THE ROLE OF ENGLISH PROFICIENCY AND DIGITAL LITERACY IN ENHANCING SCIENTIFIC COMMUNICATION

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Abstract: The study investigates the significance of English proficiency and digital literacy in scientific communication. English is the most important language of research; however, many researchers find it challenging to convey their thoughts clearly. In particular, researchers who are not native to English, face difficulties while writing a research paper in English. They frequently rely on translation services which may not always understand the specific science involved. This research looks at how using digital tools in academic writing can help boost collaboration, make learning more engaging, and provide better access to helpful resources, leading to English language development and improvement of research communication.

Keywords: Scientific Communication, English Proficiency, Digital Literacy, Academic Writing, Digital Tools, Multimodal Learning, Research Skills, Collaboration in Science

Introduction

In the era of scientific advancements, it is hard to imagine science without English since it serves as a medium of global communication in academia. Thus, high proficiency in English determines the success of effective scientific communication.

However, many might, mistakenly, think that good command of the language is all about mastering its grammatical rules and being able to make grammatically correct sentences. Apart from grammar, the researcher has to ensure that they have enough expertise in all structural and rhythmical nuances of English. There is a category of researchers who might prefer not to write their research papers in English but in their mother tongue, for instance. Due to the fact that their English is not developed enough to effortlessly communicate their thoughts in English, they tend to approach services of a translator, which may not be as reliable as expected. Although translators could be skillful experts of their jobs, they might not have knowledge of the sphere they are about to translate. This way, they might make some incorrections in translation which can adjust the semantic content of the article. In such circumstances, there are usually two approved solutions:

a) the researcher who is aiming to have their work translated should discuss all the details of the research work with the translator so that the translator can understand all the nuances they should take into consideration while translating the work;

b) the scientist puts an effort to master English which is inevitably demanded and important in science and write their research paper in English, providing authentic communication [1, 10].

Apart from having a good command of English, the modern science requires the mastery of digital literacy skills too, which offer a range of advantages. These advantages may not be apparent to everyone equally, though. Seniors, as an example, associate digital tools such as desktops and laptops with typing and printing, or something that can replace a typing machine. The youth, on the other hand, can see many different opportunities when using computers. The whole virtual world which offers many interesting options such as video games and internet access, for example, is how they perceive computers.

In educational setting, young people who are studying to get a degree or so, are not encouraged by old methods of teaching these days. In other words, young people,

today, are not supporting delivery of information in mono-representative mode which is in text format only. With the advancement of technologies, there is a demand in multimodal delivery of knowledge through expressing it in visual and video formats [2, 93]. Undoubtedly, representing information in multimodal format make the delivered message more engaging and easier to grasp, along with keener focus on the subject for bigger duration. Since such information is well comprehended, it becomes effortless to memorize. Technologies, now, enable us to apply various tools to our convenience and consume knowledge in an engaging way so we could immediately use it in a real-life situation.

Methods and Materials

The study explores the importance of understanding the role of English in science and the role of digital technologies in improving scientific communication in the academic arena. The research aims to gain a deep understanding of benefits digital tools can offer both for mastering English as a language of science and enhancing scientific communication skills. The research uses an analytical approach to evaluate advantages that digital tools can offer to better off scientific activity in academia. The literature written by prominent language experts, scientists and language educators was initially selected and went through in-depth analysis. The findings from this study will provide information about the advantages of using digital technologies in written scientific communication. The study, also, aims to encourage language teachers in higher education to incorporate digital tools into academic writing classrooms and students to learn digital literacy skills for scientific writing development.

Results

During the evaluation of materials, we found out that incorporating digital technologies into the classroom of academic writing can bring about a lot of positive effects. This, in turn, stimulates growth of writing development among students. For instance, some research suggests that digitalization of writing process can encourage students to collaborate and work in pairs or groups; exchange feedback in peer-

review or teacher-student interaction during evaluation of a written work; revise the material effortlessly and edit imperfections on the way. [3, 123; 4, 45]. A great example of digital tool that allow real-time collaboration, exchange of feedback between instructors and groupmates are cloud-based writing-oriented platforms.

Furthermore, using digital technologies in teaching writing skills makes the whole process more interesting and ensures better expression of thoughts. Given that, multimodality of technologies, that is images, videos and other interactive features, makes it possible for students to use them in order to gain motivation, enhance focus, speed up memorizing and present their message/work more effectively [5, 67; 6, 92]. Also, incorporating digital tools into academic writing process allows students to have better access to online writing resources such as courses, webinars, podcasts or videos that give useful advice on how to improve writing skills. Flexibility that the tools provide is a sensational benefit for learners, too. For example, students can have access to the materials and lessons at a distance which is convenient for some students. Some might prefer studying at different hours of the day, due to some reasons such as work, family issues, or some personal needs. In such cases, studying materials, completing course-related tasks at a convenient time and place makes learning more motivating, less-energy-consuming and more productive [7, 48; 8, 25].

Discussion

It is irrefutable that today the quality of education has improved, owing much to digital technologies. Across all generations using a mobile phone, reading websites or having a social media account for active use is a very common phenomenon. In fact, millennials, statistically, turned out to be the most engaged social media users, as cited by some researchers [9; 10]. A board of other scientist agree on how addicted human beings became to their gadgets. They suggest, there are many reasons for such a phenomenon:

-playing online and video games;

-interacting with others through different social networks;

-studying, using specific educational tools;

-creating and sharing content with friends, schoolmates or family members;

-search for information on various purposes.

Although some might point at overusing digital technologies in human life, it is inevitable to stop or reverse the process of digitalization. It has already demonstrated irreplaceable value that it can grant, provided that it is implemented in a right way [11, 49]. Likewise, fast and productive scientific writing development is possible at all stages of the research if it is well-instructed. During the process of shaping the manuscript, some research suggests guidance on meeting the demands of a well-written research work, appropriate for submission to a prestigious journal [12, 63-64]. On top of adhering to those recommendations, they can be highly supported by digital tools for better productivity and effectiveness of scientific activity:

- Read carefully all the requirements of the target journal. This step can be much easier if the researcher pays closer attention to research guidelines and submission guidelines on the website of the journal and takes some notes in the doc. format, using Microsoft Word or Google doc, which will serve as a reminder throughout the whole process of shaping the work.

- Keep the language simple and clear. This can be achieved by analyzing highly prestigious journals and the articles they issue. Access to those publications is available in Google Scholar, Academia.edu and Research Gate.

- Avoid ambiguity in expression. Being precise is paramount in scientific writing since the reader should not read and guess the meaning of what that means. Everything in the article should be precise and clear. Precision is usually improved through practicing writing according to scientific conventions. One can learn scientific writing conventions in on writing-focused websites, you tube channels or online courses available on the internet.

- Flawless grammar is a must. Grammar is what helps the reader to understand the message clearly. Ability to use the right structure at the right context is what makes writing precise, concise and comprehensible. To master grammar, Grammarly could be a good option.

- Avoid repetition. The journal usually allows certain number of words in an article. Thus, the word limit should encourage the writer to convey their message as wisely as possible, depicting all the important details and avoiding repetition of structures, phrases or words many times, which will not add up to the quality of the manuscript. In order not to use the same words and expressions multiple times, online thesaurus can aid in finding alternative lexical units to use. To avoid structuring sentences the same way all the time, paraphraser applications could be a great help.

Conclusion

To conclude, being proficient at English and implementing digital tools are crucial for effective communication in science today. As technology advances, incorporating these tools into writing can lead to better collaboration and improvement of scientific communication skills. This study highlights the need for a change in teaching methods to include digital tools actively, helping students improve their written communication skills. By applying different formats to share knowledge, we can better prepare future researchers to succeed in their work and contribute to scientific discussions.

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