

Empirical Study on the Level-based Teaching Model of College English Listening and Speaking under the OBE Concept

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Abstract: This study aims to explore the level-based teaching model of college English listening and speaking under the Outcome-Based Education (OBE) concept and conducts an empirical study on it. The study first elaborates on the basic connotation of the OBE concept and its application value in college English teaching. Then, it constructs a framework for college English listening and speaking teaching based on the OBE concept, which is applied to three levels of non-English major college students: Level A (high level), Level B (medium level), and Level C (low level). Each level selects two parallel classes as experimental and control groups to compare and analyze the performance of students at different levels in listening and speaking abilities. The results show that the level-based teaching model under the guidance of the OBE concept can better meet the needs of high-level and medium-level students, while it has no practical significance for low-level students. Finally, the paper proposes challenges encountered in the implementation process and suggestions for improvement, providing a new perspective and practical guidance for college English listening and speaking teaching.

1. Introduction

In the context of globalization and informatization, higher education is undergoing profound changes. As an emerging educational concept, Outcome-Based Education (OBE), proposed by American educator Spady in 1981, has received widespread attention and practice worldwide^[1]. The OBE concept emphasizes that the goals of education should focus on the learning outcomes that students ultimately achieve through the educational process. This concept has been widely applied in higher engineering education and medical education in countries such as the United States, Australia, the United Kingdom, and Singapore. With the gradual shift of higher education quality evaluation in China from input and process orientation to output orientation, the OBE concept has also begun to be practiced in the field of higher education in China, especially with the implementation of audit assessment.

The core of the OBE concept lies in educational goal theory^[2](cited in ^[3]), mastery learning

theory^[4], criterion-referenced assessment^[5], and competency-based education. The underlying belief is that all students can succeed, not just those who learn quickly, are intelligent, or have advantages. The implementation of this concept requires the education system to design training programs and courses from the final outcomes in reverse, which is significantly different from the traditional education model that focuses mainly on subject content.

In the field of college English listening and speaking teaching, the application of the OBE concept is of great significance. With the comprehensive implementation of the new curriculum teaching reform, the OBE teaching concept has increasingly gained the attention of teachers. The OBE concept is closely related to the changes in the social demand for talent cultivation under the background of modern internet informatization and has been applied to college English listening and speaking classes in colleges and universities, achieving good results^[6-10]. The concept can improve college students' English language abilities, especially in listening and speaking, which is crucial for meeting the market's demand for talent and the future professional development and employment needs of college students.

Domestic and foreign research on the application of the OBE concept in college English listening and speaking teaching has been extensive. Abroad, the research focus of the OBE concept is concentrated in the field of medical education, and when applying the OBE concept, it takes into account the environmental risks in the early stage, the methodological theories in the design process, and a comprehensive assessment system. In contrast, domestic research focuses more on engineering education, with relatively fewer studies on early environmental and later effect evaluations, and more attention is paid to teaching model research in different disciplines. The application research of the OBE concept in college English listening and speaking teaching has gradually increased, aiming to explore how to improve students' language practical application abilities through teaching model innovation. These studies provide a theoretical basis and practical cases for the application of the OBE concept in college English listening and speaking teaching, and also provide references and references for this paper's research.

2. Research Method

This study selected non-English major college students from Northwest Minzu University as the research subjects and divided them into three levels based on their English proficiency: Level A (high level), Level B (medium level), and Level C (low level). Each level selected two parallel classes, one as an experimental class to implement the OBE concept-based listening and speaking teaching model, and the other as a control class to continue with the traditional listening and speaking teaching model. A total of six classes were studied, with 30 students selected from each class, totalling 180 students.

The research tools of this study include: First, questionnaire survey: designed questionnaires to collect students' feedback on teaching models, learning motivation, learning satisfaction, and other information. Second, listening and speaking ability test: developed an English listening and speaking ability test, with a full score of 30 points, to assess students' English listening and speaking levels. Third, classroom observation records: recorded teaching activities in experimental and control classes, including teaching methods of teachers, student participation, etc.

This study adopts a mixed-method research design combining quantitative and qualitative research. Data were collected through questionnaire surveys and listening and speaking ability tests, and statistical software SPSS was used for data analysis, including descriptive statistics, correlation analysis, difference tests, etc. Data were collected through classroom observation records, and content analysis was used to code and thematically analyze the data to reveal the deep-level influencing factors of the level-based teaching model under the OBE concept.

This study aims to answer the following research questions:

First, can students' English listening and speaking abilities be improved by using the college English listening and speaking teaching model under the OBE concept?

Second, are there significant differences in the listening and speaking learning effects of students at different levels under the guidance of the OBE concept?

Third, how are students' acceptance and satisfaction with the listening and speaking teaching model under the OBE concept?

3. Research Results and Discussion

3.1. The Impact of the College English Listening and Speaking Teaching Model under the OBE Concept on Students' English Listening and Speaking Abilities

Before implementing the teaching experiment, a pre-test was conducted on the experimental and control classes at all levels to verify the homogeneity of the experimental and control classes in English listening and speaking abilities. After a semester of teaching experiments, the comparison between the post-test scores and pre-test scores of the experimental and control classes at all levels showed that the post-test scores of high-level and medium-level students significantly improved ($P < 0.05$), while the post-test scores of low-level students significantly improved ($P > 0.05$). Table 1 only shows the comparison data of English listening and speaking ability test scores before and after the implementation for students at all levels.

Table 1 Comparison of English Listening and Speaking Ability in Pre- and Post-Test Scores.

Group	Mean	N	SD	SEM	correlation	T	df	P
A: Pre-test	24.20	30	2.565	0.468	.932	-6.186	29	.000
A: Post-test	25.27	30	2.243	0.409				
B: Pre-test	22.37	30	2.735	0.499	.907	-3.728	29	.001
B: Post-test	23.27	30	3.129	0.571				
C: Pre-test	20.73	30	2.288	0.418	.899	-1.361	29	.184
C: Post-test	21.03	30	2.735	0.499				

Table 1 shows the English listening and speaking ability test scores of students at Levels A, B, and C before and after the implementation of the OBE concept-based listening and speaking teaching model. The data show that the average scores of students at Levels A and B after implementation (25.27 and 23.27) were significantly higher than the average scores before implementation (24.20 and 22.37), and the P-values were both less than 0.05, indicating that the differences were statistically significant. This indicates that the teaching model under the OBE concept has a significant effect on improving the English listening and speaking abilities of high-level and medium-level students. However, the average score of students at Level C before and after implementation changed little (from 20.73 to 21.03), and the P-value was 0.184, greater than 0.05, indicating that the difference was not statistically significant. This indicates that for low-level students, the effect of this teaching model was not significant.

In this study, by comparing the listening and speaking ability test scores of students in the experimental and control classes, the impact of the college English listening and speaking teaching model under the OBE concept on students' English listening and speaking abilities was evaluated. The results show that, specifically, the improvement of students at Levels A and B was particularly significant, which may be because the OBE concept emphasizes student-centeredness and focuses on the cultivation of students' practical abilities, enabling high-level and medium-level students to better adapt to this teaching model, thereby making significant progress in listening and speaking abilities. However, for low-level students, i.e., students at Level C, this teaching model did not

bring the expected results, possibly because these students need more basic training and individual guidance, and the OBE model lacks support in these aspects.

3.2. Differences in Listening and Speaking Learning Effects of Students at Different Levels under the Guidance of the OBE Concept

Since students at Levels A, B, and C are inherently different, it is meaningless to directly compare the scores of these three levels. Therefore, this experiment compared the difference between the pre-test and post-test of students at each level, that is, the degree of progress of students at each level. The comparative analysis results show that the mean differences between pre-test and post-test for experimental classes at Levels A, B, and C are 1.067, 0.900, and 0.300, respectively, with standard deviations of 0.944, 1.322, and 1.208.

Table 2 ANOVA of difference between pre- and post-tests at all levels.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	9.756	2	4.878	3.570	.032
Within Groups	118.867	87	1.366		
Total	128.622	89			

Table 2 shows the results of an Analysis of Variance (ANOVA) comparing the differences in score improvements after implementing the OBE concept-based teaching model across different levels. The table indicates that the between-group mean square was 4.878, and the within-group mean square was 1.366, with an F-value of 3.570 and a P-value of 0.032, which is less than 0.05. This suggests that the differences in score improvements after implementing the teaching model are statistically significant across different levels.

Further analysis of the mean differences and significance levels between groups revealed that there was no significant difference between Levels A and B (mean difference = 0.167, significance $P = 0.582$ greater than 0.05), while there were significant differences between Levels A and C (mean difference = 0.767, significance $P = 0.013$ less than 0.05) and between Levels B and C (mean difference = 0.600, significance $P = 0.050$ equal to 0.05). This further supports the conclusion that the teaching model under the OBE concept is more effective for high-level and medium-level students.

3.3. Student Acceptance and Satisfaction with the OBE Concept-Based Listening and Speaking Teaching Model

This experiment surveyed students' acceptance and satisfaction with the OBE concept-based listening and speaking teaching model through questionnaires. The survey results show that the mean acceptance and satisfaction for experimental classes at Levels A, B, and C were 3.556, 3.400, and 2.767, respectively, with standard deviations of 0.952, 0.976, and 0.638.

Table 3 ANOVA of acceptance and satisfaction.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	10.477	2	5.238	6.931	.002
Within Groups	65.752	87	.756		
Total	76.228	89			

Table 3 presents the survey results of students' acceptance and satisfaction with the OBE concept-based listening and speaking teaching model across different levels. The means indicate that students at Levels A and B had higher acceptance and satisfaction (means of 3.556 and 3.400,

respectively), while students at Level C had relatively lower acceptance and satisfaction (mean of 2.767).

The ANOVA results show a significant difference between groups (F-value of 6.931, P-value of 0.002), indicating that there are significant differences in the acceptance and satisfaction with the teaching model across different levels.

Further analysis of the mean differences and significance levels between groups found that the differences between Levels A and C, and between Levels B and C were significant (P-values both less than 0.01), while the difference between Levels A and B was not significant (P-value of 0.490). This suggests that low-level students had a significantly lower acceptance and satisfaction with the teaching model compared to high-level and medium-level students.

Through questionnaires and interviews, we collected data on students' acceptance and satisfaction with the OBE concept-based listening and speaking teaching model. The survey results show that most students have a positive attitude towards this new teaching model, especially students at Levels A and B, who believe that this model can better stimulate their interest and participation in learning. However, students at Level C have a relatively lower acceptance of this model, considering it more challenging and requiring more help and support. In addition, some students suggested the need for teaching resources and teacher guidance, recommending that schools and teachers provide more learning resources and individual guidance when implementing the OBE concept to help students of all levels benefit from this teaching model.

In summary, the study further explored the differences in listening and speaking learning effects of students at different levels under the guidance of the OBE concept. By comparing the performance of students at Levels A, B, and C in experimental and control classes, it was found that students at Levels A and B performed better in the experimental class than in the control class, while there was no significant difference in the performance of students at Level C in both classes. This finding indicates that the level-based teaching model under the OBE concept is more effective for high-level and medium-level students, while more personalized teaching support is needed for low-level students. This may be because low-level students have deficiencies in English foundations and learning strategies, requiring more guidance and practice to improve their English listening and speaking abilities.

4. Conclusions

In this study, we conducted an empirical study on the level-based teaching model of college English listening and speaking under the OBE concept, aiming to evaluate the impact of this model on students' English listening and speaking abilities, and to explore the differences in learning effects of students at different levels under this model, as well as students' acceptance and satisfaction with the model. By comparing the data from experimental and control classes, we have drawn a series of valuable conclusions. However, we also encountered some challenges in the implementation process and have proposed corresponding suggestions for improvement.

One of the challenges is the diversity of student levels. The poor performance of students at Level C in the level-based teaching model under the OBE concept indicates that more personalized attention and tutoring are needed for students with weak foundations. This challenge suggests that when implementing the OBE concept, it is necessary to consider the individual differences of students and provide corresponding support.

The second challenge is the insufficiency of teaching resources. It was found during the implementation of the experimental class that the lack of teaching resources limited the effectiveness of the teaching model. Especially in low-level classes, the lack of sufficient auxiliary materials and technical support affected the teaching effectiveness.

The third challenge is teacher training and preparation. Some teachers are not familiar with the level-based teaching model under the OBE concept, leading to inconsistencies in teaching methods and assessment standards during the implementation process. This requires schools to provide more teacher training and professional development opportunities.

The fourth challenge is student participation. Although most students have a positive attitude towards the new model, some students have low participation, which may be related to students' learning habits and motivation.

Therefore, based on these challenges, the following suggestions for improvement are proposed. First, personalized teaching support. For low-level students, it is recommended to provide more one-on-one tutoring and basic training to help them better adapt to the OBE teaching model. Second, increase teaching resources. Schools should invest in the development and updating of teaching resources, including textbooks, online resources, and multimedia tools, to support teaching activities under the OBE concept. Third, teacher professional development. Regular teacher training should be organized to help them deeply understand the OBE concept and master the skills and strategies required to implement the level-based teaching model. Fourth, improve student participation. Design more attractive teaching activities and assessment methods to stimulate students' interest and participation, especially for those students who are not very active. Fifth, continuous assessment and feedback. Establish a continuous assessment and feedback mechanism to adjust teaching strategies in a timely manner to ensure that the teaching model can meet the needs of all students.

In summary, the level-based teaching model of college English listening and speaking under the OBE concept shows potential in improving students' English listening and speaking abilities, but it also faces a series of challenges. By adopting the above improvement measures, we can better implement the OBE concept, improve teaching effectiveness, and meet the needs of students at different levels. Future research can further explore how to optimize this teaching model and how to promote its application in a broader educational context.

We hope you find the information in this template useful in the preparation of your submission.

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