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## A Tentative Study on Integrating Plain English into the Doctoral Language Programme

### Abstract

Numerous scientists disseminate their research results in English-medium journals because their careers are often tied to publishing in English. Journal gatekeepers expect them to use correct scientific English in their manuscripts to make them publishable. However, many non-native English-speaking junior researchers do not know how to meet these expectations. The tentative study described in this article investigated the relevance of teaching plain English to Polish research students and its impact on their writing in scientific contexts. To answer three research questions, the Author employed a case study design in which thirteen PhD students at Bialystok University of Technology (Poland) became the participants of the didactic intervention. The study found that teaching plain English should be integrated into the PhD language programme because it brings numerous linguistic and extra-linguistic benefits to research students. Given the scarcity of research on this topic in Polish educational settings, the study may attract interest from scholars researching writing science for publication purposes or from teachers of English in doctoral programmes.

### Keywords

Plain English; English for Research Publication Purposes; writing in the sciences; writing instruction; PhD language programme

### 1. Introduction

The dominance of English in scientific<sup>1</sup> publications necessitates effective writing skills for successful scholarly careers. Journal gatekeepers expect “correct scientific English” (Elsevier, n.d.) in submitted manuscripts, emphasising clear and easily understood delivery of concepts in any discipline.

Since the late 1980s, there has been a growing body of empirical research into writing in English as a target language (TL) for publication purposes (e.g. Flowerdew 1999, 2013a, 2013b, 2016, 2020; Reinstein & Houston 2004; Leki et al. 2008; Hyland 2009, 2016; Huang 2010; Moreno et al. 2012; Ingvarsdóttir & Arnbjörnsdóttir 2013; Cargill et al. 2017; Corcoran 2017; Hryniuk 2019; Li & Flowerdew 2020). Some studies were conducted by language teachers, senior academics or editors of English-medium international journals, and focused on facilitating research writing for publication purposes by developing English for Research Publication Purposes (ERPP) teaching initiatives. Other projects investigated writing behaviours or problems that non-natives might have when writing for English-medium journals. None of the studies involved the didactic intervention aimed at developing writing skills by integrating plain<sup>2</sup> English into the language instruction of PhD students

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<sup>1</sup> The term *scientific* describes “things that relate to science or to a particular science” (*CollinsDictionary.com*), and this definition is followed in the article. The terms *scientific*, *academic* and *scholarly* are used interchangeably, even though in English *scientific* relates to *research English*, whereas *academic* and *scholarly* have a broader meaning (Duszak 1998, p. 284; Douglas Kozłowska 2012, pp. 86f.).

<sup>2</sup> The word *plain* means not complicated or difficult, clear, simple or easy, clearly understood and straightforward (*CollinsDictionary.com*). Plain-language professionals claim, as quoted in Cutts (2020, p. xviii), that written communication is plain “if its wording, structure, and design are so clear that the intended readers can easily find what

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who wish to publish internationally. The study described in this paper fills this gap. The sections that follow provide justification of the topic (Sections 2-3), purpose of the research with research questions (Section 4), description of the study (Section 5), and qualitative cross-case analysis of data collected in questionnaires, semi-structured interviews and writing samples (Section 6).

## 2. Teaching scientific writing: meeting the needs of doctoral students

Since the need to publish research results in English-medium journals starts at the very beginning of the research programme, the Author<sup>3</sup> translated this need into writing-oriented language support in doctoral language education. Her goal was to help junior scholars and novice writers improve their English proficiency and ability to communicate scientific information effectively through writing. While machine translation, paid translation services and writing-support technology (e.g. spelling and grammar checkers or automated written corrective feedback [AWCF] tools) can aid scientists' development, being unable to contribute independently to the international scientific community is often seen as a significant drawback in pursuing scientific career.

Not many teachers of English based in Polish third-level institutions may realise that a scholarly text written in Polish is often developed by accommodating a variety of digressions, reformulations, elaborations or amplifications that raise the level of redundancy in the formal written discourse. This style results from following a Teutonic tradition in scientific writing. Some scholars believe this complexity is an attribute of its scientificness and should be maintained (Duszak 1997, p. 64). Consequently, structural complexity (e.g. a large number of nominalisations, hypotactic constructions, agentless passives and informationally overloaded sentences) is sanctioned, and scientific communities often expect their young adepts to follow this generally acknowledged style of writing. Even if, for example, Młyniec and Ufnalska (2003, pp. 13-21), Wytrębowski (2009, pp. 4f.), Stępień (2020, pp. 17-40), and Siuda and Wasylczyk (2021, pp. 63f.) advocate a different scientific style for Polish scholars, discourse communities often expect novice writers to dutifully follow traditional patterns. When junior researchers apply these patterns to English-medium texts, what they get is prose that is far from what gatekeepers of scientific English-medium journals expect and accept. This may happen because PhD students rarely receive specific instruction on producing scientific prose in their native language and English, or on identifying the differences between the scientific styles typical of these languages. Rather, they are often self-taught imitators of the styles of the Polish and English authors before them, with all their virtues and defects. Imitating writing styles found in English-medium scientific literature can be beneficial as long as the texts are well-written. However, this assumption is not always correct (Woodford 1986, p. v; Wells 2004, p. 757; Greene 2013, pp. 1-3; Johnson 2016, p. 51). Back in the 1960s, Orwell (1963, p. 325) claimed that bad writing habits can spread through imitation. Sword (2012, p. 24) still agrees with his opinion when she says that learning to write by imitation may result in copying “jargon-ridden, shoddily-organized, sloppily argued, and syntactically imprecise prose”, so Zinsser's (2006, p. 34) recommendation to “cultivate the best models” is by all means valid. However, TL writers may be unaware of what models are worth cultivating. Therefore, the Author's aim in the writing-oriented course of the doctoral language education was not to expand, for example, a range of discipline-specific vocabulary because junior researchers usually get acquainted with the relevant terminology in the course of the PhD programme. Rather, her aim was to familiarise her students with plain English guidelines and sensitise them to the benefits of a plainer style in scientific discourse, trying at the same time to weaken their belief that “an inescapable reality of academic discourse is its

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they need, understand it, and use it.”

<sup>3</sup> In the article, the term *Author* always refers to the author of the present work, whereas *author* refers to any person who produces a written text. The terms *author* and *writer* are used interchangeably in this paper, although there is a subtle difference in meaning between them (<https://www.masterclass.com/articles/writer-vs-author-whats-the-difference>).

complexity” (de Chazal 2018, p. 85). Convinced by Kirkman (2001, p. 138) who contends that “[f]or expert readers ..., it is not usually the special terminology in English that causes trouble”, but “the ‘ordinary’ language in between”, she believed the complexity of the specialist subject matter can be expressed effectively in scientific texts by means of adequate language in between.

To find out how to use *ordinary language* to express meanings clearly and effectively, and to find teaching materials for her course, the Author analysed various style manuals for scientific writing. These manuals, however, serve more as guides to a clear scientific style rather than practical textbooks. Consequently, their readers get a vast number of guidelines (and examples) on how to do scientific writing but a limited opportunity to experience putting theory into practice. Because there are no regular course books that address the needs of non-native authors who wish to learn to write for international audiences, the Author developed her own materials. These practice activities tailored for Polish doctoral students of various engineering disciplines redress a deficit in this area.

### 3. Reasons for teaching plain English to PhD students

There are numerous style guides available on the market, not to mention online tools for translating texts or AWCF tools that direct scholars towards publishable writing. The question arises whether novice research writers can reliably resort to style guides, machine translation or writing support technology before submitting their manuscripts to scientific journals.

As for the manuals of style, after analysing one hundred academic style guides published in the years 2000-2010, Sword (2012, pp. 25-27) confirmed they offer inconsistent or conflicting recommendations. Only six guidelines associated with the style of academic discourse were unanimous:

- necessity to produce clear, concise and coherent sentences;
- keeping the sentences short and simple, and varying the text’s rhythm by alternating longer sentences with shorter ones;
- avoiding ornate, Latinate vocabulary;
- avoiding vagueness and imprecision;
- favouring the active voice; and
- creating story-like prose.

All but the last one are included in the guidelines for plain English that the Author discusses and practises with her students (see Table 1). She believes that implementing them in written texts leads to polishing the style that novices to scientific writing use in their scholarly texts and consequently establishing “comfortable communication” (Woodford 1986, p. 5) between them and their readers. The recommendations seem to cover correct scientific English expected by the editorial staff of international English-medium scientific journals. Gastel & Day (2017, p. xvi) note that the requirements of the journals vary from discipline to discipline and even within the same discipline, so there are no universally accepted recommendations. However, the main guidelines of plain English are likely to be approved by all disciplines.

<b>Plain English favours:</b>	
Lexical level	<ul style="list-style-type: none"> <li>• short, everyday words over polysyllable Latinate</li> <li>• verbs over nouns and adjectives</li> <li>• concrete nouns as subjects and concrete verbs over abstract ones</li> <li>• content words over function ones</li> <li>• word saving</li> <li>• compound nouns (but not multiple-word ones)</li> <li>• consistent vocabulary</li> </ul>
Syntactic level	<ul style="list-style-type: none"> <li>• short and medium-length, simple sentences</li> <li>• a subject-predicate-object order</li> <li>• the active voice</li> <li>• positive statements</li> </ul>
Textual level	<ul style="list-style-type: none"> <li>• parallel structures in lists</li> <li>• transitions to link ideas between sentences</li> <li>• accurate punctuation</li> <li>• no circumlocutions</li> </ul>

Table 1. Selected guidelines of plain English

As for machine translation and AWCF tools (e.g. DeepL, Grammarly, PaperPol, ProWritingAid, Research Writing Tutor, RightWriter, QuillBot, SciFlow, Wordtune and Writefull), they are developing rapidly; however, according to Biel (2021, p. 25), they are not yet fully reliable. She lists frequent mistakes in machine translation, such as the lack of word agreement, inaccurate verb forms, and faulty sentence structure and punctuation. The translated texts are incohesive and lexically inconsistent. The register is too formal or too informal. The message can be imprecisely conveyed by including or excluding a text fragment, and skewing the meaning. Nevertheless, while some tools, like DeepL, confuse the terms like *incoherent* and *incohesive*, or *learning* and *acquisition*, others, such as QuillBot, are believed to be capable of generating useful alternatives in realistic scenarios and can be trusted at an academic level. However, even if in scholarly writing, the key is the academic concept and message of the research, and the style and even mistake frequency are believed to come second to the science, discussing language-related issues seems necessary in the writing classroom because it is important for novices to know what to accept and what to change when using suggestions from writing support tools. Thus, introducing PhD students to a plain writing style is reasonable, as it covers what correct scientific English encompasses.

Considering the above, choosing plain English as a key component of doctoral language education at Bialystok University of Technology (BUT) seems justified for the following reasons:

- Plain English embodies correct scientific English, which is expected by editors, reviewers and readers of English-medium journals.
- Plain English is perceived as a more approachable form of written discourse by non-native English-speaking (NNES) novices to science writing who do not often feel competent enough to produce scientific texts in English.
- Plain English can be used in various text types and fields, making it a reliable tool for information and knowledge transfer within and across genres and disciplines.
- Plain English is an attractive form of expression for both native and non-native speakers of English, as academic writers and readers highly value effectiveness and clarity in scientific texts.
- Plain English covers language-focused features that are neither too difficult for most doctoral students at an intermediate level of English to integrate into their writing nor too abstract to find them inapplicable or useless in scientific texts.

- Plain English facilitates the independent and autonomous behaviours of novice writers, allowing them to make self-reliant yet informed decisions about composing and editing their manuscripts.

Although the concept of plain English may be no news to numerous native English-speaking writing instructors, average NNES teachers are unaware of its merits and, consequently, do not teach how to write clearly in English. As a result, their students find, for example, nominalisation more sophisticated and suitable for academic discourse, and use strong verbs sparingly. Their manuscripts may be rejected because of non-standard language or, as is often described, poor English, and they are often unaware that the problem may also lie in ignoring such language aspects. Therefore, in the Author's view, the ability to simplify the language used for describing the specialist subject matter should be a major learning goal of junior researchers and novice academic writers who wish to publish their findings in English-medium international journals and reach a wide readership.

The Author believes that integrating a plainer writing style is vital for efficient scientific communication, enhancing the conciseness, precision and readability of written texts. She is also convinced that language knowledge is essential in writing for research publication purposes, and that is why she advocates language-oriented instruction in doctoral programmes. Junior researchers are still learners who need support in their English language learning. This need goes in line with the Author's knowledge and professional interests, her philosophy of teaching, and the practical constraints of local teaching and learning contexts.

#### **4. Aims of the study**

The empirical study described in this article examined integrating selected language-related guidelines of plain English into the doctoral language education at BUT. More specifically, the study sought to determine, tentatively, whether teaching plain English meets the expectations of research students and novices to writing in the sciences, is relevant to their academic and professional needs, empowers them as science writers and constitutes an adequate content matter of the English course in the PhD programme at a technical university. Finally, the Author was interested in whether incorporating plain English into writing activities could contribute to a better and lasting quality of written texts.

The research concept was inspired by the Author's observation that NNES junior researchers often had problems relaying specialised ideas in English in a clear, effective and readable way. The Author designed a didactic intervention that incorporated the selected guidelines of plain English into the writing-oriented classroom in order to answer the following research questions (RQs):

- Research Question 1: Do the participants find language knowledge essential in writing for the sciences? If so, why?
- Research Question 2: Do the participants find plain English a legitimate component of an English classroom in the doctoral programme? If so, why?
- Research Question 3: How will the participants' writing performance improve following the intervention?

As for research methodology, the Author chose a case study design, as this format is suitable for small-scale research, makes use of naturally occurring settings and facilitates the use of multiple methods (Yin 2014, pp. 9-11; Denscombe 2021, pp. 94, 96).

The study results will have implications for TL writing instruction in doctoral language education in Poland. Such instruction will conduce to upgrading the writing proficiency of student researchers; it will also enable teachers of PhD students to make informed decisions about the components of the doctoral language programme that they have the authority to develop or modify.

## 5. The study

The participants were thirteen first-year students from the Doctoral School at BUT (see Table 2). They took part in the study as part of their 15-hour language course in the first semester of the English language programme. The researcher (the Author) was their regular teacher. An important criterion for selecting the participants was their level of language proficiency and knowledge of plain English. The Author chose to teach the students who represented an upper-intermediate level of advancement in English (B2 according to the *Common European Framework of Reference for Languages [CEFR]*) (Council of Europe 2020) because it coincided with the required minimum level of language proficiency for the massive open online course (MOOC) integrated into the intervention. No language test was administered before the intervention to examine whether the students had a comparable command of English, nor did the Author assess the participants' (academic) writing competence in Polish and in English. The Author included those students who self-assessed their language level as B2 and who had never attended the English course in the doctoral programme run by the Author so that none of them was better equipped to know plain English and put its guidelines into practice.

In the questionnaire, eleven students indicated their level of proficiency as B2, one student as B2/C1 and one student did not indicate the level. The mean age was 27.8, and their native language was Polish. There did not appear to be major differences between the study participants regarding interest in the subject and motivation. To respect the privacy and anonymity of the participants, the Author refers to them as Participant 1 (P1), Participant 2 (P2), etc.

Participant	Scientific discipline	YoLE*	Age	Sex/Gender
P1	Automation, Electronics and Electrical Engineering	4-6	44	M
P2	Environmental Engineering, Mining and Energy	10-12	26	F
P3	Mechanical Engineering	over 12	24	M
P4	Biomedical Engineering	0-3	25	F
P5	Automation, Electronics and Electrical Engineering	7-9	26	F
P6	Civil Engineering and Transport	over 12	27	M
P7	Mechanical Engineering	over 12	25	F
P8	Mechanical Engineering	over 12	25	M
P9	Mechanical Engineering	over 12	30	M
P10	Information and Computer Technology	over 12	27	M
P11	Management and Quality Sciences	over 12	30	M
P12	Mechanical Engineering	over 12	26	M
P13	Civil Engineering and Transport	over 12	27	M

\*YoLE: years of learning English

Table 2. Study participants

In the study, the following data elicitation instruments were included:

- the questionnaire that had been pilot-tested with the doctoral students at the Medical University of Białystok and, after minor modifications, was completed by all the study participants before the intervention;
- the writing sample (an abstract) that was submitted by the participants before the intervention;

- the one-to-one semi-structured online interview (Interview 1) that took place two weeks after the intervention;
- the writing sample (an introduction to a journal paper) that was submitted by the participants five months after the intervention; and
- the one-to-one semi-structured online interview (Interview 2) that took place twelve months after the intervention.

Without a doubt, if one data type is corroborated by evidence from another, the research results are more reliable. In this study, the Author collected the data by means of different elicitation tools so that she could carefully analyse and interpret them to address the RQs.

The Author informed the participants about the nature of the study, and they agreed to take part in it by completing and submitting questionnaires. She requested them to enrol in a 4-week MOOC, an innovative teaching tool she had designed and developed in 2019–2020 for Navoica, a Polish online educational platform. The course “How to write (science) better” became a vital component of the intervention. The Author adopted the MOOC to maximise the effectiveness and attractiveness of classroom practice and to extend learning time and space beyond the constraints of the classroom. The course became a more valuable educational tool that helped the Author work more effectively towards her teaching goals in the online classroom of the 2020–2021 academic year due to COVID-19 pandemic restrictions. Integrating the online course into regular language instruction (conducted in virtual environments owing to university closure) went in line with the belief that technological innovations can supplement regular TL classes and contribute to the development of students’ autonomy. Interestingly, throughout the course, the participants were encouraged to share their views in the MOOC’s discussion forum, but only six participants decided to take advantage of the opportunity and practised writing with real purpose and an authentic audience.

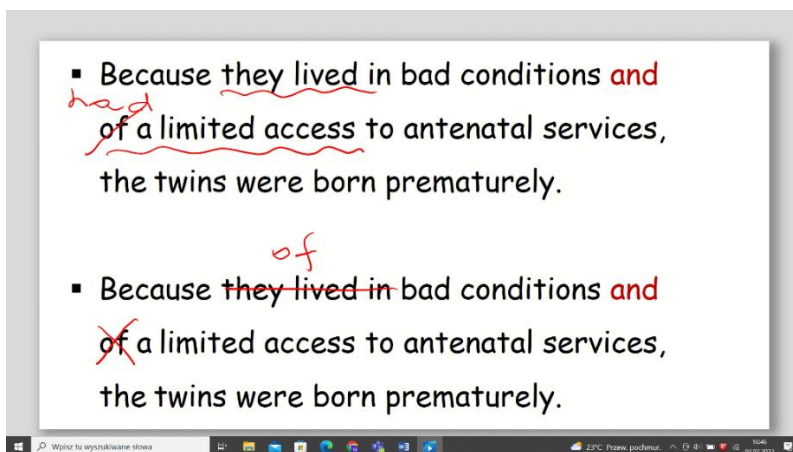


Figure 1. A slide from the MOOC’s video (Week 3, Lesson 2: Parallel forms)

Apart from the MOOC, the intervention involved six weekly 90-minute online sessions on MS Teams. The sessions always started with short feedback, addressing students' doubts and questions about the targeted features of a particular MOOC module. They were then followed by a variety of writing-related activities. The Author structured online classes so that students could revise what they had learned via the MOOC and practise guidelines of plain English in their own writing. The writing activities included text manipulation (e.g. paraphrasing, sentence/text completion, text conversion) intertwined with text creation (e.g. free writing).

## 6. Qualitative results: a cross-case analysis

To report the study findings, the Author used a cross-case analysis of individual participants (cases) because she anticipated that individual cases would produce similar results: the participants would build up their confidence as science writers, raise their scientific writing awareness and improve their writing performance. In her original research project, the Author also carried out the within-case analysis by examining data collected from the following participants (cases): Participant 4 (the student who seemed to be the least likely to succeed as a scientific writer in the Author's opinion), Participant 8 (the student who seemed to be the most likely to succeed but whose actual writing performance was much below the Author's expectations) and Participant 10 (the student who made the biggest progress in writing performance according to two raters [Rs]). The results of the within-case analysis are not included in this article.

To ensure that RQ3 could be answered reliably, the Author asked the participants not to use any writing support technology (other than spell-checkers or online dictionaries) while producing their pre- and post-tests. However, not all the students complied with this request. Five participants who confessed to using AWCFT tools to help them write the entire text were excluded from the analysis of writing gains based on text data. This was the case for P1, P5, P6, P9 and P12. However, because of their informed opinions about plain English expressed in the questionnaires, interviews and the MOOC's discussion forum, they are occasionally cited in Sections 6.1-6.3. These sections focus specifically on the data collected to answer all the research questions addressed in the study.

### 6.1. Language knowledge in writing for the sciences

To explore the first research question (Do the participants find language knowledge essential in writing for the sciences? If so, why?), the Author used the replies from the questionnaires and both interviews, as well as comments from the discussion forum.

Language knowledge encompasses the types of knowledge that a writer is expected to demonstrate in writing. More specifically, these types include the lexical, syntactic, semantic and rhetorical systems of the language. Grammar is a vital component of language knowledge. Answering the question about grammar in Interview 1 (What do you associate grammar with?), ten participants said that, first and foremost, grammar means verb tenses. Seven students wished to revise the tenses (P1, P2, P5, P6, P10, P11 and P13), but they did not complain at all that no revision had been conducted in the classroom. As for their general attitude towards grammar, Participant 8 commented, "grammar is a pain for me". That is why he thought classroom time would be devoted to speaking and building up self-confidence while speaking English, not to grammar. Nevertheless, the participant appreciated the course content, which encompassed grammar, and found it engaging and valuable. Apart from the tenses, the students associate grammar with sentence structure (P1, P4, P9 and P10), collocations (P5), precise lexis (P10), punctuation (P3 and P7) and a writing style (P11). The participants claimed some language-based issues discussed during the intervention were their "firsts" (Wlodkowski 2008, p. 73), for example, transitive/intransitive verbs (P2, P4 and P11), strong verbs (P4, P6 and P12), word saving (P11), compound nouns (P13), parallel forms (P1), collocations (P3), passive voice (P1 and P4), punctuation (P4 and P13), and using monolingual and collocations dictionaries (P3, P4 and P13). This may be surprising, as nine students declared that they had been learning English for over 12 years.

Without a doubt, teaching grammar, among other language-based issues, is always beneficial to target language students, and this is what twelve participants recognise. Participant 1 said in Interview 1, "Personally, I'm delighted that we have grammar in the class". All the participants emphasised the importance of accurate grammar in professional and scientific writing. Participant 7 highlighted the significance of grammar in research articles, stating that manuscripts would be rejected if grammatical correctness was not carefully addressed. Participant 12 prioritised



grammatical accuracy and an adequate writing style over content, while Participants 8 and 11 considered content knowledge and data as the primary focus.

The grammatical terminology used during the intervention was not discouraging, even if numerous terms were new to many students (e.g. strong verbs, parallel forms, compound nouns). Some participants said they needed to know grammatical terminology to organise the discussed ideas better for further reference (e.g. self-study) (P1, P2, P3, P8 and P10). When asked whether they were in favour of the deductive teaching of grammar employed in the MOOC, most participants gave positive answers. Participant 2 said she had experienced this approach in a secondary school language classroom, and she did not find it boring or demotivating. Rather, it helped her systematise what she had learned so far. Participant 4 found it convenient that the instructor (the Author) had explained language issues very explicitly. She claimed she would not have picked up or guessed what language concepts were discussed if she had been taught in a different way. Inductive teaching of grammatical structures was not expected; the students did not feel it would have ensured more active engagement on their part, or learning grammar taught in this way would have been more motivating. When asked about potential modifications in the instruction during the intervention, there were calls for none. For example, Participant 3 said, “I just don’t know how this should have been done even better.” He added, “[a] language course is not going to be a stand-up with Bill Hicks.” He appreciated being a beneficiary of the study when he said, “I’m aware that it brings educational values to me and increases my language competence, so I don’t judge it in the context of boring-interesting. I don’t qualify it in this way.” This opinion confirms one of the Author’s aims in the intervention, which was also to help her students improve their writing skills. Definitely, she did not want her students to be just used as “research fodder” (Silverman 2013, p. 88).

Apart from grammar, some other language-oriented concepts were commented on in the questionnaires and further explored in the interviews. For example, the students stated they need to know discipline-specific terminology to convey specialist issues precisely. They realise, however, that some terms are strictly limited to a very narrow scope of research areas and thus are not suitable for a multi-disciplinary group. Although some students wished to learn academic and discipline-specific vocabulary, the Author is convinced that they will learn it anyway by reviewing literature for their journal articles and dissertations. When it comes to a style, precision in wording is valued by eleven students, as they agreed and strongly agreed (in the questionnaire) they would like to learn how to select precise words. Also, almost all participants agreed or strongly agreed that composing concise utterances in written texts is a necessary competence for researchers. Finally, all students selected *learning how to paraphrase* (Item 11d in the questionnaire), as they need to know how to avoid plagiarism while reviewing literature and discussing other scholars’ research findings in their own texts.

All above considered, assuming that language knowledge is an important component of writing, it was perfectly rational to include language-based instruction in the doctoral language programme. The didactic intervention focused, first and foremost, on the language items embedded in the guidelines of plain English. The participants learned that knowing the guidelines of plain English and using them in their writing will enable them to become more independent writers and editors of their own scientific texts. The intervention excluded other aspects of writing in ERPP, such as instruction on academic text types and the publication process. These concepts are usually discussed with thesis supervisors, who are content specialists and members of the discourse community with extensive experience in writing for English-medium journals. This is what all the participants confirmed in both interviews.

## 6.2. Plain English in a PhD language programme

To explore RQ2 (Do the participants find plain English a legitimate component of an English classroom in the doctoral programme? If so, why?), the Author used the responses from the questionnaires and both interviews, as well as opinions from the MOOC's discussion forum.

Before the intervention, all the students believed the language of science is (and should be) complex and difficult to follow. Also, they thought the members of every discourse community expect advanced sentence structures and low-frequency words in scientific texts. After the intervention, the perception of scientific writing changed. The students realised that plain English does not lower the quality of the scientific text or strip it of scholarly dignity. Also, they expressed very favourable opinions about integrating plain English into doctoral language education.

For example, Participant 1 claimed that both more and less advanced learners can take advantage of the course, and everybody will find something interesting and useful, regardless of their level of language proficiency. Although he stated that plain English is not enough to communicate specialist content, it may be very useful for teachers of Erasmus students. Participant 11 added that it was interesting to know there are some language devices to make writing clearer and easier to understand. Participant 8 said that the more guidelines they learn, the more options they have at their disposal. Everyone can choose the ones that resonate with them. If the selection is limited, some students may not find the guidelines they like to follow and keep using a traditional language, i.e. the ornate one. That is why he would like to learn more about plain English. Participant 7 admitted that currently, supervisors and reviewers are not favouring texts written in plain language, “[g]enerally, supervisors and some reviewers don’t like plain English in texts; it somehow bothers them”. But at the same time, she thinks that plain language is likely to be used in the sciences more often in the future, so she wants to learn it. Similarly, Participant 3 would wish to write plainly, but his discourse community sets a framework for writing style, and supervisors may not favour plain English in texts. Sometimes he is not able to understand the scientific text he reads if the language becomes too convoluted. He said, “I think I’d prefer Shakespeare in the original. Maybe I’d understand more.” Undeniably, writing styles differ across discourse communities, so the preferences of academia as regards correct scientific English cannot be completely ignored. However, the junior researchers appear to be convinced that deploying plainness in English contributes to the higher clarity and language accuracy of scientific texts. Interestingly, Participant 11 stated that plain English should be taught to secondary school students. “I think Polish teenagers would be happy to learn this language”, he said. This opinion validates the Author’s conviction that plain English should be promoted among a wide range of Polish learners of English in different educational contexts. Since it favours clear, concise and precise communication with readers, it goes in line with present-day widespread recommendations for information accessibility.

In closing, it can be stated that not only does language instruction based on the guidelines of plain English meet the learning needs of doctoral students at Bialystok University of Technology, but it also helps them develop a deeper understanding of scientific discourse, and raises their awareness of their own writing skills and learning needs. The students believe scientific writing is more approachable and writeable, and they feel empowered to effectively communicate complex specialist issues. Their satisfaction with the intervention content was high because they found it important for their academic writing advancement. All in all, discussing and practising the concept of plainness in English appears to be a legitimate component of an English classroom in the doctoral language programme at BUT.

## 6.3. Writing gains

Research Question 3 sought to determine how the participants’ writing performance would improve following the intervention. To explore the question, the Author used the pre- and post-tests and responses from Interview 2. As indicated earlier, five participants were excluded from this stage of

the study, so the writing samples of eight, not thirteen students, were analysed (P2, P3, P4, P7, P8, P10, P11 and P13).

The Author decided to include text data to examine writing gains despite the length of the didactic intervention, so the expectations of these gains were realistic and reasonable. The Author anticipated that the language issues focused on in the classroom would be within the participants' developmental ability and, consequently, more easily applied in the post-tests. However, she assumed that the writing benefits would take longer to reveal themselves than five months after the intervention. This assumption was once confirmed by Seliger & Shohamy (2015, p. 101), who claimed that "[i]t should be obvious that there is no hard and fast rule for deciding when enough time has elapsed for ... a treatment to have an effect". Thus, any improvement in the participants' written production would be satisfying and become a firm starting point for more informed writing-oriented classroom time in Semesters 2-7 of the PhD language development. Writing is and will be a vital component of the English classroom throughout the doctoral programme, so her students will stand a good chance of upgrading their writing skills. Given the number of hours in the remaining semesters (80 h), as well as students' motivation (both intrinsic and extrinsic) to develop as scientific writers, subsequent teacher research conducted by the Author might reveal more remarkable changes in the written production. Additionally, as access to the MOOC is unrestricted, the participants can come back to the language areas to which they need to devote more time. Its extended third edition (available at *Navoica* [www.navoica.pl] until 31<sup>st</sup> December 2025) contains external links to various resources that provide more insights into the discussed concepts.

In order to determine how the quality of the written texts improved following the intervention, the pre- and post-tests were assessed by three raters. To avoid possible researcher bias, each text was evaluated by two native English-speaking raters (Rater 1 [the British English teacher] and Rater 2 [the American English teacher]) with over 10 years of experience in teaching English for General Purposes and English for Specific Purposes at BUT and by the Author (Rater 3). The texts were anonymised. The referees used an evaluation rubric based on the guidelines of plain English to ensure consistent assessment. Also, they used another analytic rating rubric to assess style features, such as clarity, effectiveness and readability of the texts. Both rubrics used a 2-point scale that required the subjects to answer *yes* or *no*. Finally, the raters were asked to make use of a holistic scoring method and provide "an overall impressionistic assessment of the student's performance on the test" (Richards 2015, p. 507) as a whole with a 5-point scale (*very poor, poor, average, good, very good*), where 1 stood for *very poor* and 5 for *very good*. The results of the text data evaluation are compiled in Table 3. The remains of this section provide the results of text evaluation based on both rubrics.

Rater	Writing sample	Participant							
		P2	P3	P4	P7	P8	P10	P11	P13
R1:	Pre-test	3*	2	3	4	2	1	2	4
	Post-test	3	5	4	5	3	4	4	5
R2:	Pre-test	4	5	4	4	4	1	4	3
	Post-test	3	5	5	3	2	2	5	3
R3:	Pre-test	4	3	4	4	4	2	3	3
	Post-test	5	4	4	4	3	4	4	4

\*1: very poor, 2: poor, 3: average, 4: good, 5: very good

Table 3. A summary of the overall evaluation of the writing samples

When it comes to examples of language issues that are congruent with the guidelines of plain English and which authors can apply in the scientific discourse, attention must be called to short, everyday words rather than polysyllable Latinates used to discuss non-specialist issues. At least two raters

observed the use of simple vocabulary in the post-tests of seven authors. This was not the case for Participant 2 only. All three raters noticed plain lexis in the texts written by Participants 3, 4, 10 and 13. Also, three raters observed strong verbs rather than phrases recommended in plain language in the post-tests of Participants 3 and 11, and at least two raters observed it in the texts of the remaining authors. Interestingly, the Author disagreed with the other raters who claimed that the texts written after the intervention contained fewer strong verbs than possible. It was the case of Participants 4, 7, 8, 10 and 13. However, Participants 4 and 7 used the strong verbs in their pre-tests (as assessed by the Author), whereas Participants 8 and 10 used the strong verbs in neither text. Word saving (which conciseness encompasses) was observed in the post-tests of Participants 3 and 7. In these two cases, all the raters assessed the texts congruently. The opinions of the raters about other participants varied. For example, Rater 1 noticed that the text's conciseness improved in the post-tests written by Participants 3, 11 and 10. Raters 2 and 3 noticed no change in the texts of Participant 3; Rater 2 observed the deterioration in conciseness in the post-test of Participant 11.

Another concept that plain English favours is the active voice. Only three authors made the active voice a prevalent or frequent structure in their post-tests, according to at least two raters. This was the case for Participants 4, 10 and 11. The remaining students used the passive voice multiple times in the introductions (as assessed by at least two raters). This may be due to the common preconception that scientific writing favours passive constructions and passivisation. As regards clarity, the raters agreed that both texts of the five participants (P2, P3, P4, P8, P11 and P13) were clear (i.e. easily and quickly understood). Rater 2 assessed the post-tests written by Participants 7 and 8 as less clear than their pre-tests. What makes the text easy to read is its fluidity, i.e. smooth transition from sentence to sentence. According to Raters 1 and 3, Participants 3 and 13 improved their fluidity in the post-tests. At least two raters perceived the post-tests composed by Participants 2, 4, 7, 8, 10 and 11 as fluid.

As regards the overall impressionistic evaluation of the writing samples, according to Rater 1, seven students improved their writing performance, and one student wrote both texts that were assessed the same (P2). The most considerable change has been observed in the writing performance of Participants 3 and 10. According to Rater 2, three students improved the general quality of their texts (P4, P10 and P11). Two students wrote the texts that were assessed the same (P3 and P13), and three students' post-tests were written worse in comparison to the pre-tests (P2, P7 and P8). For Rater 3, six students improved their writing performance. The only student whose post-test was rated lower than the pre-test was Participant 8. All in all, six students improved the quality of their writing after the intervention, according to at least two raters.

The reasons for the discrepancies in the ratings are the subjective opinion of each rater based on their own teaching experience over several years and a qualitative rather than quantitative approach to the assessment. Although the evaluation rubrics were analytic rather than holistic and aimed at assessing a list of specific aspects of student writing, they appeared to be too general for a more precise judgement of the texts. The assessment of many features varied significantly between the raters, even if some aspects were seemingly easy to notice and rate. For example, consistency in terminology, sentence length and accurate punctuation did not receive unanimous ratings. The evaluation rubric that was to assess the clarity, effectiveness and readability of the students' texts contained some points of disagreement too. However, some aspects of writing were easily observed and assessed congruently (e.g. precision in conveying meanings, the texts' conciseness and grammatical accuracy). Considering the above, it can be concluded that the writing gains were not substantial (but still observable in most cases) as opposed to what had been assumed, given the language proficiency level of the doctoral students and the content matter of the intervention. The length and intensity of the intervention might have played their roles too. Even though all the participants admitted that their knowledge had broadened, and their awareness and confidence as novice writers in the sciences had increased, they need extensive practice on the concepts discussed.

Undoubtedly, junior researchers need to engage in intentional and thoughtful practice in order to become more competent scientific writers, for the tools they are equipped with in the writing classroom to become expert writers are not enough to make them expert writers.

To sum up, students learn English through formal instruction and in informal settings, so assuming that all the participants of the present study learned and demonstrated in the delayed post-test should be credited to the intervention would be far-fetched. While the gains in writing were lower than originally (and idealistically) anticipated by the Author, the intervention may still have led to increased engagement, motivation and control over scientific English for PhD students. This is what Pawlak (2006, p. 365) once claimed when he said, “although the impact of intervention may at times be insignificant when measured in terms of numbers, it may translate into greater involvement and motivation on the part of the students”. Both greater involvement and motivation will eventually help the novice writers work intensively to increase the clarity, effectiveness and readability of their written production.

## 7. Conclusion

The qualitative analysis of the multiple-case study answered the research questions and justified the inclusion of plain English in the PhD language programme at Bialystok University of Technology, regardless of some limitations of the study (e.g. the lack of inter-rater reliability, a fully virtual learning environment and no explicit strategic training). Having presented and commented on relevant data, the Author drew the following conclusions:

- Although the actual writing gains of the study participants may not be impressive, other positive behaviours and attitudes towards writing in the sciences were observed.
- Even though the findings of a qualitative study rely to a large extent on highly subjective and unmeasurable evidence, and cannot be generalised, the results of the present qualitative study offer some useful insights into language instruction aimed at PhD students in Polish tertiary-level institutions.

More specifically, the Author argues that plain English should be integrated into doctoral language programmes because it brings the following benefits:

- It is perceived by PhD students as an effective tool for information transfer in writing for research publication purposes in engineering disciplines.
- It meets the learning needs of PhD students at a technical university.
- It encourages more independent behaviours of junior researchers as writers and editors of their own scientific texts.
- It builds up the confidence of junior researchers as novices to scientific writing in English.
- It raises research students’ awareness of what constitutes correct scientific English.
- It favours attention to language knowledge that is essential to novice writers in the sciences.
- It brings long-term gains to the writing of doctoral students of a Polish tertiary-level technical institution (in some cases).
- It results in more effective, clearer and more readable written texts produced by doctoral students (in some cases).

The results obtained from the study contribute to the body of knowledge on writing. They can form the basis for future modifications of the language programme for the Doctoral School at BUT so that it more adequately addresses the (changing) needs of research students and novices to writing science. The study results can also serve as a point of reference for practitioners in other contexts who want to explore the rationale for teaching plain English in different educational and non-educational contexts. These practitioners may be:

- ERPP course designers;
- teachers of English who run English courses for PhD students and faculty members;
- tutors who specifically give writing-focused tutorials;
- experts from writing centres or language support centres in higher education institutions;
- supervisors of diploma theses and PhD dissertations written in English;
- NNES editors and peer reviewers of English-medium scientific journals; and
- (novice) translators and proofreaders of scientific texts.

Since there is no research that addresses plain English as the content of ERPP in Polish educational settings, the Author believes that the study would attract a genuine interest from other researchers who might explore this area in greater detail or from fellow teachers who might invite plain English to their classrooms.

It is worth noting at this point that the increasing use of generative artificial intelligence tools in research and writing (e.g. large language models such as ChatGPT, Perplexity and Bard) is likely to impact the teaching of writing in modern classrooms and the attitudes of research students towards scientific writing for publication purposes. While these tools can improve “readability and language”, they can also generate “authoritative-sounding output that may be incorrect, incomplete or biased” (Elsevier n.d.). Additionally, they can misinterpret unclear commands (or prompts) and thus produce irrelevant or out-of-date information (Russell Group 2023). Therefore, the texts students compose may require careful revision and editing. Whether humans can control and monitor these final stages of the writing process with the support of plain English may be another area of scientific study.

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