

## **Conclusion**

When creating the adaptive e-learning environment, the described theory is being gradually applied and tested. For this kind of teaching the LMS BARBORKA controlling system is being developed. The last of the virtual teacher's functions is recording of the entire teaching process. It records the student's every "click", the time spent on particular layers, not following the actions offered by the system, accuracy of answers, etc. The record is used for analyzing several types on a long-term basis: verification of the setting accuracy of the student's characteristics, verification of the appropriateness of the teaching aids as well as the verification of the accuracy of the virtual teacher expert rules.

As mentioned above, after collecting a large data sample in the adaptive teaching record, to be able to analyze the feedback we will use a series of mathematical statistical methods and methods of gaining knowledge from data. Research on this field has already started, but the already obtained results are not sufficiently reliable due to the low extent of the data. Next, we will focus on the research into the used methods as well as the interpretation of the analyzed results. At the same time, modeling of the adaptive teaching process through the virtual student (with all the combinations of the learning style qualities being defined) and virtual study materials (described by the metadata) is being carried out.

The modeling device is being implemented in the existing adaptive LMS. Before the teaching process starts, the modeling device verifies the accuracy of the elementary rules formulation and debugs the algorithms for their integration into the resulting personal learning style, i.e. the sequence and its depths.

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