

INTEGRATED EDUCATION IN MATH AND ENGLISH

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Abstract: the article analyzes the teaching of mathematics and English through integration. Its effectiveness and benefits are considered for students. It is stated that along with integrated training future specialists receive not only professional development, but also increase the level of English proficiency.

Keywords: integrated teaching, mathematics, English, professionally oriented vocabulary.

ИНТЕГРИРОВАННОЕ ОБУЧЕНИЕ МАТЕМАТИКЕ И АНГЛИЙСКОМУ ЯЗЫКУ

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Аннотация: в статье проведен анализ обучения математике и английскому языку путем интегрирования. Рассмотрена его эффективность и польза для обучающихся. Констатируется, что при интегрированном обучении будущие специалисты получают не только профессиональное развитие, но и повышают уровень владения английским языком.

Ключевые слова: интегрированное обучение, математика, английский язык, профессионально ориентированная лексика

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Nowadays society needs professionals in various fields who have good communication skills. The competitiveness of a young specialist can be improved by professionally oriented integrated training. In order to broaden international relations in science, the requirements for the professional language training in different areas is increasing. Proficiency in English makes it possible to keep up with latest technologies, discoveries and tendencies in science and to establish the necessary contacts with foreign partners in the professional field and ensure the level of competence.

Recently mathematics, programming and the English language have become significantly popular due to the development of computer science. Do these subjects have points of intersection? How can the training programs be conducted more effectively?

The integration of mathematics, information technology and the English language is a real necessity. According to researcher's opinion integration in the pedagogical process is "one of the sides of the development process, associated with the unification of previously disparate parts into one whole" [1]. N.M. Sharifzhanova dwells on the problem of integration as "an area of contact of several academic disciplines, through their organic, real connection, so as to give students an idea of the unity of the world around us" [2, p.70]. As for the principles of integrated learning one of the main is the systematic nature of learning. New knowledge is gained and skills and abilities are formed in the process of systematic learning

Integrated learning is based on the experience of other type of activity. The effectiveness of integrated lesson is achieved through the usage of different activities. For example, in math classes you can practice the correct pronunciation of mathematical terms, comment in English on the solution of problems, ask and answer the questions of other people and make a speech. Systematic introduction and implementation of such activities during classes will contribute the development of students' abilities in a particular field including mastering the English language.

By the end of the first year students express mathematical terms in English fluently without any effort in terms of this systematic approach. There is no need to translate because the world of numbers is clear to everyone. The memory itself suggests the necessary words and expressions. Perception and speaking skills will be practiced to perfection. And if the training focuses only on "a foreign language" then the neglect of

mathematics education will not be left unseen and it will be difficult to catch up later. In addition, teaching mathematics should be provided with continuity between the stages of education and a clear layout of continuous mathematical education should be traced as well.

The basis of the integrated methodology is teaching mathematical vocabulary in English. The main directions of this training can be following: selection and introduction of new vocabulary through repeated reference to this vocabulary; introduction of additional texts and exercises for its absorption; obtaining information on particular topic studying in English; training in working with dictionaries of various types; the formation of professionally significant and lexical communication skills, etc.

The integration of mathematics, computer science and English is the opportunity of including non-standard approaches. A characteristic feature of integrated learning is the search for non-standard solutions of the problems that develop creative thinking. In the process of integrating knowledge, it is important to aim, emphasize the importance of the problem and summarize the results of its solution. Integrated training is more popular with learners than traditional learning activities.

It should be noted when conducting an integrated lesson, various types of activities serve to develop memory, attention, communication abilities of students. It increases their motivation and cognitive activity, and also reduces fatigue. All this contributes to the improvement of the quality of the educational process.

At the same time integrated classes require more time for high-quality preliminary preparation. Using simple words alone is not enough for professional and general development. In order to understand and possess knowledge at the highest level, of course, you need to go deeper into the study of the subject. A foreign language requires acquisition of knowledge in other disciplines as well.

The use of integrated courses in the study of a foreign language promotes cultural exchange, leads to the formation of readiness for professional activity in the context of integration processes in various spheres of society.

Thus, with integrated education, future specialists receive both professional development and improve their English proficiency.

References / Список литературы

1. Integrated learning. [Electronic resource]. URL: <https://ru.wikipedia.org/wiki/> (date of access: 09.11.2020).
2. *Sharifzhanova N.M.* Innovative technology in the study of mathematics, computer science and a foreign language, 2018. № 14. Pp. 70-73.