

THE ROLE OF RESEARCH METHODOLOGY IN ENHANCING SCIENTIFIC WRITING SKILLS AMONG EFL UNIVERSITY STUDENTS

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Annotation: *This article explores the significance of research methodology in improving scientific writing skills among English as a Foreign Language (EFL) university students. As scientific research leads to academic success, students should be trained to do research with correct and engaging approaches. The study also examines the main types of research methodology. However, many EFL students struggle with critical thinking, research organization, and language proficiency. This writing includes the key challenges many EFL students face, such as language barriers, challenges of understanding research concepts, and insufficient knowledge of academic writing conventions. It suggests practical solutions that can be used in real-life situations, like specialized vocabulary and phrase instruction, improving understanding of research concepts, and strengthening academic writing conventions.*

Keywords: *EFL university students, research methodology, academic writing skills, challenges, and practical solutions*

Annotatsiya: *Ushbu maqola ingliz tilini chet tili sifatida universitet talabalari orasida ilmiy izlanish ko'nikmalarini oshirishda tadqiqot metodologiyasining ahamiyatini o'rganadi. Ilmiy izlanishlar akademik muvaffaqiyatga olib kelganligi sababli, talabalarni to'g'ri va qiziqarli yondashuvlar bilan tadqiqot qilishga o'rgatish kerak. Bu maqolada tadqiqot metodologiyasining asosiy turlari ko'rib chiqiladi. Biroq, ko'pgina EFL talabalari tanqidiy fikrlash, tadqiqotlarni tashkil etish va tilni bilish bilan qiyinchiliklarga uchraydi. Ushbu izlanish ko'plab EFL talabalari duch keladigan asosiy muammolarni o'z ichiga oladi, masalan, til muammolari, tadqiqot tushunchalarini tushunishdagi qiyinchiliklar va akademik yozish qoidalarini yetarli darajada bilishni o'z ichiga oladi. U ixtisoslashtirilgan lug'at va iboralarni o'rgatish, tadqiqot tushunchalarini yaxshilash va akademik yozish ixtirolarini kuchaytirish kabi haqiqiy hayotiy vaziyatlarda qo'llanilishi mumkin bo'lgan amaliy yechimlar beradi.*

Kalit so'zlar: *EFL universiteti talabalari, tadqiqot metodologiyasi, akademik yozish qobiliyatlari, muammolar va amaliy yechimlar*

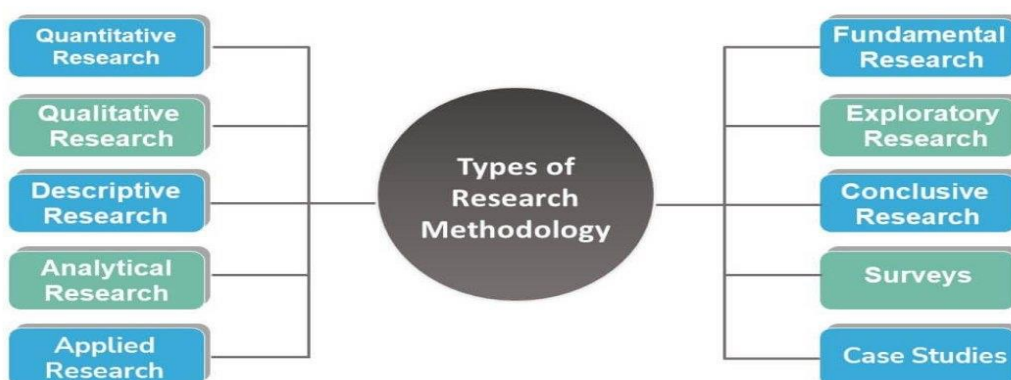
Аннотация: *В данной статье рассматривается важность методологии*

исследований для улучшения исследовательских навыков у студентов, изучающих английский язык как иностранный. Поскольку исследования ведут к академическому успеху, необходимо обучать студентов проведению исследований с использованием соответствующих и интересных подходов. В статье рассматриваются основные типы методологии исследований. Однако многие студенты, изучающие английский как иностранный, испытывают трудности с критическим мышлением, организацией исследований и языковой компетентностью. В данном исследовании рассматриваются основные проблемы, с которыми сталкиваются многие студенты, такие как языковые трудности, сложности в понимании исследовательских концепций и недостаточное знание правил академического письма. Предлагаются практические решения, которые могут быть применены в реальных ситуациях, такие как обучение специализированной лексике и фразам, улучшение понимания исследовательских концепций и укрепление навыков академического письма.

Ключевые слова: Студенты университетов, изучающие английский как иностранный язык, методология исследований, навыки академического письма, проблемы и практические решения.

Research methodology is a structured and organized plan a researcher use to conduct a study and how to collect reliable sources, and it is a vital foundation of academic research. Specific strategies, techniques, and tools are essential to analyze data and write strong and effective scientific works. The research methodology plays a crucial role in ensuring that the findings are reliable, structured, and useful for readers. Although the research methodology gives the same general meaning, it may differ based on the topic, purpose, and context of the writing. There are different types of research methodology, including quantitative, qualitative, mixed methods, descriptive, and other research methodologies.

Types of Research Methodology



Now, we will discuss three main research methodologies

•**Quantitative Research(numerical):** The quantitative methodology is essential for analyzing and conducting numerical studies to explain specific events. It is conducted through surveys, experimental tests, questionnaires, and statistical analysis. This type of methodology helps readers understand scientific studies, testing, and large-scale research.

•**Qualitative Research:** This research type focuses on explaining the understanding of reasons, the meaning of a phenomenon, and how they occur. Qualitative research is employed in interviews, ethnographic studies, and surveys to gain insights through the experiences of others. While quantitative research explores what is happening, qualitative findings explain why and how it is occurring.

•**Mixed methods:** Mixed methods are not only the combination of quantitative and qualitative research, but they also provide a more comprehensive understanding of complex research. This research methodology is particularly essential in educational research, where both numerical outcomes and personal experiences play significant roles.

Scientific writing is a formal and academic way of sharing facts and data. In scientific writing, writers avoid complex language and employ a structured approach. They also remove unnecessary words and write accurately. While research methodology is the key framework for conducting a study, scientific writing is linked to these methods, data, and conclusions.

Students with methodology knowledge also benefit more than those who do not have this knowledge. Understanding the basics of methodology helps students analyze study limitations and discuss them properly which is an important skill in the academic section. Methodology also fosters students' critical thinking skills and academic style of writing. Because Scientific researchers address conventional issues, examine and analyze data, rather than just reporting it. It also enhances a professional and objective tone, avoiding unnecessary and unclear complexity. Furthermore, Methodology knowledge provides students to enhance their writing in IMRaD format, which stands for Introduction, Methods, Results, and Discussion. This way makes scientific writings clearer and easier to conduct. In the Introduction section, the aim of the research and its objectives are demonstrated clearly. It should show the current problems and possible solutions of the given study in a shorter version. Methods explain the main parts of the research with details in a structured way. In the results, readers are given key findings of the problems that are properly analyzed. The discussion part illustrates final results, suggests proper solutions, and avoids overstating findings.

Challenges for EFL students

When learning research methodology, EFL students encounter significant challenges due to language barriers and confusion. It leads to difficulty in understanding research methodology, which affects the ability to conduct effective academic writing.

1. Language barriers: As scientific writings require complex academic vocabulary and specific terminology, EFL students struggle with the language demands. Terms such as paradigm, triangulation, validity, and reliability make it hard to understand in a second language. As a result, students may find it hard to write accurately. Even students have a basic understanding of research methodology,

2. Challenge of understanding research concepts: Another significant challenge EFL students face when writing an academic paper lies in the way they are taught. These students are often taught theoretically rather than practically, working with textbooks or being exposed to lectures. This way does not give learners the opportunity to apply their knowledge to practical studies, even though they can describe research methods theoretically. For instance, a student knows what "qualitative research" is, yet he or she struggles with design interview questions or analyzing data effectively. Consequently, this limits students' development in conducting research methodology accurately, making them bored with academic work.

3. Insufficient knowledge of academic writing conventions: In addition to the difficulties mentioned above, many EFL students find it confusing to understand academic writing conventions. The conventions should be formal and structured to ensure credibility, clarity, and objectivity. Academic writers should avoid using slang or contractions to maintain academic integrity. Instead of using "I" or "We", they should use third-person or general words such as "People" or "It", which is the key part of academic papers.

These challenges can be fixed with practical language-focused solutions, which address the challenges that EFL students face during scientific writing, specifically when integrated with research methodology. These draw from reliable sources and mainly focus on targeted techniques.

1. Explicit vocabulary and phrase instruction: Teachers should directly introduce specialized academic terms commonly used in research writing, such as "empirical evidence," "hypothesis testing," and "operationalization of variables." This can be supported through glossaries, vocabulary lists, contextual exercises, flashcards, and classroom word walls. Students should also learn typical word combinations frequently found in scientific papers, for example, "carry out research" or "interpret data," to improve their academic language use. Students should also be encouraged to prefer AI tools that help with grammar, paraphrasing, and giving feedback.

2. Improving understanding of research concepts: While most students struggle with choosing terms like qualitative and quantitative, linking language directly to concepts helps them in this way. Furthermore, teachers should use peer review workshops where students discuss and revise explanations of research concepts. This improves deeper understanding through explanation and feedback. Students can also gain a practical understanding by

preparing small-scale research proposals or projects because this requires them to apply methodological concepts.

3.Strengthening knowledge of academic writing conventions. Students often struggle with academic organization, coherence, and IMRaD format. To reduce this, teachers should explain the structure and linguistic characteristics of scientific writing. This includes introducing features such as expressions like "may suggest" or "could indicate," as well as formal and impersonal writing styles. Students should also be trained to monitor and revise their own writing using editing checklists and self-assessment strategies. Extensive reading and increased exposure to academic texts can help learners internalize common writing patterns and conventions, especially when combined with writing-intensive coursework.

In conclusion, research methodology plays a significant role in enhancing EFL students' academic writing skills. A clear understanding of research methods helps students to organize ideas logically, analyze information critically, and present findings in a structured academic way. Although many EFL students face challenges when conducting a scientific research, there are many practical strategies to reduce them. The integration of research methodology into higher education helps students gain confidence and strengthens their ability to participate in scientific clubs. Therefore, developing academic writing skills should be considered as a key part of higher education, and students should be trained properly to achieve academic success.

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