

# ADAPTIVE LEARNING SYSTEM USE IN FOREIGN LANGUAGE MASTERING

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**Abstract:** The article reveals the description of adaptive learning system and its use for foreign language mastering. Nowadays individualized learning is question number one at educational institutions. Adaptive distance learning system EduPro was created to solve the problem of adaptation of leaning material (course) to each student.

## 1. Introduction

Computer learning system developers have recently been paying a lot of attention to the learning process itself that has gone through qualitative changes - individualization and adaptation to the needs of a learner. This is happening on the background of intensive information technologies development. It is especially actual for foreign language learning as specific feature of this branch of science to a great degree depends on new methods use and interactive technologies for providing qualitative and effective learning process. Today it is possible to provide students not only with learning schedules different from standard curriculum time-table, or take into account their needs if they are geographically remote from the learning centre (distance learning through application of modern telecommunication technologies), but also account for different levels of knowledge perception and understanding. *Intellectual learning systems and adaptive network learning systems* [1] are becoming increasingly popular now as an alternative and supplement to the traditional approach in a learning course development. These systems develop each student's knowledge model and use it throughout interaction time in order to adapt to each learner's peculiarities. The first adaptive network learning systems appeared in 1995-1996 [2]. Since then a lot of systems have been created all over the world. The majority of adaptive network learning systems are based on technologies, developed in the realm of adaptive hypermedia and intellectual learning systems. When identifying content material and arranging it into the course framework the developer has to think about the audience in general. However, in real life students have different interests, knowledge, learning styles, and background knowledge. Carefully selected content material can be of no use for some students and will only confuse them. On the other hand, it is likely that the material important for other students will not be presented in the course at all. In other words, content arrangement suitable for one category of students can be an obstacle for others. This problem becomes really pressing at network learning, when the difference among the students taking the same course is more essential [1]. Consequently, the development of a system that would take into account students' individual characteristics and adapt the content material presentation is

a topical and important problem. On the basis of the center of information technologies of Precarpathian national V. Stefanyk university adaptive learning system EduPro was created.

## **2. Peculiarities of individualized learning modeling in EduPro system**

At learning courses creation theoretical material in the system EduPro is divided into lectures. A lecture is completed by contents and volume a logical part (block). In the system EduPro learning course is presented in the form of sequence of steps. Obligatory components in each step are lecture material and test. But the number of lectures in each step may differ depending on the volume and complicity of material which should be learned. Lectures in their turn are divided into the smallest completed logical parts –quanta[3]. Each quantum of lecture material has certain characteristic features as weight of complicity, novelty level, quantum type, etc. Quantum type is a descriptive feature that determines the form of learning material presentation ( descriptive material, data table, schemes or pictures, etc.), as one and the same material may be presented in different forms. Important feature is that to each quantum of theoretical material correspond test questions with different contents, weight of complicity, type that in its turn helps to evaluate the level and degree of theoretical material mastering and to identify individual peculiarities of each student. Depending on the skills of learners ( speed of mastering, type of information perception, specialization, success, etc.), learning lecture material is presented and given in the most individualized form, that to a great degree raise level of its mastering [3]. First students learn theoretical material and take tests within one step. Then the system identifies individual characteristic parameters of each student, on the basis of which the decision on learning trajectory creation of the next step is taken. When student's results are rather poor the system will not let him/her take next step but will offer revise the material of the previous step. At satisfactory level of theoretical material mastering (a teacher identifies the transfer barrier between steps) the system let a student pass to the next step of the learning program. Next step of leaning material consists of three parts: theoretical material necessary for reviewing and two obligatory- theoretical material of the given lesson and test on it. Theoretical material for reviewing is chosen from the questions of the previous step which were answered incorrect or partially incorrect.

## **3. Conclusion**

The given methodology let us provide the process of individualized learning for foreign language mastering. Suggested technological decisions let us form individual structure of learning material and adapt to each student's needs and capabilities. That will help to create effective learning environment to reach maximum results in learning process.

### **Sources**

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