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**The features of the automation of diagnostics of the acuity of vision of the cognitive model of the subject of training for the analysis of the information environment of the adaptive training**

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The informatization of the information-educational environments initiates the creation, distribution and use of information resources, products and services based on the modern achievements in the field of the information and communication technologies, causes the need of development of the approaches, technologies, methods and algorithms of the system analysis of the difficult objects, processes and phenomena, actualizes the introduction and practical use of the means of automation of a new generation, which take into account the individual features of “personality” of the subjects of training and the technical capabilities of the means of training.

Cognitive informatics acts as a new scientific direction in the modern theory of information, which directly takes into account the actual scientific bases of the physiology of sensory systems, cognitive psychology and cognitive linguistics at the research of the process of information exchange in the technical and social systems.

The structure of the automated training system with the properties of adaptation based on the parametrical cognitive models block includes two levels of information interaction and six channels of information exchange between the components: the adaptive electronic textbook for the individually-oriented generation of information fragments, the basic diagnostic module for the testing of the level of residual knowledge of the trainees and the applied diagnostic module for the research of the features of the trainees, the parametrical cognitive models block as an information base of the system analysis of the information-educational environment with the cognitive models of the subject and means of training.

The automation of the process of research of the parameters of the cognitive model of the subject of training is achieved by means of use of the created applied diagnostic module.

The cognitive model acts as an extensible in width and depth repertoire of parameters, which is echeloned on a set of portraits with a certain scientific justification.

The cognitive model of the subject of training reflects the individual features of primary sensory perception (psychophysiology of perception), secondary processing (cognitive psychology) and understanding (cognitive linguistics) of the content of information fragments.

The acuity of vision is a part of the basis of the physiological portrait of the parametrical cognitive model of the subject of training and determines the individual ability of the subject of training to distinguish two luminous points at a distance in one angular minute (the acuity of vision of the normal eye), at the same time for its research is caused the potential possibility of using of the different methods in the context of computer diagnostics: the table of letters of Sivtsev D.A., the table of signs of Orlova E.M. and the table of broken rings in the position of Landolt E.

The realization of the procedure of diagnostics of the acuity of vision of the cognitive model of the subject of training was carried out under my leadership in the course of the diploma projecting of Karyukhina A.P. in the integrated environment of programming Borland C++ Builder and supports three modes.

In the mode of administration of the parameters of the method of research of the acuity of vision of the subjects of training the possibility of viewing and modifying is supported: the codifier and name of localization of the method of research (the indicator of localization); the name of the method of research, the status of activity and the textual content of description of the method of research for the displaying in the pop-up window, the status of activity and the textual content of description of the method of research for the displaying in the status bar of windows of the interface in the mode of diagnostic (the indicator of the method of research); the quantity of errors for the indication of pathology and the quantity of displaying of the optotype (the indicator of registration); the status of activity and the textual content of message about the research of the left, right and two eyes of the examinee (the indicator of eye); the textual content of question (the indicator of question); the graphical content of question (the indicator of graphical image of question); the type of content of the question, the number of string of the optotype, the type of pathology, the interval of time for the development of answer on the question (the selector of the main parameters of displaying), the way of displaying of the question, the interval of time of the displaying of graphical image of the question (the selector of the add. parameters of displaying of the question); the sign of correctness and the textual content of the variants of answer on the question (the indicator of the variants of answer); the graphical content of the variants of answer on the question (the indicator of graphical images of the variants of answer); the quantity of the variants of answer, the type of content of the variants of answer, the size of type-size of the symbol of optotypes of the variants of answer, the way of displaying of the variants of answer, the way of selecting of the variant of answer on the question, the color of optotype (the selector of parameters of the variants of answer); the moving to the first, previous, next and last question, their adding and deleting, saving and discarding of changes (the panel of control of the database); the pasting and copying through the clipboard, the cleaning and saving of the picture (the panel of control of the graphical images).

In the mode of diagnostics of the acuity of vision of the examinees it is realized the displaying of the text of question (the indicator of question), the picture of question (the indicator of the graphical image of question), the sign of correctness and the text of variants (the selector of the variant of answer), the sign of correctness and the graphical content of variant (the selector of the graphical content of the variant of answer); the confirmation of the variant of answer and the transition to the next question (the button); the localization and name of the method of research, the codifier of group and L.F.P. of the examinee, the initial and current interval of time for the limitation of selection of the single variant of answer, the researched eye, the color of optotype, the size of the type-size of symbol, the quantity of displaying of the optotype and (in)correct answers, the type of pathology in a posteriori data (the indicator of status).

In the mode of analysis of a posteriori data of research of the acuity of vision of the cognitive model of the subject of training are available: the codifier and the name of group (the selector of group); L.F.P., age, sex and the password of user (the selector of user), and also the codifier of localization, the name of the method of research, the date and time of research, the nominal values of the quantity of correct and incorrect answers (the selector of attempts), the name of eye and the preliminary diagnosis (the selector of eye), the codifier and name of color of the optotype (the selector of optotype), the codifier and name of the size of optotype, the quantity of displays, the correct and incorrect answers, the type of the revealed pathology (the status of examinee).

The results of research are contained in my dissertation on the competition of scientific degree of the doctor of technical sciences in the specialties 05.13.01 and 19.00.03, and also the scientific works.