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Kaliberda Y., Koroteeva T., *Pichugina T.

Software of the Automated Systems Department
Lviv Polytechnic National University
S.Bandery Str., 12, Lviv, 79013, Ukraine
E-mail: georgeka@mail.ru
*Pedagogic training for engineers Department

Liberal Arts Institute
Lviv Polytechnic National University

EDUCATIONAL-DEVELOPING SYSTEM OF WARNING OF SCHOOL DIZADAPTATION FOR THE CHILDREN OF PRESCHOOL AGE «BRUIN»

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1. Tasks

Introduction of information technologies in industries to medicine, pedagogies, psychology, speech therapy, especially on the joints of these sciences.

Creation of educational-developing is the systems of warning of school dizadaptation for the children of preschool age.

Possibility of the use of software product is for children with the special necessities.

2. School dizadaptation

Violation of adaptation to the terms of external environment of existence is reflected the concepts of dizadaptation. By a term «school dizadaptation» in psychology name any complications which arise up for students during studies. It is characterized weakening of mechanisms of adaptation, which results in disparity of individuality of child compatible requirements which are proposed the social institutes of studies and socialization.

Reasons of school dizadaptation can be predefined various factors: somatic weakening of child; omission in preparation of child to school, socially pedagogical neglect; lasted and massive psychical deprivation; violation of forming of separate school skills; motive violations; emotional disorders [1].

By the most effective way of fight against school dizadaptation there is its early prophylaxis, that an exposure of children of group of risk and correction work is with them, that foresees the presence of the proper medical and pedagogical methods.

3. Actuality and novelty

For today software products for the studies of children exists sufficiently, but only in the narrowly specialized industries, for example study of English, and properties of the sciences listed above are poorly utilized in information technologies and newest achievements. Methods, scientific developments, front-rank experience, are published, as a rule, in books with black & white Figs, low polygraph quality. Consequently the use of information technologies and approaches for the decision of specific tasks of pedagogies and medicine is the newest.

Majority accessible to the user of software for children today needs explanations a child outside adults. It is needed to develop technology of using a software product without participation of adults and create possibility of dialog of child, as in direction computer -> child, so in direction child -> computer.

4. Features of approach

Development of software for children foresees imposition of certain limitations, terms and requirements.

1. A child is not able to read, that is why it follows to report necessary for a dialog information through other organs of perception.

- 2. It is enough to distinguish 8 colours a child: red, yellow, green, dark blue, violet, brown, black, white. This limitation is substantial for children with the special necessities, in particular for children with the defects of sight.
- 3. As most children yet imperfectly own manipulators, connected to the computer (keyboard, mouse, and others like that), it is needed maximally to simplify a dialog child -> computer. That is why for work it is better to utilize motions of mouse and pressure on one button of mouse only, as a manipulator a mouse is simpler than keyboard, does not need knowledge's of letters, and the name «mouse» causes interest for a child.

5. Technology

A dialog between a child and computer is interactive, that on every action of child, a computer must answer motions or change of objects of image, sound effects and vocal reports. For today leading and widespread technology for development of interactive mobile dialogs is Macromedia(Adobe) Flash, which provides the fast-acting of work, high coefficient of compression (that it is important at the use of software in a network), allows to program and manage actions from middle of animation by facilities of built-in language of Action Script [2].

6. Expected results

Creation of instrument which will become a substantial help for doctors and parents, by entertainment for children, and creation of comfortable and friendly interface of user-child will allow to realize achievement of educational-correcting effect in the process of game of child without «pedagogical requirements».

Achievement of effect is foreseen in next aspects:

- improvement of sensory-agile development of child:
- development of shallow of hand and fingers of hands is at studies work with various computer manipulators;
- correction of separate sides of psychical activity:
- development of perception and recognition;
- development of memory and attention;
- forming of the generalized Figs is of qualities of objects (color, form, size);
- development of spatial presentations and orientations;
- development of Figs is of time;
- development of auditory attention and memory;
- development of basic operations of ideas:
- skills of relative analysis;
- skills of grouping and classification;
- ability to work after verbal instruction, algorithm;
- development of evidently vivid thought.

References

- [1] Pichugina T., Remazhevska V., Marunich L., "How to find out for a child propensity to violations of the writing broadcasting", Galichina Publishing Union, pp. 3-5, 2005
- [2] Milbern K., Kroto J., "Internal world of Flash 5 for a designer", DiaSoft Publishing House, pp. 292-294, 2000