

An Applied Study of College English Ideological and Political Articles Reading Based on TPACK Framework

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Abstract

Reading plays an important role in college English teaching. Reading is the basis of listening, speaking, writing and other language activities, and is also the key to cultivating students' language ability. With the rapid development of network technology and mobile communication technology, the use of electronic mobile equipment and computer assisted teaching has become a general trend. The teaching knowledge of integrated technology has been paid more and more attention by researchers in the field of teaching because of its scientific advancement. In this paper, the author discusses the TPACK framework and screens the reading texts to prove whether the framework can improve students' English reading interest and reading achievement. This paper selects junior college students as the research object, and TPACK framework is an effective tool for students to carry out personalized reading. The application of TPACK framework in college English reading teaching provides a new way for teachers to guide reading teaching, and also opens up a new way for English teaching reform. At the same time, it also provides some suggestions on how to use TPACK framework in English reading teaching.

Keywords: TPACK framework, College English, Reading teaching, Ideological and political articles.

1. INTRODUCTION

Since 2005, scholars at home and abroad have carried out a lot of theoretical and practical research on TPACK. Through the research, it is believed that the research of TPACK will help to improve teachers' ability to master and use information technology. The background of the information age requires that college English teachers must have good information technology literacy. However, in actual teaching, teachers generally have insufficient understanding of information technology, and there is a certain degree of "information blindness", which leads to the low ability of teachers to use information technology and can not meet the needs of higher education. University teachers should not only focus on imparts knowledge, but should become learning collaborators, support and guide the development of knowledge. With the support of information technology, teachers design more diversified teaching activities, provide resources for

learning, and support college students to obtain a more scientific and comprehensive learning experience. This paper focuses on the theoretical basis and research status of TPACK research on college students' English reading ability for the ideological and political articles and seeks out the experience and shortcomings from it, in order to provide reference for the sustainable training practice and related research in colleges and universities.

How to improve the ability of college English teachers to use information technology in the process of education and teaching, and how to present the integration of technology and subject teaching are urgent problems to be solved. Mishra and Koehler of Michigan State University put forward the concept of "Technology, Teaching and Content Knowledge of Integrated Technology" Frontier (TPACK) (hereinafter referred to as TPACK), which believes that in the process of

teaching and learning, teachers should not only possess basic subject knowledge, teaching knowledge and technical knowledge, but also combine the three which form a multi-dimensional interactive relationship. TPACK is the knowledge structure that teachers need when they combine technology with teaching, and it is an important theoretical basis for teachers' development.

Teachers lack a comprehensive understanding of the subject content, which may lead to misunderstanding of what students learn. Instructional knowledge refers to teachers' deep understanding of practices or methods in the teaching process, classroom management and strategies, student learning and evaluation. Teachers who have a deep understanding of teaching methods can understand the process of students' knowledge construction, choose appropriate teaching strategies, and change students' learning tendency and thinking habits. Technical knowledge refers to knowledge about technology. On the one hand, it refers to all of today's technological means, including traditional technologies such as chalk and chalkboards, as well as digital technologies such as computers and multimedia. On the other hand, it means that teachers have a deep understanding of technical knowledge and are able to apply technology appropriately to solve problems. With the development of The Times, the specific technology will also change. Therefore, compared with the above two kinds of knowledge, technical knowledge is always in a state of constant change, and the main emphasis is on the ability of teachers to learn and adapt to new technologies and new applications.

TPACK framework has the functions of integrating multiple knowledge, creating different teaching situations, providing personalized teaching scenarios, supporting knowledge practice, etc., which can enable teachers to use technology in a more ecological way. However, in practice, teachers must attach importance to the relationship between different elements and use information technology to integrate related knowledge, so as to provide students with comprehensive knowledge and interactive classroom teaching situations, and seek to improve reading skills and comprehensive development of critical thinking based on the characteristics of ideological, political and cultural articles.

2. RESEARCH PROCESS

Basic information: This study is aimed at students of the grade of 2021 majoring in science and engineering at Y University. Among them, there are 52 students in the A3 class of 2021 and 52 students in the A4 class of 2021. All of them are science and engineering majors, and their English entrance examination scores are between 100 and 130.

Research purpose: The entry of information technology into the field of education is an inevitable trend of The Times. Integrating technology-integrated subject teaching knowledge into teacher training is to adapt to this new information teaching environment. This study intends to conduct a comprehensive analysis on the current situation of TPACK level of different students to understand the deviation of reading ability training of students in colleges and universities. By referring to literature, investigating the current situation and analyzing data, this paper attempts to conduct a study on the cultivation of students' reading ability of English ideological and political articles based on TPACK composite dimension.

The subjects of this study are 104 science and engineering sophomores from 2 classes of junior college students in two universities in Chengdu, Sichuan Province. In order to ensure that the English level of the two classes is basically the same, the subjects are divided into two groups (experimental group/control group) according to the rule of 52 students/group, and then the same teacher provides different teaching methods for the two groups of students. The course content is "*College English Graded Reading Training Course*" edited by Yu Hong and Wang Xiaoyan et al., published by Shanghai Jiao Tong University Press, which is divided into 4 modules according to the order of "browsing, close reading, discussion and summary".

Platform utilities: This study takes Wechat group, Tencent Conference and Learning Pass as the teaching information technology platform, and teacher needs to launch relative unit micro-lesson videos before class to let students preview unit content and background knowledge in advance, and conduct demonstrations and drills in class around unit teaching objectives, then organize group activities, group discussions and remark the individual presentations of unit tasks; the last step is to collect Wechat group interactive feedback as

well as teacher-student/student discussion to undertake teacher online evaluation after class.

Analysis of experimental and control groups: According to the results distribution map, the average scores of A3 and A4 classes were 68.1 and 66.2 respectively, the highest scores were 90 and 88, the lowest scores were 32 and 31, the failure rates

were 15.75% and 25.11%, and the excellent rates (over 80 points) were 13.95% and 4%. ("Table 1": Test Results) From the comparison of test results, the overall performance of students in Class A3 is significantly better than that of class A4, indicating that the mixed mode teaching of college English reading training based on TPACK has better teaching effect.

Table 1. Test Results

Score range	<60	60-70	71-80	81-90	>90
Percentage of control class (A3)	15.75%	24.3%	45%	13.95%	1%
Percentage of experimental class (A4)	25.11%	16.4%	54.49%	4%	

Result analysis: The results of the survey analysis showed that 95.6% of the students expressed "like" and "very like", and these students were satisfied with the test results. From this point of view, the blended teaching of college English reading teaching based on TPACK has certain appeal to students, which can stimulate students' learning vitality, deepen students' understanding of knowledge, help students better grasp vocabulary and improve understanding ability, and then improve their comprehensive English application ability. Secondly, on the view of blended English teaching mode, according to the survey and interview results, 91.17% of the students approve the blended teaching method and are willing to continue to accept this teaching mode.

It is believed that blended teaching not only realizes the combination and application of picture materials, audio materials and video materials, but also vividly displays the knowledge in various simulated situations, thus reducing the difficulty of knowledge understanding and speeding up the speed of knowledge mastering. At the same time, these students agree that it is necessary to popularize this teaching mode. Thirdly, there are some disadvantages of blended English teaching mode. According to the survey, the effectiveness of blended English teaching based on TPACK is not recognized by all students, among which 6.9% of students believe that the effect of this teaching model is poor. The reason is that the content of micro-class is presented in English, and individual students have a poor foundation, which is not suitable for teaching in English context. At the same time, these students have a high adaptability to the traditional teaching mode, while the learning process relies heavily on the guidance of teachers, the independent learning ability is not strong, and these lower-level students rarely watch micro-class teaching videos. It can be seen that the rational use

of TPACK-based English reading blended teaching will bring about a change in education.

In recent years, although related research has gradually shown a specific and disciplinary research trend, there is still a problem of disciplinary research imbalance. Existing TPACK research is mainly distributed in mathematics, physics, chemistry, science and other disciplines with a more scientific nature, and pays less attention to Chinese, politics, history, English and other disciplines with a more liberal nature. This may be caused by the differences in learning content and thinking between liberal arts and science subjects. However, in the era of education informationization, more liberal arts teaching courses such as college English reading about ideological and political articles, due to more and more utilization of modern technology, become more lively and interesting.

3. RESULTS

The physical environment (software and hardware infrastructure) of a class composed of students and teachers, students' families, cognitive functions, psychological qualities and the overall mental outlook of the class together constitute the Context of TPACK. Therefore, in the reading teaching of ideological, political and cultural articles, information technology, communicative teaching method and task-based teaching method are combined to construct a virtual English knowledge application situation for students and set up English knowledge practice topics, so that students can communicate and learn English in real situations.

Modern educational technology and subject teaching method should be deeply integrated, and educational informatization is imperative. In the application of mixed teaching mode based on

TPACK's ideological, political and cultural contents, it is necessary to strengthen the training and exercise of teachers' information technology and strengthen teachers' knowledge of the present.

It is indispensable to get the ability to understand and apply the technology of surrogate teaching. At the same time, it is necessary for teachers to establish a correct view of information technology, strengthen teachers' cognition of the relationship between information technology courses and professional courses, and rationally plan classroom teaching programs based on information technology.

The integration and effective implementation of blended teaching of reading classroom and educational technology (micro-class, Wechat, PPT, APP, etc.) effectively improves the quality of classroom teaching, enhances students' interest in English learning, promotes teacher-student interaction, helps teachers play a leading role in teaching, and provides more space for students to play their main role, which meanwhile enhances students' knowledge understanding ability and exercises students' flexible application ability of knowledge. Students are enabled to master a variety of efficient learning strategies faster, and improve learning quality and cross-cultural communication ability as well.

4. CONCLUSION

College English teachers' formative evaluation of their own teaching process or teaching reflection after teaching is conducive to the adjustment of their own knowledge structure. TPACK training in China mainly relies on theoretical learning, micro-lessons and discussion and demonstration in educational technology courses, but there are still some problems to be solved in the training process. For example, in the process of learning technology theory, there is a problem that the teaching content is broad and inaccurate. In micro-lesson recording, there is a one-to-many problem, the teacher can not evaluate in details. The author believes that in the future, it is necessary to conduct further research and practice around the problems such as insufficient resources, insufficient classroom facilities, and mismatch of student numbers in educational technology curriculum research, promote the interaction between theoretical research and practical application of TPACK, and achieve the purpose of blended teaching through the combination of classroom, after-class learning, discussion, PPT presentation and APP utilities etc.,

only through this efforts, can it provide students with more space to play the main role, improve students' ability to understand knowledge and exercise students' ability to use knowledge flexibly.

REFERENCES

- [1] Heke kang. TPACK -- The New development of the research on the approaches and methods of "Information Technology and Curriculum Integration" in the United States (II) [J]. Research on audio-visual Education, 2012(6).
- [2] Bairan. Analysis on the Construction of Educational Technical Skills Training Course for Normal University students under the concept of Micro-class [J]. Educational Exploration, 2016(3): 113-116.
- [3] Zhang Yan, ZHAO Bin. A New Path of Professional Development for Special Education Teachers under the framework of TPACK -- Based on the perspective of information technology. Journal of Teacher Education, 2019, 7 (4): 34-4.
- [4] Mishra P, Koehler M J. Technological Pedagogical Content Knowledge: A Framework for Teacher Knowledge[J]. Teachers College Record, 2006(6) .
- [5] Koehler M J, Mishra P, Yahya K. Tracing the development of teacher knowledge in design seminar: Integrating content, pedagogy, and technology[J]. Computer & Education, 2007 (3).
- [6] Zhang Yan, ZHAO Bin. Professional Development of Special education Teachers under the framework of TPACK New path -- from the perspective of Information technology [J]. Teacher Pedagogy Journal of Science, 2019, 7 (4):34-40.
- [7] Liu Xinqian. Research on the cultivation of excellent middle school physics teachers from the perspective of TPACK[D]. Wuhan: Central China Normal University, 2021.