

THE CORE OF IMMERSIVE LEARNING IN DIGITAL DISTANCE EDUCATION SYSTEM

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The article analyzes the core of immersive learning in digital distance education system from three levels. From the behavioral level, the distance education system based on digital technology provides multiple three-dimensional senses, constructs students' cognitive feelings, creates a high immersion space atmosphere, mobilizes students' interest in learning, and improves classroom teaching effectiveness. From the emotional level, the digital distance education system promotes the innovation and reform of the classroom, enhances the emotional investment of learners, and provides the possibility for them to actively participate in personalized learning. From the reflection level, the digital distance education system is more structured and systematic. The distance learning system promotes students to engage in conscious reflection.

Keywords: education system; behavioral; emotional; immersive; reflection.

ОСНОВА ИММЕРСИВНОГО ОБУЧЕНИЯ В СИСТЕМЕ ЦИФРОВОГО ДИСТАНЦИОННОГО ОБРАЗОВАНИЯ

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В статье анализируется ядро иммерсивного обучения в системе цифрового дистанционного образования с трех уровней. На поведенческом уровне система дистанционного обучения, основанная на цифровых технологиях, обеспечивает множественные трехмерные ощущения, конструирует когнитивные чувства учащихся, создает атмосферу пространства с высоким уровнем погружения, мобилизует интерес учащихся к обучению и повышает эффективность обучения в классе. На эмоциональном уровне цифровая система дистанционного образования способствует инновациям и реформе классной комнаты, повышает

эмоциональные инвестиции учащихся и предоставляет им возможность активно участвовать в персонализированном обучении. С точки зрения рефлексии цифровая система дистанционного образования более структурирована и системна.

Ключевые слова: система образования; поведенческий; эмоциональный; иммерсивный; отражение.

According to statistics from IPEDS in the fall of 2020, the proportion of post-baccalaureate students in US higher education institutions who have participated in distance education is 71 % [1]. In China from 2018 to 2019, its education users grew by nearly 100 million [2]. Therefore, distance education has a huge market. The direction of digital transformation of the distance education system will affect its market share. With its novel teaching methods and interactive features, the digital education system has created a modern classroom system for students, promoted the innovative development of the teaching system, and brought new experiences to students. The effectiveness of digital transformation in education depends on a variety of factors. Immersive learning experiences can relieve students' anxiety, change learning attitudes, and enhance students' sense of identity [3]. Therefore, exploring the impact of immersive learning in distance digital education requires more in-depth theoretical research. The immersive learning experience in the digital education system is mainly reflected in three dimensions: the behavioral level, the emotional level and the reflective level.

Immersive learning at the behavioral level refers to the perception of the body due to the situation, and the floating of self-consciousness. Immersion at the physical level refers to the effect of the interaction between the digital remote system and the body. Digital technology makes learning more interesting and effective. Various forms of interaction, mainly through the interaction process, stimulate various perceptions of the body and enhance students' sense of experience. ZOOM, SKYPE and other platforms allow students to feel the experience of being on-site even in the distance learning system through various interactive forms such as remote voice speech, video communication, and screen sharing. As the experiencer, students' own experience resonates with the virtual environment created by the digital system, which improves students' participation and learning motivation, and allows students to learn voluntarily, thus achieving the effect of immersive learning.

In the digital education system, immersive learning at the emotional level is to achieve the purpose of immersive learning emotionally by increasing innovative experiences, giving full play to students' subjective initiative, and improving students' emotional input. Immersive learning at the emotional level can be considered as the transformation of students' perceptual immersion into conscious immersion. The new form provided by the digital distance education system makes it easier to exert people's subjective initiative. Theoretically, a digital teaching system can be defined as a virtual world established by digital technology. It spawned the core innovative elements of the field. It is also an important fulcrum for building one of the future educational models. According to the survey research, 38.5 % of the respondents believe that distance education provides them with an innovative experience. Another 30.8 % of respondents believe that digital teleservice systems offer a very broad range of tools [4]. When students are in the offline classroom, they cannot escape their own personalities, so they cannot fully immerse themselves in the teaching process of the course. The digital virtual world provides students with services such as anonymous answers. This can improve students' emotional barriers to being ashamed to express themselves in class. In addition, in the process of distance learning, the digital distance education system can visualize abstract things. Students can quickly draw their own course mastery through the test software. For courses that students are not good at, they can use the playback function to re-learn. In the process of students interacting with the digital teaching system, the emotions accumulated in the students' hearts are being further sublimated. Therefore, the digital distance education system provides students with an experience that is more suitable for their emotional needs, which is more

conducive to students' immersion in the process of learning, allowing and generating rich emotional experience and self-cognition.

The last level is the reflective level. This is also the hardest and most important step. The course learning of the digital distance education system makes the knowledge received by students more structured. For example, the update of synchronous chapters allows students to clearly grasp the progress of the course, which is convenient for students to preview and review. In addition, the system also has some other functions, such as homework answering, online questioning, online discussion, self-assessment. Take the self-assessment of digital distance education systems as an example. In general, evaluation is considered to be the teacher's right. Teachers rank students by scoring their work. In this case, student participation is low. How to improve students' self-learning and self-reflection ability becomes a difficult problem. The self-assessment of the digital distance education system is an important factor affecting student learning, and it is also an important step in immersive learning reflection. It gives students more open-ended learning materials, and encourages students to think beyond the knowledge taught by teachers and to check their own learning. When students are self-assessing, they have already completed the reflection on the mastery of the course and the understanding of the knowledge. The dual level assessment of self-assessment and teacher assessment allows students to be more immersed in experience.

Facing the huge digital distance education market, improving the efficiency of people's immersive experience will have a positive impact on its market share. Immersion at the behavioral level is an external manifestation. It enhances the immersive experience by creating a full range of physical perception through digital technology. Immersion at the emotional level is the inner driving force of students' learning experience, which fully mobilizes students' subjective initiative. At the reflective level, students conduct self-reflection on the entire learning process and efficiency. Therefore, these three different levels of immersion embody the core of the digital distance education system.

References

1. U.S. Department of Education, National Center for Education Statistics, [Electronic resource]. – URL: <https://nces.ed.gov/programs/coe/indicator/chb> (access date: 18.10.2022).
2. Zhiyan Consulting [Electronic resource]. – URL: <https://www.chyxx.com/research/202110/979070.html> (access date: 18.10.2022).
3. Sara D. F., Tim N. The use of «exploratory learning» for supporting immersive learning in virtual environments // Computers & Education. – 2009. – P. 343–352.
4. European commission [Electronic resource]. – URL: <https://www.schooleducationgateway.eu/en/pub/viewpoints/surveys/survey-on-online-teaching.htm> (access date: 18.10.2022).