

ABSTRACT

Explanatory note size – 103 pages, contains 33 illustrations, 35 tables, 4 applications, 27 references.

Topicality. This study focuses on the importance and need for mobile applications for learning English, especially in the context of the global increase in the number of English learners. Considering the rapid development of Natural Language Processing (NLP) technologies, the research aims to use these innovations to improve educational applications.

The aim of the study. The main objective is to create a mobile application for learning English using NLP, to provide a personalized and effective learning process..

The object of research: Mobile applications for learning English..

The subject of research: The use of NLP and other technologies in mobile applications for language learning..

To achieve this goal, the **following tasks** were formulated:

- analyze existing applications and methods of learning English;
- research and integrate NLP methods to improve the learning process;
- develop and test a new mobile application using these technologies;
- evaluate the effectiveness and determine ways for further development of the application;;

The scientific novelty lies in the integration of the latest NLP technologies in the mobile app for effective English language learning, adapting to the individual needs of users..

The practical value of the results lies in creating an effective tool for learning English, meeting modern educational needs and trends. The developed app can be used by a wide range of users, from beginners to advanced students, providing flexible and personalized learning, opening new opportunities for efficient language mastery.

Relationship with working with scientific programs, plans, topics. Work was performed at the Department of Informatics and Software Engineering of the National Technical University of Ukraine «Kyiv Polytechnic Institute. Igor Sikorsky».

Approbation. The scientific provisions of the dissertation were tested at the Fifth International Scientific and Practical Conference of Young Scientists and Students "Software Engineering and Advanced Information Technologies (SoftTech-2023)" dedicated to the 125th anniversary of Igor Sikorsky Kyiv Polytechnic Institute.

Publications. The scientific provisions of the dissertation were published in:

- 1) Borisov S.D., Mobile Application for Learning English Language through Neurolinguistic Programming using the Natural Language Framework for iOS... / Borisov S.D., Khalus O. // Proceedings of the V International Scientific and Practical Conference of Young Scientists and Students "Software Engineering and Advanced Information Technologies (SoftTech-2023)" - Kyiv: NTUU "Igor Sikorsky Kyiv Polytechnic Institute", December 19-21, 2023..

Keywords: NEURO-LINGUISTIC PROGRAMMING, NATURAL LANGUAGE, IOS, MOBILE APPLICATIONS, PERSONALIZED LEARNING.