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Research Article

The Evaluation Method of English Teaching Ability in View of Internet of Things

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This paper firstly investigates the current situation of English teaching evaluation research at home and abroad and the evaluation of basic English teaching through literature review. Most of the research involves personal experience summary, lack of academic, and empirical research proof. Research starting points are often very similar, with repetitive content. Most of these studies are limited to teaching evaluation or learning specific English knowledge, and the evaluation of teaching methods is limited. The article explains the importance and scope of English teaching evaluation research through the Internet of Things technology and explains that the guiding theories of this English teaching evaluation research are system theory, structure theory, and multiscientific theory. Finally, this paper conducts relevant experimental research and analyzes all aspects of English teaching. Through experiments, this paper finds that students' input and level in collective or group English activities are both above 4.2 points. The self-assessment method obtained a score of 4.8 or more in the teacher's evaluation. It is necessary and realistic to establish an independent teacher-student-centered teacher education evaluation system, to optimize the teacher's beliefs of English teachers, to enrich and update the knowledge system of English teachers, to develop the practical wisdom of English teachers, to focus on students as the center of evaluation and decision-making, and to develop good teaching evaluation and decision-making habits.

1. Introduction

Although English is a language and a communication tool, it conveys the information of society's politics, economy, culture, and other aspects, and itself has become an important part of a country's comprehensive national strength. The need for "high-quality talents with international communication skills and international competitiveness" further emphasizes the importance of English teaching. In recent years, China's English teaching has made great progress, but it still cannot meet the market's demand for high-level talents, including high-quality and skilled talents. The survey shows that, on the one hand, social transformation and upgrading require a large number of skilled talents; on the other hand, the technical talents cultivated by colleges and universities cannot meet the social needs. However, for a long time, the theoretical research and practical exploration of English teaching evaluation have been in a marginal position, and the traditional teaching evaluation method is poor,

which increasingly hinders the progress of English teaching. As an important part of teaching, teaching evaluation is an effective way and means to solve the existing problems in teaching. However, the current theoretical research and teaching practice of English teaching evaluation are far from each other.

The research on English teaching evaluation has certain theoretical and practical significance. To a certain extent, it can be said that there has been educational evaluation since the existence of human education. China's educational evaluation has a long history, but it is the West represented by the United States that has elevated educational evaluation to theoretical research and has achieved great results. Although China has made some theoretical research on educational evaluation in recent decades, it mainly draws on Western educational evaluation theories. There is no systematic theoretical analysis and practical investigation. Most of the researches combined with specific disciplines are aimed at novice or expert teachers of mathematics and

chemistry in junior and senior high schools, and there is no research on outstanding English teachers in colleges and universities. Therefore, studying the teaching evaluation decisions of outstanding English teachers in colleges and universities has both theoretical and practical significance. Therefore, to carry out the research on the evaluation of English teaching will help enrich people's rational understanding of the evaluation of English teaching, broaden the research perspective of the evaluation of English teaching, and make up for the lack of theoretical guidance of the evaluation of English teaching.

Carrying out the research on the evaluation of English teaching will help the evaluation subject and the evaluation object to deeply understand the problems existing in the evaluation of English teaching. It urges evaluation subjects and evaluation objects to change evaluation concepts, improve teaching methods or learning methods, adjust teaching strategies or learning strategies, improve teaching efficiency or learning efficiency, and create a good English teaching evaluation environment. Therefore, it can improve the scientific, artistic, and fairness of teaching evaluation, improve the quality and efficiency of teaching evaluation, and then improve the quality of English teaching as a whole.

2. Related Work

Experts at home and abroad have also conducted a lot of research on the evaluation of English teaching ability and the Internet of Things. Villanueva et al. believe that teaching evaluation is an important aspect of higher education. There is a lot of information based on the best existing teaching evaluation methods, but there is a lack of research on teaching evaluation methods, especially for engineering projects [1]. Dehon et al. provide educators with an assessment tool with systematic evaluation and development capabilities that can provide educators with real-time operational feedback and support improved instructional feedback [2]. Razzaque et al. believe that the characteristics of IoT, including hyperscale IoT, heterogeneity at the device and network level, and the large number of spontaneous events generated by these objects, will enable the development of various applications and services. This is a very challenging task [3]. Lin et al. provide a combination of fuzzy/edge computing and IoT that enables the deployment of network edge computing service devices. The purpose is to improve user experience and service stability in the event of a failure. With the advantages of distributed architecture and proximity to end users, fuzzy/edge computing can provide faster response and higher quality services for IoT applications [4]. To reduce the amount of data collected on IoT, Xue et al. increase the speed of processing big data. To reduce the data collected on IoT, he proposed a compressed sensing sampling method [5]. Kshetri examines the role of blockchain in strengthening the security of the Internet of Things (IoT). It contains key underlying mechanisms involving the blockchain-IoT security relationship [6]. However, these studies pointed out that the earlier education evaluation covered a narrower scope and the evaluation method was more monotonous. Modern education evaluation covers a relatively wide range, and the evaluation method is more flexible, so these views are not recognized by the public.

3. Evaluation System Design of the Internet of Things

The design of the system includes the overall program structure, network structure, database structure, and program design of each functional module. Through the design of the system, the business logic relationship is more clearly described, and the design is described in detail.

After analysis, we determine that the Web-based teaching evaluation and analysis system adopt the structure of B/S mode. The system provides users with a personalized interface according to the system user's request, user category, and access authority, which is convenient for user operation and maintenance. The database layer is responsible for the data storage of the system. The database management system used in the teaching evaluation management system based on Extjs technology is SQLSERVER2005, which ensures the storage of data [7]. The system can well meet the requirements of integration with other systems by using the framework integration technology. The specific architecture of the system is shown in Figure 1 [8].

According to the analysis of the business function requirements of the system in the previous development, it can be seen that the Web-based teaching evaluation and analysis system mainly include the following functions: management of student letters, teacher information management, student evaluation, teacher mutual evaluation management, branch leadership evaluation management, comprehensive evaluation management, teaching evaluation query management report management, system user management, and system data management. Its functional structure diagram is shown in Figure 2 [9].

After completing the collection of these information, the collected data can be correlated, and the data information can also be modified and queried. The main function of the three subsystems of student, teacher, and leader evaluation management is to complete the evaluation of the quality of the corresponding teachers' teaching work. After the collection of teaching evaluation data of each object in pairs, the evaluation integrated management subsystem will manage and control it in the evaluation integrated management module. It can be seen from Figure 2 that the system is mainly composed of ten subsystems. Among them, the main function of the student information management subsystem is to view course information and personal student status information, modify personal student status information, and change password [10]. The main function of the course information management subsystem is the collection of course information, such as the name of the course offered by the school this semester, the teacher, the time, place, and class of the course. After completing the collection of these information, the collected data can be correlated, and the data information can also be modified and queried. The main function of the three subsystems of student, teacher, and leader evaluation management is to complete the evaluation of the quality of the corresponding
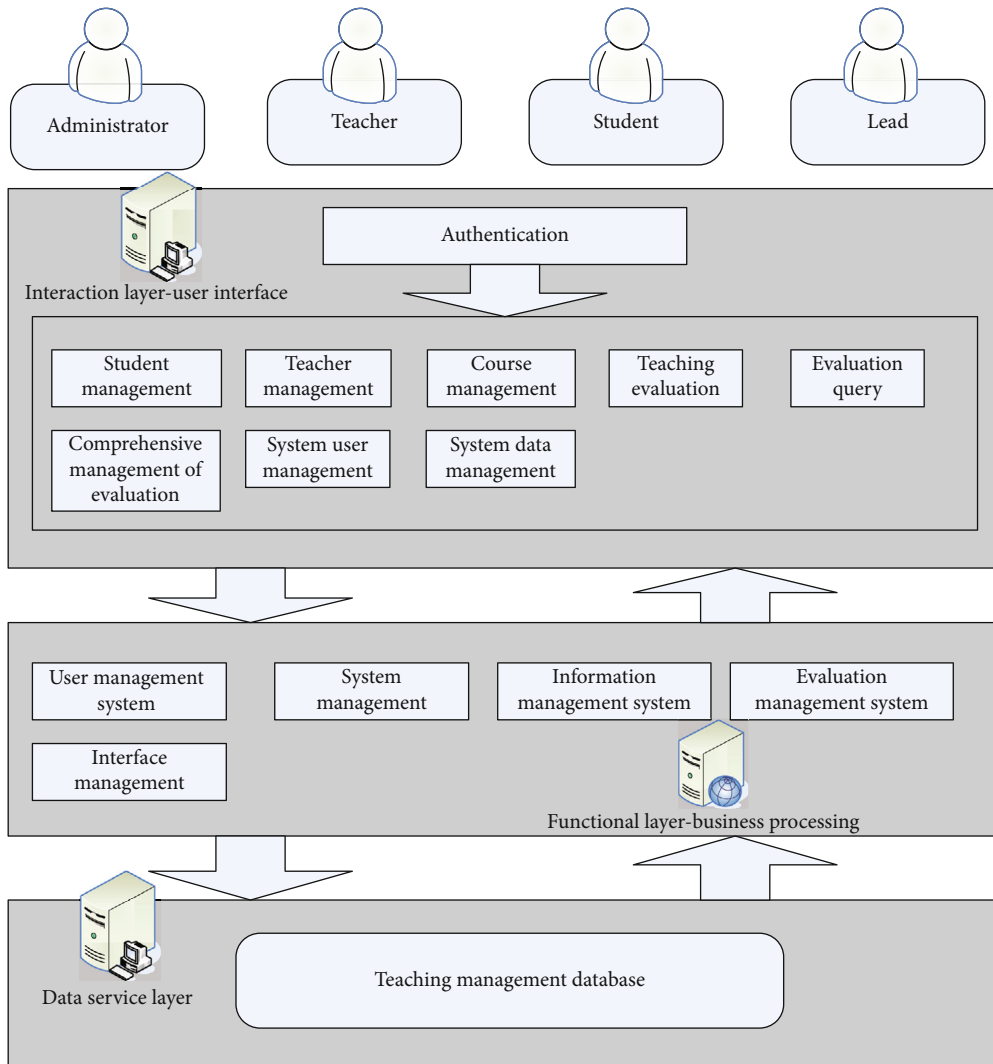
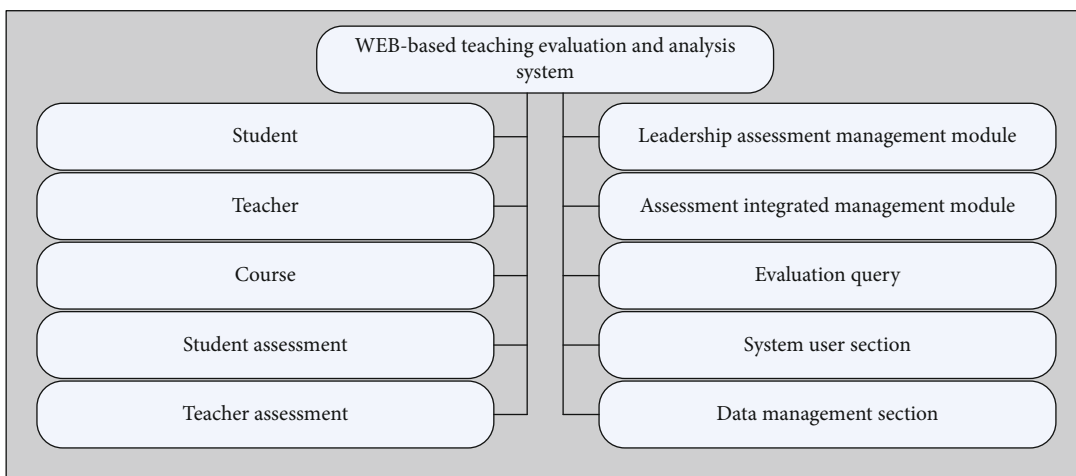FIGURE 1: The overall architecture of the teaching evaluation analysis system.

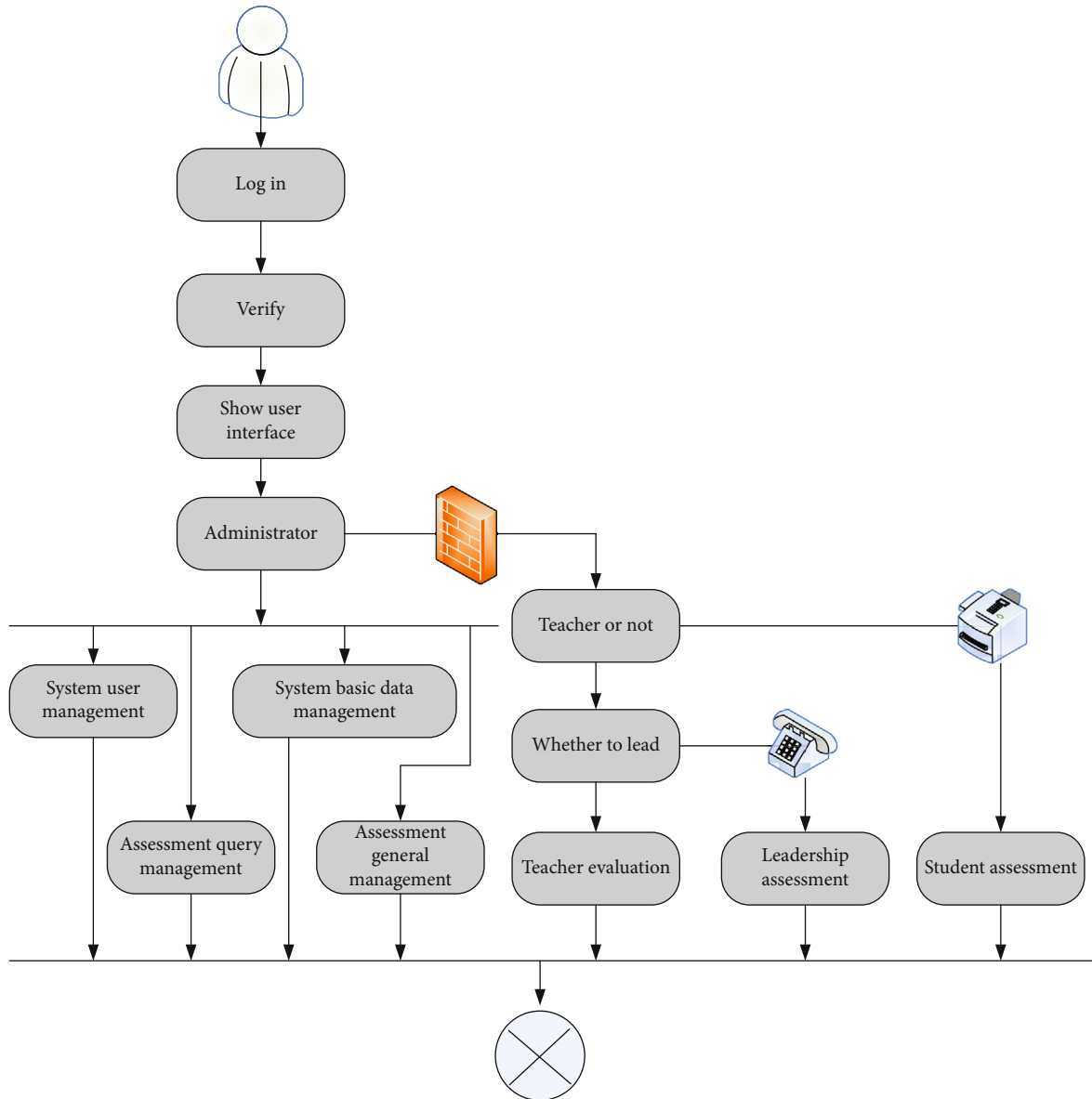FIGURE 2: System functional structure diagram.

FIGURE 3: System workflow activity diagram.

teachers' teaching work. After the comprehensive evaluation management subsystem mainly completes the collection of teaching evaluation data for each object, it will be managed and controlled in the evaluation integrated management module. By collecting the data into the database, it organizes and manages the data, performs statistical operations, and generates reports and a series of processing operations related to the collected data. It is convenient for users to access and manage teaching work [11]. The main function of the teaching evaluation query management subsystem is to allow users to easily browse the teaching evaluation results. The main function of the system user management subsystem is to manage system user roles and set permissions for roles. The system data management subsystem is mainly to backup and restore the basic data in the system, as well as the evaluation situation and results.

According to the demand analysis of the system, determine the overall workflow activity diagram of the system, as shown in Figure 3.

3.1. Student, Teacher, and Leader Evaluation Management Subsystem. Instructional assessments are evaluated by three system users: students, teachers, and leaders. When they log in to the system, the system displays the teaching evaluation items and the evaluators according to different roles and permissions, and the system users evaluate the evaluators. Finally, after the evaluation is over, the collected teaching evaluation data information is stored in the system database, and the specific teaching evaluation management flow diagram is shown in Figure 4 [12].

3.2. Database Design. In the development of software projects, a database is often used to save the basic information
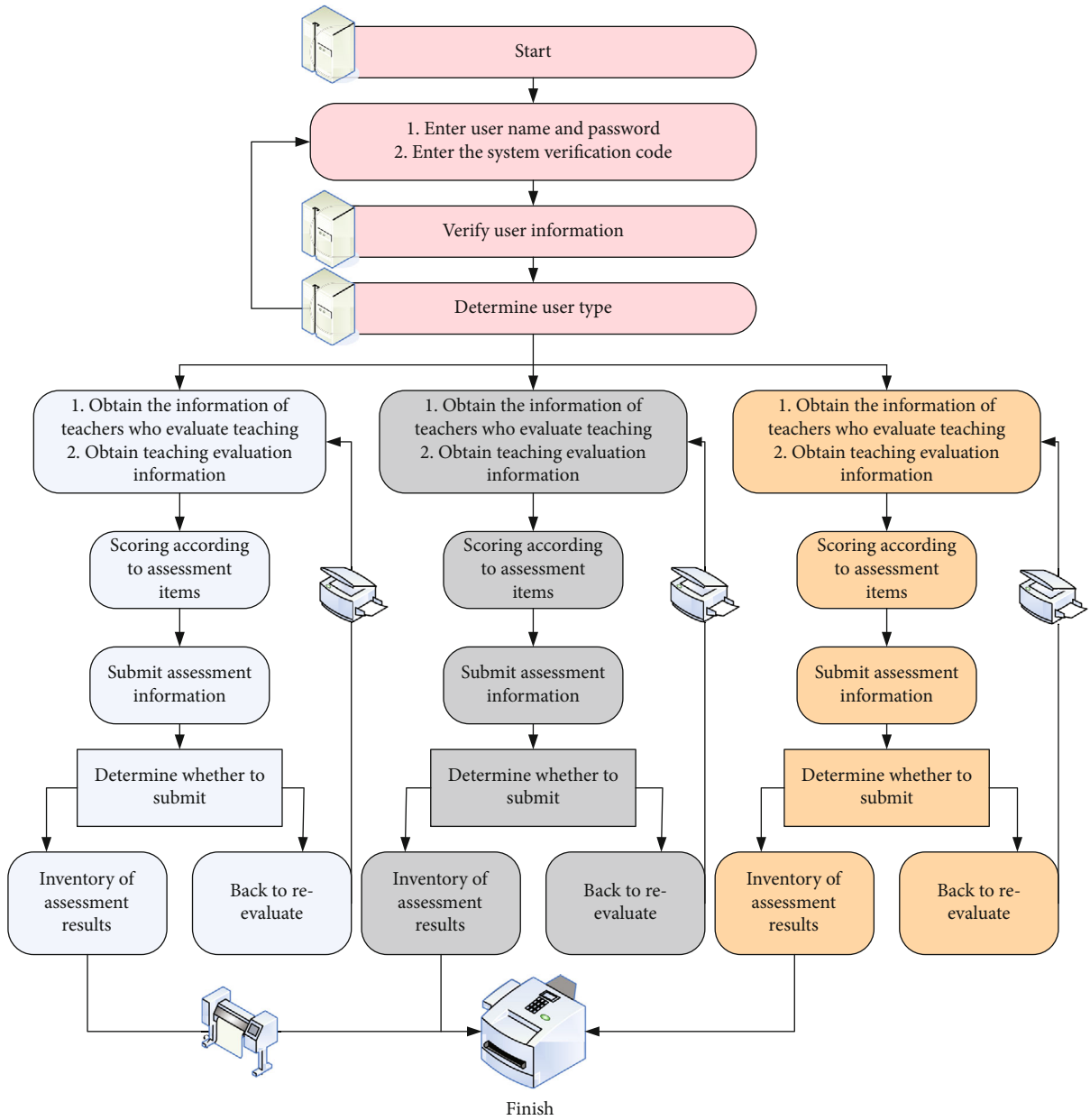
FIGURE 4: Student, teacher, and leader assessment management flowchart.

and related data of the system. There are two basic information tables; one is an independent table that does not need to depend on any table, such as a department table and a course type table. The quality of a database design also directly determines the success or failure of the system. The design of the database must be made on the basis of fully analyzing and understanding the data requirements. According to the article, the class diagram of each model module of the system is converted into a data model, and the class diagram of each module in the management system is correspondingly converted into a data table, and the relationship of each table is shown in Figure 5 [13].

The form design in the system mainly includes various information tables, evaluation type information table, which is used to store evaluation type code, evaluation type name, and evaluation type description, as shown in Table 1 [14].

Class is a data table used to store class information opened by the school. It mainly includes class code, class name, class teacher, department, major, grade, description, remarks, etc. Among them, the class number is the primary key, and the class name is required to be input by the user as the analysis and management of teaching evaluation in the table design. Except for the class number and class name, other information in the table is only used as a basis for identification and does not require certain input of operation data. The specific class storage information table is shown in Table 2 [15].

The teaching evaluation system for college teachers implemented in this paper uses ASP for programming. It
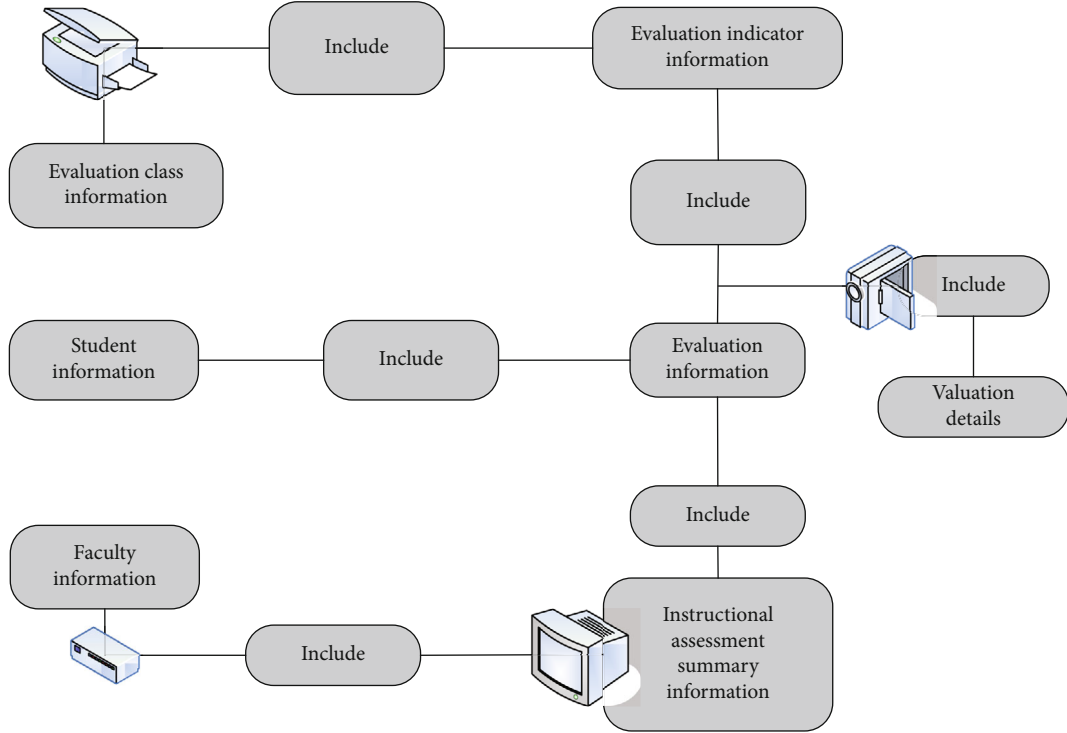
FIGURE 5: System E-R diagram.

TABLE 1: Evaluation type information table (tb_pingguleixing).

Field description	Field name	Type	Length
Assessment type number	Pingguleixing_no	int(primary key)	4
Evaluation type name	Pingguleixing_name	nvarchar	36
Evaluation type description	Pingguleixing_desp	nvarchar	150

TABLE 2: Class information table (tb_banjixinxi).

Field description	Field name	Type	Length
Class code	banjixinxi_no	Int(primary key)	4
Class name	banjixinxi _name	nvarchar	40
Head teacher	banjixinxi _leader	int	4
Grade	banjixinxi _grade	nvarchar	8
Describe	banjixinxi _desp	nvarchar	50

provides a set of solutions for the complete evaluation of teachers' classroom teaching, according to certain evaluation process and authority setting, which comprehensively evaluates teachers in four ways: student evaluation, teacher mutual evaluation, expert supervisors, and system administrators. It calculates the teacher's final score according to the weight and generates an evaluation report. And it can comprehensively analyze the evaluation results of teachers in the whole school through horizontal comparison and historical data analysis [16]. The overall flow chart of the system is shown in Figure 6.

3.3. Throughput Performance Analysis of Candidate Preamble Allocation Strategies. We will model and analyze the throughput of candidate preamble allocation strategies and the proposed strategy. Let us name each strategy first, the no-overlap separation strategy is named NOSS (NoOverlapSeparatedStrategy), the one-size-fits-all intersecting strategy is named OSS (OverlapSeparatedStrategy), and the scalable preamble allocation strategy with reservation is named SRS (ScalableReservedStrategy) [17].

In the NOSS strategy, the RACH throughput of HTC and MTC services can be expressed as:

$$T_H^{NOSS} = \lambda_H \cdot e^{-\lambda H/(N-m)} = (\lambda r1 + \lambda r2) \cdot e^{-\lambda H/(N-m)} \tag{1}$$
$$= (\lambda r1 + \lambda r2) \cdot e^{(\lambda r1+\lambda r2)/N-m},$$

$$T_H^{NOSS} = \lambda_M \cdot e^{-\lambda M/(N-m)} = (\lambda r3 + \lambda r4) \cdot e^{-\lambda M/(N-m)} \tag{2}$$
$$= (\lambda r3 + \lambda r4) \cdot e^{(\lambda r3+\lambda r4)/(N-m)}.$$

In the NOSS strategy, high-priority and low-priority services in any area include HTC services and MTC services. Therefore, the RACH throughput of high-priority traffic
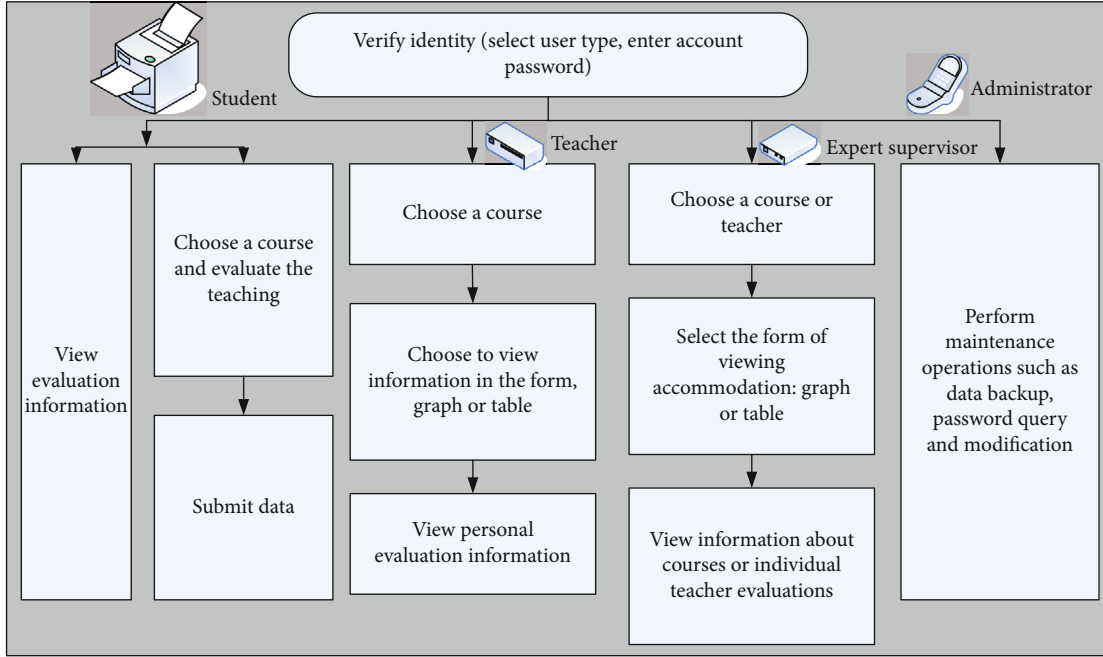
FIGURE 6: Overall flow chart of teaching evaluation system.

and low-priority traffic can be expressed as:

$$T_{HP}^{NOSS} = \lambda_{r2} \cdot e^{-\lambda H/(N-m)} + \lambda r4 \cdot e^{-\lambda M/m}$$
$$= \lambda r2 \cdot e^{-(\lambda r1+\lambda r2)/(N-m)} + \lambda r4 \cdot e^{-(\lambda r3+\lambda r4)/m},$$
$$T_{HP}^{NOSS} = \lambda_{r1} \cdot e^{-\lambda H/(N-m)} + \lambda r3 \cdot e^{-\lambda M/m}$$
$$= \lambda r1 \cdot e^{-(\lambda r1+\lambda r2)/(N-m)} + \lambda r3 \cdot e^{-(\lambda r3+\lambda r4)/m}.$$

(3)

Under the OSS strategy, not all HTC services will try to use the preamble in region 1. Among them, only $(N-x)/N100(\%)$ random access attempts fall into area 1, and the other random access attempts fall into area 2. Therefore, the packet arrival rates in area 1 and area 2 can be obtained as:

$$\lambda_1^{OSS} = \lambda H \cdot \frac{(N-x)}{N} = (\lambda r1 + \lambda r2) \cdot \frac{(N-x)}{N},$$
$$\lambda_2^{OSS} = \lambda_H \cdot \frac{x}{N} + \lambda_M = (\lambda r1 + \lambda r2) \cdot \frac{x}{N} + (\lambda r3 + \lambda r4).$$

(4)

So the RACH throughput of HTC and MTC services can be expressed as:

$$T_H^{OSS} = \lambda_1^{OSS} \cdot e^{-\lambda_1^{OSS}/(N-x)} + \lambda_H \cdot e^{-\lambda_2^{OSS}/x},$$

(5)

$$= (\lambda r1 + \lambda r2) \cdot \frac{(N-x)}{N} \cdot e^{-(\lambda r1+\lambda r2)/N}$$
$$+ (\lambda r1 + \lambda r2) \cdot \frac{x}{N} \cdot e^{-\lambda_2^{OSS}/x},$$

(6)

$$T_M^{OSS} = \lambda_M \cdot e^{-\lambda_2^{OSS}/x} = (\lambda r3 + \lambda r4) \cdot e^{(\lambda r1+\lambda r2)\cdot(x/N)+(\lambda r3+\lambda r4)/x}.$$

(7)

The article assumes that in the OSS strategy, the high and low priority services of HTC services in area 1 are proportional to try the preamble in area 2, so the RACH throughput of high-priority services and low-priority services can be expressed as:

$$T_{HP}^{OSS} = \lambda r2 \cdot \frac{N-x}{N} \cdot e^{-\lambda_1^{OSS}/(N-x)} + \left(\lambda r2 \cdot \frac{x}{N} + \lambda r4\right) \cdot e^{-\lambda_2^{OSS}/x},$$

$$\lambda_H = \lambda r1 + \lambda r2 \cdot \frac{x}{N} + \lambda r3 + \lambda r4,$$

$$T_{LP}^{OSS} = \lambda r1 \cdot \frac{N-x}{N} \cdot e^{\lambda_1^{OSS}/(N-x)} + \left(\lambda r1 \cdot \frac{x}{N} + \lambda r3\right) \cdot e^{-\lambda_2^{OSS}/x},$$

$$= \lambda r1 \cdot \frac{N-x}{N} \cdot e^{(\lambda r1+\lambda r2)/N} + \left(\lambda r1 \cdot \frac{x}{N} + \lambda r3\right)$$
$$\cdot e^{(\lambda r1+\lambda r2)\cdot(x/N)+(\lambda r3+\lambda r4)/x}.$$

(8)

Its definition is shown in Formula (9), and there is obviously the following mathematical relationship:

$$x_{\min} = \inf \left\{ x : T_M^{OSS}(x) = T_M^{NOSS}(m) \right\}.$$

(9)

By combining Formulas (2), (7), and (9), Formula (10) can be obtained.

$$\lambda_M \cdot e^{-\lambda_2^{OSS}/x} = \lambda M \cdot e^{-\lambda_M/m}.$$

(10)

TABLE 3: Background information of the excellent college English teachers.

Background features		Number of people	Proportion
Gender	Male	9	30%
	Female	21	70%
Age	20~30	8	26.7%
	31~40	8	26.7%
	41~50	12	40%
	51~60	2	6.6%
Teaching age	Less than 5	0	0%
	5 ~ 10	11	36.7%
	10+	19	63.3%
Education	Undergraduate	3	10%
	Postgraduate	8	26.7%
	PhD and above	19	63.3%

This numerical result is the number of random access preambles for region 2 in the OSS policy.

$$[x_{\min}] = \frac{\lambda_M}{(\lambda_M/m) - (\lambda_H/N)}. \tag{11}$$

The RACH throughput size of HTC service and the RACH throughput size of high-priority service are as follows.

$$T_H^{\text{OSS}} = (\lambda r1 + \lambda r2) \cdot \frac{(N - [x_{\min}])}{N} \cdot e^{-(\lambda r1 + \lambda r2)/N},$$

$$(\lambda r1 + \lambda r2) \cdot \frac{[x_{\min}]}{N} \cdot e^{\lambda_2^{\text{OSS}}/|x_{\min}|},$$

$$T_{HP}^{\text{OSS}} = \lambda r2 \cdot \frac{(N - [x_{\min}])}{N} \cdot e^{-(\lambda r1 + \lambda r2)/N},$$

$$\left(\lambda r2 \cdot \frac{|x \min|}{N} + \lambda r4 \right) \cdot e^{-(\lambda r1 + \lambda r2)(|x \min|/N) + (\lambda r3 + \lambda r4)/|x \min|}. \tag{12}$$

4. Design of English Teaching Ability Evaluation Method

4.1. English Teaching Ability Evaluation Objects.

The object of this article is 30 excellent English teachers in a university. The basic situation is shown in Table 3.

This article takes 30 excellent English teachers in a university as the research object and conducts research on the excellent English teachers in colleges and universities:

(1) *Factors of Concern.* When teaching evaluation decision-making, what content to choose, in what way, by whom, and how much attention should be paid

(2) *Characteristics.* What are the characteristics of teaching evaluation decisions

(3) *Influencing Factors.* What are the main factors that affect the decision-making of teaching evaluation, what is the degree of influence

As of March 20, 2021, the "ProQuestResearchLibrary" database has searched "teachingdecision-making" and obtained 408 search records, the number distribution of which is shown in the figure. It can be seen that foreign research on teachers' teaching decision-making shows an upward trend. To a certain extent, this shows that in recent years, the research on teachers' teaching decision-making has received more and more attention and attention from researchers [18]. Figure 7 shows the number distribution of foreign teaching decision-making research.

4.2. English Teaching Ability Evaluation Methods

4.2.1. Literature Method.
The article uses CNKI, JSTOR, Wiley Online, ProQuest, and other databases to collect domestic and foreign literature on teacher decision-making and teacher teaching evaluation decision-making, so that the reference of the experiment is reasonable and well-founded. By sorting out, analyzing, and summarizing the literature, the author can more clearly understand the current research progress and results of teachers' teaching decision-making and teaching evaluation decision-making. It lays a solid theoretical foundation for the research and also inspires the author to find a new research entry point. It makes some supplements on the theoretical basis of predecessors [19].

4.2.2. Questionnaire Survey Method.
The article divides the questionnaire into two parts: (1) the four aspects of teachers' age, teaching age, and educational background and (2) the main body of the questionnaire has a total of 15 questions, and the designed topics include the focus of English teachers' teaching evaluation decisions, content, teaching evaluation, and decision-making methods and subjects. In order to find out the possible problems in the questionnaire, the author conducted a small-scale pilot survey on 5 teachers before starting the formal survey. According to the feedback information obtained, the author made appropriate modifications and additions to some questions in the questionnaire and finally determined the questionnaire to be issued; 30 questionnaires were distributed. 30 copies were recovered, the recovery rate was 100%, and the effective rate was 100%, which met the statistical requirements, and the data could be used for research. In addition, the data collected from the questionnaire is mainly used for descriptive analysis using the SPSS 19.0 statistical software. And by calculating its mean and standard deviation, the evaluation content, method, subject, and influencing factors that teachers focus on in teaching evaluation decision-making are comprehensively analyzed.

4.2.3. Interview Method.
5 excellent English teachers with different background characteristics were selected from 30 research subjects for interviews (Table 4 shows details). The interviews with the case teachers are mainly to ask questions about some classroom phenomena discovered by the
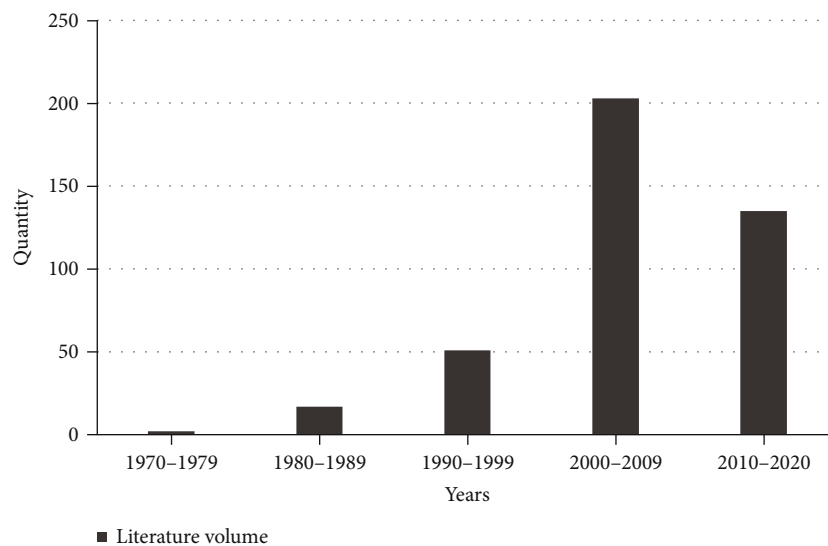
FIGURE 7: Quantitative distribution of "teaching decision-making" researches from abroad.

TABLE 4: Background information of interviewed excellent college English teachers.

Name	Gender	Age	Teaching age	Education
V	Female	39	9	PhD and above
W	Male	42	4	Postgraduate
X	Female	56	26	PhD and above
Y	Female	40	11	Postgraduate
Z	Male	35	7	Undergraduate

author while listening to the class, for example, asking questions about a specific teaching link and question in the classroom or listening to teachers' evaluation of their own teaching and the adjustment plan adopted [20].

4.2.4. Observation Method. The author selected three teachers X, Y, and Z from the 5 teachers interviewed to conduct classroom observation and participate in their entire teaching process. A comprehensive investigation was conducted through teachers' behavioral performance, interview records, and questionnaires.

4.3. The Content of Teaching Ability Evaluation Decision-Making. The article is mainly aimed at excellent English teachers in colleges and universities; most of the teachers pay more attention to the performance of students. In the questionnaire survey, the author designed 6 questions about the evaluation content from the perspective of students:

Content 1. The evaluation content is based on the degree and level of interaction between students and teachers in English.

Content 2. The evaluation content is based on the students' input and level in group or group English activities.

Content 3. The evaluation content is based on the development of students' English knowledge, listening, speaking, reading, and writing skills and affection.

Content 4. The evaluation content is based on whether students will apply the English knowledge they have learned in their daily life.

Content 5. The evaluation content is based on whether students have mastered foreign culture and whether they are interested.

Content 6. The evaluation content is based on whether students can think in English.

After each teaching, teachers must evaluate students' learning and their own teaching. There are various evaluation methods, and how will excellent English teachers make evaluation decisions. What is the difference between the way of its choice and the way of ordinary teachers? In the questionnaire survey, six questions about evaluation methods were designed:

Method 1. English test is the main channel for obtaining information related to evaluation.

Method 2. Understand students' English learning and progress through activity observation, portfolio, and behavioral evaluation.

Method 3. In addition to oral assessments, written or nonverbal assessments will be used, such as questionnaires, reports, and role-playing.

Method 4. Evaluation feedback not only pays attention to students' answers but also pays more attention to the process of students learning English.

Method 5. Teaching evaluation will be made in class according to the actual teaching progress and situation.

Method 6. After each class, they will evaluate their own teaching and reflect in time and make positive adjustments to the original teaching plan.

By analyzing the data in Figure 8, it can be concluded that for the six evaluation contents, "taking the development of students' English knowledge, listening, speaking, reading and writing as the evaluation content (content 3)" is the most valued by excellent English teachers in colleges and universities. The average value is above 4.4. This shows that excellent English teachers in colleges and universities do not
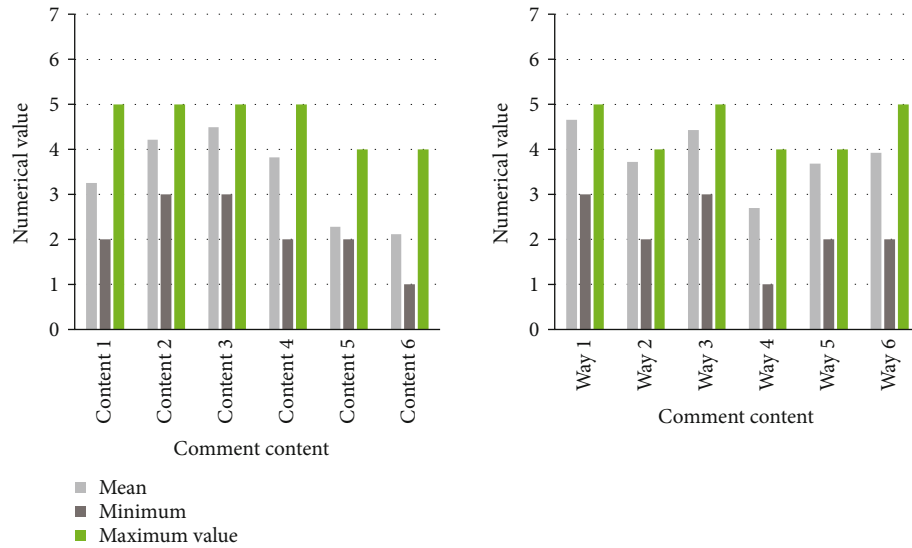
Figure 8: Descriptive analysis of teachers' teaching evaluation decisions and teachers' teaching evaluation methods.

focus on students' test scores, but on students' various gains, experiences, and development of abilities in the process of English learning. Excellent English teachers in colleges and universities choose to evaluate students' English learning from a long-term perspective and are responsible for students' future. The second is "to evaluate the content (content 2) of students' input and level in collective or group English activities", with an average value of more than 4.2. This shows that excellent English teachers in colleges attach great importance to students' classroom participation, because students have limited time to speak English. Except for the 45 minutes in class, they rarely have the opportunity and time to speak English after class. Therefore, most excellent English teachers in colleges and universities choose to take students' investment and level in English activities as an important evaluation content. Next is "whether students will use the English knowledge they have learned in their life as the evaluation content (content 4)" (mean value 3.8), which the author did not expect. Maybe it is because college English teaching is no longer just grammar indoctrination and exam-oriented education, but more importantly, let students learn how to use authentic English and ultimately achieve students' individual development and barrier-free communication. The option that is not valued by teachers is "the evaluation content (content 6) based on whether students can think in English" (mean value 2.1). This is expected, because all the students in the class are Chinese, and they have been influenced by Chinese traditional culture since childhood, forming a certain Chinese-style thinking mode. It is too difficult to change a certain deep-rooted thinking mode, so excellent teachers do not take this content as an important reference for evaluation and decision-making. The biggest gap is in the item "whether students have mastered foreign culture and whether they are interested in the evaluation content (Content 5)." It shows that on this issue, teachers' teaching beliefs may be very different. Some excellent English teachers attach great importance to students' absorption and mastery of foreign cultures and

believe that to learn a language well, one must master its culture. Only in this way can a language be internalized into its own thing in the true sense. And only with interest in foreign cultures, curiosity, intellectual curiosity, potential language learning ability, and even talent will be stimulated. Only when students want to learn English from their heart can they learn English easily; instead of dealing with English exams, they regard English learning as a pain and a burden. The standard deviation of "taking the development of students' English knowledge, listening, speaking, reading, writing and affection as the evaluation content (content 3)" is only 0.11, which is the smallest difference among all options. In other words, excellent English teachers pay attention to the English knowledge, listening, speaking, reading, writing, and emotional development that students have learned as the primary content of their evaluation and decision-making. It comprehensively evaluates students from multiple aspects and angles and strives to make a more reasonable and comprehensive evaluation of students, rather than just focusing on students' academic performance. In this way, some students who are not very strong in written test ability but have rich knowledge of foreign cultural background or have better oral expression ability are greatly encouraged. Let these students also have a successful learning experience, become more interested in English learning, and will not be frustrated or disgusted with English learning due to lower written test scores. Because excellent teachers make them understand that college English learning is no longer for exams, but for students' individual needs and future development, the focus is on students' ability to master and comprehensively use English [21].

4.4. The Main Body of Teachers' Teaching Evaluation Decision-Making. When evaluating students' learning and teachers' teaching, teachers are the most common and most important subject of evaluation, but the role of others in the evaluation process cannot be underestimated. Then, whether excellent English teachers will be different when they make
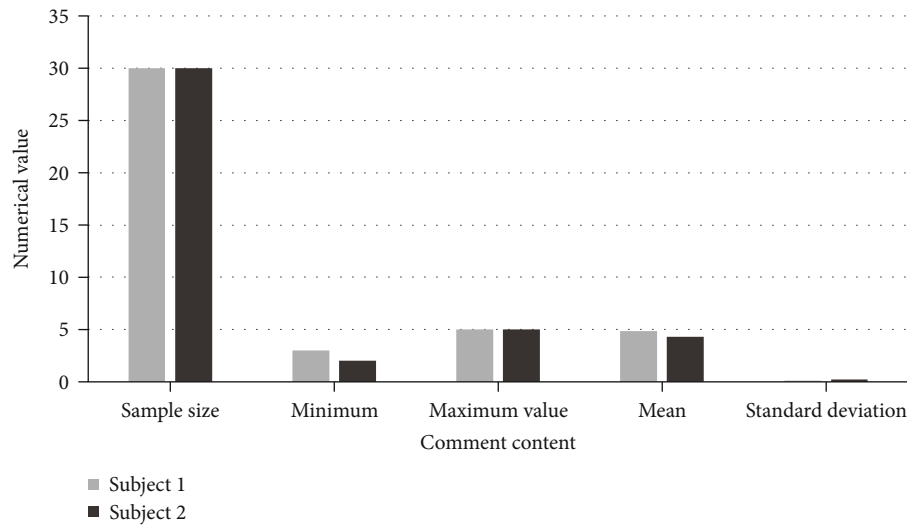
FIGURE 9: Descriptive analysis of teachers' teaching evaluation subjects.

the main decision-making of teaching evaluation. In the questionnaire, two options about the evaluation subject are designed: (1) encourage students to self-evaluate, group mutual evaluation subject and (2) participate in research group activities regularly and listen to the opinions of experts and colleagues, and descriptive analysis of the main body of teachers' evaluation and decision-making, please refer to Figure 9 for details.

By analyzing the data in Figure 9, it can be concluded that "encouraging students' self-evaluation, group self-evaluation, students' mutual evaluation, group mutual evaluation, etc. (subject 1)" is the most popular option for excellent teachers, with an average value of over 4.8. It shows that excellent English teachers do not only take themselves as the main body of evaluation decision-making when making evaluation decisions. Instead, it allows students to fully participate in the evaluation decision-making, giving them more voice and initiative. Allowing students to self-evaluate, on the one hand, fully gives students the opportunity to speak English and on the other hand helps to reduce the embarrassment of some introverted students who are afraid of teachers evaluating themselves in public. Because many students will be afraid to speak English again due to one or several class evaluations by teachers, they always feel that they will make mistakes when they speak and will be laughed at by other classmates. The peer evaluation of groups and students will make students more relaxed, not as stressful as teachers evaluate students, and students can more easily see the gap between themselves and others, their own group, and other groups. Everyone learns from each other, learns from each other, and gradually forms a healthy competition. Ultimately, it promotes students' individual and group English learning and at the same time enhances the team strength between groups, cultivates students' team spirit, and invisibly cultivates students' good quality. This is very helpful for the social ability of students to enter the society in the future. The average value of the option "Frequently participate in research group activities and listen to the opinions of experts and colleagues (subject 2)" also reached 4.3 or

more. It shows that when teachers make evaluation decisions, they do not only focus on themselves, but actively participate in the school's research group activities. They patiently listen to and share the teaching experience of others and reflect on the difference between their own teaching and others' teaching and collide with the spark of inspiration in teaching. They summarize how the same teaching content can be more effective. What are the highlights of other teachers' classes, whether they can be transplanted into their own teaching, and whether there is anything they can improve. At the same time, we humbly accept the valuable opinions and suggestions of other experts, teachers, and colleagues, so as to make teaching plan more perfect and teaching more comfortable [22].

As the direct object of teachers' teaching, students naturally play a role that cannot be underestimated in teachers' teaching evaluation and decision-making. Whether it is an individual student or a group, it affects the orientation and effect of teachers' teaching decision-making all the time, as well as their decision-making on teachers' teaching evaluation. Only by studying and understanding students can teachers make reasonable and effective teaching evaluation decisions. Teachers should focus on understanding the interests, strengths, personalities, learning styles, growth experiences, and family circumstances of individual students. Through the research of three case teachers, it can be found that they are well aware of the characteristics and situations of most of the classmates in the class. As Teacher Y said, textbook knowledge is dead, but students are alive. Therefore, teachers must pay attention to observe and summarize the characteristics of each student in the class. The teaching environment is also the main factor considered in the teaching evaluation decision of excellent English teachers, mainly including the school cultural environment and the classroom teaching environment. The data is shown in Figure 10 [23]. The culture of equality, innovation, and individuality formed over the years in Chongqing University, where the case teachers are located, subtly affects the teachers' attitudes and methods to solve problems. When
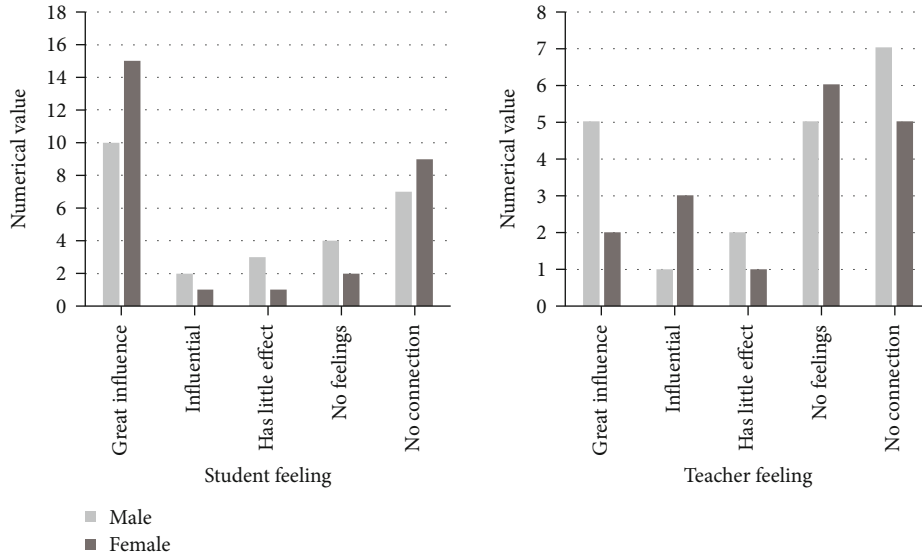
FIGURE 10: Investigation of the influence of external factors on teaching.

talking to the case teacher about the school, Teacher Z said, "One of the things I like most about the school is that there are fewer constraints and more autonomy is given to the teachers. We can make own evaluation criteria and try different teaching methods, why not do it?" Teacher Y also felt the same way, "Schools and colleges provide teachers with many opportunities for training, studying abroad, and sometimes conducting teaching and research activities. Through the exchange of ideas, sparks will collide, which is conducive to promoting teachers' reflection and improving their own and others' teaching. To make more accurate evaluations, so as to improve their own evaluation and decision-making ability and teaching quality." The article argues that no matter whether the case teacher is aware of it or not, the school culture actually exists in the teacher's teaching behavior consciousness in a potential way. This makes case teachers consciously converge to the cultural atmosphere in which they live when making evaluation decisions. At the same time, the positive teaching and research culture enable case teachers to always humbly examine their own teaching ideas, content, and methods. As the case teachers mentioned, because of their participation in teaching and research activities, they developed the habit of carrying out teaching reflection and self-evaluation after class, which made the case teachers successfully surpass themselves again and again.

5. Discussion

After data analysis, it is found that the most important content of outstanding English teachers in colleges and universities when making teaching evaluation decisions is "the development of students' English knowledge, listening, speaking, reading and writing skills and affection". The second is "students' level of investment in group or group English activities", and the least valued by teachers is "whether students can think in English". In terms of evaluation methods, English tests are still the main channel to obtain information related to evaluation, but excellent

English teachers will also use written or nonverbal evaluations, such as anonymous questionnaires and reports. As far as the evaluation subject is concerned, in addition to the teachers themselves, excellent English teachers endow students with more right to speak and encourage students to self-evaluate, group self-evaluation, students' mutual evaluation, and group mutual evaluation. From these options, it can be seen that excellent English teachers do not focus on students' test scores, but on the development of students' various gains, experiences and comprehensive application abilities in the process of English learning. They evaluate students' English learning from a long-term perspective and meet the students' individual learning needs and future development. Excellent English teachers tend to take English tests as the main way of evaluating decision-making, which is also related to China's national conditions to a certain extent, and evaluation conferences and portfolios may not be suitable. Excellent English teachers let students self-evaluate and evaluate each other, students learn from each other, learn from each other, form healthy competition, and ultimately promote students' individual and group English learning.

After the data analysis and the summarization of the text data, it is found that the teaching evaluation decision-making of excellent English teachers in colleges and universities mainly has the following characteristics: (1) Take the students' learning process as the center, and form a preliminary evaluation of students' learning. (2) Focus on reviewing the teaching plan and revise and improve the teaching plan. (3) To test the effect of the revised teaching plan as the core, test and evaluate the teaching effect again. From these characteristics, it can be seen that the teaching evaluation decisions of excellent English teachers in colleges and universities are always made around students. Moreover, teachers respond to the call of higher education reform, constantly reflect on and adjust teaching plans according to students' learning needs and teaching situations. Under the influence of certain educational values, teachers' knowledge,

teachers' beliefs, and constantly formed practical knowledge, through the prediction, analysis, and reflection of teaching practice, make immediate evaluation decisions and adjust teaching. It tries to create a problem-solving and attractive teaching situation for students' learning as much as possible, flexibly adopts a variety of teaching methods and strategies, and strives for excellence. Through practice, the effect of the teaching plan is constantly revised and tested, and students are encouraged to participate more actively in classroom interaction, so that the teaching effectiveness is improved, and the teaching quality is also significantly improved.

Because teachers' teaching decision-making is an implicit thinking process, the influence of internal factors on teachers is naturally greater than that of external factors. Given that English teachers' opinions and beliefs about the nature of language, roles of teachers and learners, and principles of teaching and learning, etc., subtly dominate teachers' decision-making. Therefore, teachers' belief is the primary factor affecting teachers' teaching evaluation decision-making. But only belief without corresponding knowledge is not enough, because teacher's knowledge is the basis for teachers to carry out teaching work and also the basis for teachers' teaching decision-making. Therefore, teachers' knowledge is a secondary factor affecting teachers' teaching evaluation decision-making. With beliefs and knowledge, teachers can make certain fixed or programmed decisions, but in the face of rapidly changing teaching situations, teaching cannot be carried out as planned, and students may raise unexpected questions or emergencies. Therefore, a certain amount of practical wisdom is also needed to help teachers adapt to changes, so that the classroom can be carried out smoothly. In a word, teachers' teaching evaluation decisions are influenced by teachers' beliefs, teachers' knowledge, practical wisdom, individual students, and teaching environment. The teacher's evaluation, modification, and adjustment of the teaching plan over and over again make the three stages of teaching plan decision-making, interactive decision-making, and evaluation decision-making inseparable, continuous, interlocking, and closely linked. Finally, teachers' teaching activities can be carried out smoothly, students can learn easily, and teachers can teach easily. This kind of evaluation and decision-making habit of continuous reflection, adjustment, and improvement of teaching is a treasure book for teachers to grow into excellent teachers. Therefore, teachers should pay attention to cultivating this good habit and cannot stay on the surface of reflection and fault reflection. Instead, the decision-making of teaching plan and teaching interaction should be sublimated through teaching evaluation and decision-making, so that these three can form a continuous whole, reciprocate and interact, and finally achieve the optimization of teaching effect.

6. Conclusion

In order to verify the necessity and feasibility of the evaluation system, this paper conducts teaching evaluation experiments in a targeted manner. Through teaching evaluation experimenters found that the evaluation value concept focusing on educational value is conducive to creating a democratic and equal evaluation atmosphere and is conducive to mobilizing the enthusiasm of the evaluation object for teaching or learning. By attracting stakeholders such as teachers, students, parents, and enterprises to participate in the evaluation of English teaching, it is conducive to coordinating the relationship between all parties and improving the reliability of the evaluation. The evaluation of English teaching is carried out on the evaluation objects including teaching content, teaching methods, and teaching resources, using a variety of evaluation methods such as formative evaluation, diagnostic evaluation, and summative evaluation. It is conducive to the objective and fair evaluation of the internal and external factors affecting the effect of English teaching. The use of manual + computer evaluation technology is conducive to improving the efficiency of English teaching evaluation. The combination of standardization and individualization of evaluation criteria is conducive to exerting the selection and identification function and the guiding and stimulating function of teaching evaluation. Using a combination of test-based and non-test-based assessment tools helps demonstrate the subject's knowledge and proficiency in the English language as well as non-English language proficiency. In a word, the establishment of the English teaching evaluation system should be based on the continuous response of the humanized evaluation concept of teachers and students' emotional appeal, which is a process of progress and continuous improvement. It absorbs various evaluation methods such as students and teachers, humanized evaluation, summative evaluation, qualitative evaluation, quantitative evaluation, and self-evaluation. According to the evaluation factors such as teaching attitude, improve the knowledge level of English and non-English language skills and the skill level of the evaluation object, so as to improve the reliability and validity of English teaching evaluation, and improve the quality of English learning. Due to some objective conditions and limited time, there are regrets and deficiencies: First, students are the main object of teachers' teaching evaluation decisions, whether we should still examine excellent English teachers and their teaching evaluation decisions from the perspective of students. Second, although the research has designed a questionnaire, the selected sample size is not large enough, so the research results and the scope of promotion are limited.

Data Availability

No data were used to support this study.

Conflicts of Interest

There are no potential competing interests in our paper.

Authors' Contributions

The author has seen the manuscript and approved to submit to your journal.

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