

Teaching competence and quality among Chinese college teachers

Mei, Hu 

Graduate School, Lyceum of the Philippines University – Batangas (2447448442@qq.com)

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Abstract

In recent years, with the rapid development of China's higher education, Chinese college teachers continue to grow, transform, and upgrade the traditional teaching mode as well as the curriculum system in colleges and universities, all of which put forward to a more, updated, and higher requirements for teachers as regards teaching competence and quality. This study utilized descriptive research to determine the relationship between teaching competence and quality among Chinese college teachers. A total of 350 respondents from two universities in China were involved in the study. Results showed that most of the respondents were female, aged 26 to 35 years old, bachelor's degree holders and with less than 16 years of teaching experience. Teachers' overall assessment of teaching competence showed positive response to all the indicators particularly teaching cognitive ability. The respondents also agreed on all the indicators under teaching quality giving high regard to administrative quality. No significant difference of responses in teaching competence and teaching quality was found when respondents were grouped according to profile. Moreover, there exists a highly significant relationship between teaching competence and teaching quality. This implies that teaching competence is a key factor in determining teaching quality. In the end, a training and development program to enhance the competence and quality of Chinese college teachers was proposed. This paper puts forward to providing a useful reference for improving the quality of teachers and the learning effect of students.

Keywords: college teachers, teaching ability, quality, research, teaching quality

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1. Introduction

China's college education has always been the core part of the national education system, and college teachers are an important part of education and teaching work. In recent years, with the rapid development of China's higher education, China's college teachers continue to grow, the transformation and upgrading of traditional teaching mode, and the continuous development of internal personnel training mode, teaching mode and curriculum system in colleges and universities, all of which put forward more, updated and higher requirements for teachers, and the improvement of teachers' teaching competence and quality has become an important task in the construction of college teachers. Teaching competence and quality are important indicators to evaluate the teaching competence of teacher education, which is related to the learning effect of students and the improvement of education and teaching quality. College teachers must develop their teaching competence and teachers' quality to meet the challenges in the process of talent training in the new era.

Therefore, the background of this research is based on the understanding and analysis of the teaching competence and quality of Chinese college teachers. Through this research, They hope to make contributions to improving the teaching competence and quality of Chinese college teachers and promoting the improvement of college education and teaching quality.

On the one hand, Cheng, et. al., (2023) suggests that by analyzing the current situation of teachers' teaching competence and universities, researchers can promote teachers' teaching competence by constructing a high-quality teaching atmosphere, stimulating teachers' self-promotion consciousness, improving the teacher training mechanism, improving the teacher teaching evaluation system, and improving the level of supervision of teaching competence. On the other hand, Yue, et. al., (2023) believe that the teaching competence of college teachers has its own factors, teaching culture factors, environmental factors and social factors. The improvement of teachers' teaching competence will help to improve the level of university education, improve the quality of university teaching and personnel training, and promote the teaching reform of higher education.

However, at present, the practical teaching competence of college teachers is generally weak, the mechanism of long-term teaching competence of college teachers is lacking, the training guarantee mechanism is imperfect, the teaching method of teachers is single, and the participation interest and enthusiasm of students are low. In short, the overall picture is grim. In addition, Jiang (2022) also believes that teacher evaluation in colleges and universities is the core of higher education evaluation and a key factor to achieve high-quality development of higher education. Wang (2023) findings suggest that students taught by multiple highly professional teachers are more likely to achieve higher academic performance. The professional quality of individual teachers plays an indispensable role in improving students' academic performance. Therefore, it is very important to improve the quality of college teachers.

There are many problems in improving the teaching competence and quality of Chinese college teachers, and effective solutions need to be found through research. Through the analysis of the teaching competence and quality of Chinese college teachers, they can better understand the essence of the problems in improving the teaching competence and quality of Chinese college teachers, explore the factors that affect the teaching competence and quality, and then put forward countermeasures and suggestions to improve the teaching competence and quality of college teachers. Therefore, this study is of great significance and value.

The teaching competence of Chinese college teachers is of great significance in the current education development. With the rapid development of China's higher education, improving the quality of higher education has become an important task for schools and governments. Teaching competence is one of the core elements for teachers to provide high quality teaching. Understanding the current situation of teaching competence of Chinese

college teachers is of guiding significance for formulating policies to improve education quality and promoting teachers' teaching competence.

Teaching quality, serving as the cornerstone of educators' provision of high-quality education, not only impacts students' learning outcomes but also directly influences the reputation and societal recognition of higher education institutions. Therefore, comprehending the teaching quality of Chinese college instructors can serve as a foundation for enhancing teacher competence and improving the educational and instructional system.

In December 2020, the Ministry of Education and six other departments jointly issued the Guiding Opinions on Strengthening the Reform of University Teachers' Construction in the New Era, which clearly stipulated requirements for teacher team development encompassing ideological and political education as well as professional competence enhancement. To enhance personnel training quality, foster scientific research capabilities, and contribute to national economic and social development, it is imperative to ensure a robust faculty. As college educators, moral cultivation remains our fundamental task while possessing exceptional teaching competence serves as a basic prerequisite. Previous studies primarily focused on individual characteristics of teachers such as educational background and work experience; however, there has been a dearth of systematic research on specific evaluation methods and strategies for enhancing teaching competence. Therefore, conducting an in-depth investigation into Chinese college teachers' teaching abilities and quality becomes essential to provide scientific foundations and effective measures for higher education reform.

To summarize, by comprehending the current research status, identify the existing issues and deficiencies. Based on these challenges, researchers can further investigate strategies for enhancing education training and professional development, promoting teaching reform and textbook construction, as well as establishing a teacher incentive and evaluation mechanism. The implementation of these measures is anticipated to enhance the pedagogical competence and quality of Chinese college educators, thereby elevating overall educational standards. This study holds significant implications for comprehending the current state of teaching competence and quality among Chinese university teachers, as well as for enhancing educational standards and promoting pedagogical reform. The findings and proposed measures derived from this research can offer decision-making support to universities and governments, provide guidance for professional development of educators, and deliver improved educational services to students. Consequently, it bears practical and long-term significance in driving the reform and advancement of higher education in China.

Objectives of the Study - This study determined the relationship between teaching competence and quality among college Chinese teachers. Specifically, it assessed the teaching competence with regard to teaching skills, teaching cognitive ability, teaching communication skills; determined the teaching quality as regards the depth and breadth of the knowledge; leadership and administrative capacity; tested the significant relationship between the two variables; and lastly, propose a training and development plan to enhance the teaching competence and quality among college Chinese teachers.

2. Methods

Research Design - In this investigation, the method was employed. Descriptive method is a research technique that outlines the traits of the population or phenomena under investigation. With this descriptive technique, the focus was more on the study's subject than on the reasons behind its actions. Numerous research techniques can be used with descriptive study designs to examine one or more variables. Contrary to experimental investigations, researchers merely observe and quantify variables without controlling or manipulating any of them. The survey method mainly investigated the competence and quality developed and examined the degree of correlation of the two variables.

Instrument of the Study - This study utilized a quantitative research approach to collect data. The researchers prepared an online survey using "Wenjuanxing" (China's most widely used platform for online surveys, exams, assessments, and voting). The survey consisted of three sections. The first part discusses the

basic situation of the interviewed teachers. The second part discusses the teaching ability of Chinese college teachers, and the third part discusses the quality of Chinese college teachers.

In Part I, respondents were asked to provide demographic information about themselves. Include sex, age, Highest Educational Attainment, Teaching of Service. Part II focuses on assessing the teaching competence. It consists of three parts. The statement is related to the teaching ability, and the respondents are asked to fill in 4 - Strongly agree, 3 - agree, 2 - disagree, 1 - strongly disagree. To rate their level of agreement. These statements cover various aspects of the teacher's teaching ability, such as teaching skills, teaching cognitive ability, teaching communication skills. This part contains a total of 30 items. In Part III, Respondents were asked to determine how much they agreed with the quality of teaching. These abilities were grouped into different categories, with respondents using the same scale from strongly agreeing (4) to disagreeing (1) to indicate their level of agreement. These include The depth and breadth of the knowledge, Leadership, and administrative capacity. There are 23 descriptions in this part, mainly adapted from Xu (2009). Influencing factors of young teachers' teaching ability and innovation of training mode.

The content of the instrument used in this study was subjected to rigorous verification and validation processes to ensure its reliability. The instrument was first examined and validated by a panel of experts in the field to ensure that it adequately measures the intended constructs. Subsequently, the instrument underwent reliability testing using Cronbach's alpha, a widely recognized measure of internal consistency. The results of the reliability testing for each section of the instrument areas follows: that all sections of the instrument exhibit good to excellent levels of reliability. These results indicate that the instrument consistently measures the intended constructs and can be relied upon to provide accurate and consistent data. The high Cronbach's alpha values suggest that the items in each section are strongly interrelated and contribute to measuring the respective competencies effectively. Thus, the reliability of the instrument strengthens the credibility and validity of the study's findings and supports the use of this questionnaire as a robust tool for evaluating teaching competence and quality among college Chinese teachers.

Data Gathering Procedure - The data add more procedure in this study involved the collection of data from the respondents using a validated survey questionnaire with rating scales. An online survey questionnaire was prepared using "Wenjuanxing," the largest online platform for surveys, exams, assessments, and voting in China. The questionnaire consisted of three parts. Data collection for the survey questionnaire stopped after receiving responses from 380 participants, out of which 351 complete and valid questionnaires were obtained.

Data Analysis - The acquired data were used to present, analyze, and interpret the gathered data through tables, graphs, and charts by utilizing various statistical methods. Weighted mean and rank were utilized to determine the labor values of female sailors and to evaluate their productivity. All variables' p-values are less than 0.05, as determined by the Shapiro-Wilk Test, indicating that the data set was not regularly distributed. Pearson's r was used to determine the relationship between influencing factors and effective realization of teacher leadership. All analyses were conducted using version 26 of SPSS.

Ethical Considerations - To maintain the strict confidentiality of the interviews, no specific identities were included in the report. The researcher ensured that they communicated with the participants in a personal manner, that they did not violate their privacy without their permission, that the analysis did not harm their feelings, and that all information obtained from them was acknowledged and accurately represented for this study. No personal viewpoint was expressed or contributed by the researchers; simply information and findings based on the collected data were provided. The respondents were guaranteed of the anonymity of their responses and advised that the survey would be utilized solely for the purposes of this study.

3. Results and discussion

Table 1
Summary Table on Teaching Competence

Indicators	Weighted Mean	Verbal Interpretation	Rank
Teaching Skills	3.20	Agree	2.5
Teaching Cognitive Ability	3.22	Agree	1
Teaching Communication Skills	3.20	Agree	2.5
Composite Mean	3.21	Agree	

Legend: 3.50 – 4.00 = Strongly Agree; 2.50 – 3.49 = Agree; 1.50 – 2.49 = Disagree; 1.00 - 1.49 = Strongly Disagree

Table 1 is a summary table of teaching ability, which summarizes the evaluation results of teaching skills, cognitive ability and teaching communication skills. The average evaluation result of these three aspects is 3.21. It shows that the overall evaluation of the three aspects of teaching ability is consistent. This shows that the college teachers who participated in the questionnaire have positive views and experiences in teaching skills teaching, cognitive ability and teaching communication skills.

The weighted average value of teaching cognitive ability assessment is the highest, 3.22, which indicates that teaching cognitive ability has the highest recognition and positive experience of teachers. This also reflects the teachers' ability to understand and judge various elements of teaching, and is consistent with the knowledge structure. It mainly includes the teachers' understanding and mastery of the subjects they teach and the adjacent subjects, the basic knowledge of educational theories such as the principles of psychology and pedagogy, and the understanding of students' learning readiness and personality characteristics, which further proves the improvement of cognitive ability. It is a prerequisite for comprehensively improving the comprehensive ability of teachers in the new era.(Li, 2020).

The weighted mean value of the assessment of teaching skills is 3.20, indicating that the assessment results are positive, but the agreement of the assessment results is relatively low compared with the assessment results of teaching cognitive ability. This shows that some aspects of college teachers' teaching skills need to be paid attention to and improved. The so-called teaching skills of teachers refer to the behavior system used by teachers to improve the teaching effect in the teaching activities of imparting theoretical knowledge. On the one hand, teaching skill is an important tool and way for teachers to improve teaching quality and students' learning effect. On the other hand, teaching skills are also an important symbol of teachers' personal teaching ability and teaching accomplishment (Xu, 2018).

The weighted mean value of the assessment of instructional communication skills was 3.20, indicating that the questionnaire respondents generally agreed with this aspect of instructional communication skills. Although the evaluation of instructional communication skills was generally positive, there are still some areas that require further attention, based on multiple factors. In order to achieve good educational results, effective communication between teachers and students is crucial. Teachers should be able to establish a good interpersonal relationship with students and pay great attention to the ways and methods of communication when communicating with students (Zong, 2018).

Overall, the composite average of 3.22 reflects the overall agreement on the three aspects of teaching ability. While all three aspects of teaching ability received positive feedback, teaching skills and instructional communication skills may need further improvement. The development of teachers' professional skills is a lifelong learning process. Teachers should keep up with the latest developments of the profession in real time and formulate scientific career development plans. (Wang, et. al.2023).

Table 2
Summary Table on Teachers Quality

Indicators	Weighted Mean	Verbal Interpretation	Rank
Depth and Breadth of the Knowledge	3.06	Agree	2
Leadership	2.98	Agree	3
Administrative Capacity	3.24	Agree	1
Composite Mean	3.09	Agree	

Legend: 3.50 – 4.00 = Strongly Agree; 2.50 – 3.49 = Agree; 1.50 – 2.49 = Disagree; 1.00 - 1.49 = Strongly Disagree

Table 2 is the summary table of teacher quality, which summarizes the evaluation results of the depth and breadth of knowledge, leadership ability and administrative ability. The average evaluation result of these three aspects is 3.09. It shows that teachers' overall evaluation of the three aspects of teacher quality is consistent. This shows that the college teachers who participated in the questionnaire have a positive view and experience in the depth and breadth of knowledge, leadership and administrative ability. The weighted average of administrative ability assessment is the highest, 3.24, which indicates that administrative ability has the highest recognition and positive experience of teachers. Teachers with higher quality tend to have stronger organization and coordination ability, communication ability and decision-making ability, and can better perform administrative duties. Only teachers with stronger administrative ability can better coordinate resources, optimize the educational environment and improve the quality of education. The weighted average value of leadership assessment is the third, 2.98, indicating that teachers' leadership needs to be further strengthened and improved. In order to improve leadership, teachers can pay more attention to communication with students, encourage students, reflect more and improve teaching methods, so as to enhance leadership.

Wang, et. al., (2023) believes that Teacher quality as the fundamental prerequisite and professional requirement for achieving teacher professionalization, represents the tangible manifestation of excellence within the teaching profession. It encompasses a comprehensive set of attributes including morality, values, knowledge, skills, and other aspects demonstrated by teachers in their educational practices. These qualities determine the effectiveness of education and teaching while exerting a direct and significant impact on students' physical and mental development." Nie (2022) believes that the knowledge structure, quality and ability that teachers should possess are diversified and comprehensive. No matter how the standards change and how the requirements are refined, extensive theoretical knowledge, solid practical ability, good knowledge and knowledge Good humanistic quality and correct value orientation should occupy a place in the list of teachers' quality and ability. This study will primarily focus on expanding the depth and breadth of teachers' knowledge, as well as their leadership and management capabilities.

Table 3
Relationship Between Teaching Competence and Quality

Teaching Skills	Rho-value	P-value	Interpretation
Depth and Breadth of the Knowledge	.755**	0.000	Highly Significant
Leadership	.763**	0.000	Highly Significant
Administrative Capacity	.775**	0.000	Highly Significant
Teaching Cognitive Ability			
Depth and Breadth of the Knowledge	.747**	0.000	Highly Significant
Leadership	.779**	0.000	Highly Significant
Administrative Capacity	.777**	0.000	Highly Significant
Teaching Communication Skills			
Depth and Breadth of the Knowledge	.789**	0.000	Highly Significant
Leadership	.804**	0.000	Highly Significant
Administrative Capacity	.803**	0.000	Highly Significant

Legend: Significant at p-value < 0.01

Table 3 shows the relationship between teaching competence and quality. The calculated rho values show a very strong direct correlation, with significant differences found at the p-value of the results less than the alpha level. This means that there is a significant relationship between teaching competence and teaching quality, and means that the stronger the teaching ability, the better the teaching quality. The positive evaluation of teaching skills on teaching quality shows that there is a very significant positive correlation between teaching skills and

the depth and breadth of knowledge, leadership and teaching communication skills. This shows that teachers with rich teaching skills often have rich depth and breadth of knowledge as well as strong leadership and teaching communication skills.

The positive evaluation of teaching quality shows that teaching skills are positively correlated with depth and breadth of knowledge, leadership and teaching communication skills. This indicates that teachers' cognitive ability will affect the depth and breadth of teachers' knowledge as well as their leadership and teaching communication skills, which also highlights the importance of teachers' teaching cognitive ability. Teaching communication skills The positive evaluation of teaching quality shows that there is a very significant positive correlation between teaching communication skills and the depth and breadth of knowledge, leadership and teaching communication skills. This indicates that teachers' teaching communication skills will affect the depth and breadth of teachers' knowledge, leadership and teaching communication skills, as well as the quality of teaching. One with strong teaching communication skills is often good at teaching quality.

Li (2019) argues that the teaching cognitive competence is a crucial aspect of teachers' instructional competence, which should encompass the capacity to provide students with systematic and cutting-edge subject knowledge guided by scientific teaching theories while fully comprehending educational objectives. However, the current level of teaching cognitive competence among college teachers remains inadequate. Firstly, although teachers possess a solid professional foundation, they lack knowledge in adjacent and interdisciplinary fields, resulting in limited dynamic understanding and an incompetence to impart disciplinary knowledge from a comprehensive perspective. Secondly, young teachers often struggle to grasp fundamental educational theories and rely heavily on their own teaching experience for exploring pedagogical methods without utilizing theoretical guidance or demonstrating sufficient scientific rigor. Thirdly, young teachers exhibit insufficient awareness of students' learning readiness, current learning status, and individual characteristics; consequently maintaining a teacher-centered approach during instruction while neglecting student needs and failing to adapt teaching content according to specific circumstances. As a result, personalized instructional strategies are lacking.

Table 4
A Proposed Training and Development Plan for Chinese College Teachers

Key Result Areas (KRAs) / Objective	Strategies/ Activities	Success Indicator	Person/ Office Responsible
I. Teaching Competence 1.1 Teaching Skills 1.2 Teaching Communication Skills Objective: To Improve teachers teaching effect	Encourage educators to actively engage in ongoing professional development activities Encourage teachers to use a variety of teaching methods and strategies flexibly	75 percent of students demonstrated substantial progress in their classroom measures. 80 percent of Students are able to apply their knowledge to solve practical problem	Dean, Program Chairs or Department Heads Dean, Program Chairs or Department Head HR Director
II. Teaching Quality 2.1 Leadership Objective: To prepare teachers for leadership roles in the future.	Assign teachers to various committees in the different school activities. Send teachers to leadership training camp or seminars.	75 percent of teachers assume leadership roles in the university. 85 percent of teachers are trained and developed to become future leaders.	Dean, Program Chairs or Department Heads Dean, Program Chairs or Department Head HR Director

4. Conclusions and recommendations

Teachers' overall assessment of teaching competence showed positive response to all the indicators particularly teaching cognitive ability. The respondents agreed on all the indicators under teaching quality giving high regard to administrative quality. No significant difference of responses in teaching competence and teaching quality was found when respondents were grouped according to profile. There exists a highly significant relationship between teaching competence and teaching quality. This implies that teaching competence is a key factor in determining teaching quality. A training and development plan to enhance the competence and quality

of Chinese college teachers was proposed.

Based on the conclusions of the study, the following are hereby forwarded: The top management of the university may give priority to the formulation of top-level design for the selection, appointment, assessment, and training of university teachers. By integrating the selection and development process with best practices from other stages of education, schools can ensure a stronger and more comprehensive approach to the selection and development process. Colleges and universities may conduct education training, open classes and lectures for teachers, and invite teachers with rich teaching experience and high teaching level to give demonstration lectures and share experience, so that other teachers can get inspiration and reference from them. School administrators may participate in teaching evaluation to help teachers find their own problems and make timely improvements through peer review and student evaluation. College teachers may continuously improve the level of subject knowledge and the ability of education, teaching, and research, to further improve their teaching ability by actively participating in academic research. By participating in scientific research projects, publishing academic papers, participating in academic conferences and other ways, they can enable their students to deeply study subject issues, improve their academic level and research ability, and thus play a positive role in promoting the implementation of teaching. The proposed training and development plan may be tabled for discussion and implementation. Future researchers may explore other variables and factors such as teaching effectiveness, work engagement and job satisfaction to obtain better research results and jointly promote the development of teachers' teaching competence and teaching quality.

5. References

- Cheng Kexing, Luo Zhijun, & Tian Xiaoli. (2023). Investigation and analysis of the needs for improving mathematics teachers' teaching ability from the perspective of core competencies—taking Loudi Primary School as an example. *Creative Education Studies*, 11, 2486.
- Jiang H. (2022). Evaluation of university teachers from the perspective of high-quality education system. *Journal of Hebei Normal University: Education Science Edition*, 24(2), 22-27
- Li Yajie. (2020). Construction of cognitive ability of Ideological and political teachers in the new era. *School Party Building and Ideological Education* (18), 3.
- Li Peitong (2019) - Research on improving the teaching ability of young teachers in colleges and universities - Master's thesis of Northwest A&F University
- Nie X. (2022). An analysis of the knowledge structure and quality of calligraphy aesthetics teachers in colleges and universities. *College Calligraphy* (4), 58-60.
- Wang Nei-hong, & Li Fu-hua. (2023). Connotation, structure and optimization path of teacher professional quality in the new era. *Shandong Higher Education*, 11(1), 1-8.
- Wang Zijun, & Zhai Yu. (2023). Research on Skills Improvement Strategies for E-commerce teachers in vocational colleges. *Journal of Hebei Energy Vocational and Technical College*, 23(1), 79-82.
- Wang Yunduo. (2023). The influence of individual teacher professional quality on students' academic achievement: Based on a survey of typical middle schools in Harbin. *Teacher Development Research*, 7(3), 89-96.
- Xu Benhua. (2018). Current situation and development suggestions of teaching skills training for college teachers. *Journal of Economic Research* (18), 2.
- Yue Yaping, Lei Jiayuan, Zhao Yifei, & Yuan Haojie. (2023). A survey on the teaching ability of young teachers in colleges and universities under the background of strong teacher education. *Educational Observation* (25), 7-11
- Zong Mei. (2018). Effective communication skills between teachers and students. *Guangdong Education: Comprehensive Edition* (6), 1.