Innovations in education: searching and solving
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The relevance of research: The world chooses the concept of the dialogue of cultures, which can help an individual to go beyond his own culture, not to feel like a stranger in a new cultural environment. But the right to cultural differences must be saved. However this also means that you need to compromise between different cultures. In this context, the problem of language education takes on a new meaning, the result of which should become multilingual citizens. The summands of this multilingualism in Kazakhstan should be Native language, which would fix the awareness of belonging to their ethnic group, Kazakh language as the State language, the proficiency of which would contribute to a successful civic integration, Russian language as a source of scientific and technical information, English language as a means of integration into the world economy and other languages, developing the human capacity for self-identity in a globalized world. The focus of attention In Kazakhstan today is the issues of the trilingual education, which identified three languages as target: Kazakh (L2), Russian (L2) and English (L3 or FL). Proceeding from the well-known postulate that the subject-practical human activity, during which singled natural connections and relationships between objects and phenomena, causes the formation and development of new concepts, our research we have devoted to the problem of trilingual education in the context of Kazakhstan's multilingualism. In this multilingualism special place belongs to languages of Kazakh ethnic groups. There are schools not only with the Kazakh and Russian languages, but also with Uzbek, Tajik and Uighur languages. Therefore, the main problem of our investigation is the disclosure of the trilingual education opportunities for the development of a national minority languages and other languages. In other words, the problem of the study is to identify the relationship between the concepts "trilingual education" and "multilingual education". In addition, the model of trilingual education in Kazakhstan assumes: 1) the level based program (CEFR) of teaching to Kazakh and Russian as a second language and English as a foreign language: 2) study of subjects "Kazakh language and literature", "History of Kazakhstan" in Kazakh, "Russian language and Russian literature", "World History" in Russian, "Natural Science", "Informatics", "Physics", "Chemistry", "Biology" in English in high school, regardless of the language of schooling: 3) the widespread use of methods of integrated teaching of subject and language, as well as the gradual learning of the subject terminology, conducting extra-curricular activities and the study of individual sections of elective courses in the target language. Thus, in the pedagogical usage is firmly enters the new concept of "trilingual education", which requires scientific substantiation, and there is an urgent need for a scientific vision of trilingual education in general. Objective: to justify the entry into the scientific apparatus of pedagogy of the new term "trilingual education", to give a new definition of the concept. Theoretical research methods related to the principles of construction of conceptual system: the principle of the purity of aspect and the principle of the subject certainty; the whole complex of empirical methods associated with the study of practical experience, basic educational documents (existing and new educational standards and curricula) and in the area of language engineering. The main result of the research is to reveal the essence of trilingual education in its relation to multilingual education. Conclusions and recommendations: the essence of "trilingual education" concept can be revealed and scientifically justified in the context of the educational policy of a particular State and taking into account the features of the real practice of the national education system in Kazakhstan.

Keywords: trilingual education, multilingual education, the conceptual apparatus of pedagogy.

Development and implementation of multi-level system of mathematics-IT teacher training through the innovative methods of mathematical and didactical modelling, and interdisciplinary relations
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The methodological basis of the design model of training teachers of mathematics and Informatics is the activity approach. The educational process of the formation of the subject (mathematical and computer) and methodological knowledge of future teachers takes place in an interrelated approach and focused on the development of skills to solve applied learning tasks, their use in mathematical and computer modelling of real processes for training purposes. Strategic goal: the implementation of the designed model is the formation of future teachers * interdisciplinarily mathematical and information technology skills. Basic principles of designing models and tools for their implementation are presented in the report.

На пути к реализации в КФУ обучения, интегрирующего содержание и язык
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Данное сообщение посвящено вопросам организации и внедрения технологии предметно-языкового интегрированного обучения (Content and Language Integrated Learning – CLIL) в образовательный процесс по дисциплине «Математика» в Институте филологии и межкультурной коммуникации Казанского федерального университета (ИФМК КФУ). Дисциплина «Математика» входит в базовую часть Общенаучного цикла основной образовательной программы
Towards implementing content and language integrated learning at Kazan Federal University

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This abstract reports on the organization of CLIL (Content and Language Integrated Learning) University course in Mathematics held at the Institute of Philology and Intercultural Communications (IPIC) of Kazan Federal University (KFU). Mathematics is a compulsory course to be learnt at the University, and it is included in the curriculum of students of humanities – future English language teachers in the IPIC. But for students of humanities who see no relevance in calculus or statistics to their own lives, courses in those topics can be counterproductive, leaving only a distaste for math and a sigh of relief. Integration of Math and English language propose an alternative route. This integrated approach stimulates student’s interest by exploring new areas of mathematics, using connections with a humanities topic, and increase their motivation to learn Math. Learning Math through English language for English language learners or English through Math causes certain difficulties for students: they may have problems with mathematics language because it uses technical terms. There appeared an idea to overcome these drawbacks by using CLIL. The term CLIL was coined by David Marsh, University of Jyväskylä, Finland (1994). CLIL describes any dual-focused educational approach where subjects are taught and studied through the medium of a non-foreign language. CLIL approach is recommended by European Commission for the use in all level of education system, because, first of all, it provides students with the opportunity to study a subject and a foreign language simultaneously; secondly, the study of a foreign language does not require additional hours in a curriculum, which contributes to the intensification of education and professional training at tertiary level. CLIL approach has positive effects on learner’s confidence and it develops academic cognitive processes and communication skills. CLIL encourages intercultural understanding and community values. In addition, learners become more sensitive to vocabulary and ideas presented in their first language as well as in the target language and they gain more extensive and varied vocabulary. In the target language, learners reach proficiency levels in all four skills of listening, speaking, reading and writing far beyond. This success is shown in Information and Communication Technologies (ICT) skills too. We outline the different steps involved in the practical implementation of the proposed CLIL approach in teaching Math at the tertiary level, which include choice of topic, linguistic content, tasks and strategies, and we describe the ways in which CLIL can be used in the classroom for teaching of the discipline. Beside of all, we discuss how ICT can contribute to the realization of CLIL approach. ICT is used as a teaching resource. Teacher helps students to develop media literacy, to use ICT to establish interregional and international exchanges and guide them in using ICT in ways that are new for them and that enhance learning. Math topics include basics of Probability Theory and Mathematical Statistics and their applications in linguistics.

Keywords: Content and Language Integrated Learning, Information and Communication Technologies, Mathematics.