Research on the Application of Mind Mapping in Flipped Classroom of College English

Haiyan Yao

Xijing University, Xi'an, Shaanxi Province, 710123, China

yaohaiyan5@126.com

Abstract: As a visual method of thinking illustration, mind mapping can combine the characteristics of human brain's divergent thinking with different ways of rich colors, lines and graphics, and display knowledge hierarchically in the form of structural graphs according to different themes, emphases and relevance, so as to promote human brain's understanding and memory of knowledge. While flipped classroom is an innovative teaching model, it changes the traditional teaching process. The combination of mind mapping and flipped classroom in college English class can not only satisfy students' increasingly mature learning autonomy, but also adapt to the divergent thinking of language culture required by English learning itself, which also can better cultivate the independent learning ability, research ability and creation of college students. As a result, the application of mind mapping in flipped classroom of college English class provides a new attempt for the reform of classroom teaching in colleges, which lays a foundation for the sustainable development of students as well.

1. Introduction

Flipped classroom is a teaching mode and emphasizes students' independent learning. What's more, it is a classroom where the roles of teachers and students change. In the practical activities of college English teaching, flipped classroom has created active classroom atmosphere, which attracts the attention of students to English learning. However, in the process of flipped classroom practice, the characteristics of unclear thinking and unclear role are more and more obvious in many college students. Under such circumstances, the problems existing in flipped classroom activities of college English teaching can be effectively solved by introducing mind mapping. Therefore, students' learning efficiency and coping ability in flipped classroom can be improved. In this paper, mind mapping is applied to flipped classroom teaching activities through teachers' guidance and demonstration. Students are supervised to use and construct mind maps in the course of their preparation before class, learning in class and reflection after class. In this way, students' practical operation ability will be enhanced. In addition, some significant results can be obtained.

2. Theoretical Basis

In today's education field, how to improve the teaching quality and efficiency in an all-round way has become the focus of attention. For the past few years, mind mapping has been continuously applied and penetrated to the teaching of different disciplines and has attracted the attention of many educators and researchers. In the 1960s, Tony Buzan, a famous British psychologist, put forward this visual method of thinking illustration. It mainly displays English knowledge in the form of both texts and pictures, so as to exert students' left and right brain functions and build up their understanding of knowledge and stimulate their enthusiasm[1]. Therefore, it is really important for students to learn how to draw mind maps in the class. Usually, mind mapping is realized by computer and hand-drawing. That's why the teacher needs to make use of these two methods reasonably so that students can deeply understand mind mapping. To put it simply, mind mapping is an assistant learning or teaching tool.

Mind mapping, as a powerful visual thinking tool, is convenient in form and not influenced and restricted by time, space, environment and equipment[2]. Only with a pen and a piece of paper, can students draw down the thinking patterns formed in their brain and form a knowledge map composed of central points, nodes, branches and symbols to solve problems. The various thinking structures in the process are represented by various intuitive, vivid and clear structural diagrams. When learners take mind mapping as a visual thinking tool, they will experience the positive intellectual challenge of visualizing the subject content, which facilitates them to develop specific cognitive and thinking patterns in the process of thinking and solving problems.

3. Flipped Classroom

Learning in flipped classroom is the transfer of teaching basic facts, knowledge and skills from the space of group learning to the space of individual learning in order to have more face-to-face classroom time for face-to-face interaction between teachers and students, and further develop students' abilities at a higher level[3]. The most prominent feature of flipped classroom is that students can conduct self-learning activities by using electronic devices after class, and then implement the learning contents by consulting teachers and classmates in class. So it can be said that the instructional video is the most critical support for flipped classroom. And the attractive micro-video is the key to the success of flipped classroom.

In the teaching process, autonomous learning before class and interactive learning in class are the two stages of flipped classroom. According to their own learning situation, students choose appropriate learning time and space, and master the learning content and progress before class. Students actively participate in the communication and interaction between teachers and classmates to understand and deepen new knowledge in class. Therefore, the effect of students' independent learning before class will have a direct impact on the quality and implementation of the internalization process of knowledge in flipped classroom, which is the prerequisite for the implementation of flipped classroom.

4. Problems in Flipped Classroom Practice

Flipped classroom has changed the traditional teacher-centered education concept, the traditional classroom structure and the traditional class teaching process[4]. In flipped classroom, teachers are transformed into course designers and learning instructors, which requires teachers to promote students' learning by using new teaching strategies. Teachers should not only provide the learning resources needed to complete the course tasks, but also design a clear and concise learning navigation system, which is a great challenge for them not only because teachers have limited energy and time but also because many teachers are not good at it.

Flipped classroom not only requires students to spend a lot of time learning video and other resources before class, but also carry out inquiry-based learning. Students will fall into aimless pre-class learning unless the teacher gives them specific guidance on learning objectives. In addition, at present, many students are not good at asking questions and self-exploration, which leads to unsatisfactory results in classroom exploration and discussion.

In flipped classroom, on the one hand, teachers should not only have a solid knowledge of the subject, but also have a keen thinking ability, as well as strong activity planning and organization ability to organize question-based inquiry learning, answer various questions raised by students and create a harmonious atmosphere for discussion. On the other hand, it is not easy for students to adapt to a lot of independent thinking and discussion learning in flipped classroom for they have been used to the learning mode of "listening to the teacher in class, doing homework after class" Therefore, it is a great challenge for both teachers and students to organize effective learning activities of interactive discussion.

5. The Application of Mind Mapping in Flipped Classroom of College English

Flipped classroom is in essence a self-learning activity. Its key is the reading/watching and digestion of materials and videos. It is not difficult for college students to watch videos or read materials. What's difficult in flip classroom is that the number of knowledge points is too large and knowledge points in the material is too scattered. It is also hard for students to digest too many knowledge points. In addition, the pressure of memorizing the vocabulary and sentence patterns makes students give up. To some extent, it can be said that the teaching mode in flipped classroom sets quite high requirements for college students. Whereas, mind mapping, as an important divergent note-taking mode, can guide students to memorize while helping them achieve breakthroughs in thinking, and reduce the difficulty in memorizing and time cost in learning activities of flipped classroom.

5.1 Guide Students to Preview Independently before Class by Making Use of Mind Mapping

In flipped classroom, students preview independently according to the mind map drawn by teachers, which is key to improving the teaching effect.There are three steps for teachers to make a mind map. In the first place, give the preview goal explicit explanation when determining the preview content and then make it as a first level branch of mind mapping. In the second place, the way of doing homework in order to achieve the above goals is taken as the second branch of mind mapping. In the end, the third level branch of mind mapping is the detailed rules of exercises preview.

Teachers guide students to preview independently before class by making use of mind mapping so as to help students grasp the content to be learned in the chapter and clarify the learning objectives in order to make the communication and discussion among students, teachers and students more effective and targeted. As a result, cognitive effect of students will be enhanced and the visualization of their cognitive process will be realized as well.

After students make skillful use of mind mapping to preview independently before class and excel in related content of drawing a mind map, teachers can guide students to make mind maps freely, and demonstrate and comment on the mind maps they have collected. Teachers should also give students right guidance on how to make an impressive mind map, such as finding the Keywords and paying close attention to bold words in the textbook.

5.2 Guide Students to Think Actively in Class by Making Use of Mind Mapping

In flipped classroom, it is difficult to evaluate the discussion among students and the effect of their cooperative communication. The enthusiasm of students to participate is not high. Therefore, it is a difficult problem that how to effectively organize group discussions in flipped classroom. As it turns out, the application of mind mapping makes group members more interested in discussion and collaborative communication, improves the quality of classroom teaching, and promotes the comprehensive development of students' thinking by displaying the cooperative results of group members. During this process, teachers can show the teaching content of the lesson by using mind mapping courseware, and at the same time show and analyze the mind mapping works of excellent students. Students' interest in learning will also be stimulated subsequently.

Mind mapping courseware is a presentation tool of teaching content. It is made according to specific teaching content and through strict teaching design. On the one hand, mind mapping courseware can present all the teaching content, which is helpful for students to quickly master the relationship between current content and overall content as well as the arrangement of knowledge structure system in their textbook. On the other hand, mind mapping courseware can present the nonlinear teaching content around the central theme with rich expressiveness and good interactivity, which is conducive to highlighting the key and difficult points. It is helpful to teachers and students to better grasp logical relationship and the knowledge structure among various teaching contents, and cultivate students' rigorous logical thinking ability.

Use mind maps to do blackboard writing in flipped classroom. Mind mapping, as a tool and

means of blackboard writing design, can help teachers handle the relationship between different contents in blackboard writing, grasp the key points of blackboard writing, and highlight the key points. Mind maps, as the presentation form of blackboard design, can make use of beautiful lines, vivid images and symbols, different colors and concise keywords to present scattered contents in a structured way. In the process of drawing the mind map, students clearly understand the knowledge points in their textbook, form a series of clear knowledge clues, realize the in-depth thinking of the learning content and the deep processing of knowledge. Thus, their thinking process can be improved.

5.3 Help Students Summarize and Reflect after Class by Making Use of Mind Mapping

As a communication tool of collaborative learning, mind mapping can help group members focus on the discussion topics and key knowledge, and guide group members to conduct divergent thinking around the central theme during group demonstration and communication in flipped classroom teaching. By recording and organizing group members' views through mind mapping, the process and results of group collaboration can be easily visualized. Students take advantage of mind mapping to reflect, modify and improve the mind map according to the feedback. In this way, they can quickly identify the problems or shortcomings that need improvement. It is not only helpful to form good cognitive habits, but also beneficial to improve the learning effect, which will help promote students' deep thinking and efficient memory.

At the end of the teaching process, students can deeply understand and master the knowledge, and improve the learned content from perceptual knowledge to rational knowledge if the teaching content and learning process of the class can be comprehensively summarized. In addition, teachers assign homework according to students' feedback in class. Students should evaluate themselves and each other objectively in the process of summarizing together with teachers, which can consolidate their understanding and application of knowledge, and review the learning behavior and learning process, so as to achieve effective knowledge transfer and learning ability expansion. As a result, students' self-reflection ability is cultivated.

Mind mapping plays multiple roles in college English classroom teaching. Proper use of mind mapping can promote the reform of teaching modes and teaching methods, enhance the logicality and flexibility of students' thinking, cultivate good thinking mode and quality of students, which will definitely lead to the improvements in the quality of students' thinking activities.

6. Conclusion

It is important to lay the foundation for the future in college. It is also important to learn to live independently from family, develop the ability to think independently, learn how to study, and learn to get along with others. It's equally important to develop the ability of lifelong learning. College teaches you to think, to think independently, systematically, critically, and to think creatively and to be aware of your biases and prejudices. The application of mind mapping in college English learning helps arouse students' enthusiasm in learning and cultivate their learning interest. Furthermore, it also contributes to building knowledge network of students and improving their thinking ability. However, the use of mind mapping is a challenge to the learning resources, energy and abilities of teachers and students.There still exist some problems in the application of mind mapping in flipped classroom. Therefore, there is still a long way to explore and research how to better apply mind mapping in flipped classroom to improve classroom teaching effect in the process of practice and cultivate students' independent learning ability and research ability. Through continuous innovation, each link of flipped teaching should be improved to bring more efficient learning to learners.

References

[1] Y.H. Zhao, Z.M.Tang. The Application of Mind Mapping in the Flipped Classroom(In Chinese) [J]. Disciplines Exploration, 2018(08):31-32.

[2] H.Q.Zhou, D. Liu. Research of Flipped Classroom Teaching Mode Based on Thinking Guide Map (In Chinese) [J].Computer Engieering and Software, 2018, 39(04):63-67.

[3] L. Tian. Application Strategies of Mind Mapping in Flipped Classroom Teaching of College English (In Chinese) [J]. Journal of Jilin University (Social Science Edition), 2018, 39(S1):202-204.

[4] J. Luo. Research on the Application of Mind Mapping in Flipped Classroom in Universities (In Chinese) [J]. Tribune of Education Culture, 2017, 9(04):34-38.