Countermeasures for Cultivating Students' Innovative Ability in Computer Teaching in Colleges and Universities

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Abstract: In computer education in Colleges and universities, students' subjective learning ability, innovation ability and comprehensive practical ability are highly valued. In order to give full play to students' important abilities in computer teaching in Colleges and universities, college teachers are working towards improving the level of practical teaching to the greatest extent, which is mainly reflected in the reform of educational concepts, educational methods and evaluation system. The ultimate goal is to achieve students' professional knowledge level. Only by improving students' professional level can the reform be meaningful. Among them, the cultivation of students' innovation ability is closely combined with the development theme of the times and mainstream industries, and occupies an important position. Starting from the current situation of computer education in Colleges and universities, this paper focuses on how to cultivate students' innovative ability.

1. Introduction

With the emergence of computer technology, human society is constantly updating. Now the whole human society has entered a new era, that is the information age. From the current situation, the effectiveness of computer teaching in Colleges and universities in China can be seen. Its teaching theory is seriously divorced from practice, and there must be many disadvantages and problems. Single teaching methods and mechanized examination methods are the inevitable trend of its development. These are the great resistance of society to the cultivation of compound talents. So, how to stand out in the limited book learning? The competition is cruel and fierce. If you want to become a talent in line with the needs of social development trends, tapping your innovation potential and practical technical skills can lay a solid foundation for future development.

2. The Significance of Cultivating Students' Innovative Ability in Computer Teaching in Colleges and Universities

Innovation ability is a necessary ability for computer majors in Colleges and universities. Innovation ability has a very important impact on the future learning and development of computer majors. Therefore, in computer teaching, teachers should pay attention to strengthening the cultivation of students' innovative ability. Its significance is mainly reflected in the following aspects:

2.1. Improving innovative thinking ability

In the traditional computer teaching in Colleges and universities, most teachers often only pay attention to the explanation of theoretical knowledge and ignore the cultivation of students' innovative ability. This will seriously affect the improvement and all-round development of students' professional skills. In the process of strengthening the cultivation of students' innovative ability, we should give students reasonable inspiration and scientific guidance, encourage students to ask questions boldly, dare to innovate, dare to express their views, and fully tap students' internal innovative potential. At the same time, strengthening the cultivation of students' innovative ability also helps to promote students' in-depth understanding of computer professional knowledge, so as to improve students' professional skills and innovative thinking ability.

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2.2. Improving job adaptability

With the continuous development and progress of society, the demand for talents is higher and higher. Therefore, in the process of computer teaching, colleges and universities need to fully combine the actual needs of work and society, innovate teaching methods and teaching modes, and strengthen the cultivation of students' innovative ability. It also needs to effectively expand the teaching content, reasonably adjust and optimize, and clarify the computer teaching objectives. In the process of carrying out teaching activities, teachers should pay attention to stimulating students' innovative thinking and appropriately increase practical teaching, so as to better cultivate students' innovative ability and improve students' adaptability to future work.

3. Deficiencies in the Cultivation of Students' Innovative Ability in Computer Teaching in Colleges and Universities

Although the importance of cultivating students' innovative ability in computer teaching in Colleges and universities is becoming more and more obvious, in actual teaching, some teachers still use the previous teaching mode based on Teacher' professional knowledge in the process of teaching activities, ignoring the inspiration and guidance of students' innovative thinking, which seriously hinders the improvement of students' innovative ability. At present, the deficiencies of computer teaching in Colleges and universities in cultivating students' innovative ability are mainly reflected in the following aspects:

3.1. The teaching situation is lack of rationality

In the process of carrying out computer teaching activities, teachers can not only create teaching situations reasonably to make the presentation of teaching content more intuitive and intuitive, but also effectively stimulate students' learning enthusiasm and interest, fully tap students' innovative potential, and cultivate students' innovative ability. However, there are still some teachers. In the process of actual teaching activities, the creation of teaching situation is not fully in line with students' actual life, the creation of teaching situation is unreasonable, and the important role of Mu class and micro class can not be brought into full play. They only explain and analyze the knowledge content in the textbook in detail. This will not only affect the stimulation of classroom vitality of computer teaching, but also affect the improvement of students' innovative ability.

3.2. The teaching task is lack of scientificity

The task of computer teaching in Colleges and universities is to promote students to firmly master basic computer knowledge and skills. Teachers need to design teaching plans in combination with teaching objectives. In this process, teachers need to innovate teaching ideas and methods, and promote students to understand and master basic computer knowledge by completing learning tasks, so as to achieve teaching objectives*(2020,Wu zhuang)*. This not only helps to improve students' professional skills, but also helps to cultivate students' innovative ability in the process of completing learning tasks. However, in the actual teaching, there are still some teachers who fail to bring the cultivation of students' innovative ability into the setting of teaching tasks. The lack of rationality of teaching task setting is not only not conducive to the cultivation of students' innovative ability, but also to the improvement of teaching effect and efficiency.

3.3. Students' comprehensive ability needs to be improved

In the traditional computer teaching mode in Colleges and universities, teachers often pay too much attention to the explanation of computer theoretical knowledge and ignore the effective development of practical teaching courses. Moreover, the copying of teaching materials seriously hinders the improvement of students' practical ability, let alone the cultivation of students' innovative ability. In the process of carrying out practical teaching activities, teachers often only pay attention to the completion of students' propositions, and the arrangement of propositions is generally simple. Most students will not encounter many problems in the process of completion, which will not only affect the improvement of students' problem-solving ability, but also fail to

stimulate students' innovative potential.

4. An Effective way to Cultivate Students' Innovative Ability in Computer Teaching in Colleges and Universities

4.1. Pay attention to increasing the interest of teaching situation

For college students, different students have different computer knowledge base and the ability to accept new knowledge. To fully mobilize the learning enthusiasm of all students and improve their innovation ability. In the process of creating computer teaching situation, teachers should pay attention to improving their interest in teaching situation, so as to promote each student to actively and independently participate in computer teaching. Learning interest is not only the biggest power source to promote students' autonomous learning, but also an important basis to stimulate students' innovative potential. Teachers can create teaching situations and interesting teaching situations through games, tasks, competitions and other forms, which is easier to cultivate students' innovative ability*(2020,Zhang Wendou)*.

For example, when talking about Photoshop related knowledge, computer teachers should create a life-oriented teaching situation according to students' actual life, so as to strengthen the cultivation of students' innovative ability. Before formal teaching activities, teachers can reasonably divide students into several groups. After completing the teaching content of this course, teachers can arrange learning tasks for students. Each study group needs to give full play to their imagination and use Photoshop to make portraits interesting. Each study group can take a collective photo, add some text, background, cartoon characters, etc., and then use Photoshop tools to make the photo more interesting. Finally, each study group needs to send a representative to show their works and state the design concept of the works. Creating a teaching situation in the form of competition can not only effectively stimulate students' learning enthusiasm, but also help to enhance students' team spirit, improve students' innovation ability, promote students to master computer knowledge more solidly and spread students' innovative thinking. The logic of innovative thinking is shown in Figure 1:

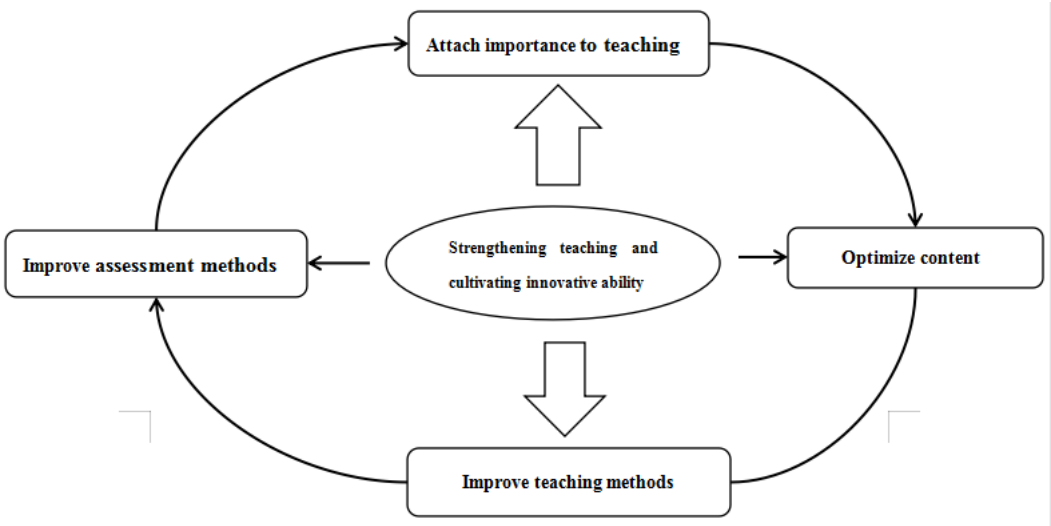

Figure 1 Teaching reform measures to cultivate students' innovative ability.

4.2. Pay attention to enhancing the openness of teaching tasks

People with certain innovation ability can put forward new ideas and practices in life practice or work practice, which will play a positive role in life or work. In order to make the students trained in Colleges and universities meet the needs of the society for computer talents at this stage, college computer teachers should pay full attention to the cultivation of students' innovative ability, scientifically set teaching tasks, pay attention to improving the openness of teaching tasks, and encourage students to think and explore from the perspective of innovation.

For example, when explaining the contents of relevant dynamic web page design and production,

University computer teachers can design open teaching tasks to guide students to give full play to their potential innovation ability according to their own interests and hobbies, and creatively think about the overall layout and the beauty and practicability of web pages(see Figure 2 below). It can highlight the interest and practicability of web pages. Either way, the design of web pages needs to be beautiful and generous. In this process, it can not only improve students' innovation ability, but also improve students' ability to use computer knowledge.

Figure 2 Students are explaining their design.

4.3. Pay attention to strengthening the effective development of practical teaching activities

It has strong practicability for computer teaching in Colleges and universities. Therefore, in the process of cultivating students' innovative ability, teachers should pay attention to strengthening the effective development of practical teaching activities, stimulate students' innovative thinking through practical training, and fully tap students' innovative potential. Closely around the teaching objectives, optimize students' flexible mastery of computer technology. When setting learning tasks for students, teachers should reasonably set the task difficulty to promote each student's deeper understanding of theoretical knowledge. Make full use of the ubiquitous competitive psychology of college students, guide students to think deeply and widely about practical teaching activities, effectively distinguish similar technologies, cultivate students' reverse thinking and different thinking, actively encourage students to boldly develop their imagination and prove their new ideas through practice. In the process of carrying out practical teaching activities, teachers should guide students to break through the limitations of solidified conventional thinking. In the process of practice, we should learn to conduct in-depth observation, analysis and Reflection on computer technology, and conduct in-depth exploration and practice, which can not only effectively improve students' computer technology level, but also achieve the purpose of cultivating students' innovative ability.

4.4. Pay attention to teaching students according to their aptitude

For college students, each student's personality and computer knowledge are different, and each student's ability to accept and recognize new things is also different. If we want to better cultivate students' innovative ability in computer teaching, we need to respect students' individual differences and teach students according to their aptitude. This requires teachers to put down the dignified image of teachers in the past, actively establish a harmonious and equal relationship between teachers and students, strengthen communication with students, and fully understand the actual situation of each student. Only in this way can we better combine students' individual differences, teach students according to their aptitude, fully stimulate each student's learning enthusiasm and interest, and promote all students to actively and independently participate in computer teaching. In the process of carrying out specific teaching activities, teachers should take

students' learning needs as the starting point, clarify the key and difficult points of teaching, guide students to think creatively about problems, obtain innovative answers by creating open teaching scenes, and guide students to verify their innovative answers through independent hands-on practice, which can not only realize the cultivation of students' innovative ability, It can also cultivate students' practical operation ability.

5. Conclusion

In a word, the development of computer technology is changing with each passing day. Therefore, in the process of carrying out computer teaching activities, colleges and universities must fully understand the importance of cultivating students' innovative ability and attach great importance to it. From the actual situation at this stage, some colleges and universities still have some problems in cultivating students' innovative ability in computer teaching, which hinders the improvement of students' innovative ability. Therefore, colleges and universities must actively solve these problems through effective ways, so as to better cultivate students' innovative ability.

References

[1] Wu zhuang. Analysis on the Training Path of Students' Practical Ability in Computer Teaching in Colleges and Universities[J].China new communications,2020,22(06):205.

[2] Zhang Wendou. On the Cultivation of Students' Innovative Ability in the Process of Computer Teaching in Colleges and Universities[J].Computer products and circulation,2020(02):262-263.