

Article

A study on the structural factors of primary school English teachers' competence under the new Chinese curriculum standards

Sun Qian^{*,†}, Ahmad Johari Bin Sihes[†]

Faculty of Social Sciences and Humanities, Universiti Teknologi Malaysia, Skudai 81310, Malaysia

* **Corresponding author:** Sun Qian, family622@163.com

† These authors contributed equally as co-first authors to this work.

CITATION

Qian S, Sihes AJB. (2024). A study on the structural factors of primary school English teachers' competence under the new Chinese curriculum standards. *Journal of Infrastructure, Policy and Development*. 8(14): 9613.
<https://doi.org/10.24294/jipd9613>

ARTICLE INFO

Received: 14 October 2024
Accepted: 25 October 2024
Available online: 18 November 2024

COPYRIGHT



Copyright © 2024 by author(s).

Journal of Infrastructure, Policy and Development is published by EnPress Publisher, LLC. This work is licensed under the Creative Commons Attribution (CC BY) license.
<https://creativecommons.org/licenses/by/4.0/>

Abstract: This study focuses on the competency structure factors of elementary school English teachers under China's new curriculum standards, aiming to reveal the core competencies that teachers should possess in the context of education in the new era. Through the comprehensive application of qualitative interviews and quantitative questionnaire survey methods, this study provides an in-depth analysis of the competency structure of primary English teachers. It was found that the competency structure of elementary school English teachers is mainly composed of six dimensions: professionalism, personality traits, teaching ability, student views, teaching organization strategy and research ability. These dimensions work together to influence teachers' teaching effectiveness and students' learning effectiveness. The study also found that there were significant differences in the competency characteristics of elementary school English teachers across gender, teaching experience and educational qualifications. In general, this study provides a theoretical basis and practical guidance for the professional development of elementary school English teachers, which can help to improve the quality of teachers' teaching and promote the comprehensive development of students.

Keywords: competence; competency structure; educational reform; primary school English teachers; new curriculum standards; teachers' competence

1. Introduction

The new curriculum standards have brought major changes to English teaching in China and are an important basis for teachers to innovate teaching methods (Jiang and Zhang, 2021). The introduction of a new round of new curriculum standards has put forward a series of new requirements for teachers' work, which requires teachers to actively respond (Zhu, 2018). In order to satisfy these new requirements, teachers have made some innovative attempts in teaching methods, but there are still certain mismatches between the professional knowledge and abilities of Chinese primary school English teachers and the requirements of the new curriculum standards. For example, many teachers' understanding and application of the new curriculum standards remain at the surface level, resulting in innovative teaching forms but no fundamental changes in the nature of teaching content and methods, and students' learning effectiveness is limited as a result (Lei and Medwell, 2022).

This current situation of superficial understanding and implementation of the new curriculum standards highlights the inadequacy of teachers in terms of competence. At present, the society's demand for teacher quality and specialization is increasing, especially in the field of English teaching in primary schools. Parents and education experts expect English teachers to stimulate students' interest in English through diversified teaching methods and to develop their ability to practically apply the

language and international perspective (Li, 2024). As a language teacher, competency is the key to determining whether he or she can successfully implement educational teaching behaviors and achieve educational performance. Competence of English teachers not only includes solid language knowledge and teaching ability, but also involves in-depth understanding and effective implementation of curriculum standards, as well as continuous professional growth and innovation (Yim and Lim, 2024). In the background of the increasing importance of English initiation education, the research on the competence of elementary school English teachers is particularly important, however, there is a relative lack of relevant research at present. Therefore, this study aims to deeply analyze the competency structure factors of elementary school English teachers under China's new curriculum standard, to fill the gap of research in this field, and to provide a scientific basis for improving the professionalism of primary school English teachers. By clarifying the competency structure, it helps to build a systematic training system and promote teachers' professional growth, which in turn improves the quality of primary English teaching and meets the social demand for high-quality English education.

2. Literature review

With the development of technology and social changes, the educational pattern is undergoing profound changes. In this background, the field of education is undergoing a series of important changes, which are not only reflected in teaching methods, but also have a profound impact on the role and competence requirements of teachers. Digital teaching tools, intelligent learning systems, and global educational resources all provide strong support for the improvement of education quality, but also pose a huge challenge to English teaching and teachers' abilities. Therefore, it is important for teachers to adapt their roles to these changes, and they have changed from traditional knowledge imparters to conductors of learning and innovators of education (Mei, 2019). In the process of this transformation, they not only need to help students learn, but also have the task of helping students understand complex societies (Tichnor-Wagner et al., 2019).

With the progress of time, the position of English education in China's education system has been changing. Since the end of the 20th century, China's reform and opening up and the advancement of the internationalization process have made English education in Britain increasingly prominent. In order to cultivate more international talents and promote education reform, the Ministry of Education of China formulated the Compulsory Education English Curriculum Standards in 2001. This standard will be updated in 2022, hereinafter referred to as the New Curriculum Standard (NCS). NCS (Ministry of Education, 2022) regards English as a core compulsory course in basic education, and believes that the learning of English courses is not only a process of improving pragmatic ability, but also a process of improving humanistic literacy. While emphasizing the instrumentality of language, it begins to emphasize English humanities. The standard specifies the listening, speaking, reading, writing and other skills that students should master at different grades, as well as the cultural and language knowledge they should understand. These detailed regulations provide clear teaching guidelines for educators to develop and implement effective teaching

programs based on the standards, thus helping students to learn English better and further improving the quality of English teaching.

New Curriculum Standards Bring Great Challenges to Primary School English Teachers (Fullan, 2012; Kirkgöz, 2008; Vähäsantanen and Eteläpelto, 2009). Under the influence of traditional exam-oriented education, English teachers in elementary school tend to focus on teaching textbook knowledge and test-taking skills, resulting in the underdevelopment of other aspects of students' abilities and qualities (Jin and Cortazzi, 2006). For example, in discourse teaching, it focuses on the teaching of new words, phrases and grammatical knowledge, and this leads to a lack of opportunities for students to use the language in practice and neglects the cultivation of students' language communication skills and thinking skills. In fact, NCS proposes that the real center in teaching activities is students, and puts more emphasis mutual respect and care between teachers and students (Cheng and Zhang, 2020).

It is clearly stated in the new curriculum standards that the English curriculum should be centered on core literacy, embody the nature of the curriculum, reflect the curriculum concepts, and establish the curriculum objectives. This requires teachers not only to teach students basic knowledge, but also to develop students' core literacy as a guide, and comprehensively cultivate students' language ability, cultural awareness, learning ability and thinking quality. Specifically, under the new curriculum standards, teachers need to change their teaching methods from traditional lecturing to inspirational teaching, encouraging students to take the initiative to explore and cooperate in learning, and at the same time focusing on the development of students' intercultural communication skills, so as to equip them with good intercultural awareness and attitudes (Yaccob et al., 2021). These new pedagogical requirements are closely related to teachers' competencies. In order to effectively meet the challenges of the new curriculum standards, teachers need to have the ability to innovate educational ideas, flexibly use a variety of teaching methods, and design student-centered teaching programs. In addition, teachers need to continuously improve their professionalism, including the theory of language teaching, knowledge of cross-cultural communication, and the application of modern educational technology, in order to better meet the competency requirements of the new curriculum standards for elementary school English teachers (Zhu, 2018). So, what kind of ability and quality teachers should have, that is, "competence", to be able to cope with the reform of the new curriculum standards is the purpose of this paper.

The word "competency" first emerged in the field of management, and later in the education industry, it has gradually been valued by scholars. At present, there is no unified definition of teacher competence. Watts defines teacher competence as the knowledge and skills in education and teaching necessary for teachers to successfully implement teaching activities (Watts, 1982). Dineke believes that teacher competence is the ability of teachers to integrate their knowledge, personality traits and corresponding teaching methods and skills according to different teaching situations (Dineke et al., 2004). Hammand and Youngs think that improving teachers' competence level is a feasible and important strategy to improve students' achievement when they have some characteristics that can effectively identify teachers' competence, and this characteristic can be used as a harbinger of teachers' success in teaching, and at the same time, teachers' heart drives students to achieve

achievements (Darling-Hammond and Youngs, 2002). There are certain commonalities in the proposals about teachers' competence. First of all, it is the sum of a series of characteristics necessary for teachers to complete teaching practice. These characteristics include the necessary teaching ability and professional knowledge in the teaching process, and also include the internal characteristics of teachers themselves that are not discovered by the outside world, such as teachers' style characteristics, teachers' love and pursuit of education industry, teachers' own values and other hidden internal characteristics. Often, these deep-seated characteristics play a decisive role in teachers' completion of high-quality educational activities. Secondly, excellent teachers, or teachers who complete teaching tasks with high quality, often share common characteristics. And these characteristics are the source of teachers to create high performance, and they are also the necessary characteristics of teachers' competence (Zhao, 2013). Thirdly, the characteristics of teachers' competence are divided into regions, which can be divided into different grades according to the situation to measure whether teachers are excellent or not, and strengthened according to the teacher's own situation in the later stage.

In exploring teacher competency, we have to mention the Competency Model. The Competency Model provides an important framework for understanding and assessing the professional competence of teachers. McClelland believes that Competency Model is "a series of knowledge, attitudes and skills that affect individual job performance. These element characteristics can be measured by reliable standards or improved through training and mining" (McClelland, 1973). Since 1990, foreign countries have carried out large-scale research on the competency model of teacher service industry. Among them, Hopkins' six major teacher competency theories are mainly involved. His research objects are selected from more than 10 local school teachers who are far away. In his conclusions, he takes diversified teaching models and professional commitment as his research highlights (Hopkins, 1996). Four years later, Danielson constructed a competency model with four major sections: plan preparation, curriculum adjustment, curriculum development and teaching obligation. His research is the research basis of many research scholars (Danielson, 2000).

Research on the teaching competence of Chinese basic education English teachers has made remarkable progress in recent years. The research mainly focuses on the framework of teacher competence, improvement of teaching practice, and professional development needs. Based on the Structural Teacher Competency Theory, the Three-Dimensional Teacher Competency Theory, and the Benchmarking-Discriminating Two-Dimensional Teacher Competency Theory, scholars have constructed a systematic theoretical framework to guide the improvement of basic education English teachers' teaching competence (Zhou, 2024). In the background of the new curriculum standards, primary and secondary English teachers face challenges such as the solidification of traditional teaching thinking and the mismatch between their professional knowledge and the requirements of the new curriculum standards, which need to be addressed through continuous professional development and innovation in teaching practice (Liang, 2023). However, there are relatively few studies on the competency of primary school English teachers under China's new curriculum standards, so this study aims to explore the competency elements of primary school English teachers in depth, with a view to providing guidance for

teachers’ professional growth and teaching practice.

3. Research methodology

This research mainly uses qualitative and quantitative research methods, and uses SPSS 19.0 statistical analysis software to test the reliability and validity of the questionnaire. Through factor analysis technology, it presents the specific connotation and structure factors of primary school English teachers’ competence.

First of all, we initially obtained the elements of teacher competence through literature research as well as interviews. The interviews were conducted with English teachers and students from primary schools. The interviews not only covered English teachers’ performance in professional knowledge, teaching ability, classroom management, personal qualities and professionalism, but also included students’ intuitive feelings and evaluations of teachers’ teaching effectiveness, teacher-student interactions, and classroom atmosphere.

The interviewees are teachers and students. Among them, there are 14 teachers interviewed, the longest interview time is 45 min, the shortest is 15 min, the average interview time is 24 min. The maximum interview time is 15 min, the minimum is 5 min, and the average interview time is 11 min. From the results of interviews with teachers and students, combined with the requirements of the new curriculum standards for teaching, we extracted the key elements of teacher competence, as shown in **Table 1**.

Table 1. Elements of primary school English teachers’ competence extracted from interviews.

Extraction of Competence Elements for Primary School English Teachers	Teacher interviews (14 participants)	Respect students, professional knowledge, professionalism, professional ethics, pedagogy and psychology knowledge, teaching philosophy, lifelong learning, personality charm, subject teaching method knowledge, tolerance, modern educational technology, teaching organization ability, professional theory, practical experience, scientific research, classroom management, textbook knowledge, professional skills, general knowledge, self-confidence, enterprising spirit, reflection, innovation, mental health, extensive personal interests, quick thinking, tenacious quality, values, personal beliefs, self-control
	Student interviews (36 persons)	Knowledge, teaching ability, personal morality, flexible thinking, respect for students, language expression, innovative spirit, teacher personality, patience, justice, kindness, kindness, conscientiousness and responsibility, dedication, language civilization, training students’ hands-on ability, affinity, full spirit, humor and tact, strengthening learning

By collating these competency elements, we classified them into six dimensions, namely, professionalism, personality traits, teaching ability, student views, teaching organization strategy, research ability, and formed a questionnaire. The questionnaire is divided into two parts: the first part is the basic information of the subjects, including gender, age, teaching years, education and other content. The second part is the description of primary school English teachers’ competency behavior. The questionnaire consists of 26 questions, and uses the Likert five-level scale. Respectively from 1—completely non-conforming, 2—basically non-conforming, 3—uncertain, 4—basically conforming, 5—fully conforming, five levels are presented. The selection of prediction samples follows the principle of random sampling.

In the actual sampling operation, considering the actual situation of English teaching in Chinese elementary school, a non-repetitive sampling form is adopted. The roster of primary school English teachers who are expected to participate in the study

is randomly numbered, and then the relevant teachers are randomly selected from these numbers as the preliminary survey objects for questionnaire prediction. The survey was conducted in the form of on-site distribution and online distribution of questionnaires. On the occasion of collective teaching and research activities, 134 questionnaires were distributed to on-site English teachers, and 40 questionnaires were distributed online to teachers who did not attend the meeting. A total of 164 questionnaires were collected, and the questionnaire recovery rate was 94.5%. Excluding 5 invalid questionnaires (omitted and lying questionnaires), the actual valid questionnaires totaled 159, and the effective utilization rate of the questionnaires was 96.9%.

4. Results and discussions

4.1. Questionnaire reliability and validity test

4.1.1. Reliability test

The purpose of questionnaire reliability analysis was to test the internal consistency and stability of the relevant variables in the questionnaire scale. This study uses the commonly used Cronbach’s α coefficient and Split-half reliability coefficient to test the reliability of the questionnaire. The results of the two tests are shown in **Table 2**.

Table 2. Questionnaire reliability test.

Reliability test method	Number of items	Reliability test results	
		Alpha coefficient	Fold half reliability
Global reliability of questionnaire	26	0.912	0.909

From the results of **Table 2**, the Cronbach α coefficient of this questionnaire is 0.912, indicating that the consistency of each item within the questionnaire is relatively high; The half-fold reliability coefficient of the questionnaire is 0.909, indicating that the difficulty of each item in the questionnaire is equivalent, and the reliability of the survey results is high.

4.1.2. Construct validity test

Table 3. KMO test and Bartlett sphere test.

KMO sampling appropriate determination value		0.711
	Chi-square test	985.450
Bartlett’s spherical test	Degree of freedom	325
	Concomitant probability	0.000

Factor analysis was the most used method used to assess the construct validity of the questionnaire. KMO (Kaiser–Meyer–Olkin) and Bartlett’s spherical test should be done before factor analysis to verify the possibility of factor analysis. The results of KMO pass and Bartlett’s sphere test show (see **Table 3**): the KMO sampling moderate determination value is 0.711, the chi-square test value is 985.450, the degree of freedom (df) is 325, and the accompanying probability P value is $0.000 < 0.05$, so the

Bartlett sphere test is rejected the null hypothesis proposed by the test indicates that it is suitable for factor analysis.

KMO and Bartlett Sphere Test validated the necessity of factor analysis, and then launched a further analysis of the construct validity of the questionnaire. Factor analysis used principal component analysis to test the construct validity of 26 items of the questionnaire. Through the maximum convergence iteration number (X) 25, the rotation method adopts the maximum variance method (V), the extraction standard is based on the eigenvalue greater than 1, extracts 6 factors, and sets the absolute value of the observation to 0.55. The results obtained are as shown in **Table 4**.

Table 4. Explanation of the total variance of the original variables by the extraction factor.

Factor	Initial eigenvalue			Extracted sum of squares			Shaft square and load		
	Characteristic value	Variance contribution rate	Accumulation Percentage Ratio	Characteristic Value	Variance Contribution Rate	Accumulation Percentage Ratio	Characteristic Value	Variance Contribution Rate	Accumulation Percentage Ratio
1	8.800	33.846	33.846	8.800	33.846	33.846	4.560	17.540	17.540
2	3.285	12.634	46.480	3.285	12.634	46.480	4.047	15.565	33.105
3	2.458	9.456	55.936	2.458	9.456	55.936	3.452	13.279	46.384
4	2.168	8.339	64.274	2.168	8.339	64.274	3.356	12.908	59.291
5	1.526	5.868	70.142	1.526	5.868	70.142	2.019	7.766	67.057
6	1.151	4.428	74.570	1.151	4.428	74.570	1.953	7.513	74.570
7	1.010	3.885	78.455						

Note: Extraction method: principal component analysis.

Table 4 shows the variance explanation of the original variables by factor extraction. After extracting 6 factors, the cumulative value of variance has reached 74.57%, which shows that the extracted 6 factors cover most of the items of the questionnaire to a large extent, indicating that this set of questionnaires has high validity.

Considering that the distribution of several items in the questionnaire is scattered during the factor analysis process, the matrix is adjusted. The revised factor load matrix is shown in **Table 5**.

Table 5. Modified factor load matrix.

Item	Factor					
	1	2	3	4	5	6
Know your strengths and weaknesses.	0.853					
Work adaptability.	0.798					
Be able to accept other people’s different opinions.	0.752					
Be able to learn from others with an open mind.	0.672					
Dare to accept challenging work.	0.627					

Table 5. (Continued).

Item	Factor					
	1	2	3	4	5	6
Insist on continuous learning.		0.861				
Focus on English curriculum reform and innovative teaching.		0.722				
Using language learning strategies effectively.		0.717				
Solid knowledge of English.		0.612				
Applying information technology to English teaching.		0.596				
Conducting teaching reflection after class.		0.572				
Mobilizing students' enthusiasm in English learning.			0.733			
Reasonably integrate various teaching resources.			0.723			
Flexible use of spoken and body language.			0.686			
Understanding English curriculum standards.			0.684			
Be good at learning another subject knowledge.			0.588			
Self-responsibility and role awareness in place.				0.907		
Work actively and enthusiastically.				0.903		
Be satisfied with your present job.				0.888		
Writing papers can improve professional standards.					0.821	
Be willing to carry out project research.					0.757	
Respect for equal treatment of students.						0.766
Learn about different student learning styles.						0.690
Understand the character characteristics of different students.						0.574

4.2. Structural dimensions of primary school English teachers' competence

According to the factor load matrix results presented in the factor exploratory analysis in **Table 5**, these six factors can be named respectively, so as to construct the structural dimensions of primary school English teachers' competence. The contents of Factor 1 reflect some specific personal characteristics of primary school English teachers, so this factor can be named "personal characteristics" factor; The items under Factor 2 reflect English teachers' classroom teaching ability, so they are named as "teaching ability" factors; Factor 3 mainly embodies English teachers' management organization, teaching resources organization, classroom language organization and knowledge reorganization, all of which involve teaching organization strategy, so it can be named "teaching organization strategy" factor; Factor 4 involves teachers' feelings and attitudes towards occupation, which can be named as "professionalism" factor; Factor 5, which is closely related to teaching and scientific research, is named "scientific research ability" factor; The items under factor 6 are related to students, so they are named "student views" factors. The six factors work together to construct the concrete structural connotation of primary school English teachers' competence in the new era. In order to clearly present the relationship between the first-level structural dimension and the second-level specific content of primary school English teachers' competence, the following **Figure 1** is drawn.

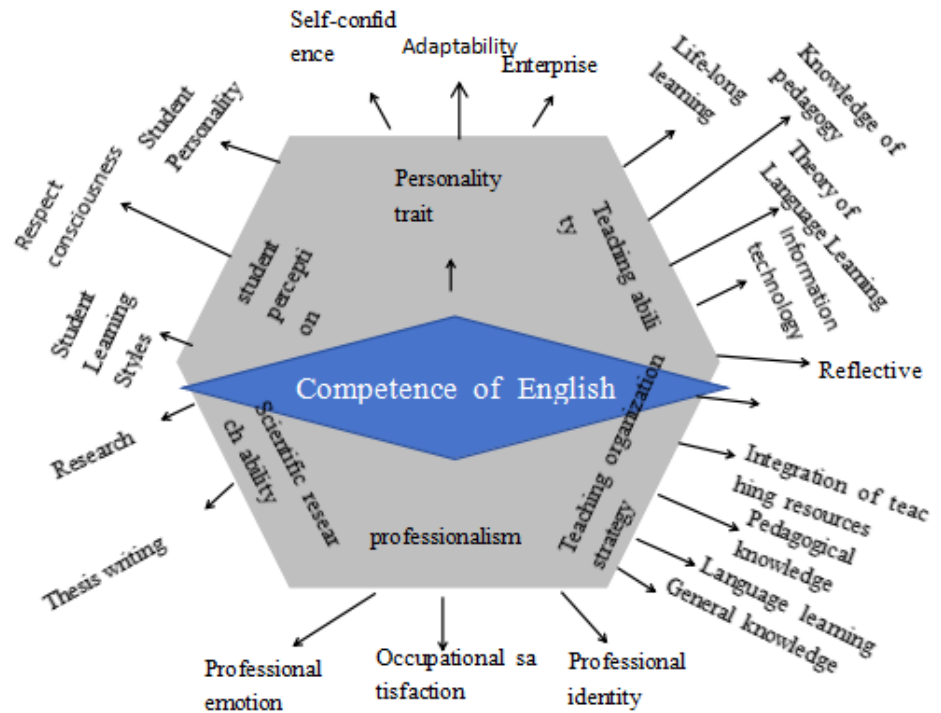


Figure 1. Relationship between primary school English teachers’ competency structure and content keywords.

In the field of competence research, Richard Boyatzis’s “Onion Model” theory and Lyle M. Spencer’s “Iceberg Model” theory are the most representative (Boyatzis, 1982; Spencer and Spencer, 1993). The structural dimensions of primary school English teachers’ competence constructed in this study basically cover the above-mentioned theories. From the outer layer to the inner layer, the structural dimensions of primary school English teachers’ competence are teaching ability, scientific research ability, student views, teaching organization strategy, professionalism and personality traits. “Teaching ability” and “scientific research ability” reflect professional knowledge and skills; “Student views” is in the middle level of competency structure, because it is the “intermediary” of teachers’ transition from explicit ability behavior to implicit trait. Teachers’ implicit personal characteristics can only be transformed into explicit knowledge and ability behaviors through “students”, and anti-explicit knowledge and ability can further promote the corresponding changes of teachers’ internal characteristics through “students”. The result of the bipolar changes in teachers’ competence must be the development of “students”. “professionalism” and “personality traits” are located in the innermost layer of competence. The overall structure is in line with the above theoretical framework, but in terms of “personality traits”, the research is slightly insufficient. Especially the analysis of the dimension of “values” is hardly involved in the research.

4.3. Analysis of competency factors of primary school English teachers

After a series of discussion, analysis and inquiry, this study concludes that if you want to be an excellent primary school English teacher, you should have six competency factors. These six factors are: professionalism, personality traits, teaching ability, student views, teaching organization strategy, research ability.

4.3.1. Professionalism

Professionalism is what we usually call “professionalism”. It refers to people who are passionate about the actions and things they pursue, and are willing to continue to fight for them. Professionalism is crucial for a person to complete his work smoothly. If he wants to do a good job, personal ability is very important. However, if he does not have a good professionalism and a correct professional attitude, no matter how strong the ability is, he will not be able to fully use it at work. The same is true for English teachers, professionalism is essential, not only to help teachers face difficulties at work more positively, but also to enable teachers to be enthusiastic in their day-to-day work (Sheridan, 2013). What primary school English teachers need to have been the recognition, love and belief of their own English teaching profession. Only when they are full of enthusiasm and dedication to their work can they devote themselves to the role of teaching and educating people from the inside out and from the heart. In order to face the difficulties in teaching bravely, strive to overcome them, and improve the quality of teaching.

4.3.2. Personality trait

Personal traits in this study are mainly divided into three aspects, self-confidence, enterprising and adaptability. Self-confidence is a psychological characteristic that reflects whether an individual has the ability to successfully complete a certain activity, and it is a conscious characteristic and psychological state that actively and effectively expresses self-worth, self-respect, and self-understanding. Teachers’ self-confidence refers to the trust in their ability to successfully complete specific educational activities through teaching. Teaching self-confidence plays an important role in the process of teachers’ professional growth.

Enterprising spirit is a psychological state, which refers to the mentality of being positive and motivated, constantly raising requirements for oneself, and promoting oneself to continue to develop. Whether it is study or work, enterprising spirit is necessary for us to achieve success. “If you study hard, you can be a teacher, and if you set a good example (idiom), you can be a model”, “Those who teach others must first receive education”. As a teacher, we should keep pace with the times and constantly learn new knowledge to enrich ourselves and supplement our deficiencies in the face of endless educational reforms.

Teachers’ adaptability refers to the ability of teachers to adjust their teaching strategies and educational ideas in time in order to better adapt and promote educational work when facing various educational changes, students’ needs and challenges of social development. Teachers with adaptability can better pay attention to the individual differences of students and provide personalized educational services for every student; It can better deal with the challenges brought about by the curriculum reform, constantly adjust teaching strategies, and improve the comprehensive quality of students. Teachers with adaptability can better cope with professional pressure and challenges and maximize their self-worth. Only with strong adaptability can primary school English teachers better meet the requirements of the new curriculum standards.

4.3.3. Teaching ability

Teaching ability is the psychological characteristic of whether teachers can

complete their own work efficiently, whether they can meet the requirements of curriculum standards and the teaching goals set by themselves. In addition to the traditional requirements for teachers' teaching ability, the new curriculum standard also requires primary school teachers to have the ability to reflect on teaching, and requires teachers to constantly sum up experience and lessons, improve teaching methods, and form their own teaching characteristics. We can subdivide it into two aspects, one is general ability, including lifelong learning and pedagogical knowledge; One is special abilities, including language learning, information technology, and reflective skills. Special ability is the ability that English teachers show when they teach English knowledge, such as the mastery of the teaching materials, the exploration of teaching methods, whether they can teach students in accordance with their aptitude, and the ability of personal language expression. Only with general ability and special ability at the same time, can we complete the teaching work efficiently (Weng, 2004).

4.3.4. Student views

The concept of students refers to the basic concept system about the essential attributes and characteristics of students. Such as educators' basic views on each aspect of students' essence, characteristics, growth and development process. In the process of primary school English teaching, the teacher's outlook on students plays a vital role in the quality of teaching and the growth of students. The new curriculum standard points out that English teachers not only need to pay attention to students' knowledge mastery, but also pay attention to students' individual differences, all-round development, emotional experience and other aspects (Lei and Medwell, 2022), which is the correct view of students. To establish a harmonious relationship between teachers and students and to create a positive, healthy and harmonious learning environment for students is the quality that an excellent primary school English teacher should possess.

4.3.5. Teaching organization strategy

Teaching organization strategy is a basic method that is selected and organized for specific teaching topics in the design of teaching system, including all strategies with organizational functions in teaching. In this paper, teaching organization strategies are divided into classroom organization, classroom resources integration, curriculum knowledge, language knowledge and general knowledge. English teachers should not only have solid theoretical knowledge and basic skills, but also have pure pronunciation and intonation, especially for primary school students who are new to English, pure pronunciation is particularly important. The new curriculum standard advocates interdisciplinary teaching and requires primary school teachers to have the ability of interdisciplinary integration. This requires primary school English teachers not only to have excellent language ability and curriculum knowledge, but also to have the ability of general knowledge and resource integration, so as to form interdisciplinary teaching content and teaching methods, and cultivate students' comprehensive quality.

4.3.6. Research ability

Educational research has always been a necessary condition for becoming an

excellent teacher (Böttcher and Thiel, 2017; Niemi and Nevgi, 2014). The new curriculum standard requires primary school teachers to master basic research methods and ability. Teachers need to use scientific methods to conduct research, collect and analyze data, form scientific theories, and provide strong support for educational practice. The new curriculum standard encourages educational innovation and experimentation, and requires primary school English teachers to have innovative spirit and experimental ability. The competency structure of primary school English teachers constructed in this paper subdivides the scientific research ability into two items: topic research and thesis writing, which makes the requirements of the new curriculum standards for teachers' scientific research more concrete.

4.4. Overall features and differences of primary school English teachers' competency

In order to make a more thorough and comprehensive study of primary school English teachers' competencies, this study examines the differences of primary school English teachers' competencies in terms of gender, teaching experience and educational background. The detailed results of the inspection are listed below:

4.4.1. Overall characteristics of primary school English teachers' competency

A descriptive statistical analysis of the scores and total scores of the various competencies obtained by the study subjects is carried out. The results are shown in **Table 6**.

Table 6. Overall competency of primary school English teachers.

Factor	Average score M	Standard deviation SD
Professionalism	3.42	0.663
Personality trait	3.88	0.719
Student views	4.06	0.682
Teaching organization strategy	3.49	0.704
Teaching ability	3.94	0.663
Scientific research ability	4.17	0.708
Total score	3.85	0.689

From **Table 6**, we can see that the overall level of primary school English teachers' competence is relatively high, and the total average score is close to 4 points, which belongs to the "relative conformance" level. At the same time, the score in the four dimensions of student views, personality traits, teaching ability, and scientific research ability is close to 4, reaching the degree of "relatively consistent"; The score in the two dimensions of professionalism and teaching organization strategy is less than 3.5 points, indicating that their competency level in these two aspects has not yet met the requirements, and can be improved through further training.

4.4.2. A test of gender differences in primary school English teachers' competency

Taking gender as the independent variable and the scores of primary school English teachers of different genders on each competency as the dependent variable,

the next difference test is carried out. The test results are shown in **Table 7**.

Table 7. Comparison of gender differences in primary school English teachers' competency.

Factor	Male (n = 48)		Female (n = 131)		t
	M	SD	M	SD	
Professionalism	4.12	0.502	4.05	0.527	2.146
Personality trait	4.22	0.572	3.82	0.583	2.304**
Student views	4.02	0.591	4.23	0.585	2.422**
Teaching organization strategy	3.47	0.604	3.52	0.547	2.293
Teaching ability	4.03	0.623	3.97	0.582	2.104
Scientific research ability	4.12	0.557	3.97	0.558	2.137

Note: ** $p < 0.01$.

According to **Table 7**, we can intuitively see that in the 159 subjects in this study, male English teachers and female English teachers have significant differences in the two factors of personality traits and student views, and there are no significant differences in the other four factors. Female teachers scored lower than males on the personality traits and higher than males on the student views factor. The reason for this is that we believe that, in terms of personality traits, male English teachers may be more inclined to display traits such as assertiveness, decisiveness, and competitiveness, which occupy a more prominent place in their personality make-up. Female English teachers, on the other hand, may focus more on traits such as subtlety, patience, and approachability, which are equally important though. This does not mean that female teachers' personality traits are inferior to those of males, but rather reflects the different preferences and focuses on personality presentation of different genders. The fact that female English teachers scored higher than males on the student views factor may stem from their keen insight into students' emotions and their delicate attention to students' needs. Female teachers tend to understand the inner world of their students better and are better at establishing a harmonious teacher-student relationship through emotional communication. This emphasis and attention to students' emotions helps them to better guide students' learning and growth.

4.4.3. A test of the difference of primary school English teachers' competency in teaching age

The different professional titles of primary school English teachers are taken as independent variables, and the scores of each competency factor are taken as dependent variables. Next, the analysis of variance is carried out, and the homogeneity test of the results of the analysis of variance is carried out. The specific analysis results are shown in **Table 8**.

Table 8. Difference of English teachers' competency in primary schools.

Competency characteristics	Less than 5 years (n = 68)		Over 5 years less than 10 (n = 18)		Over 10 years less than 20 (n = 34)		Over 20 years less than 30 (n = 15)		F
	M	SD	M	SD	M	SD	M	SD	
Professionalism	3.58	0.678	3.64	0.563	3.76	0.493	4.37	0.643	0.589

Personality trait	3.63	0.639	3.72	0.598	3.78	0.563	4.34	0.632	0.876*
Student views	3.44	0.648	3.74	0.637	3.82	0.553	4.29	0.594	1.067*
Teaching organization strategy	3.56	0.658	3.66	0.658	3.86	0.525	4.47	0.601	1.206
Teaching ability	3.24	0.629	3.79	0.602	3.90	0.602	4.31	0.642	0.668*
Scientific research ability	3.19	0.637	3.82	0.647	4.11	0.549	4.23	0.682	1.425

Note: * $p < 0.05$, ** $p < 0.01$.

According to the data obtained in **Table 8** above, we can intuitively and clearly see that among the 159 subjects, the teaching experience of teachers has significant differences in the three dimensions of student views, personality traits, and teaching ability, while in terms of professionalism, there are no significant differences in the three dimensions of teaching organization strategy and scientific research ability. This has a great deal to do with the teaching experience and individual growth of primary school English teachers.

4.4.4. A test of the difference of primary school English teachers' competency in educational background

The different teaching experience of teachers is regarded as the independent variable level, and the score of each competency of the research sample is regarded as the dependent variable, and the scientific and rigorous analysis of variance is carried out. The details of the analysis of variance can be referred to **Table 9**.

Table 9. Competency differences of primary school English teachers in educational background.

Competency characteristics	Junior college ($n = 30$)		Undergraduate ($n = 102$)		Master degree or above ($n = 47$)		F
	M	SD	M	SD	M	SD	
Professionalism	3.67	0.584	3.85	0.597	4.21	0.532	2.496*
Personality trait	4.09	0.623	4.27	0.637	4.25	0.541	1.852
Student views	4.02	0.632	4.04	0.602	4.18	0.523	1.593
Teaching organization strategy	3.97	0.615	4.06	0.621	4.28	0.481	1.673
Teaching ability	4.01	0.574	3.85	0.593	4.42	0.492	3.083*
Scientific research ability	3.95	0.587	4.13	0.684	4.31	0.509	3.127*

Note: * $p < 0.05$, ** $p < 0.01$.

Table 9 shows that among the 159 subjects, primary school English teachers have significant differences in the three factors of professionalism, teaching ability and scientific research ability, but there are no significant differences in personality traits, student views and teaching organization strategy. This result reveals that academic qualifications, as an important indicator of teachers' professional background and educational experience, have a significant impact on the overall competence of individual elementary school English teachers. Specifically, primary school English teachers with higher academic qualifications tend to be able to demonstrate stronger professional ethics and educational concepts in terms of professionalism, utilize richer educational theories and advanced teaching methods in terms of teaching ability, as well as show stronger exploratory spirit and innovative ability in terms of scientific research ability. These advantages not only help to improve the quality of teaching, but also promote the continuous innovation and development of education and

teaching. Therefore, upgrading the academic level of elementary school English teachers has become an important way to enhance their competence and promote educational progress.

5. Conclusion

Based on the analysis of the results of interviews and questionnaires, this paper sums up six competency factors that primary school English teachers should possess in the face of the reform of the new curriculum standards. These six factors are: Professionalism, personality traits, teaching ability, student views, teaching organization strategy, research ability.

Under China's new curriculum standards, the competency level of primary school English teachers is relatively good on the whole, and there are significant differences in gender, teaching age, and education level: there are significant differences between male and female primary school English teachers in personality traits and student views factors, female teachers score lower in personality traits, and higher in student views factors; There are significant differences among primary school English teachers with different teaching years in the three dimensions of student views, personality traits, and teaching ability, which increase with the increase of teaching years; There are significant differences in professionalism, teaching ability and scientific research ability among primary school English teachers with different educational background, which increase with the increase of educational background.

However, there are some limitations to this study. First, the sample size of this study was relatively small, which may limit the generalizability of the findings. Future research could expand the sample to cover more districts and different types of primary schools in order to improve the representativeness and applicability of the findings. Second, this study mainly focused on the competency characteristics of primary school English teachers without exploring in depth how these characteristics affect teaching effectiveness and student learning outcomes. Future research can further explore the relationship between primary English teachers' competency characteristics and teaching effectiveness, and how teaching quality can be improved by enhancing teachers' competency characteristics.

In summary, this study provides a preliminary theoretical and empirical foundation for understanding the competency characteristics of elementary English teachers, but it still needs to be further improved and deepened. Future research should expand the scope of the sample and deeply explore the relationship between competency characteristics and teaching effectiveness, with a view to providing more comprehensive guidance for the professional development of primary school English teachers.

Author contributions: Conceptualization, SQ and AJBS; methodology, SQ; software, SQ; validation, SQ and AJBS; formal analysis, SQ; investigation, SQ and AJBS; resources, SQ; data curation, SQ; writing—original draft preparation, SQ; writing—review and editing, AJBS; supervision, AJBS; project administration, AJBS. All authors have read and agreed to the published version of the manuscript.

Conflict of interest: The authors declare no conflict of interest.

References

- Böttcher, F., & Thiel, F. (2017). Evaluating research-oriented teaching: A new instrument to assess university students' research competences. *Higher Education*, 1–20. doi:10.1007/s10734-017-0128-y.
- Boyatzis, R. E. (1982). *The competent manager: A model for effective performance*. New York: Wiley.
- Cheng, B., & Zhang, D. (2020). Cultivating citizens with Confucian cosmopolitanism: Defining the purpose of liberal arts education in the Asian context. *Frontiers of Education in China*, 15, 564–587. doi:10.1007/s11516-020-0027-3
- Danielson, C. (2000). *Enhancing professional practice: The framework for teaching* (3rd ed.). ASCD.
- Darling-Hammond, L., & Youngs, P. (2002). Defining “highly qualified teachers”: What does “scientifically based research” actually tell us? *Educational Researcher*, 31(9), 13–25.
- Fullan, M. (2012). *Change forces: Probing the depths of educational reform*. London: Routledge. doi:10.4324/9780203059005
- Hopkins, D., & Stern, D. (1996). Quality teachers, quality schools: Implicational perspectives and policy implications. *Teaching and Teacher Education*, 512–567.
- Jiang, A. L., & Zhang, L. J. (2021). Teacher learning as identity change: The case of EFL teachers in the context of curriculum reform. *TESOL Quarterly*, 55, 271–284.
- Jin, L., & Cortazzi, M. (2006). Changing practices in Chinese cultures of learning. *Language, Culture and Curriculum*, 19, 5–20. doi:10.1080/07908310608668751
- Kırkgöz, Y. (2008). A case study of teachers' implementation of curriculum innovation in English language teaching in Turkish primary education. *Teaching and Teacher Education*, 24, 1859–1875. doi:10.1016/j.tate.2008.02.007
- Lei, M., & Medwell, J. (2022). The changing role of Chinese English-as-foreign-language teachers in the context of curriculum reform: Teachers' understanding of their new role. *Frontiers in Psychology*, 13, 904071. doi:10.3389/fpsyg.2022.904071
- Li, L. (2024). The Evaluation of English Teaching Mode in the Context of Big Data. In: Zhang, Y., Shah, N. *Application of Big Data, Blockchain, and Internet of Things for Education Informatization. BigIoT-EDU 2023. Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering*, vol 581. Springer, Cham. doi:10.1007/978-3-031-63133-7_20
- Liang, Y. (2023). Challenges and countermeasures for the professional development of primary and secondary school English teachers under the background of the new curriculum standards: Based on the analysis of Compulsory Education English Curriculum Standards (2022 Edition). *Advances in Education*, 13(4), 2143–2152. doi:10.12677/AE.2023.134336
- McClelland, D. C. (1973). Testing for competence rather than for "intelligence." *American Psychologist*, 28(1), 2–8.
- Mei, D. M. (2019). *Guidelines for teachers of English based on the curriculum standards for teaching English for general senior high schools*. Shanghai: Shanghai Educational Publishing House.
- Niemi, H., & Nevgi, A. (2014). Research studies and active learning promoting professional competences in Finnish teacher education. *Teaching and Teacher Education*, 43, 131–142.
- Sheridan, L. D. (2013). Changes in pre-service teachers' perceptions of teacher qualities: Development from egocentric to student centric. *Australian Journal of Teacher Education*, (10), 38–46. doi:10.14221/a.jte.2013v38n9.2
- Spencer, L. M., & Spencer, S. M. (1993). *Competence at work: Models for superior performance*. Wiley.
- Tichnor-Wagner, A., Parkhouse, H., Glazier, J., & Cain, J. M. (2019). *Becoming a globally competent teacher*. ASCD.
- Vähäsantanen, K., & Eteläpelto, A. (2009). Vocational teachers in the face of a major educational reform: Individual ways of negotiating professional identities. *Journal of Education and Work*, 22, 15–33. doi:10.1080/13639080802709620
- Watts, D. (1982). Can campus-based pre-service teacher education survive? Part II: Professional knowledge and professional studies. *Journal of Teacher Education*, 33(2), 37–41.
- Weng, Y. (2004). *An empirical study on the competency characteristics of human resource managers in Chinese enterprises*. (Doctoral dissertation, Wuhan University).
- Yacob, N. S., Yunus, M. M., & Hashim, H. (2021). The way forward: Global competence among ESL teachers. A conceptual paper presented at the 29th MELTA International Conference, July 23–25, 2021.
- Yim Su Yon & Lim Eun Young. (2024). English teacher competency: a study with different school levels and teaching experience. *Asia Pacific Journal of Education* (2), 219–233.
- Zhao Xia.(2013). On Three Dimensions of Language Teachers' Capability. *Journal of Chongqing University(Social Science Edition)*, 19(5): 178–182. doi:10.11835/j.issn.1008-5831.2013.05.028.
- Zhou, Q. (2024). A study on the teaching competence and its development of basic education English teachers . Shanghai

International Studies University.

Zhu, Y. (2018). *Language curriculum innovation in a Chinese secondary school*. Singapore: Springer. doi:10.1007/978-981-10-7239-0