Основна мета даного дослідження – продемонструвати українським докторантам модель написання наукової статті англійською мовою. Дослідження спрямовано на формування чіткої і зрозумілої картини у вигляді дорожньої карти, необхідної для написання наукової статті. Дорожня карта уможливлює досягнення основної мети: виконати дослідження і довести практичну цінність отриманих результатів. Теоретичною основою представлєній розвідки слугували фундаментальні положення, розроблені видатними науковцями, визнаними міжнародною науковою спільнотою. У роботі надано модель написання статті з детальною інструкцією щодо її використання. Автори запропонованого дослідження дійшли висновку, що дорожня карта є ефективним путівником щодо планування, огляду літератури, аналізу, вибору методів дослідження та демонстрації своїх здобутків. Дорожня карта є нагальним інструментом для усіх, хто вчиться писати наукові статті англійською мовою.

Основна цель данного исследования – продемонстрировать украинским докторантам модель написания научной статьи на английском языке. Исследование направлено на формирование четкой и понятной картины в виде дорожной карты, необходимой для написания научной статьи. Дорожная карта способствует достижению докторантами основной цели работы: выполнить исследование и доказать практическую ценность полученных результатов. Теоретической основой данной работы послужили фундаментальные положения, разработанные известными учеными, признанными международным научным сообществом. В работе представлена модель написания научной статьи с детальной инструкцией по ее использованию. Авторы предложенного исследования пришли к выводу о том, что дорожная карта является эффективным путеводителем по планированию, обзору литературы, анализу, выбору методов исследования и демонстрации своих научных достижений.
The main objective of this study is to show how Ukrainian PhD students should write an academic paper in English. It aims to provide a clear and understandable picture of the essential moves in the form of Academic Paper Roadmap. This is supposed to lead to the fulfillment of the main objective: to carry out the research by Ukrainian PhD students and justify its further practical value. The material for the present research is based on the theoretical works of the well-known internationally recognized scholars. The research reveals the main patterns of a good academic paper presented in this work in the form of tables: Abstract moves, Introduction moves, Methods moves, Results, Novelty, Discussion, Conclusion and Summary moves. This piece of work highlights the urgent need for such kind of guidelines. The authors of the presented paper came to the conclusion that the Roadmap is one of the most effective mechanisms for planning, doing literature review, analyzing and generalizing, choosing the proper methods of research, demonstrating and evaluating the findings. The Roadmap is a detailed instruction for those who are learning to write academic papers in English.

Keywords: PhD education, scientific research, PhD student, researcher, academic paper, peer-reviewed journal, Roadmap.

“Doctoral programs” as “the third cycle of higher education” were introduced into the Bologna declarations at the meeting of the Ministers of Higher Education of the European countries in Berlin in 2003. They play an important role in the process which unites European Higher Educational Area (EHEA) and European Research Area (ERA). Doctoral programs are considered to be the main source for the training of young researchers” [1, р. 10–39]. As stated in the quoted paper, “The specific feature of the third cycle of education is the scientific research, which is a dominant and one of the most important components of doctoral programs”. The Ministry of Science and Higher Education of Ukraine took a responsibility to introduce the third, PhD level of education till 2010. Currently, the work is in progress. In this context, we should emphasize that proficiency in the English language “as the world language of research and education” [10, р. 14] for PhD students is of primary importance.

Introduction. The above-mentioned authors of the presented research are the members of Erasmus+ EU Project: “Structuring Cooperation in Doctoral Research, Transferrable Skills Training, and Academic Writing Instruction in Ukraine’s Regions” /DocHub/, which is scheduled for the period of three years (2016–2019). During study visits of Ukrainian Academic English instructors to the University of Tampere, Finland, National University “Kyiv-Mohyla Academy”, Ukraine, and others we got acquainted with the latest reforms in the Finnish doctoral education, and we also had a possibility to observe successful practices in administration, structuring PhD programs and training in academic writing for PhD students. Thus, such an experience will help the Ukrainian Academic English lecturers organize their work for further development, elaboration and implementation of Ukrainian Doctoral education according to the European standards.

That is why the authors of the proposed study suggest some practical and essential steps for PhD students in the form of an academic paper Roadmap on how this genre should be written. In addition, this research will help Ukrainian PhD students at all moves of their writing a research paper. The PhD students are supposed to be ready to submit their ultimate research work to both internal and external peer-reviewed journals.
It is worth mentioning that the draft of an academic paper Roadmap was designed by the group of the above-mentioned scholars. Furthermore, this Roadmap was originally presented during the work of one of the workshops at Mykolaiv National University named after V. Sukhomlynskyi (June, 2017) and endorsed as a useful mechanism in academic paper writing by the Ukrainian colleagues and the coordinators from the University of Tampere.

The scientific issue under discussion is of utmost importance especially in the light of recent developments of the Ukrainian system of Doctoral education. It is topical because it gives a meticulous and informative picture for the formation of the international publications (academic papers, research proposals, research reports, etc.) for Ukrainian PhD students.

The main purpose of this work is
- to establish a new understanding of the structure of an academic paper, extending knowledge basis in this area;
- to explore the relevant literature on the topic and do critical-analytical research of methodologies existing in the domain;
- to develop a Roadmap to academic paper writing with step-by-step instructions on how to move from the title to the conclusions.

It is meant that the main aim of publishing an academic paper is to write a paper that consists of clear information about the research one is expected to produce.

Taking into consideration that the native language of the Ukrainian PhD students is not English, the objectives of this investigation are to:
- delineate the topic of the scientific paper;
- explain to the PhD students the moves and length of an academic paper;
- plan an introduction;
- distinguish the definition of the following terms: abstract, novelty, summary;
- outline the research gap;
- identify the structure of writing;
- present abstract moves;
- scrutinize methods and results moves;
- show novelty moves;
- suggest conclusion and summary moves;
- develop a final piece of work, ready for submission;
- and, finally, to illustrate (adapted and transformed) general advice from “Academic Writing in English” [5] and “How to Write a Paper” [2].

In the course of work on the academic paper, we should consider the existence of various types of papers and know exactly what we are going to write. The Roadmap we are offering is devoted to a research paper generally recognized by the world scientific community.

The presented paper is a pattern drawn up in accordance with the Roadmap structure reflecting the European requirements to academic papers.

In other words, the proposed research work “How to Write an Academic Paper in English (Roadmap as a Guide for PhD Students)” is a framework for teaching academic writing to aspiring young scholars. It raises many pressing issues relevant to those who want to learn, improve and develop their academic writing skills. The issues include among others: how to formulate the title; how to make a review of scientific literature, using paraphrasing and generalization thus, avoiding plagiarism; how to formulate definitions; and how to use cohesive elements.
Abstract Moves

- **Move 1**: Situate the research: set the scene for your current research.
- **Move 2**: Present the research. State the purpose of the study, research questions and hypotheses.
- **Move 3**: Describe the methodology, materials, subjects, variables, procedures, etc.
- **Move 4**: Summarize the findings
- **Move 5**: Explain what your results mean

Abstract is both a summary and a ‘purified’ reflection of the entire paper [9]
Introduction Moves (Part 1)

What is the problem to be solved?

Are there any existing solutions?

Which is the best?

What did you decide to do and why?

Why did you do it?

What is its main limitation?

What did you / others do?

What do you hope to achieve?

Introduction Moves (Part 2)

*Swalesian Introduction [8]*

**Establish the Research Territory**
- Introduce the topic (be brief and clear)
- Outline why the topic is relevant or interesting (point to necessity)
- Refer to previous research in the area

**Establish Your Niche**
- Make a counter-claim (point out flaws in already established research in the field)
- Identify a research gap (demonstrate a deficiency of research on the topic or raise a specific question)
- Continue developing your own line of inquiry into the topic

**Occupy the Niche**
- Define your objective (identify what you intend to accomplish in conducting the research)
- Explain your methodology (how you reached your conclusions, avoid too much detail)
- Identify the structure of your writing
- Evaluate your findings

N.B! Your introduction should be as concise and clear as possible.
Methods Moves

• describe data collection procedures

• delineate procedures for measuring variables

• elucidate data analysis procedures

Results Moves

• present sufficient background information
• indicate the location of your structured results
• describe what you did and what you got
• lead your reader into following your thoughts

• state the most important, highest, lowest, omitted findings
• mention facts and precise figures instead of approximation or generalisation

• discuss or comment on your results, provide examples, illustrations
• refrain from any discussion whatsoever in your Results section
• explain the significance of your research, deal with unexpected outcomes, relate your results to your hypothesis, and make recommendations
Novelty Moves

- Explain why someone would care about this research - your audience for this first move should be broader than your primary target audience.

- Conduct an exhaustive search to find out if the topic of your research has been dealt with previously and how.
- Compare the research question, methodology, and results with the other studies and objectively analyze the same.
- Describe current and conventional practices that are being used by researchers within the defined/limited scope of your field.

- Show that the current practices or state of research in your field are incomplete, unsatisfactory or inconclusive and demonstrate a need for this gap to be filled.

- Show the timeliness, necessity, innovation of your research.
- If it is not filling the gap, it could be novel as a new theory or hypothesis, new solution, new methodology, new domain.

> These moves are not linear. You can backtrack at any point and move discussing a gap in the research to again summarize previous research. Avoid excessive movement back and forth.

Discussion Moves

- Summarize the major findings
- Discuss possible problems with the methods used
- Compare your results with previous work
- Discuss scientific implications of your findings
- Suggest further work
- Compose a concise conclusion
Conclusion Moves

Move 1
- Describe what you achieved

Move 2
- Indicate the sphere of application

Move 3
- Outline the perspectives of further research

Summary Moves

Move 1
- Provide a follow-up statement if there are still some gaps that need to be filled in future researches

Move 2
- Describe what, based on these results, the next steps would be to build a stronger overall evidence base.

Move 3
- If your findings do not support or even refute your original hypothesis, you are to report all of them

General Advice (adapted and transformed from “Academic Writing in English”[5])

- Never translate. Start writing in English
- Accept total responsibility for being clear
- Connect verbs to active
- Avoid overusing words
- Use language precisely and accurately
- Remove every useless word
- Avoid choppy sentences
- Maintain clarity, readability, non-ambiguity
- Read all your written texts aloud to yourself
- Your style should be objective, intellectual, serious, impersonal, formal

Figures 1–10 are based on and transformed from sources 3, 4, 6, 7, 8, 9, and 11, according to the References below.
This Roadmap is an output of a thorough study, scrutiny and analysis of numerous sources and vast data obtained from the synergy of such factors as international cooperation, participation in workshops and an institutionalized approach to the solution of urgent issues. We have singled out the essentials of the academic paper structure and thus created concise guidelines for PhD students to follow. Our further research will focus on the language aspects of each move.

The study of such nature helps establish a new domain in the Ukrainian Doctoral education, subsequently improving students’ proficiency to C1 level of English, a niche that is not currently served by higher educational establishments.

References


Надійшла до редколегії 07.12.2017