

A Study Application of Hierarchical Teaching in Computer Application Foundations Course

Yangling Wu

Hainan College of Software Technology, Qionghai Hainan 571400, China

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Abstract. Hierarchical teaching is a teaching method take respecting personal differences as principle; under this principle, all the aptitude teaching will be carried based on a comprehensive a detailed research on each student, to achieve personalized development. This article based on deification of relative theories in hierarchical teaching, conducted a necessary of introducing the hierarchical teaching into the basic computer application courses, studied the achievement and method of the application of hierarchical teaching in the basic computer courses and suggests the notifications on the application of the hierarchical teaching in the basic computer courses.

Introduction

Computer application foundations course is an important public foundation courses in college's and universities, it is target to equip students with necessary computer knowledge and operation skills then they can skilled solve computer relative problems even to advancing their computer practice skills. How to promote the improvement of all the students on their own existed foundations, it is the new changes and issues that the computer teachers have to face in college and universities. While hierarchical teaching can offer a very good solution for this problem, and achieve comprehensive improvement of the practical skills of all students.

Definition of Hierarchical teaching related theories.

Hierarchical teaching original come from the theory of mastery learning by America's famous educator B.S Bloom in 1960s. The views of this theory are; the classroom teaching can achieve better improvement on their learning capacities and study effectiveness by offering personalized emotional care to the students with individuality differences in suitable organizational processes. Ever students have more two different development levels, the first one is the current level, the second is potential level, the area in between is the proximal development zone or called as the best teaching area. The classroom teaching should focus on the differences between those two levels and change the proximal development zone into better development level; student can only achieve development through the effects that been put into the best teaching area.

The necessity for introducing Hierarchical teaching into computer application foundations course

The most obvious feature of the computer learning is colleges and universities is the big different that exist between students, which also lead to varicosities in results. Currently the computer foundations courses are already wide spread in primary and secondly schools. However, since it is not one of the required courses for entrance examination, schools intent to set different goals to it, therefore once they enter the colleges their starting levels are quite different from each others. Some of them hold strong interest in it, they easily to take over-step leaning in the computer application foundations course, so the results will obviously higher than the others, while others may not. Therefore the outcomes will be unlike, too. Meanwhile the study potential and personalities of college students are significant different from each others. For instant, the student with strong abstract thinking abilities will good at theoretical study, while others with better iconic thinking

ability will be good at practical skills; the variant success stimulations can reflect to the relative study motions that will variant only between students, even to the different subject of the same students; which cause the imbalance between students. At present, class-based teaching system is still the main approach in colleges and universities in our country, which means all the classes, is carried on class based body. Based on the above mentioned differences, how to know and master the proximal development zones of each student is the most difficult task; the teaching plan of the computer application teacher cannot meet actual requirements for multiple students. While the hierarchical teaching will create studying groups, students will group up with near the leveled others instead of with certain distances; by this way teacher consider the majority of the students' needs and cultivate their study motivations. Since the disparity in the class is not very big, so the disadvantaged students can enter the higher level study through their own efforts. Therefore, from the point of improving teaching effectiveness factor, it is necessary to introduce hierarchical teaching into computer application courses.

The specific methods for applying hierarchical teaching into computer application foundations course

A comprehensive and detailed research have to be done before the class by the computer teachers to know the levels of each students in the class, which also will laid a solid foundation for the next steps of hierarchical teaching. If time allows, a basic operation skills test can be carried, which is made by computer test and writing test, then grouping students by results. According to the basic, medium and advance teaching goals divide students into A, B, C three brief groups and set different standards for them. In A group, students already have pretty good basic computer abilities, and capable for studying, have bigger potentials. In B group, students have some basic computer abilities, but still need form their study systematically. In C group, student is weak in computer basis, and will regard computer application foundations course as their entry-level course. The specific methods for applying hierarchical teaching into computer application foundations course are as following:

First of all, it needs to promote the hierarchic on teaching goals. Once the hierarchic classification on the students is done, under the balancing principle, based on the course syllabus, the knowledge structure and the learning capacity of students, sets suitable targets for each level and groups by integrating knowledge, capacity and thing method all together, and run through the target to the component of teaching practices. The class-based system require the teachers setting target for some specific content, it have to be done based on both the personalize needs of students but also the specific teaching requirement, to cover the group goal as well as the personal goal. The first goal refer to all the basic goals for the teaching syllabus, that all the student in this level have to achieve, the second goal is determined based on the first one, after comprehensive consideration of personal capacities, interesting, development potential and computer basis. It can assure all the students can more form the current level to the best teaching area, and gain good emotional experience through their own effects. For instance, in actual teaching of how to set the desktop theme subject, the group goal is can proper setting in the desktop properties, or the higher level students with good computer basis, can set personalized featured desktop as high standard personal goal.

Secondly, it needs to promote the hierarchic classification on teaching content. Currently all the hierarchical teaching is based on the same computer teaching material and studying progress, just different in learning expectations. The reasonable teaching content should be build based on teaching syllabus and specific conditions of each students, and target to learning objectives for different level. Design of the teaching content can be adjusted according factors like scope, difficulties and orders which it appears, etc. of course this kind of adjustment have to be done appropriate not only for the requirements of the student but also consider the reasonable differences to ensure that it can be carried within the same classroom .

Thirdly, it needs to promote the hierarchic classification on homework. Under the self-directed investigative study principle , the hierarchical teaching require teacher considering the different between student's personality, and designing more opening in class training and homework. For

example, teacher can ask student to create their own website, with two different levels, simulate training and creative exercises. For the poor basis student the simulation training will be enough while the others may have to do the creative personalized own website. This style of home work have consider both groups and set suitable goals for each, which disadvantage of uniformity and put the student in to the position of the goal can be achieved as long as they tried hard enough, and finally mobilized their initiatives. For Group A, it will be no need to copy others for such a little learning pressure, thereby it can; lessening their burdens of their homework effectively and improve their initiatives dramatically.

Finally, it needs to promote the hierarchic classification on examinations. Exams and tests are necessary at the end of each teaching. However if the topic is only about the basics, straight As will be bored and easy to be complacent and lost drive to deepen their studying; while the inferior students will be tired from it. Therefore, all the exams or random training should be hierarchic as well, for straight A s the topic will be flexible and changeable , to allow them widen their own learning, and only give answer after full consideration; but for the inferior students the topic will around the basic information only.

The achievement on the application of Hierarchical teaching in the computer application foundations course

The application of hierarchical teaching in computer application foundations course can settle the recognizing of researchers on the different starting points, and realize the aptitude education. The flexible teaching goal have to be controlled under supervising of teacher on their opinions, the detailed teaching directions can be settled by dividing the alternate goal into subtitled goals in different time and stages, by this way, the teaching and learning target will be more personalize, practical en enforceable, each leveled students can enjoy the pleasure of learning in computers. It can prevent not only the negative, pessimistic even loss of confidence in studying computer from the relevant poor foundational students for extreme difficult course settings , but also less adventurous student with good computer knowledge for shallow content. By then, every student will set their own suitable goal and go all out to full fill the target of improving their own theorist and practicing levels; it will be a comprehensive display of subjectivity out of the students and enhance the student's inductive. All in all it can achieve significantly teaching result.

Notes during the application of hierarchical teaching in the computer application foundations course

The first thing is about the scientific about the hierarchic classification need to be discussed. Since after the classification, the student will enter the "flow" state, so the integration will be need to conscientiously to regulate the arrangement of the classes. Sometime it will be hard to opera currently for the limitation of teaching forces and education resources. Meanwhile the fair and objective standard for the difficulty level of teaching ,examination result and its referential value is hard to set, there it become an important studying project for this teaching method. Due to the internet age we are in, the practical skill of students are continual improving. So the application of hierarchical in teaching computer application foundations course should be advanced. Secondly, the validation for hierarchical teaching is the benefits of students, before the operation , the teacher should carry a deep research on all related information about hierarchical teaching, balance its advantages and disadvantages, to decide if it really can let the student make progress or not.

Conclusion

Overall speaking, the hierarchical teaching has many advantages, and worth promoting among computer teachers. the application of hierarchical teaching in computer application foundations course is a long-term strategic system project, it require not only the differentiated instruction on

student's personality but also need to charm up the course teaching, and then constantly improve the quality of Hierarchical teaching. However, during the operation, many issues need to be settled and deeper exported, such as how to trace the effectiveness of hierarchical teaching, how to continuously deepening content of hierarchical teaching, how to control the quality of hierarchical, and how to motivate teachers in hierarchical teaching, etc.

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