SCALE AND MODULAR CAPABILITIES

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Annotation. *In Masoretic theology, the Masoretic tradition is considered as one of the main didactic traditions of Muammonism, while in Masoretic theology, Muammonism is considered as one of the main religions of Muammonism.*

Gates*: interferometric, mass spectrometric, measuring, measuring, measuring, measuring, measuring, measuring, measuring, measuring.*

Аннотация. *Мақолада масофадан ўқитишда интерфаолликни рўёбга чиқариш масаласи масофадан ўқитишнинг асосий дидактик муаммоларидан бири эканлиги изоҳланиб, ушбу муаммони ҳал қилишнинг бир йўли устида мулоҳаза юритилган ва амалий тавсиялар берилган.*

Калит сўзлар*: интерфаоллик, масофавий таълимнинг асосий ўқитиш воситалари, дастурлаштириб ўқитиш, ўқув материаллари порцияси, чизиқли ва тармоқли дастурлаш, модуллаштириб ўқитиш, ўқитишнинг дастурлаштирилган модул усули.*

Аннотация. *В статье поясняется, что достижение интерактивности при дистанционном обучении является оним из дидактических проблем этого вида обучения и ведётся рассуждение о путях решения данной проблемы и даются практические рекомендации по их решению.*

Ключевые слова*: интерактивность, основные средства дистанционного обучения, программированное обучение, порция учебного материала, линейное и сетевое программирование, модульное обучение, модульно-программированное обучение.*

For general secondary, secondary specialized, vocational, higher education institutions, be it verbal, electronic textbooks, teaching aids, lecture texts are mainly created with the “class - lesson” system of teaching in mind. They are considered the main source of information in the educational process, and this process is of a “one-sided” nature. Due to the fact that most such materials do not have a mechanism of “feedback”, they are monetized by the interactive nature of the educational process. In this case, interactivity is carried out in the course of the lesson, based on the direct communication of the student and the teacher, using various methods of teaching (collaborative teaching, didactic games, problem teaching and headings).

It is worth noting that distance learning does not dwell on the achievement and advantage aspects of distance learning, denying the “class-lesson” system, in which the student is deprived of interactivity and its surfacing conditions, which are one of the aopolitical factors of the development of student thinking, the deep and thoroughness of his knowledge. Consequently, in our opinion, the issue of realizing interactivity in distance learning remains one of the main didactic problems of distance learning. This article reflects on one way to solve this problem and gives practical recommendations.

It is worth noting that the main teaching tools of distance education are electronic textbooks and manuals, computer teaching systems, audio – video teaching materials, etc. Consequently, the matter goes back to making a mechanism that implements and provides them with interactivity when creating these teaching tools.

The requirement for educational tools in distance learning differs from them in the method of teaching, methods and forms of control over the knowledge and skills acquired by the student, the design of materials, while maintaining the general didactic requirement– principles created with the traditional teaching system in mind.

It is advisable that electronic textbooks and manuals, which are compiled for distance learning, are created with what methods of teaching in mind?

It can be seen that from the analysis of widely used programmatic teaching, modulated teaching, problem teaching, differentiated stratified and project teaching methods in pedagogical practice, it is advisable to consider the use of programmed and modulated methods of teaching in the creation of educational literature (textbook, tutorial) of distance learning. It is on these two methods that we will dwell in more detail.

In programmed teaching, guided mastering of programmed learning material is understood using teaching tools (EHM, programmed textbook, audio-video simulators, etc. The programmed learning material is made up of a series of learning information consisting of relatively small-to-small servings given in a given logical sequence.

The requirement of objective control, which is carried out without delay about the appropriation of each" serving " of educational material (information), is a characteristic sign of programmed training. Only after information has been received by the student that this "portion" of educational material has been mastered, is it put into acquaintance with the next "portion" of educational material. In the event that the" portion " of material is not absorbed, the reader is returned to the source of information aimed at correcting the error and drawback.

Programming forms the basis of programmatic teaching, which, in addition to educational materials intended for learning, shows ways to master these materials, as well as creating opportunities for self-control.

Such programs are implemented through programmed textbooks or teaching machines. In the first case, it is called machine-free programmed training, and in the second-machine-programmed training. But, in both cases, their didactic basis and implementation mechanism are the same.

Programming is separated into linear and networked programming. In linear programming, only if the student has mastered the "portion"of the given teaching material and correctly answered the control question will he be able to move on to the study of the next "portion" of material. This involves the reader finding or expressing the correct answer on their own without any guidance or explanation.

In networked programming, the learning material is separated into "servings"with more information than in linear programming. At the end of each frame, the reader is presented with a question and a number of answers to this question, one of which is correct. The reader is required to choose one of the answers provided. When the reader shows the answer to the correct one, he can proceed to the study of the next "portion" of material. In the event of an

answer indicating a fallacy, it is directed to the study of the material that explains this fallacy or deficiency and allows it to find the correct answer in the viewed “portion”. Such a cycle continues until the reader finds the correct answer. It should be noted that the incorrect answers presented must be drawn up by the author of the program voluntarily-randomly, having a certain logic and meaning, without simply being structured, and also taking into account what can make the reader error. Importantly, with this process, “remote interoperability” is carried out.

Networked programming is important in that it takes into account the capabilities of each student and the demand and need for him to be given additional explanation and guidance, leading to the assimilation of new learning material in a way that is appropriate for him. As a result, students master the materials they are learning in different individual intensities. It is this individual intensity of mastering in programming training that cannot be taken into account in other methods of training.

In the modulated teaching method, the curriculum will be divided into autonomous modules (parts). Training materials are also decomposed into autonomous modules (parts) in accordance with each module in the program. Modules are made up of the following components:

* clearly expressed educational and educational goal;
* ahborot banks-ykquv material;
* methodological recommendation for the implementation of the goal;
* control carried out in an adequate (appropriate) way to the intended purpose.

Depending on the total size of the subject of study, modules can be designed for a volume of 10, 15, 20 and more hours.

Now let's look at the question of which of the programmed (machine-free) or modulated methods of teaching to refer to or a combination of these two methods when creating a textbook or tutorial for distance learning.

In general, if we compare modulated teaching methods with the programmed teaching explained above, it can be understood that modulated teaching is an extended, developed view of programmed teaching. In modulated teaching, the “portion” of teaching materials that are allocated for learning is larger and, accordingly, control questions or assignments are no longer one, these materials may be more numerous depending on the size. Although, in the modulated method of training, the process of “feedback” in programming training is not meant, let us look at the question of the use of elements of this process in it (in modulating training).

As noted, there will be many control questions or assignments when teaching modulated. It is recommended that you program these questions or tasks and compose them in the form of test questions, one of the answers of which is correct, as in training, and not proceed to look at the next question until you find the correct answer to each question. In the process of searching for the correct answer to a question, the mechanism of “feedback”, as in networked programming, is triggered. By finding the correct answer to the last question, all processes within the module will be considered terminated, and the reader will be able to move on to the study of the next module.

This described method consists of a combination of programmed and modulated methods of teaching, which is recommended to be called the “programmed modular method” of teaching. A machine variant of training can also be developed in the “programmed modular method” based on the stated scheme.

In conclusion, when creating the educational literature of distance education, it is recommended to refer to the machine-free option of the “programmed modular method” of teaching.

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