

## **Informatization Teaching Ability and Influencing Factors of College English Teachers**

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**Keywords:** Information Teaching, College English Teachers, Teaching Ability, Influencing Factors

**Abstract:** The application level of college English teachers' informatization teaching ability plays a key role in achieving the goal of training high-skilled English practical talents in colleges and universities. Under the background of global teaching informatization, how to realize the efficient development of English teachers' informatization teaching ability level is a hot issue that college English teachers themselves and even colleges and the whole society should pay attention to. The purpose of this article is to study the informatization teaching ability and influencing factors of college English teachers. This paper selects five colleges and universities in the province and selects college English teachers and students from them by sampling as the subjects of the survey. The subjects of English teachers include college English teachers, and the students are mainly sophomores and juniors. The method of multiple regression analysis studies the relationship between several influencing factors and various aspects of informatization teaching ability in order to provide a basis for the development of informatization teaching ability of college English teachers. The data sources of this study are mainly obtained through questionnaire surveys. The software tools used in the quantitative study are mainly SPS and AMOS software. Finally, based on the research results of this article, the research content is reflected and prospected, hoping to promote the in-depth development of college English teachers' informatization teaching ability, provide guidance and reference for informatization teaching, and accelerate the modernization and informatization process of college English teachers' teaching skills. The experimental results show that this paper regressed the four influencing factors step by step. It can be seen that the school factor enters the regression model first, with an explanatory amount of 0.252; the second is English teacher training, information technology capabilities, and policy systems. It shows that these five influencing factors have a significant impact on the cognitive ability of English teachers in information teaching.

### **1. Introduction**

Cultivating advanced technical application-oriented talents with strong professional basic knowledge and practical ability is determined to a large extent by the development level of college English teachers' information teaching ability [1-2]. That is, whether college English teachers can deeply integrate information technology and classrooms to create an intelligent, efficient, and wise teaching environment is the key to training English talents in colleges and universities [3-4]. Therefore, exploring the factors that affect the development of college English teachers' informatization teaching ability plays an important role in comprehensively

and efficiently promoting the further development and improvement of the ability level [5-6]. It is also an urgent and important task. It should become the current college informatization teaching reform and the core content of the development process [7-8].

In the research on the informatization teaching ability and influencing factors of English teachers in colleges and universities, many scholars have conducted research on it and achieved good results. For example, Derbush MV proposed to establish the concept of lifelong education, master the use of modern educational technology tools, and make informatization Instructional design runs through the entire teaching activities, especially the design of the classroom teaching environment [9]. Yuan combined with the teaching of nautical English translation major, believes that information technology can play a role in optimizing teaching effects, and should focus on training English teachers to combine modern educational technology knowledge and tools with subject professional courses to carry out teaching activities [10].

In order to obtain more comprehensive, true and effective first-hand information on the development of informatization teaching ability of college English teachers, this article first adopts a questionnaire survey method to investigate the current application level of informatization teaching ability and training situation of teachers in five colleges and universities in the province. Then, we will list the interview outlines for college English teachers in different positions. During the face-to-face interviews, we will promptly ask them to further grasp the main factors affecting college English teachers' information teaching ability, as well as their opinions or suggestions on improving this ability. Suggest.

## **2. Influencing Factors of College English Teachers' Information Teaching Ability**

### **2.1. Internal Factors Affecting the Informatization Teaching Ability of College English Teachers**

(1) English teachers do not pay much attention to it, and the contradiction between work and study is prominent

As a new force, informatization teaching ability pays more attention to the auxiliary role of information technology in the efficient development of teaching activities than traditional teaching ability, which puts forward higher and deeper computer network application requirements for English teachers. However, some teachers at present do not fully realize the importance of mastering the ability of informatization teaching. The insufficient attention of English teachers themselves will seriously affect their proactive learning and training, which will lead to insufficient understanding of the concept of informatization teaching. It is not deep enough, and the application of information-based teaching technology in teaching activities is only mechanically repeated operation and use, lacking new ideas, stopping and "learning level."

(2) The concept is lagging behind and the concept of lifelong education is lacking

Facing the huge difference between the knowledge structure of informatization teaching ability with a short start time and the knowledge structure of traditional teaching mode, English teachers in colleges and universities have been soaked in traditional teaching concepts for many years and need more buffer time to keep up with the information. In order to adapt to the historical process of modern education informatization, the corresponding teaching skills of informatization can be improved.

(3) Insufficient professional knowledge of informatization teaching and limited ability

Due to the particularity of the subject and professional background, the time for English

teachers in colleges and universities to contact and learn information technology is far less than that of English teachers with a background in science and engineering. This leads to the overall weakness of information technology-related knowledge and the later learning of professional skills in information teaching. Certainly affect. There are also some English teachers who are older and have a decline in their ability to accept cutting-edge new technologies and knowledge, which directly leads to the low level of computer technology, multimedia technology, and Internet technology, which affects the overall level of information teaching ability.

## 2.2. External Factors

### (1) Policy system factors

It mainly includes whether the country or region has policies, systems, implementation plans, and guidance documents related to informatization teaching capabilities. Whether the level of informatization teaching affects the personal professional development of local departments in the assessment and evaluation of professional titles, etc., this will directly affect the motivation of English teachers to learn and apply informatization for teaching, and then affect the development of English teachers' informatization teaching ability.

### (2) School factors

It refers to whether the growth environment of English teachers provides corresponding software and hardware support for English teachers to master the information teaching ability. The hardware conditions include computer multimedia, electronic whiteboards, and English teachers' personal computers; the software conditions include student learning resources, classroom teaching materials, and the corresponding computer software necessary for English teachers in the process of informatization teaching. In addition, the school's rules and regulations also have an impact on whether English teachers can improve their informatization teaching capabilities. For example, whether the school has formulated rules and regulations that are conducive to English teachers' informatization teaching, and whether the school provides English teachers with opportunities to participate in relevant training or informatization teaching activities.

### (3) Human factors

Mainly refers to the influence of the leaders, colleagues and students of the school where the English teacher is located on the development of the information teaching ability of the English teacher. For example, school leaders accept informatization teaching and encourage English teachers to use informatization teaching; colleagues are keen to master the ability of informatization teaching and are willing to use information technology in the classroom, as well as active exchanges between English teachers, sharing informatization teaching experience, etc.; Students like English teachers to use information technology to present teaching content and use computer-assisted learning.

### (4) English teacher training factors

Mainly refers to the information-based teaching related training settings for English teachers, such as whether the training courses include information-based teaching design, information-based teaching management, use of information-based teaching tools, and the effective integration of information technology and teaching content; training mode Whether it is suitable for the acceptance level of local English teachers; whether adequate software and hardware support is provided for English teachers to master the informatization teaching ability during the training process, and whether there is a targeted design for training objects with different informatization teaching capabilities.

### 3. Experimental Investigation and Research on Influencing Factors of College English Teachers' Information Teaching Ability

#### 3.1. Questionnaire Preparation, Distribution and Recovery

This questionnaire draws on the Informatization Teaching Ability Evaluation Scale for English Teachers in Colleges and Universities, and makes appropriate revisions based on this scale in combination with the status quo of rural areas in western China. The questionnaire contains four aspects: informatization teaching cognitive ability, informatization teaching design ability, informatization teaching implementation ability, and informatization teaching monitoring ability. Each item of the questionnaire adopts the Richter five-level scale, where "1" means completely in line, "2" means basically in line, "3" means fair, "4" means not very consistent, and "5" means completely incompatible. The Informatization Teaching Ability Questionnaire and the Questionnaire on the Influencing Factors of the Informatization Teaching Ability Development of English Teachers were issued and collected at the same time. A total of 273 questionnaires were issued. After excluding missing items and the same answers, a total of 248 valid questionnaires were received.

#### 3.2. Reliability and Validity Test of the Questionnaire

This research uses mature questionnaires that have been repeatedly tested to ensure that they can be used in the specific samples of this research to ensure high reliability and validity. Therefore, the reliability and validity of the test should be tested before the analysis. The questionnaire adopts the internal consistency reliability evaluation method. The larger the Cronbach  $\alpha$  coefficient calculated according to the Cronbach formula, the better the internal consistency.

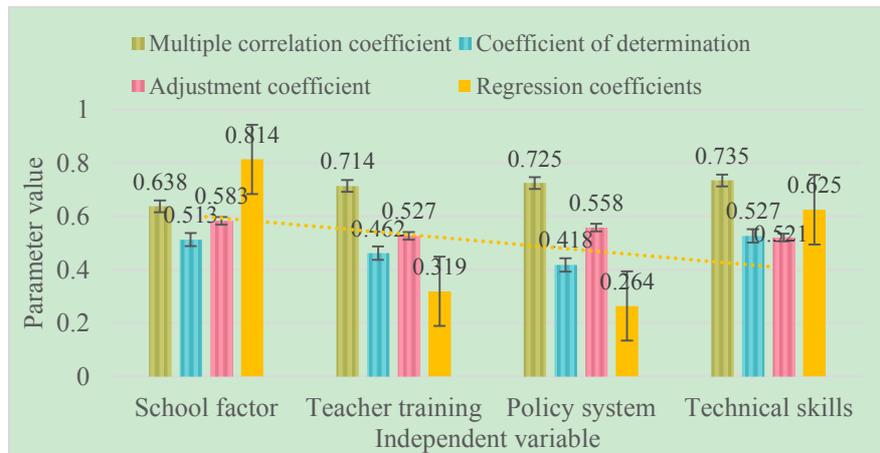
### 4. Investigation and Analysis of Influencing Factors of College English Teachers' Information Teaching Ability

#### 4.1. Relationship between Influencing Factors and the Ability of English Teachers to Design Informatization Instruction

In this paper, the informatization teaching design ability is the dependent variable, and the various dimensions of the influencing factors of the informatization teaching development are the independent variables. The multivariate regression analysis of the step-by-step approach is carried out. The entry standard selection is 0.12, and the deletion standard selection is 0.13. Explore the influence of each influencing factor on the informatization teaching design ability of English teachers. The experimental results are shown in Table 1.

**Table 1.** Stepwise regression analysis of the influence of informatization teaching design ability

Independent variable	Multiple correlation coefficient	Coefficient of determination	Adjustment coefficient	Regression coefficients
School factor	0.638	0.513	0.583	0.814
Teacher training	0.714	0.462	0.527	0.319
Policy system	0.725	0.418	0.558	0.264
Technical skills	0.735	0.527	0.521	0.625



**Figure 1.** Stepwise regression analysis of the influence of informatization teaching design ability

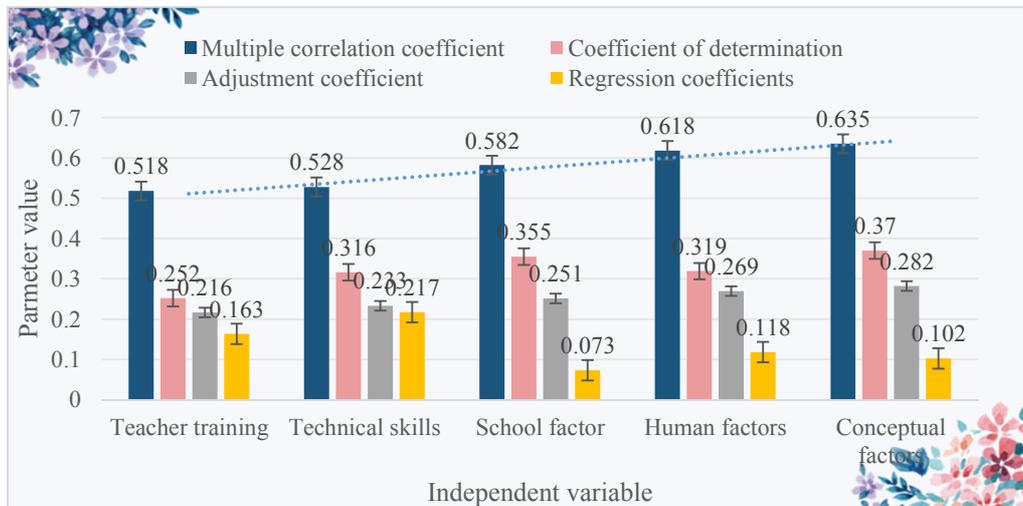
As shown in the data in Figure 1, stepwise regression is performed on the 5 influencing factors, and there are 4 significant variables entering the regression equation. In terms of the overall effect parameters, the multivariate correlation coefficient is 0.735, and the joint explanatory variance is 0.58, which means that these four variables can jointly predict 47.6% of the variance of English teachers' cognitive ability of information teaching. It shows that the final regression effect of the regression model is significant.

#### 4.2. Relationship between Influencing Factors and the Ability of English Teachers to Implement Informatization Teaching

This paper takes the implementation ability of informatization teaching as the dependent variable, and the various dimensions of the influencing factors of the development of informatization teaching as the independent variables, and conducts a multivariate regression analysis of the progressive entry method. The entry standard selection is 0.12, and the deletion standard selection 0.13. Explore the impact of each influencing factor on the ability of English teachers to implement informatization teaching. The experimental results are shown in Table 2.

**Table 2.** Stepwise regression analysis of the influence of the ability to implement informatization teaching

Independent variable	Multiple correlation coefficient	Coefficient of determination	Adjustment coefficient	Regression coefficients
Teacher training	0.518	0.252	0.216	0.163
Technical skills	0.528	0.316	0.233	0.217
School factor	0.582	0.355	0.251	0.073
Human factors	0.618	0.319	0.269	0.118
Conceptual factors	0.635	0.370	0.282	0.102



**Figure 2.** Stepwise regression analysis of the influence of the ability to implement informatization teaching

As shown in the data in Figure 2, this paper conducts a stepwise regression on the 4 influencing factors, and there have a total of 5 significant variables entering the regression equation. In terms of the overall effect parameters, the multivariate correlation coefficient is 0.635, and the joint explanatory variance is 0.37, which means that these four variables can jointly predict 38.7% of the variance of English teachers' cognitive ability of information teaching. From the perspective of the explanation of individual variables, the school factor enters the regression model first, with an explanation amount of 0.252; the second is English teacher training, information technology capabilities, and policy systems. It shows that these five influencing factors have a significant impact on the cognitive ability of English teachers in information teaching.

## 5. Conclusions

This article uses the methods of questionnaire survey, structural equation model analysis and multiple regression analysis to investigate and analyze the influencing factors of the informatization teaching ability of English teachers in this province. This research focuses on the influencing factors of the development of informatization teaching ability of English teachers in colleges and universities, and systematically analyzes them with quantitative research methods, and establishes the structural equation model of influencing factors of the development of informatization teaching ability of English teachers, and according to the structural equation model and Multiple regression analysis analyzes the possible influencing factors of English teachers' informatization teaching ability, and puts forward simple suggestions to improve English teachers' informatization teaching ability. It is expected to provide a new theory and research for the development of informatization teaching ability in the future. Research perspective.

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