Research on Cultivation of Computational Thinking Ability in Computer Basic Teaching

Yang Donghui

Kunlun Tourism College of Heilongjiang Institute of Technology Heilongjiang Harbin 150040, China

Abstract: With the rapid development of information technology, the mastery of computer-related technology has become a skill that contemporary young people must master. In colleges and universities, computer basic courses are also a subject that many majors must learn in colleges and universities. However, by delving into the teaching status of computer basics in colleges and universities, we have found that there are many obstacles in it. At the same time, most teachers who teach computer basics promote the cultivation of computational thinking ability. The cultivation of computational thinking ability is not only helping them accelerate their mastery of computer-related technologies will also helping them improve their professional capabilities.

1. Introduction

As a compulsory course in colleges and universities, computer science is not only a subject to be studied by computer majors, but also other architecture, management, and business majors should also learn this course. Through the teaching of this course, children's computer foundation can get high-efficiency training. At the same time, students' computational thinking ability will be cultivated in the training of computer basics, so that they can fully grasp the computer ability and solid power. Through analysing the current situation of basic computer teaching, we have clearly found that there are very few computer teachers who are concerned about the cultivation of students' computational thinking ability. The current situation of this kind of teaching must arouse the attention of relevant personnel by deepening the teaching of computational thinking ability cultivate, to gradually optimize the children's commission in this area. Generally speaking, the children's computational thinking ability in the current computer foundation has not been well exercised. If we do not speed up the optimization and improvement, then the children's future development is likely to be greatly negatively affected.

2. Current Status of Cultivation of Computational Thinking Ability in Basic Computer Teaching

The basis for realizing the efficient cultivation of computational thinking ability in basic computer teaching is, first of all, a deep understanding of the current situation of the cultivation of computational thinking ability in basic computer teaching. Through comprehensive questionnaires

and a comprehensive survey of basic computer teaching teachers, we clearly find that: Nowadays, there are very few teachers who pay attention to the cultivation of computer-based computational thinking ability. In addition, after many students enter the university, they maintain a relaxed and loose learning attitude, resulting in a situation where teachers teach they speak in class and play in class. Some university teachers also pay attention to children negligently. Under the combined effect of these two reasons, children will not pay more attention to the cultivation of computational thinking ability, and their learning quality will inevitably decrease. In general, in the current basic computer teaching, neither teacher resources nor student resources are adequately prepared, and we must now be required to accelerate optimization and improvement.

3. Obstacle Factors in the Cultivation of Computational Thinking Ability in Basic Computer Teaching

3.1 The Negligence of Computer Teachers in Colleges and Universities on the Cultivation of Computational Thinking Ability

In the above content, we have clearly understood the current status of the cultivation of students' computational thinking ability in basic computer teaching. Below, through the training process, we have in-depth exploration of the obstacles that exist within it, and we have launched higher-quality optimization and improvement. First of all, we must carry out a specific analysis: college teachers' neglect of computational thinking ability. For this problem, we can analyse this problem through a specific example. A college in a certain area, two classes of the same grade and the same major, its computer teaching teachers used different kinds of teaching methods when launching class lectures. One of the teaching teachers paid great attention to the cultivation of the students' computational thinking ability in the class when carrying out theoretical lectures. He added some computational thinking when teaching textbook knowledge, under the long-term influence of this teaching environment, the students' computational thinking ability has been effectively improved, and it has also played an extremely important role in their future growth and learning. However, the computer teacher in another class only pays attention to his own teaching progress when teaching knowledge in the classroom, and only teaches in class, and never pays attention to the opinions and questions raised by the students. The computer teaching teacher's ability to think about computers neglect of attention not only restricts the overall development of children, but also reduces the quality of classroom teaching, which goes against the goal of cultivating comprehensive talents in universities and requires us to accelerate innovation and reform.

3.2 Incorrect Attitudes Of Computer Teachers And Students To The Cultivation Of Computational Thinking Ability In Colleges And Universities

In their daily teaching, many high school teachers always transmit the thought to their students that "suffering is suffering now, and it will be fine when you go to university in the future. When you play on your mobile phone and sleep in class, the teacher will not care about you." Under the conscious concept, after entering the university, many students play mobile phones, sleep, chat with friends in class, and do not pay attention to the improvement of their own knowledge and the related feelings of the coaching teacher. In addition, some students think that as long as they ensure that the final exam is not missed in the course of study, they did not pay much attention to the computational thinking ability. In addition, some computer teaching teachers, they only teach relevant course knowledge in the classroom, and do not pay more attention to the cultivation of other thinking skills. Most of them believe that the improvement of students' computing ability is the students' own business, and their own teaching has nothing to do. In summary, the current

situation of the cultivation of computational thinking ability in colleges and universities is particularly bad. The negligence of its teachers and students on the cultivation of this ability has greatly hindered the quality of the cultivation of computational thinking ability in the computer foundation. At present, we must correspond changes are made to gradually optimize the training quality of the teaching ability by deepening the attention of computer teachers and students to computational thinking ability.

4. Analysis of the Importance of Deepening the Cultivation of Students' Computational Thinking Ability in Colleges and Universities

The existence and development of things has their corresponding meanings. Similarly, the cultivation of computational thinking ability in basic computer classrooms in colleges and universities has an extremely important impact on children. We will conduct specific investigation and analysis on this as follows: First, the cultivation of computational thinking ability has a direct and efficient effect on the improvement of children's professional abilities, which is helpful for their in-depth mastery of computer technology. The improvement of students' computational thinking ability also plays an extremely important role in improving their logical thinking ability. Second, the cultivation of computational thinking ability helps children become comprehensive talents. In the process of cultivating thinking ability, children will gradually optimize the improvement of their own professional skills and help them become talents with professional skills, lay a good foundation for its future entry into the society. In summary, the improvement of students' computational thinking ability in computer-based classroom teaching has a direct effect on their future. For these important significances, we must make optimization and rectification, and gradually reduce the obstructive effect of obstacles to the cultivation of computational thinking ability through various measures, promote students to better grow and learn.

5. Exploring Measures to Optimize the Cultivation of Computational Thinking Ability in Basic Computer Teaching

5.1 Deepen the Teacher's Attention to Computational Thinking Ability in Basic Computer Teaching

From the above content, we have not only explored the current status of the cultivation of computational thinking ability, but also carried out in-depth exploration of its internal obstacles. Below we will gradually optimize these obstacles. The first thing we have to solve is: In the computer basic classroom, the teacher's ignorance of the ability training. In response to this problem, we can optimize and improve through the following ways. First, the relevant leaders in colleges and universities should organize training for computer basic teachers and lead them fully recognize the important and positive role of developing computational thinking ability. Only when the teaching teacher recognizes the importance of the teaching work, can he more actively promote the basic computer classroom and the comprehensive development of children. Secondly, colleges and universities can regularly organize computer coaching teachers to go out to study. By learning from the excellent teaching experience of coaching teachers in other colleges and universities, they will gradually internalize these experiences in their daily teaching, rationally organize classroom teaching activities, and optimize children under the effective mastery of computer foundation, we will promote the high-quality training of students' computational thinking ability and help them become comprehensive talents.

5.2 Correct the Cognition of the Teaching Teacher and Students on the Computational Thinking Ability in the Basic Computer Teaching

In addition to deepening the emphasis on the cultivation of computational thinking ability by the teaching teachers of basic computer science, we must also solve the incorrect cognition of the teaching teachers and students on the cultivation of this ability, and lead them to realize that the ability of computational thinking has a direct effect on their future development and the improvement of comprehensive ability. In addition, students in colleges and universities must realize that their own efforts have a direct effect on their ability to improve. Only when they strengthen their attention to the cultivation of computer thinking, can they develop the enrichment of the skills with higher quality. Generally speaking, by optimizing and improving basic computer teaching teachers and students' emphasis on the cultivation of computational thinking ability, we can more quickly promote the efficient development of basic computer classes and help children become comprehensive talents.

6. Discussion

To sum up, it has become a general trend to develop computational thinking ability in basic computer classrooms in colleges and universities. However, many obstacles in the training process have severely restricted the quality of the training of this learning ability, requiring us to accelerate the development of optimization and improvement. By correcting the correct cognition of computer teachers and students on the cultivation of computational thinking ability, and strengthening the teachers' attention to computational thinking ability, under the combined effect of comprehensive measures, we can help students in colleges and universities the high-quality training of computational thinking ability and lay a good foundation for them to become comprehensive talents in the future.

References

[1] Wang Miao(2013). Exploration and practice of computational thinking ability training in basic computer teaching[J]. Science and Technology Information, no.4, pp: 34+36.

[2] Liu Guangrong(2013). C program design experimental teaching oriented to the cultivation of computational thinking ability [J]. Experimental Technology and Management, vol.30, no.1, pp: 154-156+191.

[3] Sun Li(2018). On the teaching reform and practice of "computational thinking" ability training[J]. Science & Technology Information, vol.16, no.24, pp: 150+152.

[4] Liu Fuguilan(2014). Research on university computer basic education and computational thinking ability training [J]. Heilongjiang Science and Technology Information, no.33, pp: 203-204.

[5] Zhang Jie, Yuan Litian(2016). Research on cultivation of computational thinking ability in the teaching of basic computer courses in Chinese universities[J]. Wireless Internet Technology, no.21, pp: 105-106.

[6] Geng Guohua(2013). Using computational thinking as a guide to improve the quality of computer teaching in liberal arts[J]. China University Teaching, no.10, pp: 12-15.

[7] Geng Guohua(2013). Using computational thinking as a guide to improve the quality of computer teaching in humanities[J]. China University Teaching, no.10, pp: 12-15.