Research and Application of Deep Learning Theory in Higher Vocational Computer Course Teaching

Wei ZHANG, Liping Song

Lanzhou Modern Vocational College Tourism College, Lanzhou, China songliping 0501@163.com

Keywords: Higher vocational education, Curriculum, Teaching, Research, Application, Computer, Deep learning theory

Abstract: With the wide application of information technology, the Education Department of our country pays more and more attention to the development of computer course teaching in higher vocational education, therefore, it is necessary to apply deep learning theory to the teaching of computer courses in higher vocational colleges. Through analyzing the research and application of deep learning theory in the teaching of computer courses in higher vocational colleges, this paper brings the deep learning theory into full play, then, according to the requirements of the syllabus, the teaching objective of the computer course is defined, and the teaching method of "work-study alternation" is carried out Finally, according to the corresponding design curriculum teaching effect analysis, to ensure the development of computer professional to provide strong support.

1. Introduction

As our society gradually enters the information age, the development of computer talents in most colleges and universities in our country becomes more and more rapid, which leads to the higher vocational colleges gradually taking the improvement of students'ability to use computers as the main teaching goal. As a new teaching method, deep learning theory plays an extremely important role in improving students'ability. Deep learning is mainly in each link of teaching, to promote students'learning interest and autonomous learning ability, to ensure that through the main ability of students to promote more comprehensive and healthy development of students. Therefore, when teachers carry out the teaching of computer courses in higher vocational colleges, they need to actively apply the theory of deep learning, constantly strengthen the teaching effect of computer courses in higher vocational colleges adapt to the requirements of social development, thus for the community to send a large number of high-quality personnel.

2. Research on Deep Learning Theory in the Teaching of Computer Course in Higher Vocational Education

2.1 Design the Framework of Computer Course in Higher Vocational Education

In order to improve students'self-regulated learning ability in higher vocational computer curriculum, teachers need to design the computer curriculum framework from the aspect of curriculum framework according to the theory of deep learning, under the teaching frame of computer course based on deep learning theory, computer teaching can be divided into three parts: the determination of learning route, the optimization of learning mode and the adjustment of teaching content. First of all, the key to the development of computer courses is to have a perfect teaching goal. Teachers need to predict the comprehensive situation of students according to their actual situation and the students'understanding of computer science, according to the evaluation results, the teachers are designing the corresponding teaching objectives to ensure a relaxed and pleasant computer learning atmosphere for the students. Before developing computer courses, teachers need to ask students to preview the knowledge points of classroom teaching, and to

DOI: 10.25236/icatpe.2020.145

establish a new teaching framework on the learning system that students have already established, so as to guide students to study the key points of classroom teaching, can more advantageous to the student grasps the new knowledge spot. Secondly, when teachers carry out computer courses in higher vocational colleges, they need to take students'individualized development as the main line of teaching, probe into the significance of the course development, and have continuous study and discussion with students, make sure to strengthen students'knowledge of computer science by using inquiry, so that students can form good autonomous learning ability.

2.2 Making Clear the Teaching Objectives of Computer Courses in Higher Vocational Colleges

When teachers define the teaching objectives of computer courses in higher vocational colleges, they should follow the syllabus issued by the education department and combine the requirements put forward by the education department, moreover the teacher also needs according to the computer curriculum different chapter request, the analysis market computer post situation. Teachers need to take the comprehensive process of computer design as the teaching guidance, and integrate the specialized knowledge points in the process of the construction of teaching objectives by analyzing the logic of classroom teaching. Therefore, teachers not only need to combine the content of computer courses, but also need to analyze students'computer learning ability, divide students into different learning levels, and then according to students'actual learning ability, designing the teaching goal of computer course in higher vocational education.

2.3 To Implement the Teaching Method of "Work-Study Alternation"

When arranging the teaching contents according to the school-enterprise cooperative teaching system, the teachers mainly lead the students into the enterprises to carry out the corresponding post practice, so that the students can have a feeling of the production culture of the enterprises, and let students understand the computer industry in the market development. Teachers need to participate in project production or design activities, and then adjust students'professional courses according to the real development method of the project, the final design result of the students is included in the statistics of the students'later grades. Teachers in the development of computer laboratory teaching, students need to be divided into a number of study groups according to the different ways of learning, and then for each student to arrange the corresponding tutor, let the tutor guide the students to practice in the computer lab at different time, and let the enterprise arrange the staff to guide the students one-on-one, so that the students can discuss with each other according to the real project case provided by the enterprise.

3. The Application of Deep Learning Theory in the Teaching of Computer Course in Higher Vocational Colleges

As teachers gradually apply the theory of deep-learning to the teaching of computer courses in higher vocational colleges, because the theory of deep-learning can not only expand the teaching methods of computer courses, the teaching depth of the course is also extended, so it is more conducive to teachers to complete the teaching task. The application of deep learning theory in the teaching of computer courses in higher vocational colleges can continuously arouse students interest in learning and enable them to better grasp the basic laws of computers, and students develop the ability to solve operational or theoretical problems in the learning process. Under the guidance of teachers, students are more and more clear about their future employment plans, as well as setting up correct professional values and employment concepts, so that students can communicate with teachers actively, a good teacher-student relationship is formed between the two. Second, when assessing students'final grades, teachers can find that students'academic performance is improving and students have developed a strong confidence in learning, thus laying a solid foundation for students'computer learning in the future.

4. Conclusion

With the wide application and popularization of deep learning theory in teaching, especially in the teaching of computer courses in higher vocational colleges, not only has the teaching goal of computer courses become more and more clear, also through the implementation of "work-learning alternative" curriculum teaching methods, so that students more understanding of the development of computer industry, to ensure that students form a good computer application ability. In the teaching process of computer course in higher vocational colleges, deep learning theory plays an extremely important role, teachers need to apply it actively to ensure that through playing its role, students will be provided with a more relaxed and happy learning atmosphere, so that teachers can effectively guide and train students, promote students to more comprehensive development and growth, and then to achieve the teaching objectives of higher vocational colleges.

References

- [1] Xi Dongmei, teaching reform of Computer Application Foundation course based on deep learning model in higher vocational education. Guangdong Vocational and technical education and research, vol.63, no.3, pp. 6-78, 2020.
- [2] Tong Ling. A probe into the teaching strategy of "computer application basis" from the perspective of deep learning. Computer products and circulation, no.9, pp.198-199, 2019.
- [3] Li Xujuan, Pi Jianyong. A survey on the application of deep learning in trajectory data mining. Computer Science and applications, vol.9, no.12, pp.10, 2019.
- [4] Chen Shuhan, Hu Xuelong, Yao Zhijun, et al. The application of deep learning in the teaching of digital image processing. Industrial and information-based education, no.2, pp.84-88+94, 2019.