

A Research on PCK Status of English Major Teachers in Universities¹

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Abstract: This study explores the current situation of pedagogical content knowledge of English teacher' team in undergraduate colleges, which takes the pedagogical content knowledge model proposed by Grossman (1990) as the analysis framework, from four dimensions of knowledge about teaching purposes, knowledge about courses, knowledge about teaching strategies and knowledge about students. According to the advantages of current different resources, complementary resources are proposed to promote equal dialogue and cooperative exchanges, to promote teachers' teaching practice,

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1. Introduction

Pedagogical Content Knowledge, abbreviated as PCK, is the most meaningful Knowledge in teachers' Knowledge structure, is the core issue of teachers' professional development, and directly affects teachers' classroom teaching. Therefore, many colleges and universities often improve the teaching of a course by establishing a course team. However, in the practice teaching of the front line teaching team, it is often found that individual members, due to the differences of individual professional titles, teaching age or age, are different in teaching knowledge level of English subject to different degrees. Such passive acceptance of team members, less participation, lack of equal dialogue platform and so on, the team building effect and scientific research achievement of the course group are not obvious. Nevertheless, the evaluation system of rewards and punishments for teachers in schools generally puts great pressure on teachers as well as the competitive relationship between teachers also makes teachers pay more attention to their own personal development and lack the willingness to cooperate and share. If the construction and extension of knowledge among different individuals can be strengthened and cooperation, dialogue and sharing through the interactivity of multiple subjects in the process of finding the differences of individual pedagogical content knowledge can be realized, which may provide a basis for the development of teachers' pedagogical content knowledge.

2. Analysis of the current situation of English pedagogical content knowledge Research

Sorting out the relevant foreign literature in the past five years, according to the opinions put forward from the aspects of the value and function of subject teaching knowledge mainly including scholars Draji et al. (2018), the use of learning methods, teaching strategies, teaching method knowledge and curriculum knowledge can support and form a comprehensive learning process. The purpose is to check the views and implementation of pre-service teachers and in-service teachers on the above aspects. In addition, Septiyanti et al. (2020) aimed at studying the cognition of teaching knowledge of professional subjects of English education students in Indonesia University Lampung. In addition, the scholar who really combined the subject teaching knowledge with English to study was Shuling's research in 2020. Relevant domestic researches can be summarized into the

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following aspects: researches on pre-service English teachers, comparative researches on English teachers in different regions, and researches on rural English teachers, there are also researches on English teaching knowledge involving primary schools, junior high schools and senior high schools. Wang Jiang (2018) analyzed the status of teachers' pedagogical content knowledge of English teachers in rural primary schools; Xiang Zongping (2018)'s research direction is aimed at the subject teaching knowledge research of pre-service English teachers integrating technology. Zhu Jing, Tang Ya, Hu Yan(2019)'s investigation found that the primary school English novice teachers with excellent PCK level and skilled teachers have some common characteristics. While the PCK preliminary basic research of English course group (PCK) aimed at undergraduate colleges is still blank at present, and this research tries to provide valuable reference for promoting the development of pedagogical content knowledge of English major teachers in colleges and universities.

3. Investigation on PCK status of English major teachers in universities

This research takes the subject teaching knowledge model proposed by Grossman (1989) as the analysis framework, from four dimensions of knowledge about teaching purposes, knowledge about courses, knowledge about teaching strategies and knowledge about students. Therefore, a questionnaire including 20 questions from four dimensions has been designed "a survey on the structure of pedagogical content knowledge of English teachers in colleges and universities", By using spss24.0 software, the differences in PCK of college English teachers of different ages, professional titles and genders are obtained through statistical analysis of the questionnaire data, and the main results are as follows:

3.1 Analysis of differences between different ages in four dimensions

T test analysis results

	Age Group: (mean ± standard deviation)		t	p
	≤39 years old (n=11)	≥40 years old(n=9)		
knowledge about teaching purposes	3.18±0.60	4.07±0.52	-3.469	0.003**
knowledge about courses	3.65±0.48	4.22±0.50	-2.565	0.019*
knowledge about students	3.67±0.78	4.00±0.57	-1.055	0.306
knowledge about teaching strategies	4.11±0.49	4.22±0.37	-0.570	0.575

* p<0.05 ** p<0.01

It can be seen from the above table that using T test (all called independent sample T test) to study the differences in knowledge about teaching purposes, knowledge about courses, knowledge about students, and knowledge about teaching strategies from different age groups, which can be seen from the above table. Specific analysis shows:

① The knowledge of teaching purpose shows 0.01 level significance (t = -3.469, p = 0.003), and the specific comparison shows that the average value (3.18) of 39 years old and below, will be significantly lower than the average value (4.07) of 40 years old and above.

② For the knowledge about the course, there is a 0.05 level significance (t = -2.565, p = 0.019), and the specific comparison difference shows that the average value (3.65) of 39 and below, it will be significantly lower than the average value (4.22) of 40 years old and above

Conclusion: There are significant differences in following two items: the knowledge about teaching purposes and knowledge about the course.

3.2 Analysis on the teachers with different titles in four dimensions

The results of variance analysis

	Title: (mean ± standard deviation)			F	p
	Associate Prof. & Prof. (n=5)	assistant(n=4)	lecturer(n=11)		
knowledge about teaching purposes	4.36±0.59	2.95±0.77	3.45±0.41	8.384	0.003**
knowledge about courses	4.56±0.54	3.45±0.44	3.78±0.33	9.469	0.002**
knowledge about students	4.44±0.50	3.00±0.59	3.84±0.50	8.721	0.002**
knowledge about teaching strategies	4.64±0.33	3.90±0.12	4.04±0.39	6.837	0.007**

* p<0.05 ** p<0.01

From the specific data, it can be easily found that different professional titles: the knowledge of teaching purpose shows 0.01 level significance (F = 8.384, p = 0.003), and the specific difference indicates that, the obvious differences of average scores of groups are "associate professor and above > lecturer; Associate professor and above > Teaching Assistant".

① Different professional titles: the knowledge about courses shows 0.01 level significance ($F = 9.469$, $p = 0.002$), and the specific data shows that, the comparison results of average scores of groups with obvious differences are "Associate professor and above > lecturer; Associate professor and above > Teaching Assistant".

② Different professional titles: the knowledge about students shows 0.01 level significance ($F = 8.721$, $p = 0.002$), and the specific data shows that, the comparison results of average scores of groups with obvious differences are "associate professor and above > lecturer; Associate professor and above > teaching assistant; Lecturer > Teaching Assistant".

③ Different professional titles: the knowledge about teaching strategy shows 0.01 level significance ($F = 6.837$, $p = 0.007$), and the specific comparison shows that the comparison results of average scores of groups with obvious differences are "associate professor and above > lecturer; Associate professor and above > Teaching Assistant".

Conclusion: Even with different professional titles, the sample's knowledge of teaching purposes, courses, students and teaching strategies all show significant differences.

4. Enlightenment and suggestions of the research

Through the study on the differences of these values, it is found there are two significant differences in the knowledge of teaching purposes as well as the knowledge about the course from different age group samples of English teachers in colleges and universities. It shows that with the increase of teachers' teaching age and age, or in the process of teachers' professional knowledge development, the overall purpose, requirements, standards of relevant teaching, the overall grasp and correlation of relevant courses, the accumulation of time and experience are important influencing factors;

Secondly, in the four title groups of professor, associate professor, lecturer and teaching assistant, there is a significant difference in the knowledge about teaching strategy among the teachers of associate professor and above professional title group. It also reflects that English teachers with senior professional titles master the knowledge about teaching purpose best, and they have firm teaching belief and scientific values of subject development and can set teaching objectives and finish tasks well.

The above research results show that every front line teacher should discuss and communicate with peers and experts in teaching design, classroom teaching strategy and the ultimate goal of discipline training, by complementing resources and forming a joint force for that the knowledge level of subject teaching from multiple angles can be improved, not only by means of actively participating in curriculum construction and building a platform, and working hand in hand with these backbone teachers. With continuously expanding and thinking innovation, a scientific and reasonable teaching echelon is finally formed to promote the career development of every teacher, and this is also the concrete practice of realizing the human community of shared future.

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