In the presentation and feedback phase, students assess peers' arguments or show their own, fostering constructive learning. The evaluation stage focuses on critical thinking, argumentation skills, professional knowledge, and attitudes, utilizing retrospective content analysis to enhance objectivity.

In such a way, students' critical thinking skills improved in all three studies according to their continual engagement in the argumentation process. They exercised their critical ability by supporting or rebutting ideas. In the second and third studies, they engaged in asynchronous visual argumentation, further strengthening their critical thinking. They applied their knowledge in supporting or refuting arguments, and presented arguments based on the content, contributing to their expertise development.

Through the research of these three teaching modes, our paper discusses the steps and contents of argumentative teaching in detail, as well as students' learning style, and summarizes the teaching effect based on practice. Finally, this study sums up the key points of the design and implementation of argumentative teaching in college classrooms under a blended learning environment, which provides valuable reference and inspiration in the China's higher education.

#### **REFERENCES**

- 1. Sheng Qunli, Ding Xu, Teng Meifang. (2017). Participation is Competence: A Taxonomy of ICAP Learning Styles. A Review of Research and Value Analysis. Open Education Research, P. 46-54.
- 2. Junhui Shi. (2017). Research on problem-oriented learning mode of flipped classroom based on critical thinking cultivation. China Adult Education, P. 102-104.
- 3. A study of development an analysis based on interactive texts. Research on Electrochemical Education. P. 66 -73.
- 4. Wang J., Wang M.D. (2013). Issues of teaching reform in university classrooms: a life world theory perspective. Higher Educational Research.P. 77-83.

Ni Dong

Hunan Mass Media Vocational and Technical College, China PhD degree student of West Ukrainian National University

#### Liliya Rebukha

Doctor of Pedagogical Sciences, Professor Head of the Department of Educology and Pedagogy West Ukrainian National University

# PRACTICAL APPLICATION OF DIGITAL TECHNOLOGY IN THE TEACHING AND LEARNING PROCESS IN CHINA

With the rapid development of Internet technology, digital technology has become an important part of modern education [1, p. 11]. As the world's largest developing country, China is vigorously promoting the construction of education informatisation in order to improve the equity and quality of education. This paper will explore the specific applications of digital technology in the teaching and learning process in China, including online education platforms, interactive technologies and games, virtual reality technology, and artificial intelligence. The application of digital

technologies not only enriches the means of teaching, but also provides students with a more personalised and interactive learning experience.

Online education platforms are the most intuitive embodiment of digital technology in teaching [2]. Online education platforms represented by "China National Higher Education Intelligent Education Platform", «China University MOOC Online Course Learning Platform», "Super Star Online Learning Platform", etc., provide students with a huge amount of learning materials. These platforms provide students with a huge amount of learning resources and courses. These platforms not only cover a wide range of subjects from primary school to university, but also provide students with flexible learning modes through live courses, recorded videos, virtual simulations and online question-and-answer sessions.

The use of interactive technologies and gamified learning in teaching and learning is emerging as an effective means of addressing difficult and focused student learning issues[3]. By introducing interactive technologies, teachers can create a more dynamic and participatory teaching environment. For example, using interactive learning software, teachers can interact with students in real time to demonstrate and practice knowledge points and help students better understand complex concepts. Gamified learning, on the other hand, makes learning more fun and challenging by incorporating game elements into the teaching and learning process. Students are motivated to learn and solve problems actively through game levels and reward mechanisms. This way of learning not only improves students' interest and motivation, but also helps students gradually overcome learning difficulties and master key knowledge in the game through instant feedback and challenge mechanisms. In addition, educational games can also automatically adjust the difficulty level according to students' learning progress and performance, providing a personalised learning experience and thus supporting students' learning development more effectively. Overall, the application of interactive technology and gamified learning is providing students with a more flexible, engaging and interesting way of learning, which helps to enhance learning effectiveness and knowledge mastery.

The application of virtual reality (VR) technology in teaching greatly enhances the intuitiveness and interactivity of teaching. For example, through VR technology, students can visit historical sites, conduct scientific experiments, and even conduct virtual internships. This immersive learning experience helps to stimulate students' interest in learning and hands-on ability.

The application of Artificial Intelligence (AI) technology in personalised teaching is gradually gaining popularity. AI can provide personalised learning solutions based on intelligent analysis of students' learning data. For example, an intelligent question bank system can automatically recommend practice questions suitable for a student's level based on his or her answers, thus improving learning efficiency. In addition AI technology empowers students to do what they could not do in traditional teaching in the past. AI is a superb tool to stimulate students' creative potential, a tool that allows dreams, ideas, and ideas to flourish, and a faithful companion that empowers us to be more powerful and brings more possibilities, helping students to eliminate professional boundaries and enabling them to innovate and think on an unprecedented scale and at an unprecedented speed, and providing students with a

Provides a transformative experience that eliminates the need for a plethora of related expertise and knowledge, allowing us to focus more on learning and creating.

The impact of digital technology on the teaching and learning process encompasses the following aspects:

### 1. Improvement of teaching efficiency

The application of digital technology has greatly improved teaching efficiency. Teachers can use digital tools to quickly prepare teaching materials and courseware, reducing repetitive labour. In addition, the application of online platforms and AI technology has led to a more efficient use of teaching resources.

#### 2. Promoting teaching equity

Digital technology helps narrow the urban-rural gap in educational resources. Through the online education platform, students in remote areas can also enjoy high-quality educational resources. In addition, the development of personalised teaching programmes enables each student to receive attention, which promotes educational equity.

# 3. Stimulate Learning Interests

The application of virtual reality and interactive teaching tools has greatly stimulated students' interest in learning. Vivid image of the teaching content, so that students no longer feel boring in the learning process, thus improving the learning enthusiasm and initiative.

#### 4. Enhance the ability of teachers

Digital technology is not only beneficial to students, but also provides new ways for teachers' professional development. Through online training and educational resource sharing platforms, teachers can learn and further their studies anytime and anywhere, and continuously improve their teaching ability and level.

Of course, digital technologies pose challenges to innovation and reform in education. The first is the issue of building technological equipment and network infrastructure, especially in remote and rural areas, which still requires significant investment. Second is the need to continuously improve teachers' digital literacy and their ability to apply technology. In addition, how to protect students' privacy and data security is also an important issue.

In the future, with the continuous development of technology, the application of digital technology in teaching will be more extensive and in-depth. We can expect that education will become smarter and more efficient through the application of emerging technologies such as AI, 5G, IoT, blockchain and big data [4, p.11].

All in all, the practical application of digital technologies in China's teaching and learning process is driving innovation and change in the education model. Through the application of technologies such as online education platforms, interactive technologies, virtual reality, artificial intelligence and big data analytics, not only does it improve the efficiency and quality of teaching, but also promotes fairness and personalised development in education. Despite some challenges, the application of digital technology in education will have broader prospects as technology advances and education informatisation continues.

#### REFERENCES

1. Chen, W., Li, G. (2020). Research on the application of digital technology in education. *Educational Research and Practice*, 45(2), 33-45.

- 2. Ting, W. (2019). Application of virtual reality technology in teaching in primary and secondary schools. *Modern Educational Technology*, 29(3), 77-82.
- 3. Li, M. (2021). Applications and challenges of artificial intelligence in education. *Educational Informatization*, *37*(1), 15-23.
- 4. Li, Z., Yang, L. (2022). The application of big data in education management. *Educational Management and Research*, 40(4), 56-64.

#### Ni Dong

Hunan Mass Media Vocational and Technical College, China PhD degree student of West Ukrainian National University

# Liliya Rebukha

Doctor of Pedagogical Sciences, Professor Head of the Department of Educology and Pedagogy West Ukrainian National University

# EXPLORATION AND PRACTICE OF INNOVATIVE SIGN LANGUAGE TEACHING BASED ON LEAP MOTION SOMATIC GESTURE RECOGNITION TECHNOLOGY

Globally, the causes of the problem of hearing impairment are varied, and in addition to congenital hearing impairment, there are many cases of hearing loss due to external factors such as war and accidental injury. In recent years, due to the frequent occurrence of local conflicts and wars, many countries and regions have seen a large number of patients with hearing impairment caused by bombings, shootings and other factors. In addition, traffic accidents, industrial accidents and other unintentional injuries have caused various cases in terms of hearing impairment. These people who are deaf due to external factors are in urgent need of effective sign language teaching methods to help them re-establish a bridge of communication with the society. However, traditional sign language teaching methods have many limitations such as lack of interactivity, personalization and immediate feedback [1]. These limitations make the learning process boring and inefficient, making it difficult to meet the needs of diverse learners. Students often find it difficult to receive adequate individualized instruction and timely corrective feedback in the classroom [2], which directly affects their learning effectiveness and self-confidence. Meanwhile, the lack of teaching resources and single teaching method also limit the popularization and promotion of sign language education.

With the advancement of technology, new possibilities for teaching sign language have been opened up with the advent of somatosensory technology, especially the Leap Motion controller, a high-precision gesture-recognition device that captures the user's hand movements and provides real-time feedback[3]. This technology is not only capable of recognizing complex gesture movements, but can also be combined with Virtual Reality (VR) and Augmented Reality (AR) technology to provide an immersive learning experience [4]. This creates an interactive, dynamic and engaging learning environment for sign language learners, making the learning process more lively and fun.