

INFORMATION TECHNOLOGY OF ANALYSIS THE ACTIVITY OF SECONDARY SCHOOLS

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Using information technology to model and automate decision support in the management of the educational process generates the need for solving problems related to the analysis of large amounts of data (big data).

Modern methods of collection, storage and data processing are based on the technology of data warehousing and complex multi-dimensional data analysis. The use of this technology makes it possible to carry out a detailed analysis of the educational institutions, the current state of educational resources, the quality of educational services, and so on. And it allows identifying trends in their development.

The aim of the article is to analyze the activity of institutions of secondary education on the basis of methodologies of data hypercube construction and processing in order to create systemic transformation of the national education sector and the introduction of complex intellectual information technologies and their support in accordance with international educational standards.

The object of research are technological processes of data processing in information educational technologies.

Subject of research are methods and tools for creation, representation and processing of data in information technologies of analysis the activity of secondary schools

Multidimensional data model of secondary schools was worked out. It allows to carry evaluation of activity of secondary schools by profiles:

compliance with state standards of education by the educational establishment;

the quality of training pupils;

the efficiency of using of educational, scientific and methodological potential;

providing of development and efficiency of using material and technical basis (level and the dynamics maintenance of educational process by computers, connecting secondary schools to the Internet, and so on.).

Systematic analysis of the activity of secondary schools was performed using the methodology of constructing hypercube data. Detailed description of dimensions hypercube data of secondary schools were identified and presented.

Keywords – multidimensional data analysis, data hypercube, dimension, attribute.