Research Article

An Analysis of the Innovative Model of English Course Translation Teaching in Foreign Language Listening Teaching Relying on Interactive Digital Media

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Traditional single English course translation education modes can no longer stimulate students’ interest in learning and require continuous improvement in the alignment of English learning needs with individual needs. The Ministry of Education of my country has explicitly advocated a new form of education, a model of university English education (CET) based on computers and classrooms. In a networked environment, CET is constantly optimizing and adjusting the ecological balance of students, teachers, and the environment by changing the concept of education, teaching methods, and modes of education. With the rise of SPOCS, MOOCs, and mixed education, the combination of face-to-face and online learning has become an important development trend in language education. SPOCS is a new educational model based on modern educational technology, with students as the center of educational activities and the recipients of knowledge. Through the new educational mode, students can complete their education independently. This becomes part of the internalization of classroom knowledge. Therefore, the new educational mode of CET education in foreign language listening education compensates for the shortcomings of traditional educational modes and enhances the enthusiasm of students studying CET courses. To facilitate interaction and interaction between classroom education and other countries’ education system, the new educational mode enhances students’ autonomous learning abilities and effectively promotes individual learning.

1. Introduction

The popularity of the Internet has brought a great impact on the traditional teaching model, which also promotes the reform and development of foreign language listening teaching. With the rapid development of interactive digital media, great changes have taken place in the way people acquire knowledge in life, study, and work. With the combination of network information technology and innovative teaching ideas, SPOCS has become a main way of teaching in the new era [1]. The CET course is a public basic course in the stage of higher education in China, which is of great significance to broadening students’ international vision. By promoting the reform and development of CET in China, colleges can improve the quality of CET listening teaching in China, which can improve the comprehensive English level of Chinese college students [2]. The flipped classroom is a new teaching mode under modern educational technology, which takes students as the center of teaching activities and the receiver of knowledge. Through the new teaching mode, students can complete the teaching independently, which will become a link of knowledge internalization in the class [3]. Therefore, the new model of English translation teaching in foreign language listening teaching has made up for the shortcomings of the traditional teaching model, which also improves students’ learning enthusiasm for college English courses [4]. At the same time, by promoting classroom teaching interaction, the emerging teaching model can improve students’ autonomous learning ability, which can effectively promote personalized learning [5].
SPOCS has changed the traditional teaching mode focusing on teachers’ teaching, which reflects the teaching concept of focusing on learning and teaching in learning [6]. SPOCS can carry out layered teaching in the classroom, which is conducive to building a new harmonious relationship between teachers and students [7]. Through the combination of microclass and flipped class, colleges can be applied to the teaching of the CET listening course, which will help to cultivate students’ English listening and translation abilities. By forming a personalized learning model, colleges can promote the establishment of students’ concept of lifelong learning. SPOCS is an innovative model to optimize the teaching structure, which has changed from “guiding learning by teaching” to “201 teaching by learning” [8]. Therefore, SPOCS pays more attention to the learning process, which pays more attention to the internalization of students’ knowledge [9]. Through independent inquiry, students and teachers can better build a new relationship between teachers and students, which will improve students’ willingness to learn [10–12]. Therefore, this paper constructs a new model of CET teaching in foreign language listening teaching, which is a new model combining the SPOCS teaching concept and process teaching evaluation [13, 14].

Through the new model, the process of English listening teaching will be more in line with students’ cognitive law, which also provides a new idea for SPOCS teaching evaluation [15]. Through the learning-centered teaching evaluation in colleges, this paper guides teaching and evaluation to focus on students’ learning, which will continuously improve students’ personal and overall development. Therefore, this paper makes an in-depth discussion on the ontological significance, value pursuit, methodology, and methods of the new teaching model, which will lead to the development of teaching evaluation practice in colleges [16].

2. The New Model of English Translation Teaching

SPOCS is a new teaching mode, which is very different from traditional teaching in teaching objectives, modes, and subjects. SPOCS is a student-centered teaching mode, which is a teaching mode to complete knowledge learning outside the classroom [17]. Therefore, the classroom will become an interactive place between teachers and students. Through the Internet, students can obtain knowledge on the teaching platform, which is an important step in realizing SPOCS teaching. Therefore, the Internet platform will become an important place to obtain high-quality educational resources, which will also develop teachers into guides and promoters of students’ learning. In the SPOCS mode, students will become the center of the classroom. The SPOCS teaching process is mainly divided into three parts: preclass preparation, knowledge internalization, and classroom teaching activity design. First, is the preclass preparation stage. According to the syllabus, teachers need to clarify the objectives of teaching activities so as to complete the teaching tasks pertinently and completely. Through the analysis of teaching objectives, teachers can judge the use of teaching modes such as inquiry teaching and direct teaching, which will facilitate the selection, shooting, and optimization of teaching videos. Second, is the internalization process of students’ knowledge. In the process of video learning, students need to make notes and records, which can help students master the learning pace more scientifically [18]. After video learning, students can internalize knowledge according to notes, which can facilitate students’ independent memory. For questions that students do not understand, they can ask questions and learn in class according to their notes. According to the course difficulty, teachers need to formulate scientifically layered teaching objectives, which will smoothly guide students to complete the integration of new and old knowledge. Through reasonable guidance, students will turn to learn more in-depth classroom knowledge. Third, the design of classroom teaching activities according to the differences in students’ knowledge structure and acceptance ability, teachers should formulate differentiated teaching courseware, which will improve the teaching level of the whole class. In the process of teaching activities, teachers need to be sufficient guides in the classroom, which will help students better absorb knowledge. Teachers also need to provide classroom exercises, which will help students complete teaching tasks and homework independently. Through group cooperation and communication, students can learn new knowledge from the process of independent inquiry, which will help students complete teaching tasks and homework independently [19].

The interactive teaching model in foreign language listening teaching has many characteristics. First, the characteristics of integrity. Various teaching elements in the English teaching model are interrelated and are not isolated one by one. Overall integrity is that the teaching process can include the performance of teachers and students in teaching activities in detail. Through the investigation of teaching activities, teachers, students, courses, and other elements can play an important role in teaching activities. The integrity index can fully reflect the accurate development of the whole. Upper-level indicators are an important part, which should form a sufficient and necessary relationship. The lower-level indicators should achieve the objectives and requirements required by the upper-level indicators. By restricting many factors, colleges can clarify the teaching objectives and means in the teaching mode, including teaching conditions, organizational form, and teaching time, which will ensure the systematicness and integrity of the mode. Second is operability. The multidimensional interactive teaching model of CET listening needs to be realizable and easy to operate, which needs to be combined with the cognitive and emotional characteristics of Chinese students in foreign language listening learning. The evaluation system is an objective basis for the behavior and concretization of evaluation objects, which should have the conditions of easy operation and wide application range. Colleges need to implement a variety of interactive measures to ensure the effectiveness of the innovation model, such as student formative evaluation, teacher summative evaluation, and teaching process. The system description should reflect its operability, which can be more easily understood by users and can play a practical guiding role. Therefore, English
listening autonomous learning and examination system need to have the characteristics of easy operation. Third is the blending of interaction. In the multidimensional interactive teaching model of CET, the interactive content is specific and meaningful, which will be conducive to students’ knowledge construction. There can be no dependency between indicators at the same level. Each indicator should be isolated, and there should be no indicator structure that can produce a chain effect. Through interaction, the learning subject and teaching itself have real benefits, which will clearly and scientifically integrate the natural law of language learning with the characteristics of foreign language teaching in China. Through teaching activities, we can achieve a balanced combination, which can train students’ systematic language knowledge [16]. In terms of teaching methods, the teaching model needs to adopt the eclectic teaching method, which will ensure the interaction of various teaching methods. Therefore, the process of English listening teaching needs to be practical. Therefore, the teaching model can drive the multielements of teaching activities to produce positive interaction, which will greatly enhance the effectiveness of all links of teaching [20].

Colleges should carry out multiple interactive cooperations, which will promote real-time interaction between teachers and students. The lack of effective communication and interaction has become the main reason for the low success rate of hybrid teaching, which needs to pay attention to the changes in students’ learning emotions. Therefore, interactive learning needs to consider the teaching situation, which can better clarify the discussion objectives [21]. Through the formation of learning groups, students can carry out cooperative learning, which will form a “virtual learning community.” First, teachers arrange interactive learning reasonably, which can realize effective communication between teachers and students. Second, teachers can provide commonly used social software, such as QQ and WeChat, which can release learning information [22]. Social software is timelier, which can improve learners’ enthusiasm. Good interaction is an important way to maintain translation learning intention, which can ensure effective interaction. Therefore, learners can construct knowledge, which can provide rich resources and places. The traditional CET curriculum is relatively simple, which is incompatible with the new technological environment. Therefore, students' listening abilities and cross-cultural communication abilities are weak, which need to be strengthened through discipline integration. By giving play to the feedback function of evaluation, we can apply the results to teaching, which will form a feedback mechanism [23]. The feedback mechanism mainly includes three elements: feedback subject, feedback object, and feedback information. Colleges need to form a learning-centered teaching evaluation feedback mechanism, which needs teachers and management departments [24].

3. Method

3.1. The Fuzzy Comprehensive Evaluation Algorithm. Fuzzy mathematics is a subject that corresponds to accurate mathematics. It is a theory that solves fuzzy problems in the real world by using mathematical tools. The fuzzy comprehensive evaluation algorithm is a comprehensive evaluation method using the membership calculation method, which needs to be evaluated based on concept, operation, property, fuzzy relationship, fuzzy matrix, and so on. Fuzzy mathematics can solve the problem of things and objects that are difficult to be expressed by detailed and clear numbers in the field of real life, which can be widely used in agriculture, forestry, meteorology, and other fields. The membership function is determined by membership calculation. The final evaluation effect value is shown in formula (1).

\[ V = W \times R = [w_1, w_2, \ldots, w_n]^T \begin{bmatrix} r_{11} & r_{12} & \cdots & r_{1n} \\ r_{21} & r_{22} & \cdots & r_{2n} \\ \vdots & \vdots & \ddots & \vdots \\ r_{m1} & r_{m2} & \cdots & r_{mn} \end{bmatrix} \]

(1)

\[ = (v_1, v_2, \ldots, v_n). \]

The membership calculation formula is shown in formula (2).

\[ f_1(X_i) = \begin{cases} 1 & X_i < S_i, \\ 1 - \frac{S_i - X_i}{S_i - S_j} & S_i < X_i < S_j, \\ 0 & X_i > S_j, \end{cases} \]

(2)

\[ f_2(X_i) = \begin{cases} 0 & X_i \leq S_j, X_i \geq S_j, \\ \frac{X_i - S_j}{S_i - S_j} & S_i < X_i < S_j, \\ 0 & X_i \leq S_j, \end{cases} \]

3.2. Weight Calculation of Teaching Evaluation Index Items. First, calculate the mean and standard deviation of each index.

Second, calculate the coefficient of variation of each index, as shown in formula (3).

\[ V_i = \frac{\sigma_i}{X_i} \quad (i = 1, 2, 3 \ldots, n). \]

(3)
Third, calculate the total variation coefficient of each index, as shown in formula (4).

\[ \sum_{i=1}^{n} V_i = V_1 + V_2 + \cdots + V_i \quad (i = 1, 2, 3 \ldots, n). \quad (4) \]

Fourth, calculate the weight of each index, as shown in formula (5).

\[ w_i = \frac{V_i}{\sum_{i=1}^{n} V_i} \quad (i = 1, 2, 3 \ldots, n). \quad (5) \]

3.3. The Fuzzy Clustering Method. Fuzzy C-means (FCM) is a kind of fuzzy clustering method proposed by Bezdek. The FCM clustering algorithm is based on minimizing the following objective functions, such as formula (6).

\[ J_m = \sum_{i=1}^{C} \sum_{j=1}^{N} u_{ij}^m D_{ij}. \quad (6) \]

We get two conditions for minimizing \( J_m \), such as formulas (7) and (8).

\[ u_{ij} = \left[ \frac{\sum_{k=1}^{C} \left( \frac{D_{ij}}{D_{kj}} \right)^{(1/m) - 1}}{\sum_{j=1}^{N} u_{ij}^m} \right]^{1/(1-m)}, \quad (7) \]

\[ V_i = \frac{\sum_{j=1}^{N} u_{ij}^m x_j}{\sum_{j=1}^{N} u_{ij}^m}, \quad (i = 1, 2, \ldots, C). \quad (8) \]

4. Result

4.1. Construction of the Teaching Evaluation Index System and the New Process Teaching Model. Through literature, interview, and questionnaire survey, this paper preliminarily constructs the evaluation index system of English listening teaching, which can further ensure the scientificity of the system, as shown in Figure 1.

Blended learning is the combination of traditional learning and e-learning, which is a mixed teaching model of English listening and translation based on an Internet platform [25]. By constructing a new model of CET teaching in foreign language listening teaching, this paper can reflect the important role of teacher-student interaction and teacher-student relationship in teaching activities, which is also divided into three parts: before class, in class, and after class. The innovative teaching model runs through the teaching evaluation, which will better feedback the classroom situation, learning results, and self-evaluation [26]. Therefore, this paper constructs a new model of CET teaching in foreign language listening teaching, as shown in Figure 2.

4.2. Fuzzy Comprehensive Evaluation Results. The results of secondary teaching evaluation are shown in Table 1. Two level fuzzy comprehensive evaluation results.

The results of secondary teaching evaluation are shown in Table 2. First level fuzzy comprehensive evaluation results.

The first level teaching evaluation results are shown in Figure 3.
Through fuzzy comprehensive evaluation, this paper can conclude that the performance of students and teachers plays an important role in the new model of translation teaching in English listening teaching, which is also an important influencing factor of the new teaching model. In teaching design, teachers should consciously apply the concept of layered teaching throughout the whole process of classroom teaching, which will reflect the hierarchical and cascading teaching arrangements.

4.3. Optimize the Design of Teaching Content. Colleges and universities should pay attention to optimizing the design of teaching content, which will improve the influence of
teachers. Teaching organizers have a great influence on hybrid teaching translation learning, which is an important factor in teaching. Therefore, teachers’ lecture content will play an important role in foreign language listening teaching, which will seriously affect students’ willingness and effect of teaching translation learning. Therefore, teachers need to strengthen the design optimization of teaching videos, which will improve students’ participation. First, the video needs to fragment the knowledge content in about 10 minutes, which can fully maintain the students’ attention. In this way, we can improve the effect of students’ learning-listening translation. Second, colleges and universities need to ensure the systematicness of teaching content, which will be segmented according to knowledge units. Therefore, colleges and universities can ensure that students receive scientific knowledge by the way of internalization. At the same time, although the single video content is fragmented, the teaching design is systematic, which will change the teaching direction of vocabulary, sentence, concept, and style. Third, instructional designers should fully consider the arrangement and explanation of knowledge points in the video, which needs to gradually change from point to surface. By organizing the teaching content, teachers can break students’ traditional thinking patterns in listening translation, which will fully stimulate students’ interest in listening translation learning. At the same time, teachers can adopt a situational teaching method, which can introduce realistic situations. Through multimode teaching methods, colleges and universities can improve students’ practical listening and translation abilities. Fourth, teachers should arrange the proportion of replies according to the teaching plan, which can fully carry out the friendship between teachers and students. Through interactive digital media, colleges and universities can strengthen students’ learning. The hybrid innovative teaching mode has broken through the traditional teaching mode, which also weakens the main role of teachers. Among them, designers need to pay attention to improving the influence of translation learning, which will improve the design of teaching content, knowledge coherence, and knowledge point arrangement. By infiltrating the overall relevance of educational ecology into all teaching links, colleges and universities can build and design college English curriculum systems.

5. Conclusion

The popularity of the Internet has brought a great impact on the traditional teaching mode, which urges foreign language listening teaching in colleges to gradually develop towards interactive mixed mode teaching. The flipped classroom is a new teaching mode under modern educational technology, which takes students as the center of teaching activities and the receiver of knowledge. CET classroom teaching should cover multidisciplinary knowledge, which can guide students to improve their comprehensive quality in an all-round way. The teaching platform should strengthen the feedback mechanism of teaching evaluation results, which is the key factor affecting the success of evaluation. Through multimode teaching methods, colleges can improve students’ practical listening and translation abilities. Fourth, teachers should arrange the proportion of replies according to the teaching plan, which can fully carry out the friendship between teachers and students.

Colleges should pay attention to optimizing the design of teaching content, which will improve the influence of teachers. Teaching organizers have a great influence on hybrid teaching translation learning, which is an important factor in teaching. Therefore, teachers’ lecture content will play an important role in foreign language listening teaching, which will seriously affect students’ willingness and effect of teaching translation learning. Therefore, teachers need to strengthen the design optimization of teaching videos, which will improve students’ participation. First, the video needs to fragment the knowledge content in about 10 minutes, which can fully maintain the students’ attention. In this way, we can improve the effect of students’ learning-listening translation. Second, colleges need to ensure the
systematicness of teaching content, which will segment the teaching content according to the knowledge unit. Therefore, colleges can ensure that students receive scientific knowledge by the way of internalization. Although the single video content is fragmented, the teaching design is systematic, which will change the teaching direction of vocabulary, sentence, concept, and style. Third, instructional designers should fully consider the arrangement and explanation of knowledge points in the video, which needs to gradually change from point to surface. By organizing the teaching content, teachers can break students’ traditional thinking patterns in listening translation, which will fully stimulate students’ interest in listening translation learning. Teachers can adopt the situational teaching method, which can introduce realistic situations. Through interactive digital media, colleges can strengthen students’ learning. The hybrid innovative teaching model has broken through the traditional teaching model, which also weakens the main role of teachers. Among them, designers need to pay attention to improving the influence of translation learning, which will improve the design of teaching content, knowledge coherence, and knowledge point arrangement. By infiltrating the overall relevance of educational ecology into all teaching links, colleges can build and design the CET curriculum system.

Through the combination of microclass and flipped class, colleges can be applied to the teaching of college English listening courses, which will help to cultivate students’ English listening and translation abilities. Through teacher-student interaction, students and teachers can better build a new type of teacher-student relationship, which will improve students’ willingness to learn. Therefore, this paper constructs a new model of English translation teaching in foreign language listening teaching. Finally, this paper constructs an evaluation system, which can better evaluate the relationship in the teaching model. Through the evaluation results, this paper formulates targeted measures which can better improve students’ foreign language listening and translation teaching.

Data Availability

The data used to support the findings of this study are available from the corresponding author upon request.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

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