

The Improvement of Professional English Ability of Computer and Information Technology: Comments on “English for Computer Professionals”

Ling Xie^{1,2}, Xiaohua Wang^{1*}

¹School of Medical Information Engineering, Zunyi Medical University, Zunyi, Guizhou 563006, China

²Chegndu Soft Innovation Intelligence Association, Chengdu, Sichuan 610023, China

*Corresponding Author.

Abstract:

With the development of society, many new instruction means and methods have been constantly emerging. At the same time, new various auxiliary instruction technologies have developed fast, and English-spoken country is the headstream of computer, so all the above changes have influenced the undergraduates' English study in the new era. Under the new situation, how to improve the practical English operating ability of undergraduates especially who are major in computer and information technology, which is very important and key issue for many teachers. Therefore, it mainly focuses on the instruction of “English for Computer Professionals” in this paper. Instruction and study are two aspects and they will benefit each other. In this paper, it discusses the characteristics, advantages and disadvantages of mind map, analyzes the application of mind map in English reading, writing and listening for the “English for Computer Professionals”. Finally, in the process of implementing the mind map, it gives some suggestions in creating the English situation, clarifying the professional English study task, previewing the professional English rationally and adopting some innovative instruction and study methods. As a result, after applying the mind map in the instruction of “English for Computer Professionals”, it benefits both teachers and undergraduates. First, it can ensure the study efficiency by stimulating undergraduates' enthusiasm with mind map for the undergraduates. Second, it improves the instruction level and the instruction quality for the teachers. Further, it solves an urgent problem in China's English instruction in the new situation, especially for those who are major in computer and information technology, because they need learn new technology and information most of which are written in English. Therefore, in a word, in English reading, writing and listening study, the construction of mind map can stimulate undergraduates' divergent thinking. At the same time, in the instruction of “English for Computer Professionals”, the implementation of mind map in different instruction modes has played a very significant application role.

Keywords: *English for Computer Professionals, Instruction method, Instruction innovation, Mind map.*

I. INTRODUCTION

The educational psychology is helpful for teachers to understand their undergraduates and implement targeted education, further control instruction method more scientifically [1-2]. Therefore, in the instruction process of “English for Computer Professionals”, the introduction of mind map can realize the combination of pictures and texts in English instruction, and show the thematic affiliation and the chart of mutual levels. It can memorize the connection of keywords, colors and images, and combine the related knowledge points. The characteristics of mind map can effectively guide undergraduates, promote undergraduates to learn independently, improve undergraduates’ study ability, ensure their study efficiency, and promote undergraduates to deepen their English knowledge memory and deeply understand English knowledge content. Many scholars believe that the introduction of mind maps in the instruction process of “English for Computer Professionals” has very practical significance [3-5].

II. THE CHARACTERISTICS OF MIND MAP

2.1 Memorability

Undergraduates’ study relies on thinking and memory, so as to master the corresponding knowledge points. Mind map itself has significant memorability, and can incorporate knowledge points in words and graphics, which can prompt undergraduates to connect thinking and knowledge, help undergraduates better understand knowledge, and then remember the information that appears and integrate knowledge points further. The application of mind map can limit the traditional memory mode and thinking mode, and process the information from different perspectives by mobilizing the coordination and cooperation between the left brain and the right brain of undergraduates. This feature of mind map can promote undergraduates to combine abstract thinking with image thinking, reasonably apply mind map to carry out the knowledge study of “English for Computer Professionals”, quickly memorize English knowledge points, and deepen their impression of English knowledge points [6-7].

2.2 Hierarchy

In the mind map, the branches serve the trunk, the trunk serves the keywords, and the trunks are closely related. By starting with keywords, undergraduates can follow the context of the mind map, solve problems one by one, carry out knowledge study in sequence, and build a complete knowledge structure to internalize knowledge points. The mind map structure can not only provide assistance for undergraduates’ study and knowledge points, but also find the content related to the problem quickly with the help of mind map when undergraduates encounter problems in study, master the knowledge points proficiently, use them flexibly and apply what they have learned at proper time and place [8-9].

2.3 Arrangement

Mind map can encourage undergraduates to draw by themselves, exercise undergraduates’ manual ability, and also prompt undergraduates to sort out the knowledge points they have learned and carry out

the memory of knowledge points in an orderly manner. In the process of mind map drawing, undergraduates classify and reserve knowledge points, combine the related knowledge points into the shape of a tree, and build a tree-like knowledge structure framework. Every time a branch is drawn, a line of thinking will appear in the undergraduates' mind. In this way, the undergraduates' study speed will be improved, the understanding of knowledge points can be deepened, and the knowledge points can be memorized firmly. In the mind map, keywords, branches, colors, and images belong to various elements, which can help undergraduates to better process knowledge information, mobilize undergraduates' brains, improve undergraduates' arrangement ability, stimulate undergraduates' thinking, and promote undergraduates to master the connection among knowledge points [10-11].

III. THE SIGNIFICANCE AND DEFICIENCIES OF MIND MAP IN THE CLASSROOM INSTRUCTION OF “ENGLISH FOR COMPUTER PROFESSIONALS” UNDER NEW SITUATION

3.1 The Significance

The formation of mind map can realize the effective expression of emissive thinking, provide the possibility for the instruction of “English for Computer Professionals”, and transform the mind map into an effective tool for memory storage. Combined with the meaning of mind map, it can be applied to develop and utilize human beings' left brain and right brain, improve the basic principle of memory, closely connect with the cerebral cortex through vision, mobilize the left brain and right brain simultaneously, increase the frequency of your participation in memory formation and assist humans in building a corresponding thinking mode, so as to achieve the successful construction of the thinking mode [12].

In the instruction of “English for Computer Professionals”, the author summarizes the teacher experience as follows: Undergraduates' sense for English language and their reaction to English vocabulary are important criteria to test the quality of English study. English vocabulary memory with the help of mind map can help undergraduates improve their sense of language and prompt undergraduates to respond quickly to vocabulary. The form of mind map in English instruction is a chart, just like guide map. Through the guide map, undergraduates can accurately grasp the connection direction of the guide graphics, and construct knowledge points that are interconnected with the study content. Especially vocabulary, sentences, words, grammar, etc., can see the relevant knowledge points at a glance [13]. Mind map can accurately judge the differences and similarities of undergraduates' study content, improve undergraduates' creativity, promote undergraduates to form new thinking, and establish their confidence in studying English knowledge further.

3.2 The Deficiencies

As an important tool to test undergraduates' study situation, homework plays a key role. If the homework reserved by teachers is more comprehensive, it will not only increase the workload of their own work, but also increase the study burden of undergraduates. If the reserved homework is less, it is difficult

to test the undergraduates' knowledge mastery situation, and the study efficiency and quality cannot be improved. Therefore, under the background of new situation and the concept of quality instruction, it is very necessary to construct an efficient classroom of "English for Computer Professionals".

IV. APPLICATION OF MIND MAP IN "ENGLISH FOR COMPUTER PROFESSIONALS" INSTRUCTION

Tao Xingzhi [14], a famous Chinese educationist in early modern times, once said: "He whom is more learned is my teacher, whom is more righteous is my idol." He believes that teachers should strengthen their own noble morality, continue to influence undergraduates, and use the advanced knowledge to attract undergraduates, finally become true teacher and idol. Virtue is the most important for the teacher and idol. Influenced by foreign economies, someone is ridiculing that people at the first class have virtue and talent, the second class are virtuous and non-training, and the worst class are non-virtuous and non-training. In order to ensure the better application of mind map in the instruction of "English for Computer Professionals", the author believes that it can be carried out from the following aspects.

4.1 Application in Reading

For the undergraduates of major in computer and information technology, reading accounts for a larger share of the assessment in their study tasks and exam of "English for Computer Professionals". If teachers want to achieve the improvement of undergraduates' academic performance, they must ensure the efficiency of daily instruction, increase the instruction intensity of English reading, and keep hard-working. Tao Xingzhi once said, "You can get the world if you do best in reading. That is to say, if you want to learn a language well, you must focus on the status of reading in instruction." It is undoubted to highlight the core status of reading in applied instruction. To improve the level of English reading for the undergraduates, it is necessary to strengthen undergraduates' mastery of vocabulary and familiarity with sentence structure. By mastering a large amount of vocabulary, it can help undergraduates to avoid confusion and guessing in the reading process. Once the vocabulary reaches a certain level, you can be familiar with the general meaning of the sentence by analyzing the grammatical structure of the whole sentence, improve the reading speed of the article, and solve the problem quickly. As far as the vocabulary memory is concerned, most undergraduates think that it is more difficult to master, mainly because the amount of vocabulary is large and the usage of vocabulary is more, and a vocabulary can be often used in multiple ways. The memory method of mind map can effectively help undergraduates memorize vocabulary. In the instruction process of vocabulary memory in the textbook, while requiring undergraduates to memorize the composition of vocabulary, they are also required to memorize the meaning of vocabulary, form corresponding sentences with reality, and carry out auxiliary memory.

4.2 Application in Writing

It is helpful to cultivate undergraduates' spirit of cooperation through integrating computer knowledge, application and skills with the study of professional English effectively, and strengthening the cultivation

of undergraduates' practical language application ability. Combined with the relevant requirements of the English study syllabus for professional undergraduates in our country, they should master the composition of English sentences proficiently, and write simple English compositions fluently. In the study process of "English for Computer Professionals", English writing belongs to another focus [5]. The writing level is mainly based on the richness and accuracy of the author's wording, grammar, sentences, and vocabulary. For most undergraduates who do not major in English, it is a difficult problem to complete an English writing with high quality efficiently. Most writing of "English for Computer Professionals" is carried out around a certain theme on computer function or technology, undergraduates are required to explain the relevant status of the theme, the solutions to the theme problems, and the personal suggestions on the theme. Therefore, undergraduates are able to memorize vocabulary related to the writing topics.

4.3 Application in Listening

As a difficult issue in the instruction of "English for Computer Professionals", the reason for the poor listening is that the undergraduates' response to vocabulary is not enough fast, and the basic knowledge points are not solid. In order to ensure that undergraduates have a solid grasp for English listening skills, it is necessary to strengthen the application of mind map, and continuously promote undergraduates to master listening skills. We can see from the above points that mind map plays a significant role. Under the normal circumstances, listening contents mainly include: starting from a topic, expound it through short dialogues. With the help of mind map, teachers can build different listening dialogue frameworks for undergraduates, prompt undergraduates to use some vocabulary to roughly grasp the relevant framework of the dialogue content and carry out listening judgments.

V. SUGGESTIONS

5.1 Situation Creation

Language itself is accumulated from life, no matter what form of language has certain situational characteristics. Situation can create a vivid language scene and a vivid situation for undergraduates to attract their attention, stimulate their interest in study, promote them to better integrate into the situation and present the meaning of language, so as to realize the optimization of undergraduates' language study activities.

5.2 Task Clarity

The traditional "sheep-herding" group cooperative study method can create a happy study atmosphere on the surface, but undergraduates often do not know what they are doing, and they do not know how to learn English knowledge. Especially, it is difficult to obtain the expected instruction effect if the set instruction activities deviate from the instruction goals. Such type of instruction mode requires the guidance and direction of teachers. Before cooperation, it also needs to clarify the cooperation tasks and cooperation goals, ensure that each member in the group has something to do, definite the cooperative study process and method, and guarantee the orderly study.

5.3 Rational Preview

Preview itself is a workflow in study, and it focuses on undergraduates' autonomous study. Such study method is new, and undergraduates can lay a good foundation for lifelong study by carrying out this study way. In many years of instruction, the author believes that it can ensure the highest instruction efficiency when undergraduates are interested in study greatly.

5.4 Instruction Methods Innovation

Teachers should combine the theoretical knowledge with the practical usage, focus in detailed knowledge points, refine the auxiliary knowledge points, fully consider the study needs of undergraduates at different levels, and carry out targeted instruction. Meanwhile, teachers should prepare micro-lectures in advance, strengthen the application of mobile terminal devices such as mobile phones, notebooks and tablet computers, so that undergraduates can get rid of their dependence on traditional classrooms in time with diverse instruction methods.

VI. CONCLUSIONS

To sum up, the educational psychology is helpful for teachers to understand their undergraduates and implement targeted instruction, further control instruction method and means more actively and scientifically. Therefore, in the instruction of "English for Computer Professionals", the implementation of mind map in different instruction modes has very significant application value. At the same time, in reading, writing and listening study, the construction of mind map can stimulate undergraduates' divergent thinking. In the process of implementation, teachers should give proper guidance to ensure the effect of use. The construction of mind map can promote the professional undergraduates to better learn knowledge points and strengthen their memory. It can provide teachers with a good instruction method, and can improve the study efficiency and study quality.

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