



TJAS

Thematic Journal of Applied Sciences

informing scientific practices around the world through research and development

Thematic Journal of Applied Sciences

Volume 4, No. 3, May 2024

Internet address: http://ejournals.id/index.php/TJAS/issue/archive **E-mail:** info@ejournals.id Published by ejournals PVT LTD Issued Bimonthly

Chief editorS.

G. Ahmed

Professor of Computational Mathematics and Numerical Analysis Faculty of Engineering, Zagazig University, Zagazig, Egypt, P. O. Box 44519

Requirements for the authors.

The manuscript authors must provide reliable results of the work done, as well as anobjective judgment on the significance of the study. The data underlying the work shouldbe presented accurately, without errors. The work should contain enough details andbibliographic references for possible reproduction. False or knowingly erroneous statements are perceived as unethical behavior and unacceptable.

Authors should make sure that the original work is submitted and, if other authors works or claims are used, provide appropriate bibliographic references or citations. Plagiarismcan exist in many forms - from representing someone else's work as copyright to copying orparaphrasing significant parts of another's work without attribution, as well as claimingone's rights to the results of another's research. Plagiarism in all forms constitutes unethicalacts and is unacceptable. Responsibility for plagiarism is entirely on the shoulders of theauthors.

Significant errors in published works. If the author detects significant errors or inaccuracies in the publication, the author must inform the editor of the journal or the publisher about this and interact with them in order to remove the publication as soon as possible or correcterrors. If the editor or publisher has received information from a third party that the publication contains significant errors, the author must withdraw the work or correct theerrors as soon as possible.

OPEN ACCESS

Copyright © 2024 by Thematics Journals of Aplied Sciences

CHIEF EDITOR

S.G. Ahmed

Professor of Computational Mathematics and Numerical Analysis Faculty of Engineering, Zagazig University, Zagazig, Egypt, P. O. Box 44519

EDITORIAL BOARD

Yu Li

Wuhan University of Technology, China

Eko Susanto Menegment of journal Indonesia

Siti Mazlina Mustapa Kamal Universiti Putra Malaysia, Malaysia

Seung Man Yu

Seoul National University of Science and Technology, South Korea

Seyed Saeid Rahimian Koloor

Universiti Teknologi Malaysia, Malaysia

TRAINING AND EVALUATION ALGORITHM IMPROVEMENT IN NON-RIGOROUS DATA ABUNDANCE

K.I. Kalimbetov, Nukus State Pedagogical Institute named after Azhiniyaz, doctor of philosophy in pedagogical sciences (phd) M.O. Adilbaeva Nukus State Pedagogical Institute named after Azhiniyaz, 2nd year student D.A. Ómirbaeva Nukus State Pedagogical Institute named after Azhiniyaz, 1nd year student

Abstract: in the article, methods of solving the problems of decision-making in teaching and assessment are beaten in conditions of an abundance of information that is not strict in assessing the knowledge, skills and abilities of students in the effective assimilation of classes. In this article, it is to develop a more flexible methodology for rating assessment based on the use of fuzzy logic in attracting specialists and assessing the quality of questions.

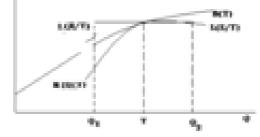
Keywords: Informatics, pedagogy, quality of Education, rigorous mathematical modeling, algorithm, teaching methods, assessment.

Main story: For the credit system, when assessing students' knowledge, the credit collection model consists of several mathematical expressions or an objective function (criterion). With this model, each possible alternative will be used for yeshim estimation and alignment.

Identifies three types of functions to determine efficiency in student development. These functions mean that question variables such as satisfactory, medium and unsatisfactory are expressed in different credit ladder.

Satisfactory and unsatisfactory are not reflected in the rating ladder at all times for mastering by a large number of students. This is a score, score and credit ladder.

The indicator of satisfactory development is shown in the following figure.



Indicator of current and intermediate control development

Q- educational process;

T - indicator of development;

B(T) - Intermediate inspection display function;

B(Q/T) - monitoring display function;

L(D/T) - indicator of development;

www.ejournals.id Info@ejournals.id

Thematic Journal of Applied Sciences

L(E/T) - indication of the introduction and development of alternative options. The context between functions B(T) and B(Q/T) with student intermediate control and current control, the context between the process of mastering T and learning Q. If in Agar T - mastering and its reliable assessment, then the indication of mastering intermediate function will express a reasonable process.

The expected mastering of T on agar Q when receiving education (for

example, Q_q) is a person or older (for example, Q_w), then the current controlled mastering function is determined by the indicator of the loans accumulated by students. They cannot be adapted to non-existent (difficite) or small; la tokis in no time.

$$L(Q/T) = B(T) - e(Q/T)$$

Each student has the appropriate i variables to show mastery. We get their annual satisfactory completion rate with a coefficient B_i , the value of W_i . The semester completion rate obtained by each group i.

$$B_i = \sum_i \left[B_{ij}(T_j) - L_{ij}(Q_i / T_j) - C_{ij}(K_j) \right] \quad \forall i$$

This will reflect the indicator of development during the academic year for the B_i - each group.

$$\begin{split} B_{ij}(Q_j / T_j) &= \text{current benchmark}; \\ L_{ij}(Q_j / T_j) &= \text{intermediate control indicator}; \\ C_{ij}(K_j) &= \text{indicator of mastering the semester period.} \end{split}$$

In addition, for each group i, the possibility of obtaining a loan S_i^{\max} by them is excluded.

It follows from this definition that our goal is to find a rate of development T_j such as Q_j , a rate of K_j at each j-place, a satisfactory rate of annual development.

$$\sum_{i} W_i B_i \rightarrow \max$$

 B_i in expression Q_j mastering has the following deductions

$$Q_j^{mix} \le Q_j \le Q_j^{\max}$$

Reflects the credit accumulation of each group \dot{l} .

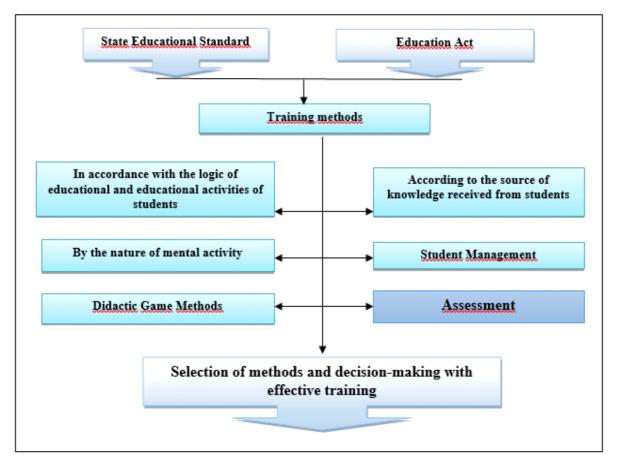
$$\sum_{j} C_{ij}(k_j) \le S_i^{\max} \qquad \forall i$$

To ensure that not all groups can delay an unsatisfactory course, we must provide the following deductions

$$\hat{A_i} \geq 0$$
 , $orall i$

The organization of the educational process and decision-making are classified as having a large amount of linguistic, subjective, quantitative information for belonging to the category of humanitarian systems. One effective way to model learning and decision-making processes in such settings is to make extensive use of irregular accumulations and neural approaches.

Thematic Journal of Applied Sciences



In our education, all this activity is carried out by a teacher and is a teacher or teacher.

System of selection of effective methods of training and decision-making: In order to determine the priorities of systemic reform of higher education in the Republic of Uzbekistan, to increase to a qualitatively new level the process of training independently thinking highly qualified personnel with modern knowledge and high moral and moral qualities, to modernize higher education, to develop the social sphere and sectors of the economy on the basis of advanced educational technologies in higher educational institutions, a phased transfer to a credit-modular system.

The use of the credit system in OTM will contribute to increased employment with leading educational institutions in the top 1000 world universities. Because international integration in the field of education is primarily based on the organization of the learning process based on credit technologies.

Credit - European Credit Transfer and Accumulating System (ECTS).

A credit system is a unit of measure that indicates not the number of hours read during training, but the result. That is, the unit of measurement aimed at the result evaluating the level of competence of the specialist.

GPA (Grade Point Average) - the average value of the student's points on the program, which is calculated using the following formula:

$$GPA = \frac{K_1 \cdot U_1 + K_2 \cdot U_2 + K_3 \cdot U_3 + \dots + K_n \cdot U_n}{K_1 + K_2 + K_3 + \dots + K_n}$$

K — number of test units allocated for the subject;

U — score on the subject. If he has not mastered the subject, then it will be equal to 0. **Evaluation system structure:** certain knowledge, unknown knowledge and existing experience are manifested as components of the problem. In this regard, we have developed a method that serves to draw the student's attention to certain factors when using the method in the process of training, as well as a management system for assessing students as an educational subject, in which the assessment is carried out to develop the individual's consciousness, expand his imagination

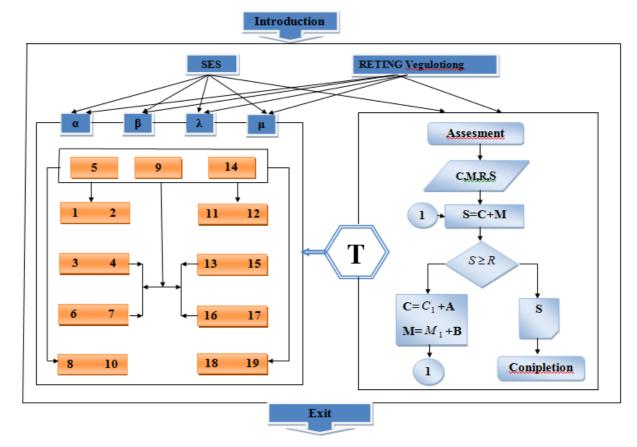


Figure 2. Assessment management system in the context of a large amount of data that is not fixed

 λ - opportunities, β - students, α - objects, μ - subjects, C- points that students accumulate from current control(current control) (JN), M - points that students accumulate from intermediate control (intermediate control) (ON), S - points that students accumulate from current control (JN) and from intermediate control (ON), R - control criteria. A - an indicator of additional acquisition based on the nature of Science in current control, B - an indicator of additional acquisition based on the nature of Science for intermediate control, 1, 2, 3, ..., 19-students and T - teacher(teacher).

Used literature.

1.Ilalovich, K. K. (2022). The Structure of the Nonlinear-Cumulative Model of Students' Assessment. European Journal Of Innovation In Nonformal Education, 2(1), 147-150.

2.Kenesbaevich, S. K., Ilalovich, K. K., & Meyrmanovich, M. B. (2024). Assessment In Teaching Based On Interactive Methods In Higher Education Institutions. Onom?zein, (62 (2023): December), 2563-2567.

3.Kalimbetov K. I., Turemuratova B. K., Bekbergenova A. B. The structure of fuzzy multiple model of assessing students' knowledge, skills and qualification in higher education //International Journal Of Social Science & Interdisciplinary Research ISSN: 2277-3630 Impact factor: 7.429. - 2022. - T. 11. - C. 4-8.

4.Kalimbetov, K. Decision-making in the teaching and assessment of computer science for students of higher education institutions in the context of an inexhaustible supply of information. http://science. nuu. uz/uzmu. php.

5.Kalimbetov, K. I. (2021). Algorithms of student training organization processes. Academic research in educational sciences, 2(CSPI conference 1), 1294-1297.

6.Seitnazarov, K. K., & Kalimbetov, K. I. (2021). Decision-making system for choosing effective methods in computer science education. Academic research in educational sciences, 2(CSPI conference 1), 755-759.