command of academic writing skills in English is a requirement for research students to allow them to graduate and to establish academic careers. For many doctoral students of non-English-speaking backgrounds, their PhD dissertation may be the first long English academic writing (EAW) task they have ever written and they may not be aware of features of scholarly writing (Carter & Kumar, 2017; A. Lee and Murray, 2015).

Due to the intensely demanding nature of doctoral writing tasks, not all doctoral candidates can finish what they have started to write (Hill and Conceição, 2020; Spulding and Rockinson-Szapkiw, 2012). Even though students depend on their supervisors, there are limitations in their supervisors' availability and scope of expertise (Larcombe et al., 2012). Research has shown that doctoral students need support from various stakeholders while they are developing their expertise along their PhD journey (Brill et al., 2014; Holmes et al., 2010; McAlpine et al., 2009). However, few studies explored non-native English-speaking students' (NNES) emic views on the type of support they think could help them the most to achieve their desired goals in EAW. Therefore, we investigated what support doctoral students claimed they needed to improve their academic writing in English by conducting a survey. We present findings of the analysis using responses provided by 255 international doctoral students who represented 49 countries and 48 mother tongues. Respondents studied in 65 international PhD programs conducted in English in Hungary, where English is used as a lingua franca by both faculty and students. No previous inquiry has been conducted in Hungary; therefore, we believe that our findings offer useful insights for stakeholders, including the students themselves, as well as raise awareness about the fact that novice writers need support to develop

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their English academic writing abilities.

2. The need of English academic writing support in doctoral education

In an increasingly globalized academic landscape, English has become the lingua franca of scholarship (Hyland, 2009; Johns, 2011; Swales, 1990). Consequently, novice scholars are expected not only to design and implement innovative research but also to communicate their findings effectively and concisely in the English language (Badenhorst et al., 2015; Hyland, 2016). These expectations extend beyond language proficiency as they encompass the discipline-specific conventions and standards of academic writing (Badenhorst, 2018; Hyland, 2008; Johns, 2011; Johns and Swales, 2002; D. Lee and Swales, 2006; Swales, 2019); others have also highlighted the need for students to write in English at internationally recognized academic levels (Akkaya and Aydin, 2018; Cahusac de Caux, 2019; Cutri and Lau, 2022).

Consequently, in international PhD programs conducted in English, students are expected to write in English in an internationally acceptable academic manner and to take full responsibility for all the statements they make in their research dissemination (Cotterall, 2011; Evans et al., 2011; Honan and Bright, 2016; Love et al., 2007; Weatherall, 2019). As scholarly writing is regarded the most difficult aspect in the completion of PhDs (Measey, 2021), novice NNES student-researchers often struggle when trying to meet publication requirements and to submit their dissertation to their respective doctoral programs within a contract period at an expected academic standard (Langum and Sullivan, 2020).

Research has highlighted the challenges doctoral students face who do not use academic English daily in their home countries. These challenges encompass language barriers and difficulties in meeting their doctoral responsibilities on time (Badenhorst and Xu, 2016; Jafari et al., 2018; Jomaa and Bidin, 2017; Mansouri Nejad et al., 2020). Although students may meet the English language requirements upon admission to their PhD programs, general language proficiency does not equip them with the essential knowledge of EAW required to compose doctoral-level academic texts (Jafari et al., 2018; Hanauer et al., 2019; Kirk and Lipscombe, 2019; McAlpine, 2020).

The ultimate goal of PhD education is to help candidates become professional scholars who are capable of making valuable contributions in their respective communities (Elliot and Kobayashi, 2019; Lonka et al., 2019; Pyhältö et al., 2012; Santo et al., 2009) and to support students in the areas in which they need support to achieve their desired academic goals. Therefore, doctoral programs should offer courses tuned to students' needs to make sure they get all the necessary help to become proficient at EAW and in their specific field of expertise so that they can fulfil all of their doctoral requirements in a timely fashion.

3. Method

3.1. Research question

What kind of support do NNES doctoral students think could help them the most to achieve their aims in English academic writing?

3.2. Participants

A total of 255 doctoral students (125 females; 127 males; 3 not stated) studying at 14 universities in Hungary took part in our survey voluntarily. They came from 49 countries and represented 48 mother tongues. They were studying in 65 PhD programs ranging from humanities to science. According to the descriptive analysis, the majority were in their first or second year of their programs: 1st-year = 36.5%; 2nd-year = 25%; 3rd-year = 18%; 4th year = 16.9%; year 5+ = 2%; not mentioned = 1.6%.

3.3. Data collection instrument

As we aimed to explore the types of support NNES doctoral students thought would help them the most to achieve their desired goals in English academic writing abilities, we used an open-ended question to elicit their personal opinion: "What kind of support do you think could help you the most to achieve your desired target in English academic writing abilities?" The present study was part of a larger survey exploring doctoral students' self-assessments of their EAW abilities. The study was conducted in Hungary in the 2021–2022 academic year. Participation was completely voluntary and anonymous. The survey was available to participants between February 20, 2022 and June 30, 2022. The research proposal was approved by the Institutional Board of Review (IRB) of the University of Szeged (Reference number: 17/2021).

3.4. The procedure of data analysis

As a first step of data analysis, we counted the number of responses which were valid for the analysis; we excluded all the invalid responses (no response or off-topic response). Four students left the item blank. One student wrote *NA* (not applicable); seven students filled the blank with words which did not answer the question (*I dont know; Good; No idea; Not clear; Nothing; non; none*). We also excluded "*public speaking*", although public speaking skills in English are important for all doctoral students, but not relevant to the scope of our research. Two responses were too general, therefore, not valid: *Supportive learning outcomes to be achieved should be set at the entry date also.* and *study environment*. A few longer but irrelevant responses were also excluded (*The sense of achievement after publication is a kind of self-affirmation and encouragement. Not only can I get a doctorate, but I can also apply it in real life. It can also be used to teach English skills at university.*). Thus, we excluded 17 responses, and 239 students' answers were considered valid for the analysis.

Although we asked about specific types of support students thought would help them improve their EAW performance, the answers they provided varied both in content and form. They used one or more adjectives, phrases, or short sentences to express what they needed (e.g., *Free Scientific Research Writing Courses*; *An academic English class would be nice*; *To have a course related with writing a doctoral dissertation.; one week course about academic writing.*). In the shortest answers, seventeen students filled in the blank with only one word (e.g., *time, vocabulary, feedback, books, workshop, money*).

We examined students' responses thoroughly in several rounds to reflect both "on the contents and nuances" of our dataset, following the literature on analyzing qualitative data (Saldaña, 2009, p. 81). As a next step, the dataset was broken down into discrete points and we identified the keywords. After agreeing on the keywords, we started coding. A code is "a word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data" (Saldaña, 2009, p. 3). A total of 266 coded items were thoroughly examined to look for "all possible theoretical directions indicated by" our multiple readings of the data following Charmaz (2006, p. 46).

As a result, eight main themes emerged from the dataset and we grouped the coded items under these eight larger themes (see Table 1). Thematic organization took several rounds as we had to rearrange the grouping multiple times, as suggested by Saldaña (2009, p. 149): this step of "reorganizing and reanalyzing" is often necessary whenever the overall coding scheme is reviewed. We analyzed the students' answers in their authentic form; we did not edit their texts for language or content. All authentic texts are presented in italics.

4. Findings and discussion

In this section, we present the emerging themes in our dataset in Table 1 and the detailed analysis and discussions of each theme in

Table 1
Emerging themes in the dataset (N = 266).

	Themes	Frequency	%
1	Need formal instruction	89	33.46
	1.1. Training sessions		
	1.2. Upgrading English proficiency		
	1.3. Vocabulary		
	1.4. Grammar		
	1.5. Citation		
	1.6. Critical thinking workshops		
2	Feedback	101	37.79
	2.1. Feedback not specified		
	2.2. Quality specified		
	2.3. Feedback from advisors/professors/instructors/ experts/mentor		
	2.4. Feedback from peers		
	2.5. Feedback from proofreaders		
	2.6. Feedback from software		
	2.7. Feedback from native speakers		
3	One's own responsibility	47	17.67
	3.1. Practice		
	3.2. Reading		
	3.3. Maintaining motivation		
	3.4. Working hard		
4	No extra help needed	10	3.76
	5.1. Current EAW abilities are sufficient		
	5.2. Current support is sufficient		
5	Research literacy	8	3.01
6	Time	6	2.26
7	Access to resources	3	1.13
8	Finance	2	0.75
	Total	266	100

sections 4.1 to 4.8.

4.1. Results and discussion of the theme "need formal instruction"

In this section, we give a detailed account of our analysis of the theme related to what formal instruction needs students specified. This main theme was categorized into six sub-themes: Training sessions; Upgrading English proficiency; Mentorship; Vocabulary; Grammar; and Citation (see Table 1). The findings for those six sub-themes are presented from 4.1.1. to 4.8.

4.1.1. Training sessions
Seventy-two responses indicated the need for special training in academic writing which were further grouped into six emerging sub-themes. Examples of students' responses: *Free Scientific Research Writing Courses*; *a special practical course for academic writing*; *An academic English class would be nice*; *Training program on how to conduct academic writing*; *Having courses in English academic writing*; *Writing courses at the uni specialized for PhD and given by professionals*; *I think I need to take a course that focuses on improving my academic writing*; *To have a course related with writing a doctoral dissertation.*; *one week course about academic writing*.

Among the 72 responses expressing the need of EAW training sessions, four students stated that the academic writing course should be compulsory (*Mandatory courses in writing English*; *Compulsory courses for doctoral students for all of Faculty, not only for the Faculty of Education, the Faculty of Social Sciences*; *add English Academic writing course in all program curricula as an obligatory course*). Although other respondents did not mention whether EAW instruction should be compulsory or not, all these 72 responses indicating the need to get explicit EAW training sessions is something stakeholders of PhD programs should take into consideration when designing their curriculum. In certain PhD programs which provide coursework as part of the program, students sometimes have to take courses which are not directly related to their research field in order to meet the coursework credit requirement (Moreno, 2014). In this kind of situation, offering EAW courses as a credit course would be

helpful for all students regardless of their specific field they work in (Aitchison et al., 2012; Kamler and Thomson, 2008).

We found that five out of 72 responses expressed the need for training sessions focused on writing publications: for example, support *such as the tutorial how to write journal manuscript*; *Tips and tricks of how to write an interesting sentences from the editor's and reviewer's perspectives instead of basic academic writing*; *I think an academic course for Academic writing and publications would help*; *More practical workshops about writing for publication and more practices*; *I think some courses will be useful for all the Ph.D. students or the scientist in general such as scientific writing and publication course*. These answers indicate that students felt the need to know more about what and how they had to write when accomplishing the main tasks in English: writing their dissertation and publishable papers in time.

Previous studies have pointed out that NNES doctoral students do not typically have access to formal training in scholarly writing (e.g., Cotterall, 2011; Hanauer et al., 2019; Lee and Murray, 2015; Odena and Burgess, 2017). In our dataset, a student directly addressed this issue as follows: *A specialized course in scientific writing would definitely help. I've never had an opportunity to learn this in any language at an official capacity, all my current knowledge is based on personal experience and my knowledge in English, most of which I acquired before starting university at all*. Even a student who claimed to have native-like proficiency in English admitted that there was room for improving their writing skill for academic research papers: *Even though there's no limit to one's own improvement, especially regarding language and communication skills, I feel confident with my current progress. Being a second language speaker in English, I have the proficiency of a near native speaker. But my academic writing still can use help in regards to formulating the argument and retaining a coherent balance of the argument throughout the paper. I will also need to familiarise myself more with different stylesheets to keep the integrity of the article intact.*

4.1.2. Upgrading English proficiency
Although the question focused on academic writing support, ten responses mentioned the need to improve their English proficiency (e.g., *English course in the advanced level*; *Mandatory language classes*; *English lessons*). This finding indicated that NNES students tended to feel that their English proficiency was inadequate to allow them to write scholarly texts well. This outcome is in line with other studies which have found that a low level of English proficiency hinders students' active participation in scholarly activities (Huang, 2010; Ramírez-Castañeda, 2020).

4.1.3. Special training on vocabulary, grammar, citation, and critical thinking
Vocabulary is the most fundamental area in developing EAW skills (Odena and Burgess, 2017) but only two students expressed their needs to widen academic lexical scope; one of them was specific about what they need: *research targeted terms, phrases and special words*. However, as only two respondents referred to vocabulary, most probably others assumed that they were responsible for developing their specific vocabulary.

A good command of grammar is a must for doctoral students in all kinds of academic writing. According to Ramírez-Castañeda (2020), grammar is one of the most frequently mentioned reasons why reviewers reject manuscripts. In our dataset, two students mentioned their need to improve their accuracy in grammar, whereas the other respondents did not emphasize grammar as a domain in which they needed help.

In order to meet the ethical standards of scholarship, it is essential to cite all the sources from which ideas and theories are taken. Therefore, doctoral students need to know how to cite academic sources in line with the preferred citation styles of respective doctoral institutions and referred journals. Two students in our dataset stated that they would like to improve their knowledge in this area and their responses were: *scientific reference/citation tools*; *APA or MLA*. Although consistent use of style sheets is essential in academic writing, this specific area was not a

high priority where most respondents needed help.

Writing a doctoral dissertation requires a high level of critical reasoning, as its findings are expected to be based on the student's critical approach to finding a gap in previous research, and to benefit its target audience, who are experts in the field (Almatarneh et al., 2018; Badenhorst et al., 2015; Cennetkusu, 2017; Kotamjani et al., 2018; Odena and Burgess, 2017). Only one student indicated the need to focus on critical thinking skills (*critical thinking workshops*).

4.2. Findings on the theme "feedback"

4.2.1. Feedback not specified

We found that nine students mentioned that they wanted feedback; however, they did not specify what kind of they wanted or who they expected to provide them with feedback (for example, *Feedback on my writing will help me a lot.*; *feedback*).

4.2.2. Quality of feedback specified

In our analysis, the need to receive feedback was found in 38 out of 266 coded responses. Respondents used adjectives (e.g., *quick, detailed, immediate, specific, constructive and formative, instant, regular, weekly, more precise and thoughtful*, etc.) or modifying phrases (e.g., *both written and spoken, both language and content, based on the pure evaluation; More detailed feedback about how well structured my materials are*) to describe the type of feedback they would like to get. Even though the adjectives students used were different, one thing is common in their texts: they all want fast and useful feedback to improve their work.

Another finding concerns their wish to know both their strengths and weaknesses so that they can move forward efficiently (e.g., *Receiving feedback to the strengths and weaknesses of my writing in timely manner*; *If I knew what my weaknesses are, I would be able to work on them on my own, thereby eliminating them*). The main purpose of giving feedback is to help feedback-receivers improve their academic performance over time. When feedback fails to meet its purpose and lacks this most important quality of being helpful for students, it may become a psychological burden students have to bear and may cause anxiety and frustration. A detailed account of a student shows how miserable they felt when the feedback they received they found unhelpful and discouraging. The excerpt below offers insights into this respondent's emic perspective: what it feels like to get feedback from their thesis advisor over the years:

> Positive feedback, not only negative comments like "oh no" or only a question mark as a comment to certain parts of my writing. Or mysterious comments which I suppose are there to lead my to the correct answer. It would have been great to receive some strategic knowledge about how to write. The way writing an article or abstract was for me: discussion about content then do the task, send it to the supervisor, the supervisor tears it apart with no positive feedback or encouragement, than send the corrected versions about 4–5 times. In the last versions the supervisor would correct his/her own sentences. At the end, I felt like it wasn't my work at all and yet I worked on it a lot. I think if I had a more strategic and exact instruction on how to write and got some positive feedback or encouragement in time, I would have been way more successful.

4.2.3. Feedback from advisors, professors, instructors, experts, or mentors

Thesis advisors tend to be the source of feedback as students write their doctoral dissertations; however, many respondents' answers (35 out of 266 responses) highlighted the fact that they were aware of their need to get helpful feedback also from other experts in their field. They used multiple terms for potential reviewers offering feedback: for example, *course instructors, professionals, tutors, professors, reviewers, expert, the scientists in my field, members of the doctoral school, an outside observer, teachers*. As for who should provide feedback, they specified both internal and external members of the scientific community: *Constructive feedback from the reviewers for publications and from the*

supervisor for my dissertation writing; *More feedbacks from "every" professor that teaches the subjects in the doctoral school. It's because not every professor gave proper feedback*.

We also found that two students mentioned their need of feedback from *mentor*. Previous research (e.g., Mazerolle et al., 2015; McDaniel et al., 2022; Vauterin and Virkki-Hatakka, 2021; Young et al., 2019) found that tailored feedback, advice, comments, and suggestions that resulted from one-on-one communication patterns of scholarly engagement between a mentor and their mentee goes a long way in preparing PhD students to become professional scholars. Having an experienced researcher who has already taken the same road helps students along at all steps of the PhD ladder (Anderson et al., 2019; Barrett et al., 2017; Brill et al., 2014).

4.2.4. Feedback from peers

Nine students in our study were aware of the fact that they could grow together academically by helping one another and that they also would like to receive feedback from their peers. For example, *quick feedback from advisor and peer: Constructive feedback from peers and supervisors; more peer* support; *having a monthly meeting with my peers to share and talk about our projects and the progress; Team work among international students*. These responses indicated that students expected peer feedback to be helpful and conducive to their development. Other studies have also found that doctoral students can contribute to one another's projects by using their unique expertise and experience they gained in different research contexts (Aitchison and Lee, 2010; Flores-Scott and Nerad, 2012; Mason and Hickman, 2019; Trippas and Maxwell, 2021).

4.2.5. Feedback from proofreaders

We found that 25 students in our study expressed their need to get their manuscripts proofread before submission. To get the articles published in high-quality refereed journals, their manuscripts must demonstrate that they meet the journals' EAW requirements. Proofreading the manuscripts before submission is often included in the article submission guidelines of referred journals. Several journals explicitly state that submitted manuscripts must be already at the ready-to-publish level; however, proofreading services are often unaffordable for PhD students. This is the very reason why NNES doctoral students need proofreading help with their final drafts of manuscripts before submission. Some respondents stated that they needed help with proofreading, for example, *Someone good enough to help with proofreading*, but they did not expect such help from their doctoral programs. Others meant to rely on help from their peers: for example, *The best thing I can imagine is this: the students with English proficiency offering me a word that they are willing to read and rectify my writings*. Many students wanted to have free access to proofreading sites and software packages: e.g., *Free acces to sites offering proofreading and text corrections*; *proof reading softwares*. Others thought that their respective program should provide them with this kind of help: for example, *From the proofreading service that the university provides; I will be appreciated if the Doctoral School provide us Grammarly package or English proofreading services; to have an Academic English center that revises students' work before submission*. Some responses implied certain restrictions, but they did not go into details whether their programs offered such services under certain conditions only: e.g., *proof readers hired by the doctoral school for research articles which are going to be published in any journals*.

4.2.6. Feedback from software

Previous research (e.g., Aghaee et al., 2016) indicated that the use of technology help the doctoral students to work more efficiently. Multiple software packages which can edit and correct students' texts are available on the markets. However, not every student may find them affordable. In our dataset, eight students mentioned that they thought a reliable software package would help them to write better. Some students stated the names of specific programs: e.g., *Offering a complete and*

free access to English tools like Grammarly and Wordtune; access to use premium application, such as Grammarly. The analysis revealed that one out of those eight responses mentioned the need for translation support (*better google translator*). It is understandable that NNES students think they need help in this area, as all the terms and statements translated have to be academically appropriate.

4.2.7. Feedback from native speakers

Five students believed that their performance could improve if they had access to native speakers: e.g., support *by native teachers*; *access to native english speakers.* These responses indicated that native speakers are highly appreciated by these respondents in English as a lingua franca context. Previous publications have discussed beliefs about doctoral students' need of native speakers based on their experiences. NNES students often receive reviewers' comments suggesting that they should consult a native speaker regarding their EAW when their manuscripts are submitted and reviewed (Hanauer et al., 2019; Soler, 2019). Moreover, helping students in terms of their English academic writing at the doctoral level may not be always feasible in their doctoral schools, as it requires qualified faculty. Not all successful and experienced writers know how to express explicitly how they write and this might lead to limitations in developing the students' EAW abilities (Kahn et al., 2016). We assumed that these factors might influence their responses expressing the need of a native speaker to scaffold their EAW performance.

To conclude, all these findings on respondents' feedback needs indicate similar trends found in previous studies underpinning that feedback plays a decisive role in improving doctoral students' EAW abilities. They are aware of their need to get feedback so that they can critically evaluate their own work, focus their attention on disciplinary structures and academic standards they need to meet, and present their ideas in academic texts (Carter & Kumar, 2017; Duncanson et al., 2020; Inouye and McAlpine, 2019; Odena and Burgess, 2017). The students' responses in this study indicate that they understand the essential role feedback plays in their EAW development.

4.3. Findings of the theme "One's own responsibility"

We found 47 responses in the dataset reflecting students' self-efficacy: the idea that it is their responsibility to improve their EAW performance on their own. Responses were further categorized into four sub-themes: Practice; Reading; Maintaining motivation; Working hard (Table 1).

4.3.1. Practice

Twenty-eight students pointed out that they must resort to practice to achieve improvement in their EAW abilities. Some responses emphasized *Practice; Writing again and again,* whereas others were more specific about the areas in need of more practice and how they would go about it: for example, *More practice in synthesizing literature; participating in writing proposals and publishing materials; Small groups of students for writing and publishing together; Just writing and submitting papers in Q1 journals.* The need to provide doctoral students with authentic but low-stake practice was found to be an important component in supporting the students to successes fully complete their dissertation (Stevens and Caskey, 2022).

4.3.2. Reading

Studies have shown that reading has a strong positive impact on developing scholarly writing (Ankawi, 2022; Lin and Morrison, 2021; Mehar Singh, 2015; Almatarneh et al., 2018). In our dataset as well, ten students emphasized the importance of reading as the way of improving their EAW and leading to scholarly productivity. All of the examples are related to what they think they need to do: for example, *reading more and more regarding research area*; *reading so many academic papers; Read more, learn more, and imitate writing more!* These responses indicate that students are fully aware of the role reading comprehension plays in

improving their EAW abilities. A respondent who was self-assured about their English proficiency pointed out how important reading had been: *I don't think there are other ways of improving apart from reading academic journals, at least for me. My courses, from my bachelors were always in English so now I do not feel the need for that extra effort, but obviously there are always room for improvement.*

4.3.3. Maintaining motivation

Motivation always plays an important factor in academic achievement; previous studies have highlighted the importance of maintaining motivation in scholarly productivity, especially during dissertation writing process (Holmes et al., 2018; Merç, 2016; Naylor et al., 2016). Five students in the dataset expressed the need to maintain their own motivation. Two mentioned the importance of believing in oneself (*It is up to me to search for more English academic journals to skill up; strengthen self-confidence*). Whereas three respondents elaborated on the importance of maintaining motivation to go forward (*my own motivation to do so self-support; Stimulation to publish more academic papers; My intrinsic motivation matter the most I think*).

4.3.4. Working hard

Four students emphasized that they needed to work harder, indicating that they were aware of their responsibility for their own progress: for example, *I should work harder; Only hard work, study by myself; self-study.* Their awareness of their need to be self-dependent, a prerequisite of becoming independent scholars, was explicitly stated in their answers.

In summary, the analysis revealed that 17.67% of the coded 266 responses indicated that students know that their success depends on their own efforts and how much work they invest into improving their knowledge and abilities (Table 1).

4.4. Findings of the theme "no extra help needed"

Ten students firmly stated that they needed no help at all. As for the underlying reasons, this theme of "No extra help needed" was classified into two sub-themes: Current support is sufficient; Current ability is sufficient (Table 1).

4.4.1. Current support is sufficient

Five responses claimed that the support they received was appropriate. Four students received the support they needed in their PhD programs, e.g., *I think I am ok with the current* support *I receive; My lab has an English professor who checks our academic papers. The* support *we have been getting: being require to write fairly long papers in a semester and getting feedback is perfect for me.* One student pointed out that the support they needed was offered by their supervisor: *nothing, it is enough from Professor* support. However, according to the response from one of these five students below, we can see that the support this respondent was referring to concerned research competency, not EAW support:

> I just dont know why my school should offer me help with my English. The school should offer us editing services for publications and it does offer. The rest, is up to the student, when you applied for this school you knew to get ready in terms of your English. The school must offer us research competences, should teach us to collect and analyse qualitative and quantitative data. The English level is a prerequisite for studying in such as school and I believe that the requirement is at least B2 level according to CEFR. I do not think that our instructors should give us feedback on our English written linguistic competences, they can comment on our pragmatic competences, if they wish. As for research comeptences, the school offers us.

In the above response, the student provided a rationale for why the doctoral school has no responsibility for providing PhD students with English academic writing support: as the programs clearly stated their

English language requirements, it is up to the students to make sure they meet EAW expectations, and they should not waste their professors' time by expecting feedback on their English. Although this response includes special terms related to communicative competence, the student used the terms linguistic and pragmatic competences incorrectly.

4.4.2. Current ability is sufficient

Five other students mentioned a different reason why they did not need additional help: they believed that their current level was good enough. One of them stated confidently that their (My) *writing is already at a publishable quality*. The other four students' answers were also very positive*: I do not have any special needs regarding my English academic writing skills.; I reached a level that I'm happy with, so nothing more is necessary; I am comfortable in my case; I think I'm good*. These five responses corresponded to 1.85 % of the answers in the dataset indicating that only a few students were confident that they were well-equipped with EAW abilities; this result is in line with the findings of the study conducted in Hungary (Phyo et al., 2023a).

4.5. Findings of the theme "research literacy"

Accomplishing all doctoral tasks in time depends on students' capability in both conducting research tasks and disseminating their research findings at the expected scholarly level (Lambie et al., 2014). In our dataset, eight students addressed their need to improve their research literacy (see Table 1). Examples of their responses were as follows*: more practices in analyzing data by using a variety of tools; research methodology courses; Research Framework; Two types of courses - methodological papers and literature review*. These responses implied that students felt they needed special training in how to design a study, analyze data, as well as how to write different types of research articles. These points highlight the fact that developing EAW at the doctoral level cannot be separated from students' respective research disciplines.

4.6. Findings of the theme "time"

Six students pointed out in their responses that they needed more time (Table 1). However, the underlying reasons varied. Only one of them stated that they needed more time for their scholarly writing: *more time to write the academic papers*. Two students mentioned that they needed free time; two other students wrote "*time*" only; not stating any reason why they needed it. One respondent did not specify they needed free time (*Trying niksen as stress-fighting tactic*); however, this response indicated their need to have time to relax to release stress and tension. Time is always a challenge for PhD students, as they often struggle to get all the scholarly requirements accomplished in time and to maintain their responsibilities as an adult in their personal life (Cornwall et al., 2019; Fung et al., 2017; Lim et al., 2019).

4.7. Findings of the theme "access to resources"

Studies (e.g., Hancock et al., 2019; Rafi et al., 2018) have highlighted the importance of providing doctoral students with access to resources and materials in this age of information and technology. In our dataset as well, three responses (Table 1) highlighted limitations students faced when they tried to access necessary resources: for example, *more access to databases; Regular discussion and availability of resources*. These students seemed to face situations in which they did not have access to the required databases, journals, or books when they used their institutional log in.

4.8. Findings of the theme "finance"

Even though EAW abilities do not seem to be associated with finance, all students need financial stability to take care of themselves and their family members they are responsible for as adults to submit their dissertation and publications in time. Finance also plays a key role at different stages of conducting research and researchers have proven that lack of financial support may negatively impact dissertation completion, students' academic achievement and well-being throughout their PhD journey (Cornwall et al., 2019; Fairman et al., 2021; Harman, 2003; Sverdlik et al., 2018). Only two responses in our dataset referred to Financial support and *Money*.

5. Conclusion

In this cross-sectional qualitative study, we explored 255 NNES international doctoral students' self-stated needs regarding the support they believed would be most beneficial to help them achieve their goals in EAW. Their responses, rooted in their lived experiences, provided invaluable insights, yielding distinct themes that align with prior research in this field.

A significant finding is that a third of the respondents expressed the need for explicit instruction to enhance their EAW skills to a level essential for them to meet the requirements set in their respective doctoral programs, revealing their limited experience in scholarly writing practices. Even though some of them had developed EAW skills independently over the academic years of their PhD studies, without formal guidance; others still lacked knowledge on writing scholarly texts in a discipline-specific manner at the time of their participation in this study. These findings reveal the importance of offering explicit instruction in EAW, echoing the recommendations of other researchers (Belcher, 2007; Caffarella and Barnett, 2000; Lin and Morrison, 2021; Lindley et al., 2020; Odena and Burgess, 2017).

We found that the doctoral students in this study were fully aware of the specific areas in which they needed support to reach the level they considered appropriate. The majority (79%) of the coded responses expressed the need to get support individually in personalized ways. Only one outlier response claimed explicitly that students should not expect their doctoral programs to help them with English academic writing, as language proficiency was already a requirement at entry to a PhD program.

In addition, our findings also showed that only five out of 266 coded responses (1.88% of the whole dataset) stated that respondents' EAW abilities allowed them to write their academic tasks appropriately. These results are in line with the analysis of the conceptual metaphors provided by the same students to describe their EAW experiences. The metaphors revealed that the students were aware of the complex and demanding nature of the EAW process and only few respondents claimed to be competent writers. They knew that they still needed to improve their scholarly productivity and they were willing to make all the necessary efforts to develop their EAW abilities.

In summary, most students acknowledged the challenges posed by EAW and were fully aware of the specific areas requiring their attention. They exhibited a high degree of self-awareness and were willing to take responsibility for their learning to write well. Approximately half of the responses also emphasized the importance of autonomy. These qualitative findings resonate with the outcomes of previous quantitative studies involving the same participants: students reported a low level of academic writing proficiency at the starting point of their PhD studies, but they believed in their abilities to progress in their EAW during their PhD studies (Phyo et al., 2022a, 2022b, 2023b).

In conclusion, the findings of this study underscore NNES doctoral students' pressing need for tailored support in EAW. They need explicit instruction and tailored assistance to empower them in their academic pursuits.

6. Implications

The findings have important implications for both educational institutions and NNES doctoral students. First, educational institutions should offer EAW instruction and tailored support to better prepare

students for the demands of their respective doctoral programs. This support should include EAW courses, mentorship, and feedback mechanisms, directly addressing the students' areas of need. Second, the study highlights NNES doctoral students' remarkable self-awareness, commitment, and readiness to take responsibility for their academic development. Institutions can capitalize on this by promoting a culture of autonomy in doctoral programs.

7. Limitations and future directions

This study presented the analysis results of 255 students' responses to an open question concerning what type of support they needed to improve their EAW abilities. Even though all doctoral students came from NNES backgrounds, the results may not fully represent the experiences of the entire NNES doctoral student population, especially those in different contexts. Furthermore, this study explored only the perspectives of doctoral students. In future research, it would be beneficial to include not only students, but also thesis advisors and faculty members to find out how they perceive students' needs and development. It would also be helpful to triangulate data from students' written texts. These broader perspectives would offer more complex insights and a more comprehensive understanding of how NNES novice scholars can be better supported to achieve their goals in EAW.

Authors' contribution statements

The submitted manuscript is written by Wai Mar Phyo, Marianne Nikolov, and Ágnes Hódi. Wai Mar Phyo: Reviewed the literature, designed the questionnaire, conducted the survey, analyzed the data, and wrote the paper. Nikolov Marianne: Conducted the survey, analyzed the data, wrote the paper, and edited the paper. Ágnes Hódi: Conducted the survey, analyzed the data, wrote the paper, and edited the paper.

Declaration of interest's statement

The authors declare no conflict of interest.

Note

The students' responses were presented in their authentic forms, without being edited for both language and content.

Unlisted references

Catterall et al., 2011; Love et al., 2007; Kirk and Lipscombe, 2019; McAlpine, 2020; Saldaña, 2009; Saldaña (2009; Aitchison et al., 2012; Mohammad et al., 2018; Belcher, 2007; .

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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