



THEORETICAL BASIS FOR INCREASING THE EFFICIENCY OF MANAGEMENT OF TRAINING CENTERS AND COURSES

Tilakov Sherzod Akbarovich

Basic doctoral student of Karshi State University

Abstract:

This article analyzes the theoretical foundations of improving the efficiency of management of training centers and courses and presents reasonable proposals and recommendations.

Аннотация:

В статье анализируются теоретические основы повышения эффективности управления учебными центрами и курсами, представлены обоснованные предложения и рекомендации.

Annotatsiya:

ushbu maqolada o'quv markazlari va kurslarini boshqarish samaradorligini oshirishning nazariy asoslari tahlil qilingan va asosli taklif va tavsiyalar keltirilgan.

Keywords: training centers, courses, capacity, efficiency, income, management.

Ключевые слова: учебные центры, курсы, мощность, эффективность, доход, управление.

Kalit so'zlar: o'quv markazlari, kurslar, salohiyat, samaradorlik, daromad, boshqarish.

Scientific research is being conducted in the world to create artificial intelligence for reflecting knowledge based on learning indicators, intelligent educational systems that make decisions based on fuzzy logical inference. In this direction, research on the development of logical inference algorithms for reflecting knowledge based on learning indicators in managing the educational process is considered a priority. At the same time, the development of algorithms for reflecting knowledge based on



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learning indicators, including preliminary processing of data, analysis and processing of data, and reducing the subjectivity of the teacher in assessing based on learning indicators, eliminating their problems, and developing algorithms for reflecting knowledge based on fuzzy logic are important tasks.

A number of scientists, researchers and experts around the world have worked on the problems of reflecting knowledge based on academic performance. Among foreign scientists, such as John McCarthy, François Bry, Mamdani, Sugeno, R.A. Aliev, Yu.A. Zagorulko and G.V. Rybin have conducted effective research on the implementation of a knowledge base based on OLAP (online analytical processing) data analysis and the development of models for improving the mechanism of logical inference in the knowledge base, scientists such as L. Zade, A.N. Averkin, F. Baader, A.F. Berman, V.N. Vagin, Golenkov V.V., Grau B., Gribova V.V., Guarino N. have conducted scientific research on the formation of a data and knowledge base and the analysis of reflections, problems and solutions.

In our opinion, In the process of knowledge reflection, alternative variants of learner models and the main requirements for them were identified. The importance of fuzzy assessment theory in determining educational indicators and logical management of the educational process was shown, and these models also effectively help in adapting the educational process to individual characteristics.

The application of fuzzy logic in modeling assessment indicators in the educational process was studied. The mathematical foundations of fuzzy logic for assessing vague concepts in the educational process using the fuzzification, rule development and defuzzification stages were shown. The possibilities of solving uncertainty using linear algebraic equations were studied by describing the process of making fuzzy logical conclusions with a matrix approach. In the reflection of knowledge, decision-making conditions were formed based on the vagueness of the educational indicators, linguistic terms and their relevance functions, which serves to effectively ensure the initial processing process in multifactorial assessment.

Using the theory of fuzzy sets to manage the learning process and reflect knowledge based on learning indicators, a logical inference mechanism was developed to assess the level of learner mastery. This mechanism ensures the effective use of a multifactorial assessment model based on the formed values of learning indicators.



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A set of logical inference rules was developed to reflect knowledge taking into account many factors in fuzzy logical inference.

These rules serve as the basis for creating assessment algorithms taking into account parameters such as the complexity of tasks, response weight, value and importance that affect learning indicators. This process increases objectivity in reflecting knowledge and reduces the likelihood of the teacher making subjective decisions. The general structure and functional tasks of the software tool for logical inference algorithms for knowledge representation were developed. As a result, the modules, tasks and methods of application of the software tool were presented. Based on the training indicators, the results of the comparison of the software tool for logical inference algorithms for knowledge representation with traditional assessment indicators of learners were obtained and the efficiency indicators were presented.

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