

INVESTIGATING THE OBSTACLES IN CRAFTING RESEARCH PROBLEM STATEMENTS: A CASE ANALYSIS OF JORDANIAN UNDERGRADUATE EFL STUDENTS

Prof. Mahmoud Kareem Al-Hassan¹, Dr. Nadia Amin Al-Farsi², and Dr. Fatima Samir Al-Masri³

Article Info

Keywords: EFL students, problem statement, research skills, language skills, Top of Form

DOI

10.5281/zenodo.10148651

Abstract

This research delves into the investigation of challenges confronted by Jordanian undergraduate EFL students in crafting the problem statement section of their research papers. The identified difficulties are categorized into two primary domains: academic skills challenges and language skills challenges. The study recognizes a deficiency in essential skills among both undergraduate and postgraduate students required for the effective execution of a well-structured research article, motivating the initiation of this research. Notably, there is a noticeable gap in existing literature regarding the examination of challenges specifically faced by Jordanian EFL students in the overall process of conducting a research paper, with a particular focus on the problem statement section. To gather pertinent data, a group of twenty Jordanian EFL students underwent a targeted research writing skills program, comprehensively covering all sections of a research article, with special emphasis on the intricacies of the research problem section—the primary focal point of this study. Participants were allotted one month to complete their research papers before submission. Findings indicate a deficiency in academic skills necessary for constructing a well-articulated problem statement section. Specifically, the majority of participants struggled to provide an adequate overview of their topics and identify research gaps within existing literature. Additionally, the study reveals the prevalence of serious grammatical errors in the formulation of the research problem section. This study underscores the challenging nature of producing a scholarly research article, emphasizing the imperative need for further exploration by researchers and educators to identify and address the challenges faced by learners.

Introduction:

¹ Amman Arab University, Amman, Jordan

Research stands as a cornerstone in the trajectory of human progress, with all the strides made over time rooted in the bedrock of research—whether theoretical or empirical. The intricate process of crafting a scholarly research article presents an enduring challenge for both postgraduate students and their mentors, demanding the seamless orchestration of multiple concurrent processes. These encompass the preparation of research instruments, identification of suitable samples, data collection, analysis, and, fundamentally, the act of writing itself (Cuevas et al., 2016; Klein & Boscolo, 2016). Amidst the labyrinth of tasks, researchers grapple with referring to pertinent resources, pinpointing a research problem, discerning a research gap within the literature, analyzing results, and elucidating and justifying research outcomes.

The challenges inherent in conducting a scholarly research paper are multifaceted, as delineated by Phothongsunan (2016), who classifies them into three primary types: discursive difficulties, non-discursive difficulties, and other difficulties. Discursive hurdles pertain to language-related issues, encompassing poor language command, vocabulary misuse, grammatical violations, and citation lapses. Language challenges in research writing manifest through deficient vocabulary, mother tongue interference, and struggles in constructing coherent paragraphs and well-organized introductions, bodies, and conclusions (Okamura, 2006; Fahy, 2008). Non-discursive challenges encapsulate elusive factors like plagiarism, motivation, and emotional and psychological influences, while Alsied and Ibrahim (2017) highlight non-discursive challenges for Libyan researchers, including resource constraints, lack of training, and inadequate support. Research writing obstacles extend to publication and the peer-review process, yet despite these challenges, conducting research remains an indispensable and privileged endeavor, fostering the exchange of ideas and sharing foundational knowledge.

The labyrinthine process of writing a research paper demands systematic adherence to the steps of research writing. The Hourglass Model, as expounded by Swales (1993), conceptualizes a research article with distinct components such as the title, abstract, introduction, body, discussion, and references. The introduction, comprising territory establishment, niche identification, and niche occupation, serves as the gateway to the specific research problem to be addressed. The body delineates the methods used to answer research questions and address the problem stated in the introduction, focusing on aspects like population, sample, and research instruments. The discussion section encapsulates the background, results recap, and contextualizes findings within existing literature.

In the realm of EFL writing, defining the research problem emerges as a formidable challenge. Ifeoma (2019) contends that both undergraduate and postgraduate students encounter difficulty in pinpointing the research problem, a critical aspect encapsulating the subject to be explored or tested. A well-defined research problem is the linchpin of the research endeavor, guiding the researcher toward achieving study objectives. It is imperative for the researcher to draw on personal experiences and choose topics of genuine interest, as disinterest can impede progress. The challenge intensifies with broad problems, necessitating the narrowing down of emphasis to formulate clear research questions.

Within this intricate landscape, this study focuses on the specific quandaries faced by Jordanian undergraduate EFL students in crafting the research problem statement—a pivotal component of any research article. While numerous studies address challenges in scholarly writing, a notable gap exists in scrutinizing the problem statement section, warranting closer investigation. Thus, this study aims to explore and unravel the obstacles confronted by English as a Foreign Language (EFL) learners, specifically Jordanian undergraduates, in the intricate process of formulating the "research problem" section. This quest delves into the nuanced challenges within academic and language skills that hinder students in this specific section, seeking answers to questions vital for academic enhancement:

1. Do Jordanian EFL students grapple with challenges linked to a deficiency in academic skills when composing the research problem section?
2. Do Jordanian EFL students face hurdles associated with a lack of language skills when crafting the research problem section?

LITERATURE REVIEW

A considerable body of research has investigated the challenges of encountering learners as well as researchers in writing research. Those studies come up with a general consensus that there are lots of persistent difficulties pertinent to research writing, in the sense that some of the difficulties related to the researcher himself; lack of knowledge on research writing, while other difficulties related to lack of resources that help conduct research (Al-Khairi, 2013).

As it has been mentioned previously, previous literature elucidated the sources of difficulties in conducting a research paper, grouped them into two types; first, discursive difficulties which are pertinent to having poor skills of language such as misuse of vocabulary, violating rules of grammar, bad referencing and citation. Second, non-discursive difficulties, which are related to plagiarism, motivation, emotional and psychological factors. Below are some of the studies that discussed the difficulties encountered by researchers (Negari, 2011).

Cheung (2013) examines the difficulties encountering first-year undergraduates when writing the discussion of the results section. The study also looks into the extent to which the students perceive the difficulties in writing research. The data for the purpose of the study is collected from a 12-week compulsory course entitled ALS 101 Academic Discourse Skills, offered in the first year of the undergraduate program. The researcher interviews eighteen undergraduate students in order to gain insight into the difficulties they experience in writing the discussion section. The results of the study indicate that the English language, including grammar and vocabulary, constitutes a challenge for the participants. The study also found that the students lack the required knowledge for writing the academic discussion section, where some unnecessary details were mentioned, and important findings ignored.

Sharing the same idea of examining lecturers' challenges when writing a research article, Phothongsunan (2016) interviews eighteen academics from two universities in Thailand. The interviews are made primarily to gain information on the issues that face the participants when writing academic papers for publication and how they tackle them. The findings of the study reveal that the participants in the study confront hindrances related to English language use comprising grammar, choice of vocabulary, organization of sentences and tone. The study also reveals that the participants face difficulties related to time constraints and lack of funding.

Komba (2016) explores the obstacles that postgraduate Tanzanian students struggle with when writing theses and dissertations. In addition, the study seeks to find a remedial solution in order to overcome those challenges. For the purpose of the study, the researcher reviews 39 theses and 64 dissertations from three universities in Tanzania. The findings of the study exhibit that half of the postgraduate students, whose theses and dissertations are reviewed, face various difficulties in writing research, including unsuitable presentation of chapters and having poor academic writing skills. The researcher concludes that research method courses taught at universities have to be revised with respect to their content. In line with Claudius, study, Alsied and Ibrahim (2017) examine the problems that Libyan EFL students face in research writing. In addition, the study investigates the attitudes of instructors regarding their students' skills in research. The sample of the study consists of 42 students and 4 instructors at Sebha University. The results of the study display that the participants face difficulties in writing research exhibited in the field of interest, choice of subject, developing a research problem, review of related literature, and reporting the results of the study. The results also reveal that the instructors look at the students'

work negatively due to many reasons, including inadequate motivation and library resources, lack of background information and the need to offer more courses related to research writing.

In a newly issued study, Qasem and Zayid (2019) attempt at understanding the problems that encounter students in writing research projects in English. A total of 60 undergraduate students take part in the study at the University of Bisha. With the aim of collecting the needed data, a questionnaire is utilized, and interviews with teachers and students are done. The results of the study indicate that approximately 70% of the participants face English language-related issues. The study uncovers difficulties relevant to determining the research topic, insufficient background information about the topic, poor methodology and lack of references.

The aforementioned studies have clearly indicated various challenges that researchers encounter when carrying out a research study. Those studies reveal that the difficulties are either internal related to the researcher himself, such as lack of academic skills and having a poor command of the English language or external factors resulting from the unavailability of resources needed for research such as inadequacy of funding and resource books and bad internet connection. The vast majority of studies covering the internal challenges of research writing place emphases on obstacles in writing all sections of the research articles, while an important part, which is the problem statement section, is either totally neglected or swiftly covered. The research problem is the chief topic that a researcher seeks to investigate or the key issue a researcher is concerned to tackle. Thus, this study is implemented to bridge a gap in the literature by highlighting the problem statement section in order to understand the internal difficulties related to academic skills and language use.

METHODOLOGY

This section presents the methods used in collecting the required data to provide satisfactory answers to the research questions. The section includes two sub-sections, namely the sample of the study and instruments of the study.

Design of the Study

Research design is known as “how the researchers plan their studies so that they can obtain answers to the stated research questions using systematic approaches” (Rezai, 2016). The present study adopts a qualitative method for the purpose of answering the research questions, which is best exhibited by analyzing some research papers written by the participants in the study, with special emphasis on the problem statement section.

Sample of the Study

The sample of the study is comprised of twenty Jordanian EFL students pursuing their bachelor degree in English language and translation. The participants were third and fourth-year students enrolled in a research writing course in the summer semester in the academic year 2019/2020. All the participants are non-native speakers of English, and Arabic is their native language so that they are expected to have similar exposure to English, and the variation between them is not sharp.

Instruments of the Study

In collecting the data required for the present study, the participants are instructed to write a research paper about any topic related to language teaching, language learning or translation. Firstly, the participants subjected to a teaching program extended for two months, in that they were introduced to all details relevant to research writing. Strictly speaking, the students are presented with the steps of writing all research sections including title, abstract, introduction, problem statement, research questions, literature review, data collection, data analysis, results and conclusions. The process of writing each section was explained in details in order to get insight into writing a scholarly paper. Secondly, having introduced a particular section of research, the students were instructed to write a sample section within a specified period of time in order to verify the progress they have made. More

specifically, when introducing, for instance, the research questions section, all details about this section are presented, such as the characteristics of a good research question and a bad research questions with illustrative examples and then the students were asked to apply what they have learned. Thirdly, after the end of the teaching program, the students were asked to choose a topic related to their major and start writing a research paper. They were given a period of no less than a month to write the paper. The vast majority of the students submitted their research papers on time, and then the papers were read and analyzed carefully by the researcher in order to explore their progress in research writing, especially the research problem section.

RESULTS

This section seeks to reveal the results of the study with reference to the two research questions that the study raised. To begin with, the section reveals the results pertinent to research question one, then displays the results of research question two. The question is formulated as:

Q1- Do Jordanian EFL students confront difficulties related to the lack of academic skills in the writing research problem section?

To answer this research question, the responses of students regarding writing a problem statement section is divided into three categories, according to the three elements of the research problem.

Table 1 *Academic Skills Pertinent to the Research Problem Section*

	Overview of the ProblemJustification of the Problem Research Gap		
Percentage of response	35%	60%	5%
Frequency of response	7	12	1

As it has been mentioned previously that the section of the research problem is comprised of three main components so that when a researcher misses one of those components, the research problem will not be identified, determined and addressed well, which results in making the problem too broad, failure to justify the importance of the problem and inability to locate the study within the current literature. Strictly speaking, the lack of academic skills needed to write the research problem leads to serious deficiencies in the research study as a whole and in turn, keeps the research questions partially or totally unanswered. Table 1 above includes the responses of the participants with respect to providing the three main components of a research problem when writing the research problem section, namely, Overview of the problem, Justification of the problem and Research gap. The results indicate that 35% of the participants overviewed and provided background information of the topic to be investigated, with a frequency of 7 participants out of 20. Table 1 also shows that 60% of the participants in the study provided satisfactory justifications for the topic under investigation, with a frequency of 12 out of 20. In addition, Table 1 displays that only 5% of the participants attempted to locate their study within the current studies or to mention the research gap that their study is supposed to bridge. To be more specific, only 1 participant out of 20 tried to fit his study within the present literature. To gain further insight into the results of question one, it is important to consider pie Figure 1 below.

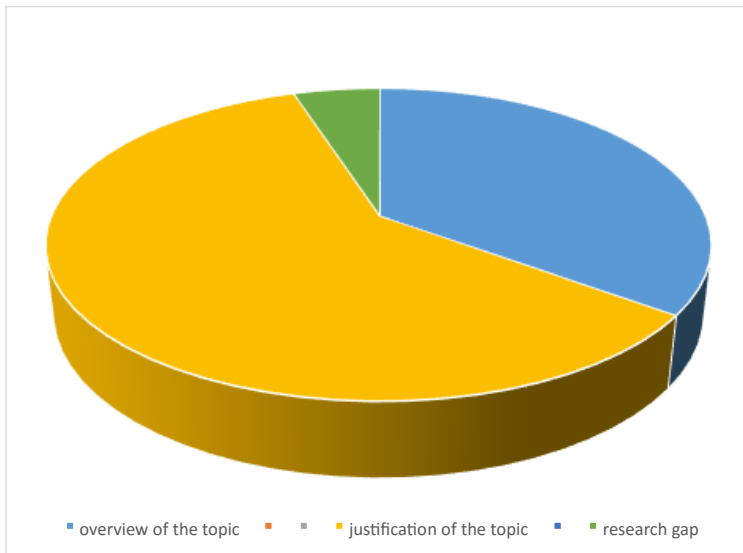


Figure 1 *The Proportion of Academic Skills Pertinent to the Research Problem Section*

It is obvious from Figure 1 that the biggest proportion of the chart is devoted to justification of the topic component, followed by an overview of the topic component, while the smallest proportion of the chart is for the research gap component. Those results indicate that the participants confront serious problems in identifying the research gap when writing the research problem section. The difficulties seem still existing when writing an overview of the topic, while little obstacles encountered by the participants in writing justification of the problem section. To sum up, it is evident that Jordanian EFL students lack the required knowledge of identifying the research problem in writing a research paper. The results of the research question two are depicted in Table 2 below. Question two is formulated as follows; Q2: Do Jordanian EFL students confront difficulties related to the lack of language skills in the writing research problem section?

To answer this research question, the errors related to language use committed by the participants are divided into two categories, namely grammatical errors and semantic errors. Grammatical errors include error relevant to the use of tense, order of words, agreement and determiners system. Semantic errors comprise errors pertinent to the choice and meaning of words and bigger units like phrases and clauses. Table 2 below depicts the results of the research question two.

Table 2 *Grammatical and Semantic Errors Pertinent to the Research Problem Section*

	Percentage of Errors	Frequency of Errors
Grammatical errors	94%	74
Semantic errors	6%	6

A close look at Table 2 above indicates that grammatical errors account for 94% of the total number of errors committed by the participants in the writing research problem section. The results also show that the frequency of grammatical errors is 74 errors. It is also apparent from Table 2 that semantic errors account only for 6% of total errors with a frequency of 6 errors. For an in-depth analysis of participant's errors related to language use, it is fitting to consider pie Figure 2 below.

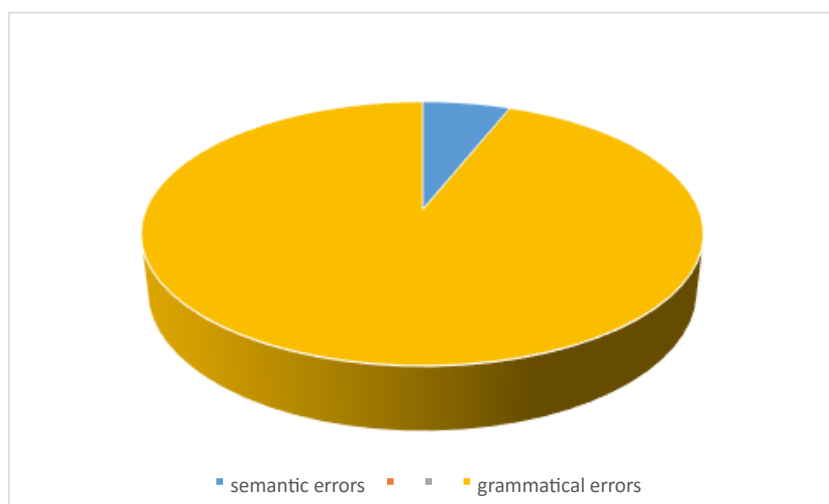


Figure 2 *The Proportion of Grammatical and Semantic Errors Pertinent to the Research Problem Section*

It is evident from Figure 2 that the biggest portion of errors related to language use in the writing research problem section is ascribed to grammatical errors. In contrast, a small portion of errors can be attributed to semantic errors. Those results clearly denote that the difficulties that the participants confront are grammar-related rather than semantic-related difficulties.

DISCUSSION

The results of the study clearly indicate that Jordanian EFL students encounter serious difficulties in conducting the research problem section. Strictly speaking, only 35% of the participants in the study managed to present an overview or background information of the topic under investigation. 60% of the participants justified their research problem clearly and correctly, while only 5% of the participants were able to determine their research gap. This result is consistent with the results of some previous studies, indicating that EFL students, in general, face serious challenges in research writing (Cheung, 2013; Komba, 2016; Phothongsunan, 2016; Qasem & Zayid, 2019). The results also depict that the great majority of language errors made by the participants are grammatical in nature, while very scant errors are semantic. This result goes with the findings of some studies, which reveal that English is a challenge for the participants when producing any piece of writing (Almahameed, 2017; Qasem & Zayid, 2019). To gain a thorough insight into the nature of difficulties and errors made by Jordanian EFL researchers in the writing research problem section, it is of paramount importance to analyze and discuss those difficulties with illustrative examples.

Difficulties Encountering Jordanian EFL students in Writing Research Problem Section

Having analyzed the research written by the participants, difficulties encountered by them can be grouped into two main categories.

Academic skills difficulties: The following is a sample of the problem statement section written by one of the participants in the study.

“Statement of the problem: In Jordan learning English is still challenging (Abdul Haq, 1982). Wahba, (1998) stated that problems of learning English in Jordanian educational courses (Zughoul and Taminian, 1984). Mostly in making errors in writing, lexis, syntax, and pronunciation. EFL students have many problems in all the language skills such as speaking, reading, listening, and writing. Rababah, (2003) stated that there have been a lot of weakness in English among school students who join the universities as English language majors. In fact, a lot of first-year university courses spent on English grammar vocabulary, oral skill, language use, and writing.

Students are accepted in university programs without taking any international standardized tests such as TOEFL, IELTS but they had to take locally designed tests of English which lack of reliability.”

A close look at the research problem above indicates that the writer clearly and abundantly justifies this research problem in that Jordanian EFL students face serious challenges in learning English as a second language. The researcher supports his justification and explanation of the problem with the results of previous research. However, it is evident that the researcher did not provide a general overview of the nature of the topic to be investigated or the challenges confronted by learners. In addition, the researcher has not stated the position of his study within the current literature. More specifically, the researcher did not indicate whether his study contributes actively to the field of investigation, and nothing is said about the gap that the study is supposed to bridge in literature. One more sample of the research problem section written by the participants is below.

“Statement of the problem: Translating the news generally from English into Arabic can be a problematic matter for Arab translators due to the cultural differences between the two languages, Arabic and English, also Psychological problems and lack of self-confidence have a major role in the success or failure of the translation process. Simultaneous translation difficulties from English into Arabic representing by many aspects, including listening, understanding, analysis and reporting the message at a very specific time. Also, the interpreter faces the listener who receives the message from him.”

Analyzing the problem statement section above shows that the researcher describes the challenges that translators face when translating news, and he elaborates on the reasons beyond such difficulty. However, in-depth analysis and overview of the problem is needed, in the sense that the researcher is required to state more details with examples about the nature of problems in translation in order to enhance the understanding of the reader. The researcher is also needed to cite references that support his viewpoint. Furthermore, nothing is mentioned about the gap that the researcher’s study attempts to bridge or to fit the study within the present literature.

Language use difficulties: Those difficulties can be either grammatical or semantic. Below are a few examples on the grammatical errors committed by the participants in the writing research problem section.

“Tense study include studying the structure, parts of speech also ”

Two errors are committed in the above sentence. The first one is a subject-verb agreement, in which no final "s" is added to the verb following the singular subject. In addition, the conjunction "and" is missing and should be added to connect the parts of the sentence above. The following is another example of grammatical errors taken from student’s research.

“Grammar necessary in order to understand languages linguistic system”

In the above sentence, the verb is missing in that the verb to be "is" is required to make the sentence grammatical. The above-mentioned sentences are examples of grammatical difficulties that the participants encounter in the writing research problem section. That is to say, writing a problem statement section is demanding and needs professional skills to be accomplished well.

LIMITATIONS AND RECOMMENDATIONS

The sample of the current study is limited to Jordanian EFL students at Amman Arab University. The study is also limited to investigating the problem statement section, while other research sections beyond the scope of this study. It is recommended that future studies expand the scope of the investigation to other sections of a scholarly research paper, such as the literature review section and the results section. It is also recommended that future studies broaden the sample of the study to include postgraduate students.

CONCLUSION

The present study examined the challenges that Jordanian EFL students confront when implementing the research problem section. A total of twenty English majored students participated in the study. They were instructed to conduct a research article on a language-related topic after being presented to the main components and sections of the research article. Having analyzed the research papers written by the participants, it was found that the participants were unable to overview their research problem and to determine their research gap correctly. In addition, the study revealed that the participants committed a considerable amount of grammatical errors. It is recommended that more emphasis and teaching programs are allocated for teaching research writing skills in general and the problem statement section in particular.

REFERENCES

- Al Fadda, H. (2012). Difficulties in academic writing: From the perspective of King Saud university postgraduate students. *English Language Teaching Journal*, 5(3), 123-130. doi:<http://dx.doi.org/10.5539/elt.v5n3p123>
- Al-Khairiy, M. A. (2013). Saudi English-major undergraduates academic writing problems: A Taif university perspective. *English Language Teaching*, 6(6), 1-12.
- Almahameed, Y. (2017). Understanding syntactic and semantic errors in the composition writing of Jordanian EFL learners. *International Journal of Applied Linguistics and English Literature*, 6(6), 158-164. doi:<http://doi.org/10.7575/aiac.ijalel.v.6n.6p.158>
- Alsied, S., & Ibrahim, N. (2017). Exploring challenges encountered by EFL Libyan learners in research teaching and writing. *Journal of Language Learning*, 3(2), 143-158.
- Bocar, A. (2013). Difficulties encountered by the student-researches and the effects on their research output. *Proceeding of the Global Summit on Education*, 5(2), 61-67.
- Boudah, D. (2011). *Conducting educational research*. Thousand Oaks, CA: Sage Publications.
- Bryman, A. (2007). The research question in social research: What is its role? *International Journal of Social Research Methodology*, 10(7), 5-20. doi:<http://doi.org/10.1080/13645570600655282>
- Canagarajah, A. (2002). *A geopolitics of academic writing*. Pittsburgh, PA: University of Pittsburgh Press.
- Cheung, L. (2013). Exploring first-year undergraduates difficulties in writing the discussion section of a research paper: A Singapore study. *The English Teacher*, 42(2), 117-146.
- Cuevas, I., Mateos, M., Martín, E., Luna, M., Martín, A., Solari, M., ... Martínez, I. (2016). Collaborative writing of argumentative syntheses from multiple sources: The role of writing beliefs and strategies in addressing controversy. *Journal of Writing Research*, 8(2), 205-226. doi:<http://doi.org/10.17239/jowr-2016.08.02.02>
- Fahy, K. . (2008). Writing for publication: Argument and evidence. *Women and Birth Journal*, 5(2), 113-117.
- Ifeoma, O. (2019). *Examining the challenges faced by undergraduate students in writing research projects* (Tech. Rep.). National University of Science and Technology, Bulawayo, Zimbabwe.

- Klein, P., & Boscolo, P. (2016). Trends in research on writing as a learning activity. *Journal of Writing Research*, 7(3), 311-350.
- Komba, S. C. (2016). Challenges of writing theses and dissertations among postgraduate students in Tanzanian higher learning institutions. *International Journal of Research Studies in Education*, 5(3), 71-80.
- Kombo, D., & Tromp, N. (2011). *Proposal and thesis writing*. Nairobi City, Kenya: Pauline's Publication Africa.
- Krause, S. (2020). *The process of research writing*. Libre Text. Retrieved from <https://bit.ly/3leGajC>
- Kumar, R. (2016). *Research methodology: A step-by-step guide for beginners*. Sage Publications.
- Lonka, K., Chow, A., Kesknien, J., Hakkarainen, K., Sandstrom, N., & Pyhalto. (2014). How to measure PhD students conception of academic? *Journal of Writing Research*, 5(3), 245-269.
- Negari, G. M. (2011). A study on strategy instruction and EFL learners' writing skill. *International Journal of English Linguistics*, 1(2), 299-305.
- Neville, C. (2007). *Introduction to research and research methods*. Bradford, England: University of Bradford Publishing.
- Okamura, A. (2006). How do Japanese researchers cope with language difficulties and succeed in scientific discourse in English. *The Economic Journal of Takasaki City University of Economics*, 48(3), 61-78.
- Pandey, P., & Mishra, P. (2015). *Research methodology: Tools and techniques*. Los Angeles, CA: Bridge Center.
- Pardede, P. (2018). Mixed methods research designs in EFL. In *Proceedings of education department collegiate forum (eed-cf), 2015-2018*, Jakarta, Indonesia.
- Peat, J., Elliott, E., Baur, L., & Keena, V. (2002). *Scientific writing: Easy when you know how*. London, England: BMJ Publishing.
- Phothongsunan, S. (2016). Thai university academics challenges of writing for publication in English. *Theory and Practice in Language Studies*, 6(4), 681-685.
- Qasem, F., & Zayid, E. (2019). The challenges and problems faced by students in the early stage of writing research projects in L2. *European Journal of Special Education Research*, 4(1), 32-47.
- Rezai, M. (2016). Preposition stranding and pied-piping in second language acquisition. *Essex Graduate Student Papers in Language and Linguistics*, 8, 110-128. doi:<http://doi.org/10.5296/ijl.v7i4.8200>
- Salager, F. (2008). Scientific publishing in developing countries: Challenges for future. *Journal of English for Academic Purposes*, 7, 121-132. doi:<http://doi.org/10.1016/j.jeap.2008.03.009>
- Swales, J. (1993). *Genre analysis: English in academic and research settings*. Cambridge, England: Cambridge University Press.