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ON THE ISSUE OF TEACHING THE FOREIGN LANGUAGE IN STEM CLASSES

ДО ПИТАННЯ ВИКЛАДАННЯ ІНОЗЕМНОЇ МОВИ В STEM-КЛАСАХ

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Nowadays, when global science and technological progress become an integral part of our daily lives, the issue of education in the field of STEM (Science, Technology, Engineering and Mathematics) occupies a central place in the educational system. However, as in any field of education, new issues and challenges constantly arise that require innovative approaches [1].

One of these issues is teaching a foreign language in STEM classes. As students strive to develop a deeper understanding of science and technology-related subjects, there is a need to consider foreign language not

only as an additional subject, but also as an integral part of STEM education. STEAM is the same technology. The only difference between STEM and STEAM is that in the second case, concepts are explored through a creative approach. It is no coincidence that another component appears in the familiar abbreviation: A – art.

No one disputes the fact that learning a foreign language in STEM education provides a number of significant advantages that can positively affect both the personal and professional development of students. The language provides students with global training, which is becoming more and more important in a world where connections between countries and cultures are becoming closer, develops communication skills, and develops cultural literacy. A foreign language can be an effective tool for integrating STEM with the humanities, contributing to the development of multidisciplinary approaches to problem solving.

The foreign language opens up international research and career opportunities, expands opportunities for participation in international research projects and increases competitiveness in the global labor market, develops cognitive skills such as logical thinking, memory and attention to detail, brings personal satisfaction, broadens horizons and opens new horizons. These advantages emphasize the importance of integrating a foreign language into STEM education, enriching students' learning and preparing them for a successful career in the global world.

But teaching the foreign language in STEAM education presents a number of unique challenges that require careful consideration and effective coping strategies. Let's discuss some of the major challenges teachers and students face in the context of integrating foreign language into STEAM education. Learning the foreign language consists in the conscious study of a language, and language acquisition is a subconscious process of learning for the purpose of effective communicative use. It is important to recognize that the content of the lessons, according to the characteristics of STEM education, is not separated from the language through which it is delivered. This means that in order to learn English, STEM students must participate directly in class, understand and navigate the material.

Since the process of learning a foreign language uses speech competencies both as a means and as an goal, it is believed that the space for applying STEM education methods in English lessons is extremely wide. From teaching biology, chemistry or physics lessons in English or using language learning apps like Quizlet to creating technology projects and presentations in English. In addition, by preparing their own projects about technology, architecture or programming in English, children will not only be able to improve their speaking skills, learn specific vocabulary and get acquainted with various areas of application of technical knowledge, but will

also understand the broad prospects for research and creativity that knowledge of English opens up language [2].

But this is all in theory. In fact, there is terminological complexity: STEM subjects are characterized by highly specialized terminology. Teaching a foreign language in this context requires careful mastery of technical terms and their correct use. This is extremely difficult to do because not enough attention is paid to the language. In the context of advanced STEM subjects with a focus on math and science, schools may underestimate the importance of developing foreign language skills. Teachers who can successfully combine STEM and foreign language teaching must have expertise in both areas. There are very few such teachers [3].

In addition, children will have an unusual combination of objects. Students and teachers may have difficulty adapting to the unusual combination of STEM subjects and foreign language learning, which can cause resistance and uncertainty. Students may have difficulty maintaining high levels of motivation, especially if they do not see a direct connection between learning a foreign language and their primary area of interest in STEM. The lack of teaching materials, courses, and learning programs specifically designed for integrated language and STEM learning can be a significant barrier.

Assessing foreign language knowledge in STEM education is a complex problem that requires taking into account the specifics of the subject and ensuring balance in assessment methods. The assessment system should provide students with clear feedback to continually improve their language skills in a STEM context [4].

When assessing language skills, it is necessary to take into account how successfully students can apply the acquired language skills in practice, especially in the context of future professional activities, how successfully a student can use a foreign language in a specific STEM situation, has/her knowledge and ability to use specific terminology. STEM projects often require teamwork, and the assessment should consider the student's ability to communicate effectively and use language skills in group assignments.

The assessment should include both active skills (speaking, writing) and passive ones (reading, listening), as well as the ability to translate from a foreign language into a native one and vice versa, and should also take into account the possibility of using modern technologies and online resources for teaching a foreign language in STEM context. Given that students may learn different foreign languages, assessment methods must be adapted to this multilingual context.

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CONTEMPORARY APPROACHES AND METHODS OF ARABIC PHONETIC TEACHING FOR NON-NATIVE SPEAKERS

СУЧАСНІ ПІДХОДИ ТА МЕТОДИКИ ВИКЛАДАННЯ ФОНЕТИКИ АРАБСЬКОЇ МОВИ ДЛЯ НЕНОСІВ

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Арабська мова є однією з найважчих мов світу, однак не зменшується кількість охочих опанувати її. В свою чергу процес опанування потребує вироблення сучасних методик викладання арабської мови, зокрема її фонетики. Зазначеному питанню присвячена низка наукових розробок Алкаді Мансура Салеха Абдо [1], Н. В. Василенко [2], І. В. Сівкова [3], О. О. Хамрая [4], Джелляба Масбаха та Хатута Рамадані (Алжир) [5], та інших. Однак це питання ще не кінця досліджене. У цій науковій розвідці ми ставимо завдання розкрити основні принципи та методики викладання фонетики арабської мови у закладах вищої освіти України.

Фонетика арабської мови – один з найскладніших розділів для вивчення неносіями. Основна складність полягає у відмінності фонетичних особливостей східнослов'янських мов від семітських. Однак в процесі вивчення українськими студентами арабської мови