Study on the Application and Design of ARCS Model in College English Teaching

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Abstract

English teaching curriculum has been set up in China’s colleges for over 30 years and great achievements have been made by now. However, with time goes on, the defects existing in current college English teaching are becoming more and more prominent. Thus, this paper first analyzes the relevant theories of current college English teaching, and then tries to make a new design of the whole college English teaching program by using ARCS model, and to create the evaluation index system through the fuzzy comprehensive evaluation method. The ARCS model used in this paper and the fuzzy comprehensive evaluation model of college English teaching are helpful to improve the effect of English teaching in colleges, and to complete the new leap-forward development of English teaching in China.

Keywords: ARCS Model, Colleges, English Teaching, Approach to Perfection.

1. BACKGROUND

1.1 Literature review

At present, more and more researches have been made on the teaching of various subjects in colleges, which have formed a certain scale. Among them, the application of ARCS model in the teaching of colleges is also increasing. Fan XuanXuan came up with the application of ARCS motivation design model to use it in college English teaching. From the perspectives of core essential factors such as attention-drawing, contents relevance, students’ self-confidence and satisfaction, Fan XuanXuan conducted a comprehensive study on the application of ARCS model theory in the concrete design of the whole teaching program, so as to inspire students interest in classroom learning, and improve their learning motivation (Fan 2013). Later, Zheng YanYan suggest the application of ARCS model in MOOC research in colleges. And from attention-drawing, contents relevance, self-confidence and satisfaction and other elements, Zhang YanYan conducted a research on how to excite and maintain an internal motivation by improving an external design. The results of studies show that colleges should pay active attention to the significance of MOOC teaching and application, and should maintain a certain initiative consciousness. Colleges should design and practice MOOC teaching in accordance with the recent development of college teaching and teachers, so as to stimulate the motivation of applying MOOC teaching in colleges (Zheng, 2015). Sun DongMei and other scholars put forward the application of ARCS model in practice and exploration of the classroom teaching in colleges, and believe that class attendance is the most critical problem in the management of college English teaching, the main reason for the low class attendance lies in the method of traditional English teaching which is featured with teachers’ boring lectures. It is difficult to arouse the students’ interest and enthusiasm in a traditional English teaching environment. However, by applying ARCS model, the whole English teaching can be effectively designed to stimulate students’ classroom learning motivation (Sun, 2011). Later, Yu QingLan and other scholars, from the perspective of motivation design model ARCS, tried to explore the application of English teaching in colleges, thinking from the features of college English teaching, English learning can be divided into three stages modular, fragmentation and manufacturing. As to the specific application of ARCS model in English teaching process, a pyramid model of motivated strategies for college English teaching based on ARCS model design is then created (Yu and Wang, 2015). The above-mentioned study found that the ARCS model application in domestic college English teaching is of various stages. The study of this paper has an important reference value, with the only insufficient part that the depth and comprehensiveness of some part of the study is insufficient, and still needs to be improved. This provides a new way of thinking when making a thorough analysis of ARCS model’s application in college English teaching, not only in the present situation but also for the optimizer in the future.
1.2 Purpose

Under the background of education reform at present, English teaching is the main teaching form actively advocated by people. The application of ARCS model to English teaching is an important teaching mode that gives respect to individual, a showcase of creativity in teaching, and the pursuit of human nature in teaching. However, in the practice of college English teaching, many teachers still have misunderstanding of the use of ARCS mode, which leads to an inadequate utilization of the model in English teaching, resulting in low efficiency of English teaching. Therefore, it is of great practical significance to make full use of the ARCS model to improve and optimize college English teaching.

2. THE THEORETICAL SUMMARY OF ARCS MODEL’S USE IN COLLEGE ENGLISH TEACHING

At present, college English teaching in China has been developing rapidly, in which great achievements has been made and more and more practical talents has been cultivated for the society. In the context of ARCS motivation model, it is of great significance to study the motivation and cause of college English learning. Specifically speaking, first of all, it can stimulate students’ interest in English learning to a great extent; it helps the English-major students in colleges to build self-confidence, it helps English-major students to foster independent learning ability, it promotes the comprehensive application ability of English-major students, it enhances students’ cooperation spirit, and it improves English major students’ exploring consciousness (Le and Huang, 2013). Secondly, the analytic hierarchy process is applied to the college English course teaching based on ARCS model, to design the curriculum of college English teaching, using the comprehensive evaluation method i. At the same time, through scientific and intuitive way to test the implementation of college English curriculum design, which provides main theoretical basis for the teacher and the related institutions to produce objective comprehensive evaluation results (Jia, 2016). Thirdly, the ARCS model applied in college English teaching, and in the design of novel and unique English teaching mode, can draw the attention of English-major students to a maximum extent, thus to effectively mobilize students’ active initiative (Xu, 2017). From the perspective of ARCS model, it is very important to study the case of English dialogue teaching in colleges, and the practical application of this model in the teaching of English dialogue is of critical importance. College English-major students' motivation in learning a second language occupied the main position. From the perspective of students’ motivation, ARCS model is critical because it can arouse students’ interest in learning, and strengthen the students’ learning confidence and satisfaction (Pan, 2017). Finally, the quality of college English teaching is the main factors influencing the students' success of language learning, especially the listening ability, as one of the basic English skills, plays an important role in improving English-major students’ learning ability. The ARCS model can effectively improve the teaching efficiency of college English teaching, and it is of great significance for colleges to improve the quality of English curriculum and the faculty.

However, there are still many problems in college English teaching that need improvement and optimization. And, the principal causes of this phenomenon is: on the one hand, in a long time there are still wrong ideological understanding among teachers, including the wrong concept of teaching by English teachers, the teachers only take English as a knowledge and students also take English as knowledge learning. This kind of phenomenon is the main reason for the misunderstanding of teaching idea in college English education (Shi, 2012). On the other hand, there still exists a pragmatic psychology of examination. Students mainly focus on CET-4 or CET-6 when they get into college or try very hard to pass TOEFL, GRE and other exams to go abroad, leading to the current situation of college English teaching. In addition, there is an eager for quick success and instant benefits among students. This kind of phenomenon is mainly caused by college students' strong desire and impetuous psychology in learning English. They don't want to experience the hardships, only try to take shortcuts, relying on some skill books, intensive book to achieve the final goal of English learning (Zhang, 2008).

3. APPLICATION OF ARCS MODEL IN COLLEGE ENGLISH TEACHING

3.1 English teaching stages design based on ARCS model

In college English teaching, the stages are specifically designed as follows: the first is to improve the attention and interest of students majoring in English; The second is to learn about the English courses and complete relevant tasks; The third is to let English students feel that they have the ability to complete their courses; The fourth is to boost students’ confidence in learning English; The fifth is to make students feel a sense of achievement in completing their English courses. In the process of college English teaching, the ARCS model divides English teaching into four basic stages: (1) activities before English teaching; (2) English teaching; (3) Students’ involvement; (4) Evaluation of the teaching effect and the related teaching activities in the later stage.
3.2 English teaching process design based on ARCS model

3.2.1 Analysis of the unit goal of English teaching

Goal of English knowledge and professional skills learning: Theme: Make Prediction about the future.

The first step is to master the unit theme of English courses.

The second step is to master the core of the unit and relevant grammar knowledge through English course learning and concrete practices.

Grammar: will+ verb in simple present tense/be going to do (representing simple future tense);
Use Yes/No as a brief response to the simple future tense;
Use more, less and fewer proficiently, means a master of quantity expression in English;

The third step is to be familiar with the key words relevant to the future robot related English unit:

Key Vocabulary: Will, robot. Won’t Free time, Pollution, plant

The forth step is to use the key structure of English sentence: Do you think there will be robots in people’s homes? Yes, there will be. I think every home will have a robot. What is your plan/dream about tomorrow/future. I will do so as to communicate and express your ideas in a specific English learning environment.

3.2.2 English learning process, method, and objectives

In college English teaching, the ARCS model is used to design the stages, to help students to achieve the following goals in terms of English knowledge and skills:

Firstly is to improve students’ ability of communication. The teachers are supposed to create a language situation for English-major students and have them learn to communicate with others in the real English learning environment, thus to improve the students’ ability of English expression.

Secondly is to improve students’ four basic skills: Listening, speaking, reading and writing. In English learning and practice activities, teachers are supposed to urge English-majored students to learn the four skills of listening, speaking, reading and writing effectively, encourage the students to express their learned knowledge.

Thirdly is to improve students’ ability of pair work. Students are supposed to master the cooperation between themselves and others, and learn to understand the importance of cooperative spirit.

3.2.3 Students’ values of emotion and attitude

Step 1: by taking part in English teaching practice, especially the role play game between students, English-major students become more and more active in speaking English. They start to have the courage to express themselves and communicate with others fluently.

Step 2: Protection of our earth. English majors participate in the English teaching practice of this unit, so that they have the awareness of environmental Protection.

Step 3: English learned in class, can be smoothly transferred to after-class learning, thus to open their mind and broaden their vision, and to incorporate English learning into their daily life, make the students more willing to learn English.
From the above studies on the specific English teaching goals, the English teaching goal of this unit is further confirmed, providing the basis for the following college English teaching activities and the later English teaching content design.

4. COLLEGE ENGLISH TEACHING DESIGN BASED ON FUZZY COMPREHENSIVE EVALUATION METHOD

4.1 The construction of evaluation index system

In the evaluation of college English teaching effect, the teaching effect is mainly embodied in the students’ comprehensive mastery of English level. Therefore, the primary index should choose the effectiveness of the designed teaching activities for college students, represented as A. There are four secondary indexes corresponding to the primary index, which are the teaching stages, pre-teaching activities, the presentation stage of the teaching content, and students’ involvement stage, which are expressed in b1-b4 (Table 1).

<table>
<thead>
<tr>
<th>Secondary indexes</th>
<th>Tertiary indexes</th>
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<tbody>
<tr>
<td>The teaching stages B1</td>
<td>The novelty of English learning content and whether it draws students’ attention C11</td>
</tr>
<tr>
<td>The pre-teaching activities B2</td>
<td>Various forms of teaching combined in English teaching C12</td>
</tr>
<tr>
<td>The presentation stage of the teaching content B3</td>
<td>The relevance of English teaching materials to the contents of this course C21</td>
</tr>
<tr>
<td>Students’ involvement stage B4</td>
<td>The interestingness of teaching materials C31</td>
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4.2 The construction of comprehensive evaluation set

After the evaluation index system is created, it is necessary to construct a teaching evaluation grade to complete the numerical evaluation of English teaching effect. In this paper five evaluation grades of English teaching effect has been set up, which in sequence includes excellent, good, medium, pass and fail. And the comprehensive evaluation in fuzzy combination can be expressed as: V={V1,V2,V3,V4,V5}. And on a scale of one to a hundred, the intervals corresponding to each grade of evaluation are: [90,100][70,80][60,70][0,60].

4.3 The confirmation of the weight of English teaching evaluation indexes at all levels

This paper adopts an analytic hierarchy process to do quantitative treatment on qualitative problems, thus to get the weights of secondary indexes, which in turn are 0.367, 0.367, 0.042, 0.367. The tertiary indexes weights set are: indexes about the teaching stages C11 - C12 with the weights of 0.225 and 0.119; index about the English teaching activity C21, with the weight of 0.116; indexes about the presentation stage of English teaching content C31-C32 with the weights of 0.587 and 0.312; index about students’ involvement stage C41-C42 with the weights 0.112 and 0.285. Taking the teaching stages in secondary indexes as an example, through the consistency calculation of the corresponding tertiary index and the primary index, it is concluded that the CR value of the consistency test among all levels of index evaluation matrix does not exceed 0.10. As a result, the index weight set meets the standard of consistency requirements.
4.4 The determination of the fuzzy comprehensive evaluation set of college English teaching

In the fuzzy comprehensive evaluation model of college English teaching effect evaluation, the index system should contain multi-layers. When determining the fuzzy comprehensive evaluation set, a lower-to-higher layer method needs to be adopted, with the specific process shown as follows:

The first step is to build the subsets of tertiary index corresponding to the secondary indexes, with the secondary indexes shown as i, and its corresponding tertiary index as K. Then the subset of evaluation is obtained: \( R_{BC} = \{ T_{BC1}, T_{BC2}, \ldots, T_{BCn} \} \), the value of n is 3 or 4, representing the number of evaluation indexes, and \( \sum_{m}^{n} T_{BCm} = 1 \), among which B is one of the four secondary evaluation indexes, C represents the three indexes corresponding to B, n represents one of the evaluation stages, \( T_{BCn} \) represents the level of subjection of C among n evaluation grades. Secondly, according to the above-mentioned principles, the corresponding subsets of tertiary indexes to B can be created. And the fuzzy evaluation matrix of secondary index B is obtained through the arrangement of all the single factor evaluation subsets \( R_m \).

4.5 The determination of subjection degree of various indexes in English teaching

An expert evaluation method is adopted in determining the subjection degree of various indexes. When assessing the grade of the tertiary indexes, all the tertiary indexes should be evaluated, assuming the number of invited experts is N, the index subjection degree calculation formula is \( T_{ic} = A_c \in V_i \) the times of which /N, among which, \( T_{ic} \) represents the subjection degree of tertiary indexes C for \( V_i \), N is number of effective evaluation samples, \( A_c \) represents the expert evaluation results of the tertiary index C.

4.6 The determination of the accuracy of college English teaching results evaluated by the fuzzy comprehensive evaluation model

To test the accuracy of evaluation results made from the fuzzy comprehensive evaluation model upon college English teaching, the evaluation set V as mentioned above is used as the foundation, with the interval between different grades, namely 30, 65, 75, 85, and set it into grade border assignment, thus to draw the standard evaluation set S. At the same time, according to the formula \( P = B' * S = \sum_{m=1}^{4} r_m * s_m \), \( B' \) represents the normalized vector of the primary index fuzzy comprehensive evaluation set B. According to the situation that the calculation results P value distributed in the V, we can confirm the correctness of the results gained through the fuzzy comprehensive evaluation model.

4.7 Results analysis

According to the weights of various indexes for college English teaching evaluation, it can be seen that in the English teaching process, the level of novelty in English learning content and whether the attention of students can be drew are more important. In the pre-teaching activities, the interestingness of the course content is more important; in the presentation stage of teaching content, interestingness of the course content is more important; in the stage of students’ involvement, it is important that the students have confidence in the course teaching. In addition, the above calculation shows that the evaluation results gained through the fuzzy comprehensive evaluation model upon college English teaching constructed in this paper is relatively accurate.

5. CONCLUSION

To sum up, with the growth of China’s higher education, and the importance of college English teaching is becoming more and more important. In this paper, through the using of ARCS model, and the establishing of fuzzy evaluation model, it is found that the novelty of English learning content, the attraction of students’ attention, the relevance of English teaching materials to the content of the course, the interestingness of curriculum content, students’ absorption of English course content, and the confidence of students in English teaching course is more important. The ARCS model used in this paper is very significant in college English teaching; the fuzzy comprehensive evaluation model created in this paper is of high reliability. By using this model to make evaluation on the college English teaching effect, we can objectively and correctly understand the attitude, motivation and practical situation of students who tries to learn English, so as to provide a correct basis for college English teaching.
REFERENCES

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