Research on Computer Teaching Strategies in Colleges and Universities Based on Cultivating Innovative Talents

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Abstract: With the rapid development of social informatization, higher requirements have been put forward for the training of professional talents. The conventional education model has been difficult to adapt to the current development requirements. In the process of education system construction, colleges and universities are based on the goal orientation of training innovative talents. Combining with the requirements of education and development in the new era, the innovation of computer teaching is realized. In the implementation of teaching organization, the teaching program, form, goal, structure and result are scientifically optimized. In the comprehensive education of knowledge, thinking, ability and consciousness, we can realize the comprehensive cultivation of innovative talents.

Keywords: University computer; Innovative talents; Teaching strategy

Introduction:

The development of science and technology cannot be separated from the support of innovative talents. Colleges and universities realize the scientific integration of knowledge, ability and development orientation in the optimization and reform of computer teaching strategy. In the systematic education guidance and hierarchical in-depth, help students in the hierarchical construction, to build a perfect knowledge system. In the collaborative development of theory education and achievement transformation, students' innovation ability should be improved.

1. Stratified teaching, to promote the development of students' personality

For the development and training of innovative talents, we need to pay full attention to the objective differences of students themselves. Teachers subdivide teaching objectives into learning objectives and divide them in detail around three dimensions of knowledge, skills and thinking. According to the actual level of students, the rational implementation of stratified teaching and the scientific setting of stratified objectives are carried out. Faced with students with weak basic knowledge, teachers focus on the consolidation of knowledge concepts. In daily teaching, it systematically combs the knowledge of computer composition principle, program design, data structure and operating system. In the feature explanation and highlight, help students according to the system knowledge analogical reasoning and meaning connection. In the system cognition, construct the perfect knowledge system. For students at the development level, teachers pay attention to the transformation of students' theoretical knowledge, guide students to use computers for operation and application, and complete relevant web page making and programming language design. On the basis of consolidating students' theoretical knowledge, it is internalized into students' operating ability. For students at the development level, teachers tend to train students' thinking. In the basic training of traditional operation application, students can be inspired to complete

the optimization and improvement of the practical application of computer according to their own cognitive understanding. On the basis of routine training, develop students' innovative applications. Teachers based on the actual situation of students, strengthen the classification of guidance teaching to students. In the depth of knowledge, skills and thinking level, the integrated education around understanding, application and innovation, to promote the personalized development of students.

2. Question guidance to cultivate students' scientific inquiry

In computer teaching, teachers avoid being limited to conceptual explanations. It is scientific guidance based on question guidance to stimulate students' cognitive conflict. Through problem analysis, concept cognition, thinking reasoning and other forms of independent thinking and scientific inquiry, students are helped to deepen their understanding of the connotation of knowledge concepts [1]. Teachers embed the core knowledge concepts into the computer teaching problems, present the calculation examples, and guide the education through questioning, questioning and rhetorical questioning. Ask students to transform the problem into a calculable one. In the conjecture hypothesis, make clear the relevant knowledge concept correlation. Through in-depth analysis of logical reasoning, mathematical modeling. Students will model variables, into the program instruction design. In the implementation and application of the algorithm, a reasonable solution to the teaching problem is proposed. The teacher instructs the students to verify the conclusion of the operation. Is it consistent with the previous conjecture? Based on students' cognitive misunderstandings, teachers systematically ask questions to help students realize their own problems in thinking transformation, exploring ideas and writing design. Through communication and interaction between teachers and students, guide students to realize their own weaknesses in time. In the targeted questions and in-depth, promote students to complete the breakthrough of learning problems. Teachers break students' cognitive limitations by means of questioning and combine the root causes of cognitive conflicts. Through detailed analysis, improve students' thinking and cognitive path. At the same time, by asking questions, teachers enable students to transform data and programs of calculation problems on the basis of cognitive learning and connotation understanding. With the aid of computer tools, the learning problem can be solved innovatively. With the help of problem-oriented drive, teachers cultivate students' scientific inquiry and activate students' consciousness of innovation

3. Collaborative learning promotes the reorganization of students' thinking

In the implementation of teaching, teachers should make clear the significance of cooperative learning to cultivate students' innovative thinking. Break the past one-way information transmission in healthy competition and complementary advantages. Information sharing and multi-dimensional interaction through collaborative communication open students' divergent thinking [2]. The teacher takes the typical case of computer teaching as the group research, and the student group controls the development of learning activities. Based on the guidance of research, students use mobile terminals to collect and collate relevant data and conclude information to form a unique cognitive understanding. According to their own cognition, students complete the project design. In the communication within the group, each student shared resources and explained viewpoints from multiple aspects such as mathematics, algorithm, language and system. In the comparison study between the design scheme and their own thinking path, other members look for the similarities in concept cognition for reference learning. In the comprehensive analysis, students pointed out that the other side's expression was insufficient. In the discussion and communication of student groups, according to the different cognition of the same subject, the intersection of different viewpoints and the collision of ideas are promoted to realize the thinking reorganization of multi-dimensional information interaction. Through the reasonable division of labor and mutual assistance and cooperation of group members, reasonable solutions to research topics are proposed. On the basis of students' mutual assistance and cooperation, teachers can supplement teaching and suggest thinking to enhance students' understanding of content. With the help of collaborative learning, teachers can enlighten students' divergent thinking and cultivate their innovative thinking.

4. Campus competition to cultivate students' ability of mass innovation

Teachers build campus innovation environment and atmosphere around the development trend of entrepreneurship and innovation education. Regularly carry out computer skills competition activities, with the interest of computer competition, exploration and competition, to mobilize the enthusiasm of students. By providing practical education platform for students, promoting the achievement transformation of students' theoretical knowledge, developing and cultivating students' ability of mass innovation and innovation. Teachers make full use of the second class to create academic lectures and computer reports to promote in-depth communication between students in different fields and disciplines. In the campus communication activities of the interest group, learn the thinking and methods of creative problem solving of others. Teachers regularly pay attention to students' entrepreneurial intentions, and incubate innovative projects through their own scientific guidance and the campus maker space. Improve students' application ability in the

development of entrepreneurship and innovation. In addition, teachers hold a variety of campus science and technology contests to encourage students to participate in them. According to the requirements of the competition, students on the one hand consolidate their own theoretical knowledge, deepen the cognition and understanding of computer knowledge in the competition. On the other hand, it promotes the transformation of learning results in the application of skills. Students in the free competition, through the algorithm design and debugging, data analysis and processing. With the help of computing resources and toolkits provided by the platform, the innovative design of products is completed. In the field demonstration and defense, analyze their own innovative design, thinking path. In the comprehensive learning of the participating students, the cognitive path of the students will be expanded. Cultivate students' good innovation ability by encouraging them with positive commendation.

5. School-enterprise cooperation to optimize the effectiveness of education

Universities around the goal - oriented, change the training mode. To the standard era of social and job development requirements, strengthen the deep cooperation between schools and enterprises, to achieve comprehensive training of students. In the link of school-enterprise cooperation, forms such as order-type talents and combination of work and learning are promoted to cultivate innovative talents who meet the requirements of the development of The Times [3]. In school education, teachers lay emphasis on imparting and training knowledge and skills. In the integration of practical education model, the enterprise internship. The professional and technical personnel of the enterprise will provide on-site guidance and real-time explanation to promote the development of students' professional skills to vocational abilities. In addition, the joint participation of enterprise work projects helps students to understand the innovative technology and application knowledge in the new era. In the process of exploring new laws and creating new methods, the accumulation of innovation knowledge is completed. In the link of school-enterprise cooperation in education, realize the complementary resources of the two, and build a perfect education system. In the educational path of theory education, achievement transformation and career development, the comprehensive training of compound talents is realized. In school education, teachers clearly realize that the development and training of innovative talents is not confined to the classroom independent education. It takes classroom teaching as the carrier to mark the requirement of social development. By complementing the advantages of school-enterprise cooperation, on the basis of reforming computer teaching, the effect of education is optimized. For the development of society to cultivate suitable innovative and compound professional talents, improve the quality of computer teaching

6. Concluding Remarks

Based on the development goal of innovative talents, colleges and universities realize the innovation and optimization of traditional teaching mode. Through the integration of multiple educational resources, the construction of a perfect education system. Teachers should reasonably organize the implementation of teaching activities according to the actual level of students. In the comprehensive education of knowledge consolidation, ability cultivation and thinking expansion, develop students' innovation ability and improve the quality of computer teaching.

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