MULTIMEDIA INTERACTIVE TRAINING RESOURCES AS IMPORTANT EDUCATIONAL TOOLS

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Multimedia interactive training resources (MITRs) are powerful educational tools that allow users to learn/self-learn within a single educational space. They can be implemented as multimedia complexes, courses, etc., allowing users to build their learning trajectory. MITRs usually contain a theoretical core in logically structured sections, topics, questions in a particular subject area and interactive components. The subject area can be training in a specific discipline (e.g. Colour Theory, Electronic Publishing Technologies, Design and Development of Web Systems, Web analytics and search engine optimization, etc.) to acquire professional competencies or self-study on issues of interest to the user (e.g. learning to play a particular musical instrument, caring for plants, etc.).

The theoretical core provides educational material using various types of media content. The interactive components of MITRs include interactive tasks, video simulations, educational games (puzzles, quests, dialogue games, simulation games, games in a particular genre, etc.), interactive tests, relaxation components, etc. An interesting example of the implementation of the MITR is the complex in the discipline of Colour Theory [1], which contributes to the acquisition of professional competencies of students majoring in Publishing and Printing in building harmonious colour combinations, working with digital colour representation, etc. The complex is an online learning resource developed using CMS Joomla. The educational content is divided into illustrative-descriptive, reproductive and creative levels. The multimedia complex has a gallery of creative micro-projects, which are displayed as slideshows and on a threedimensional wall of the museum, as well as a testing system. It does not contain active video simulations and educational games but is open for expansion with new functionality. It is a self-sufficient resource, although it can be integrated into the modular component structure of a virtual learning environment [2].

Study [3] presents the process of developing a multimedia training course for user self-development on plant care. The course is visualised with many examples of types of succulents, features of their transplantation, watering, etc. The interactive component contains exercises in the form of video tutorials, tips and tests on topics, and a training game. The paper [4, p. 62-67] presents different types of educational games implemented in different MITRs.

MITR allows the creation of the necessary educational, informational, motivational, cognitive and other conditions for achieving the goal of professional training / personal self-development of the user in a particular subject area. Such MITRs help increase users' motivation to learn, activate their cognitive activity and stimulate self-learning and self-development.

References:

1. I. O. Bondar, "Content analysis of multimedia training complex on discipline «Color Theory»", ITLT, vol. 63, no. 1, pp. 95-106, 2018, doi: 10.33407/itlt.v63i1.1886.

2. I. O. Khoroshevska, "The structure of virtual learning environment for supporting student-centered training in publishing and printing specialty", ITLT, vol. 78, no. 4, pp. 203–218, 2020, doi: 10.33407/itlt.v78i4.2885.

3. I. Khoroshevska, O. Khoroshevskyi, Y. Hrabovskyi, V. Lukyanova, and I. Zhytlova, "Development of a multimedia training course for user self-development", EEJET, vol. 2, no. 2 (128), pp. 48-63, 2024, https://doi.org/10.15587/1729-4061.2024.302884.

4. I. Khoroshevska and O. Khoroshevskyi, "Digital training games as components of multimedia educational resource", ITLT, vol. 105, no. 1, pp. 52–72, 2025, doi: 10.33407/itlt.v105i1.5862.